



REGIONAL ECONOMIC PROFILE

Dunedin City



Economics put simply

TABLE OF CONTENTS

ECONOMY	2
The New Zealand economy in 2022	2
How fast has Dunedin City's economy grown?	3
What is the industrial structure of Dunedin City's economy?	4
Which broad industries made the largest contribution to economic growth?	8
Which detailed industries made the largest contribution to economic growth?	9
In which industries does Dunedin City have a comparative advantage?	11
EMPLOYMENT	13
How fast has employment grown in Dunedin City?	13
What is the industrial structure of employment in Dunedin City?	15
Which are the largest employing industries in Dunedin City?	16
Which industries have created the most jobs?	18
What proportion of the workforce is self-employed in Dunedin City?	20
PRODUCTIVITY	21
What are the most productive industries in Dunedin City?	23
BUSINESS GROWTH	24
How fast did the number of business units grow in Dunedin City?	24
POPULATION GROWTH	26
How fast has Dunedin City's population grown?	26
What is the source of Dunedin City's population growth?	28
What is the age structure of Dunedin City's population?	29
STANDARD OF LIVING	30
What are the mean earnings in Dunedin City?	30
How do house values in Dunedin City compare?	31
How affordable is housing in Dunedin City?	32
What is the average household income in Dunedin City?	33
What is the average per capita income in Dunedin City?	34
How do rents in Dunedin City compare?	35
How affordable is renting in Dunedin City?	36
How many beneficiaries are there in Dunedin City?	37
WORKFORCE AND SKILLS	38
How do skill levels in Dunedin City compare with New Zealand?	38
What is the occupational structure of employment in Dunedin City?	39
Employment in knowledge intensive industries in Dunedin City	41
What are the top knowledge intensive industries in Dunedin City?	42
Which qualifications are in demand in Dunedin City?	43
TOURISM	45
Tourism GDP	45
Tourism Employment	46
TECHNICAL NOTES	47

ECONOMY

The New Zealand economy in 2022

The New Zealand economy grew 5.3% in the March 2022 year, the fastest pace since 2000. At a national level, economic growth in the March 2022 year was the third-fastest on record (since 1987), with stronger growth seen only in 1994 and 2000.

Economic activity bounced back strongly from the initial disruptions caused by the COVID-19 pandemic response, with substantial fiscal and monetary support boosting spending and investment levels economy-wide.

The March 2022 year includes the Level 4 Delta lockdown in August 2021, the extended lockdown in Auckland and parts of Waikato, the Traffic Light system over the summer of 2021/22, and the start of the Omicron outbreak in early 2022.

The strong level of growth experienced in the March 2022 year is partially due to economic activity being weaker in the preceding year, although the economic contraction over the March 2021 year was revised from an original 1.2% drop to a 0.5% drop. At the end of the year to March 2022, New Zealand's economy was 4.7% larger than pre-pandemic.

The professional, scientific, and technical services industry contributed just over a third of the total rise in economic activity over the March 2022 year, with wholesale and retail trade, transport, and construction all major contributors too. Fourteen of nineteen headline industries saw economic rise in 2022, with limited falls or zero growth in the remaining five. Included within this growth is a revival in activity after declines in the March 2021 year, particularly for transport activity.

Filled jobs rose 3.0%, to 2.69m filled jobs, on average over the 12 months to March 2022. This growth was the fastest since 2017 and was partially catch-up for 2021 when employment stood still, with a revised 0% growth rate.

Employment growth was driven by further increases in the construction, healthcare, and professional services industries. The agriculture, forestry, and fishing industry was the only high-level industry to see a fall in employment.

How fast has Dunedin City's economy grown?

This section measures economic performance in Dunedin City during the year to March 2022 and previous years. All GDP estimates are measured in constant 2022 prices.

- GDP in Dunedin City measured \$7,464m in the year to March 2022, up 5.7% from a year earlier. New Zealand's GDP increased by 5.3% over the same period.
- Economic growth in Dunedin City averaged 2.5%pa over the last 10 years compared with an average of 3.0%pa in the national economy.
- Growth in Dunedin City reached a high of 5.7% in 2022 and a low of -1.8% in 2009.
- Dunedin City accounted for 2.1% of national GDP in 2022.

Figure 1: GDP growth, year to Mar 2022

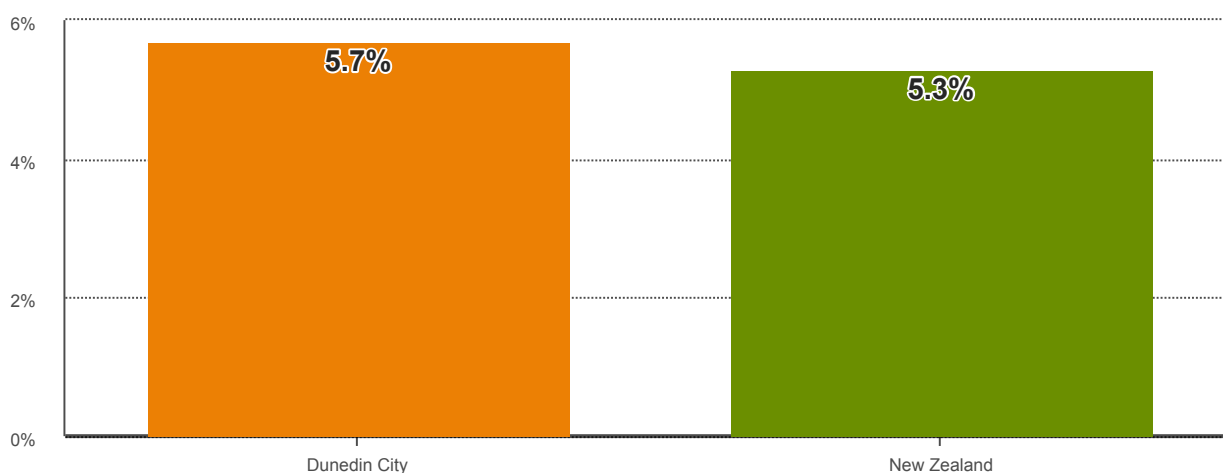


Figure 2: Annual average GDP growth, 2001-2022

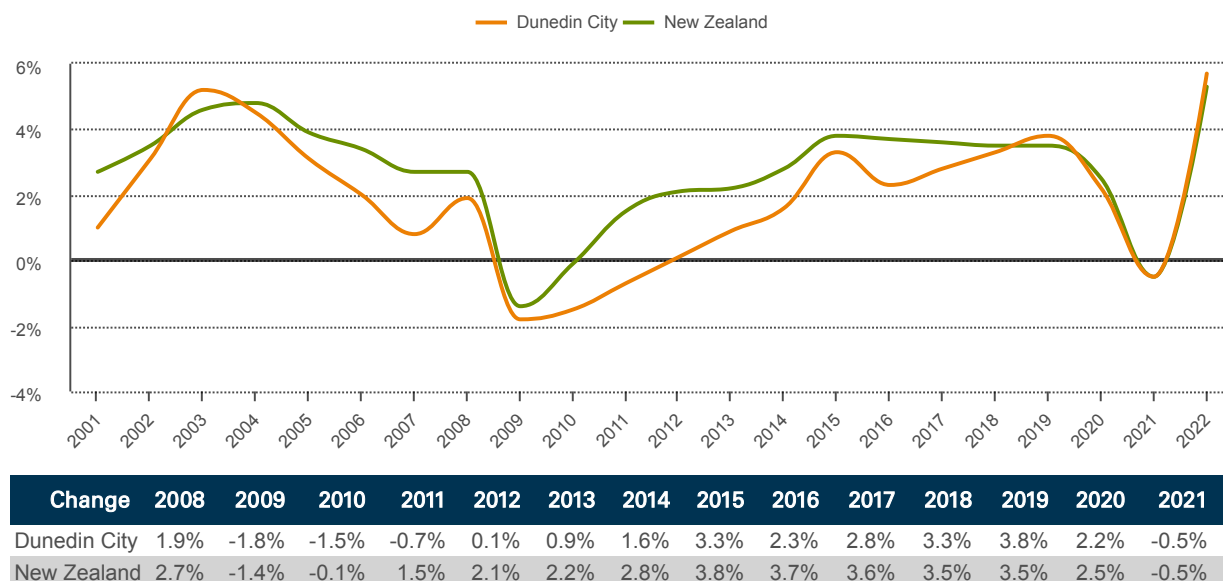
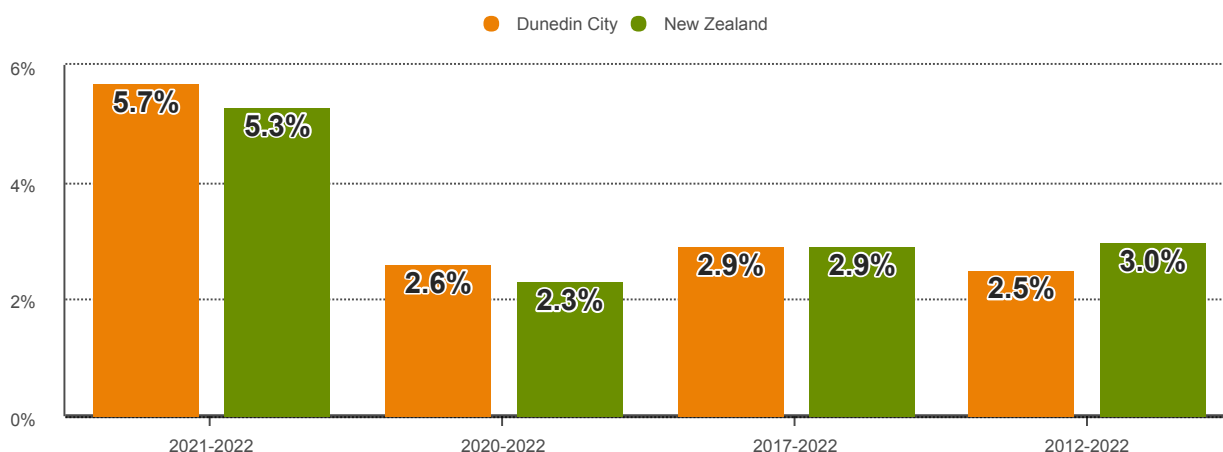


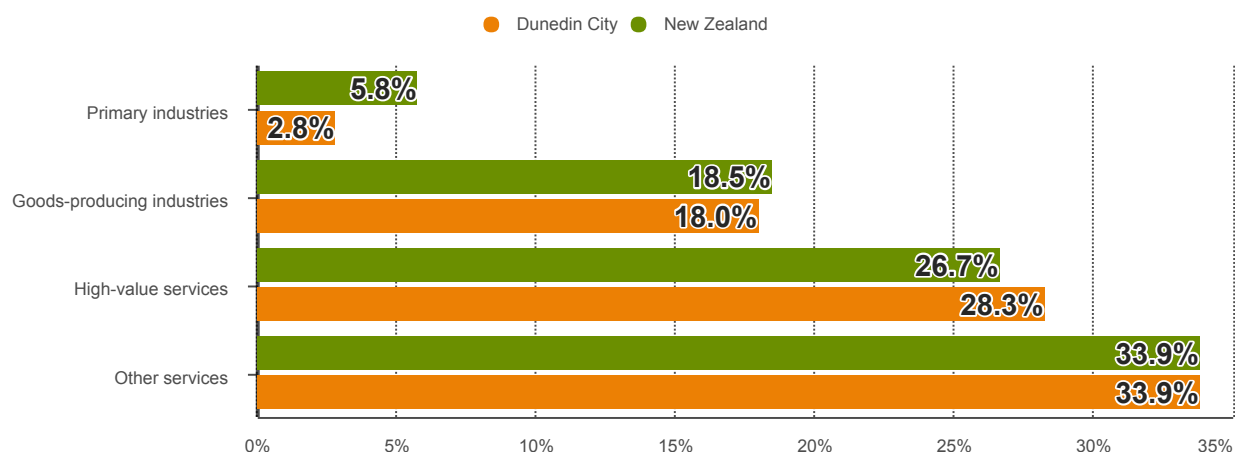
Figure 3: GDP growth over the last 1, 2, 5 & 10 years



What is the industrial structure of Dunedin City's economy?

This section describes the structure of the economy in terms of the broad sectors of primary industries, goods-producing industries, high-values services and other services. Primary industries make direct use of natural resources. They extract or harvest products from the earth. Goods-producing industries produce manufactured and other processed goods. High-value services include the higher value-adding, knowledge-based service industries. More detail of the sectors is given in the technical appendix.

Figure 4: Share of total GDP, 2022



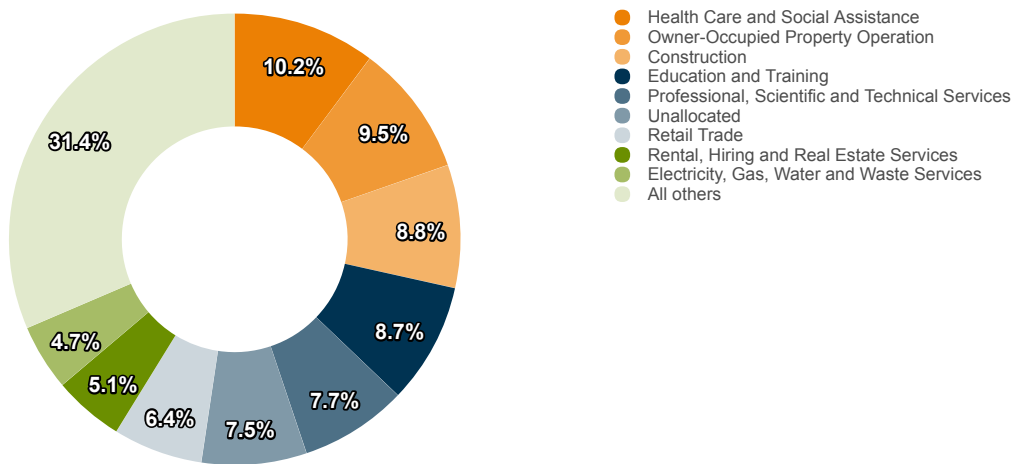
- Primary industries accounted for the smallest proportion in Dunedin City: 2.8% compared with 5.8% in the national economy.
- Goods-producing industries accounted for 18.0% compared with 18.5% in the national economy.
- Other services accounted for the largest proportion of GDP (33.9%) in Dunedin City, which is higher than in the national economy (33.9%).
- High-value services accounted for 28.3% compared with 26.7% in the national economy.

Table 1: GDP by ANZSIC 1-digit industry, 2022

Industry	Dunedin City		New Zealand	
	Level	Share of total	Level	Share of total
Health Care and Social Assistance	\$762m	10.2%	\$22,249m	6.2%
Construction	\$658m	8.8%	\$24,558m	6.9%
Education and Training	\$647m	8.7%	\$12,625m	3.5%
Professional, Scientific and Technical Services	\$575m	7.7%	\$34,004m	9.5%
Retail Trade	\$478m	6.4%	\$18,985m	5.3%
Rental, Hiring and Real Estate Services	\$377m	5.1%	\$22,087m	6.2%
Electricity, Gas, Water and Waste Services	\$354m	4.7%	\$9,585m	2.7%
Manufacturing	\$334m	4.5%	\$32,079m	9.0%
Public Administration and Safety	\$327m	4.4%	\$16,693m	4.7%
Transport, Postal and Warehousing	\$321m	4.3%	\$13,032m	3.6%
Accommodation and Food Services	\$242m	3.2%	\$6,909m	1.9%
Wholesale Trade	\$219m	2.9%	\$18,802m	5.3%
Financial and Insurance Services	\$190m	2.5%	\$19,760m	5.5%
Agriculture, Forestry and Fishing	\$185m	2.5%	\$17,803m	5.0%
Information Media and Telecommunications	\$155m	2.1%	\$14,189m	4.0%
Other Services	\$123m	1.7%	\$6,126m	1.7%
Administrative and Support Services	\$123m	1.6%	\$6,977m	2.0%
Arts and Recreation Services	\$102m	1.4%	\$4,362m	1.2%
Mining	\$25.0m	0.3%	\$2,921m	0.8%
Owner-Occupied Property Operation	\$706m	9.5%	\$27,027m	7.6%
Unallocated	\$562m	7.5%	\$26,936m	7.5%
Total	\$7,464m	100%	\$357,710m	100%

- Among broad industries Health Care and Social Assistance was the largest in Dunedin City in 2022 accounting for 10.2% of total.
- The second largest was Construction (8.8%) followed by Education and Training (8.7%)

Figure 5: Share of total GDP, 2022



The table on the following page shows 54 industries ranked according to their contribution to GDP. These industry categories are used by Statistics New Zealand in the national accounts. They are a mix of various levels of industries on the ANZSIC-06 classification. Further information about the industrial classification is given in the Technical Notes at the end of the document.

- Among detailed industries Health Care & Social Assistance was the largest in Dunedin City in 2022 accounting for 10.2% of total.
- The second largest was Education & Training (8.7%) followed by Professional, Scientific & Tech Services (7.7%)

Table 2: GDP by 54 industries, 2022

Industry	Dunedin City		New Zealand	
	Level	Share of total	Level	Share of total
Health Care & Social Assistance	\$762m	10.2%	\$22,249m	6.2%
Education & Training	\$647m	8.7%	\$12,625m	3.5%
Professional, Scientific & Tech Services	\$575m	7.7%	\$34,004m	9.5%
Property Operators & Real Estate Services	\$314m	4.2%	\$18,541m	5.2%
Electricity & Gas Supply	\$297m	4.0%	\$7,842m	2.2%
Construction Services	\$296m	4.0%	\$12,714m	3.6%
Central Gov Admin, Defence & Safety	\$285m	3.8%	\$14,763m	4.1%
Other Store & Non Store Retailing	\$253m	3.4%	\$10,886m	3.0%
Accommodation & Food Services	\$242m	3.2%	\$6,909m	1.9%
Heavy & Civil Engineering Construction	\$229m	3.1%	\$6,303m	1.8%
Wholesale Trade	\$219m	2.9%	\$18,802m	5.3%
Postal, Courier & Warehousing Services	\$170m	2.3%	\$6,115m	1.7%
Supermarket & Specialised Food Retailing	\$156m	2.1%	\$5,464m	1.5%
Building Construction	\$133m	1.8%	\$5,541m	1.5%
Other Services	\$123m	1.7%	\$6,126m	1.7%
Administrative & Support Services	\$123m	1.6%	\$6,977m	2.0%
Road Transport	\$123m	1.6%	\$4,782m	1.3%
Finance	\$120m	1.6%	\$13,071m	3.7%
Arts & Recreation Services	\$102m	1.4%	\$4,362m	1.2%
Information Media Services	\$101m	1.4%	\$4,156m	1.2%
Machinery & Other Equipment Manu	\$69.4m	0.9%	\$5,469m	1.5%
Motor Vehicle, Parts & Fuel Retailing	\$68.7m	0.9%	\$2,634m	0.7%
Rental & Hiring Services	\$63.7m	0.9%	\$3,547m	1.0%
Auxiliary Finance & Insurance Services	\$58.5m	0.8%	\$3,645m	1.0%
Water, Sewerage & Waste Services	\$56.4m	0.8%	\$1,743m	0.5%
Fabricated Metal Product Manufacturing	\$56.0m	0.7%	\$2,837m	0.8%
Telecomms, Internet & Library Services	\$53.9m	0.7%	\$10,032m	2.8%
Forestry & Logging	\$49.2m	0.7%	\$2,095m	0.6%
Local Government Administration	\$42.2m	0.6%	\$1,931m	0.5%
Dairy Cattle Farming	\$37.5m	0.5%	\$6,834m	1.9%
Sheep, Beef Cattle & Grain Farming	\$37.5m	0.5%	\$3,404m	1.0%
Printing	\$32.1m	0.4%	\$706m	0.2%
Beverage & Tobacco Product Manu	\$28.3m	0.4%	\$2,692m	0.8%
Rail, Water, Air & Other Transport	\$28.3m	0.4%	\$2,135m	0.6%
Agric Support Services & Hunting	\$25.7m	0.3%	\$2,835m	0.8%
Transport Equipment Manufacturing	\$25.3m	0.3%	\$1,672m	0.5%
Mining	\$25.0m	0.3%	\$2,921m	0.8%
Wood Product Manufacturing	\$20.1m	0.3%	\$1,971m	0.6%
Fruit, Cereal & Other Food Product Manu	\$19.8m	0.3%	\$2,573m	0.7%
Fishing & Aquaculture	\$16.0m	0.2%	\$552m	0.2%
Furniture & Other Manufacturing	\$15.5m	0.2%	\$1,047m	0.3%
Non-Metallic Mineral Product Manu	\$13.8m	0.2%	\$1,570m	0.4%
Basic Chemical & Chemical Product Manu	\$13.4m	0.2%	\$1,755m	0.5%
Poultry, Deer & Other Livestock Farming	\$12.1m	0.2%	\$470m	0.1%
Insurance & Superannuation Funds	\$11.4m	0.2%	\$3,044m	0.9%
Meat & Meat Product Manufacturing	\$10.6m	0.1%	\$2,235m	0.6%
Textile, Leather, Clothing, Footwear Manu	\$10.1m	0.1%	\$772m	0.2%
Polymer Product & Rubber Product Manu	\$6.51m	0.1%	\$1,513m	0.4%
Horticulture & Fruit Growing	\$6.51m	0.1%	\$1,613m	0.5%
Pulp & Paper Product Manufacturing	\$4.69m	0.1%	\$1,016m	0.3%
Seafood Processing	\$4.17m	0.1%	\$505m	0.1%
Primary Metal & Metal Product Manu	\$3.19m	0.0%	\$777m	0.2%
Petroleum & Coal Product Manufacturing	\$1.03m	0.0%	\$1,255m	0.4%
Dairy Product Manufacturing	\$0.34m	0.0%	\$1,713m	0.5%
Owner-Occupied Property Operation	\$706m	9.5%	\$27,027m	7.6%
Unallocated	\$562m	7.5%	\$26,936m	7.5%
Total	\$7,464m	100%	\$357,710m	100%

Which broad industries made the largest contribution to economic growth?

Although an industry may be growing rapidly, if it is small relative to a region's total economy its contribution to overall GDP growth may also be small. This section therefore investigates which broad industries made the largest contribution to the overall growth of Dunedin City's economy taking into account their relative sizes.

- Professional, Scientific and Technical Services made the largest contribution to overall growth in Dunedin City between 2021 and 2022. The industry grew by 16.6% over the year and contributed 1.16 percentage points to the district's total growth of 5.7%.
- The next largest contributor was construction (0.57 percentage points) followed by electricity, gas, water and waste services (0.55 percentage points).
- The largest detractor from growth over the year was Information Media and Telecommunications which declined by 9.0% and contributed -0.22 percentage points to the total growth of 5.7%. Rental, Hiring and Real Estate Services (-0.09 percentage points) was the next largest detractor.

Table 3: ANZSIC 1-digit industries ranked by % point contribution to GDP growth, 2021-2022

Industry	2021	2022	% point contribution to growth	Annual Growth
Professional, Scientific and Technical Services	493	575	1.16%	16.6%
Construction	617	658	0.57%	6.6%
Electricity, Gas, Water and Waste Services	315	354	0.55%	12.3%
Health Care and Social Assistance	724	762	0.54%	5.2%
Retail Trade	442	478	0.50%	8.0%
Transport, Postal and Warehousing	288	321	0.47%	11.5%
Manufacturing	305	334	0.41%	9.5%
Accommodation and Food Services	216	242	0.38%	12.4%
Administrative and Support Services	103	123	0.28%	19.5%
Wholesale Trade	204	219	0.21%	7.4%
Other Services	117	123	0.08%	5.1%
Agriculture, Forestry and Fishing	180	185	0.06%	2.4%
Arts and Recreation Services	99	102	0.04%	3.0%
Public Administration and Safety	324	327	0.04%	0.9%
Education and Training	648	647	-0.02%	-0.2%
Mining	26	25	-0.02%	-4.6%
Financial and Insurance Services	195	190	-0.06%	-2.3%
Rental, Hiring and Real Estate Services	384	377	-0.09%	-1.6%
Information Media and Telecommunications	170	155	-0.22%	-9.0%
Owner-Occupied Property Operation	681.5	705.7	0.34%	3.6%
Unallocated	530.6	562.0	0.44%	5.9%
Total	7,062	7,464	5.7%	5.7%

Which detailed industries made the largest contribution to economic growth?

The following table shows a ranking of the detailed industries by their contribution to economic growth over the past year.

- Professional, Scientific & Tech Services made the largest contribution to overall growth in Dunedin City between 2021 and 2022. The industry grew by 16.6% over the year and contributed 1.16 percentage points to the district's total growth of 5.7%.
- The next largest contributor was health care & social assistance (0.54 percentage points) followed by electricity & gas supply (0.44 percentage points).
- The largest detractor from growth over the year was Information Media Services which declined by 10.9% and contributed -0.18 percentage points to the total growth of 5.7%. Property Operators & Real Estate Services (-0.06 percentage points) was the next largest detractor.

Table 4: 54 industries ranked by percentage point contribution to growth, 2021-2022

Industry	2021	2022	% point contribution to growth	Annual Growth
Professional, Scientific & Tech Services	493	575	1.16%	16.6%
Health Care & Social Assistance	724	762	0.54%	5.2%
Electricity & Gas Supply	266	297	0.44%	11.6%
Accommodation & Food Services	216	242	0.38%	12.4%
Construction Services	276	296	0.29%	7.5%
Administrative & Support Services	103	123	0.28%	19.5%
Other Store & Non Store Retailing	233	253	0.28%	8.4%
Rail, Water, Air & Other Transport	12	28	0.23%	128.9%
Building Construction	118	133	0.22%	13.0%
Wholesale Trade	204	219	0.21%	7.4%
Postal, Courier & Warehousing Services	158	170	0.18%	8.1%
Machinery & Other Equipment Manu	57	69	0.18%	22.2%
Supermarket & Specialised Food Retailing	146	156	0.15%	7.5%
Water, Sewerage & Waste Services	48	56	0.11%	16.6%
Other Services	117	123	0.08%	5.1%
Motor Vehicle, Parts & Fuel Retailing	64	69	0.07%	8.2%
Heavy & Civil Engineering Construction	224	229	0.06%	2.0%
Beverage & Tobacco Product Manu	24	28	0.06%	18.9%
Printing	28	32	0.06%	16.3%
Fabricated Metal Product Manufacturing	51	56	0.06%	8.7%
Road Transport	118	123	0.06%	3.8%
Forestry & Logging	46	49	0.05%	7.8%
Arts & Recreation Services	99	102	0.04%	3.0%
Non-Metallic Mineral Product Manu	11	14	0.04%	26.3%
Agric Support Services & Hunting	23	26	0.04%	10.8%
Local Government Administration	40	42	0.03%	6.1%
Wood Product Manufacturing	18	20	0.03%	10.7%
Furniture & Other Manufacturing	14	15	0.03%	12.9%
Fishing & Aquaculture	15	16	0.02%	9.6%
Basic Chemical & Chemical Product Manu	12	13	0.02%	10.4%
Textile, Leather, Clothing, Footwear Manu	9	10	0.01%	9.9%
Central Gov Admin, Defence & Safety	284	285	0.01%	0.1%
Poultry, Deer & Other Livestock Farming	12	12	0.00%	2.4%
Polymer Product & Rubber Product Manu	6	7	0.00%	4.5%
Auxiliary Finance & Insurance Services	58	58	0.00%	0.5%
Petroleum & Coal Product Manufacturing	1	1	0.00%	11.4%
Horticulture & Fruit Growing	6	7	0.00%	1.5%
Pulp & Paper Product Manufacturing	5	5	0.00%	2.0%
Seafood Processing	4	4	0.00%	2.1%
Dairy Product Manufacturing	0	0	0.00%	-23.1%
Dairy Cattle Farming	38	38	0.00%	-0.7%
Transport Equipment Manufacturing	26	25	0.00%	-1.1%
Meat & Meat Product Manufacturing	11	11	-0.01%	-3.9%
Insurance & Superannuation Funds	12	11	-0.01%	-6.9%
Education & Training	648	647	-0.02%	-0.2%
Mining	26	25	-0.02%	-4.6%
Rental & Hiring Services	66	64	-0.03%	-3.3%
Fruit, Cereal & Other Food Product Manu	22	20	-0.04%	-11.3%
Telecomms, Internet & Library Services	57	54	-0.04%	-5.2%
Primary Metal & Metal Product Manu	6	3	-0.04%	-49.1%
Sheep, Beef Cattle & Grain Farming	41	37	-0.05%	-8.2%
Finance	124	120	-0.05%	-3.1%
Property Operators & Real Estate Services	318	314	-0.06%	-1.2%
Information Media Services	114	101	-0.18%	-10.9%
Owner-Occupied Property Operation	681.5	705.7	0.34%	3.6%
Unallocated	530.6	562.0	0.44%	5.9%
Total	7,062	7,464	5.7%	5.7%

In which industries does Dunedin City have a comparative advantage?

A high concentration of certain industries in a region may be indicative of that region having a comparative advantage in those industries. This may be due to its natural endowments, location, skills of its labour force or other reasons. The location quotient indicates in which industries a region has comparative advantage. A region has a location quotient larger (smaller) than one when the share of that industry in the regional economy is greater (less) than the share of the same industry in the national economy.

The following table shows a ranking of 54 industries by their location quotients.

- The industries in which Dunedin City has the largest comparative advantages are Education & Training (location quotient = 2.5), Printing (2.2), and Electricity & Gas Supply (1.8).

Table 5: Location Quotient, 2022

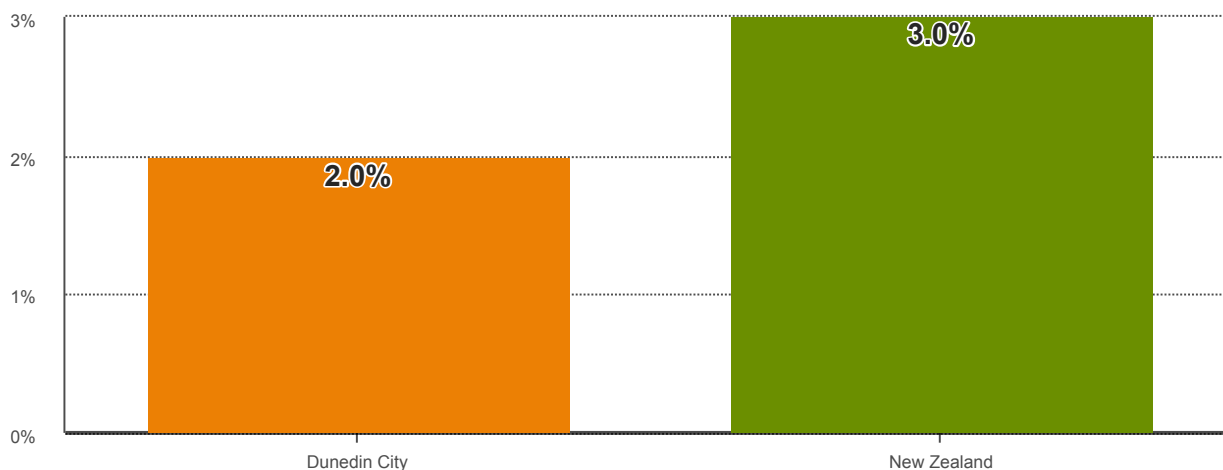
Industry	Dunedin City		New Zealand Share of total GDP
	Location Quotient	Share of total GDP	
Education & Training	2.5	8.7%	3.5%
Printing	2.2	0.4%	0.2%
Electricity & Gas Supply	1.8	4.0%	2.2%
Heavy & Civil Engineering Construction	1.7	3.1%	1.8%
Accommodation & Food Services	1.7	3.2%	1.9%
Health Care & Social Assistance	1.6	10.2%	6.2%
Water, Sewerage & Waste Services	1.6	0.8%	0.5%
Fishing & Aquaculture	1.4	0.2%	0.2%
Supermarket & Specialised Food Retailing	1.4	2.1%	1.5%
Postal, Courier & Warehousing Services	1.3	2.3%	1.7%
Motor Vehicle, Parts & Fuel Retailing	1.2	0.9%	0.7%
Poultry, Deer & Other Livestock Farming	1.2	0.2%	0.1%
Road Transport	1.2	1.6%	1.3%
Information Media Services	1.2	1.4%	1.2%
Building Construction	1.1	1.8%	1.5%
Forestry & Logging	1.1	0.7%	0.6%
Construction Services	1.1	4.0%	3.6%
Arts & Recreation Services	1.1	1.4%	1.2%
Other Store & Non Store Retailing	1.1	3.4%	3.0%
Local Government Administration	1.0	0.6%	0.5%
Other Services	1.0	1.7%	1.7%
Fabricated Metal Product Manufacturing	0.9	0.7%	0.8%
Central Gov Admin, Defence & Safety	0.9	3.8%	4.1%
Rental & Hiring Services	0.9	0.9%	1.0%
Administrative & Support Services	0.8	1.6%	2.0%
Property Operators & Real Estate Services	0.8	4.2%	5.2%
Professional, Scientific & Tech Services	0.8	7.7%	9.5%
Auxiliary Finance & Insurance Services	0.8	0.8%	1.0%
Transport Equipment Manufacturing	0.7	0.3%	0.5%
Furniture & Other Manufacturing	0.7	0.2%	0.3%
Rail, Water, Air & Other Transport	0.6	0.4%	0.6%
Textile, Leather, Clothing, Footwear Manu	0.6	0.1%	0.2%
Machinery & Other Equipment Manu	0.6	0.9%	1.5%
Wholesale Trade	0.6	2.9%	5.3%
Sheep, Beef Cattle & Grain Farming	0.5	0.5%	1.0%
Beverage & Tobacco Product Manu	0.5	0.4%	0.8%
Wood Product Manufacturing	0.5	0.3%	0.6%
Finance	0.4	1.6%	3.7%
Agric Support Services & Hunting	0.4	0.3%	0.8%
Non-Metallic Mineral Product Manu	0.4	0.2%	0.4%
Mining	0.4	0.3%	0.8%
Seafood Processing	0.4	0.1%	0.1%
Fruit, Cereal & Other Food Product Manu	0.4	0.3%	0.7%
Basic Chemical & Chemical Product Manu	0.4	0.2%	0.5%
Dairy Cattle Farming	0.3	0.5%	1.9%
Telecomms, Internet & Library Services	0.3	0.7%	2.8%
Meat & Meat Product Manufacturing	0.2	0.1%	0.6%
Pulp & Paper Product Manufacturing	0.2	0.1%	0.3%
Polymer Product & Rubber Product Manu	0.2	0.1%	0.4%
Primary Metal & Metal Product Manu	0.2	0.0%	0.2%
Horticulture & Fruit Growing	0.2	0.1%	0.5%
Insurance & Superannuation Funds	0.2	0.2%	0.9%
Petroleum & Coal Product Manufacturing	0.0	0.0%	0.4%
Dairy Product Manufacturing	0.0	0.0%	0.5%

EMPLOYMENT

How fast has employment grown in Dunedin City?

Employment growth provides new opportunities for the region's population to earn income and contribute to the region's economy. This section contrasts Dunedin City's recent performance in creating jobs with other regions in the country.

Figure 6: Employment growth, year to Mar 2022



- Total employment in Dunedin City averaged 66,341 in the year to March 2022, up 2.0% from a year earlier. Employment in New Zealand increased by 3.0% over the same period.
- Employment growth in Dunedin City averaged 1.2%pa over the last 10 years compared with 2.1%pa in the national economy.
- Employment growth in Dunedin City reached a high of 3.8% in 2002 and a low of -2.6% in 2010.

Figure 7: Annual average employment growth, 2001-2022

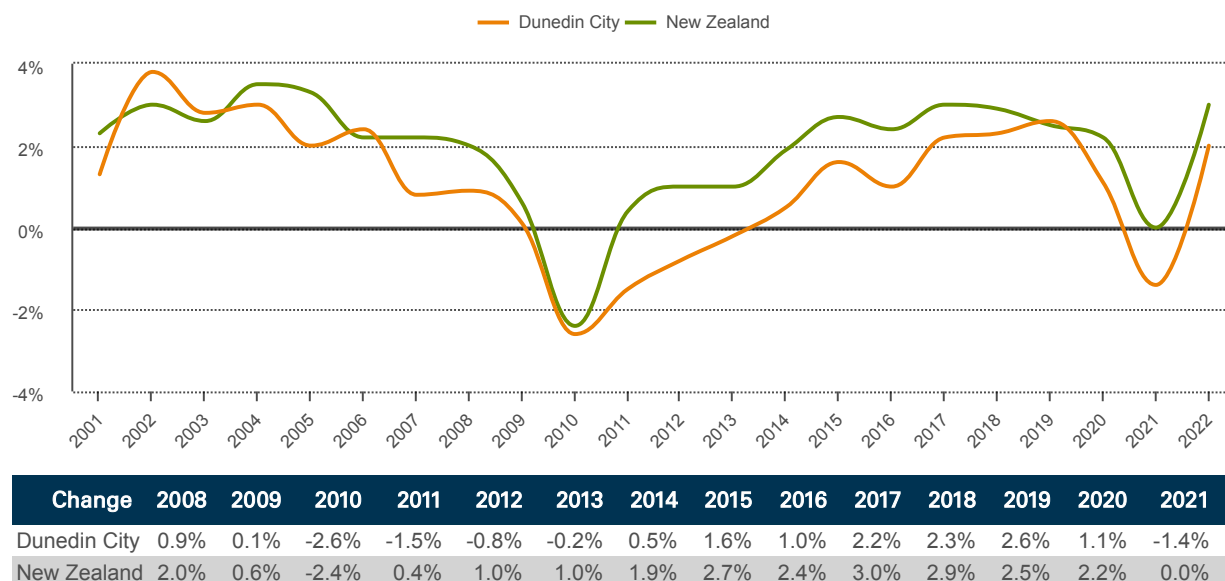
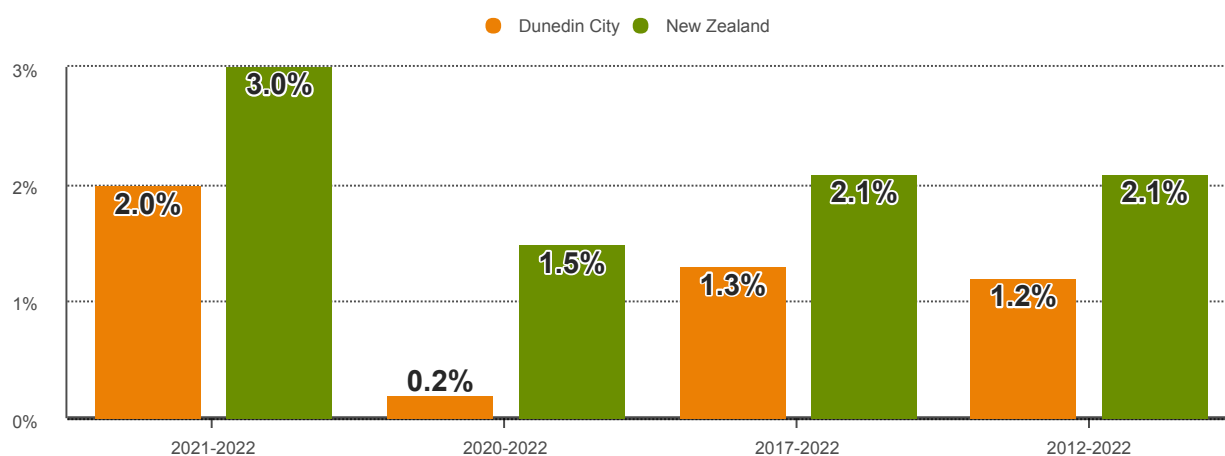


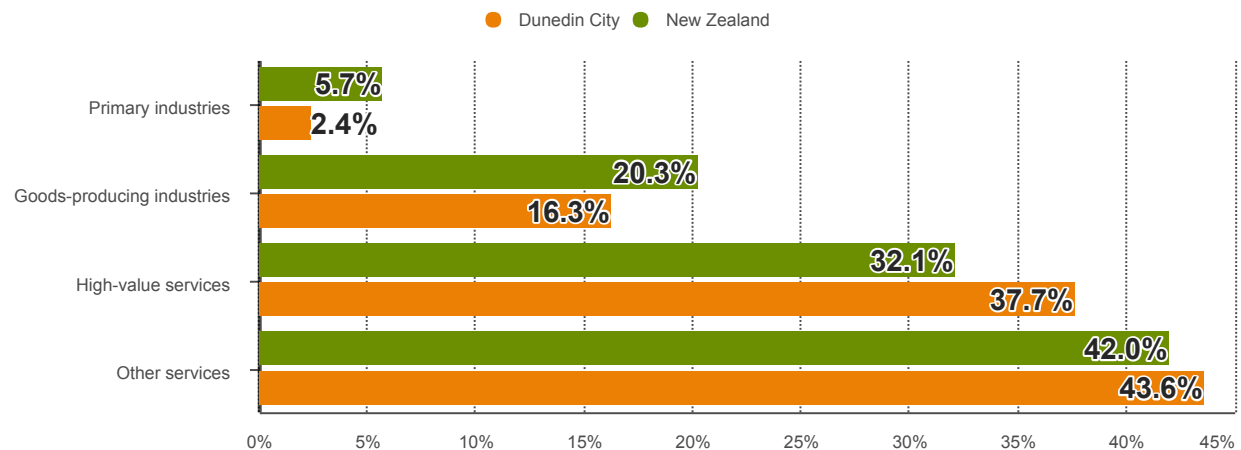
Figure 8: Employment growth over the last 1, 2, 5 & 10 years



What is the industrial structure of employment in Dunedin City?

This section describes the structure of the labour market in terms of the broad sectors of primary industries, goods-producing industries, high-values services and other services. Primary industries make direct use of natural resources. They extract or harvest products from the earth. Goods-producing industries produce manufactured and other processed goods. High-value services include the higher value-adding, knowledge-based service industries. More detail of the sectors is given in the technical appendix.

Figure 9: Employment by broad sector, 2022



- Primary industries accounted for 2.4% in Dunedin City compared with 5.7% in New Zealand.
- Goods-producing industries accounted for 16.3% in Dunedin City compared with 20.3% in New Zealand.
- Other services industries accounted for the largest proportion of employment (43.6%) in Dunedin City, which is higher than in New Zealand (42.0%).
- High-value services accounted for 37.7% in Dunedin City compared with 32.1% in New Zealand.

Which are the largest employing industries in Dunedin City?

This section identifies the broad industries that make the largest contribution to employment in Dunedin City.

Table 6: ANZSIC 1-digit industries ranked by size of employment, 2022

Industry	Dunedin City		New Zealand	
	Level	Share of total	Level	Share of total
Health Care and Social Assistance	10,443	15.7%	278,766	10.4%
Education and Training	9,140	13.8%	204,398	7.6%
Retail Trade	6,566	9.9%	239,299	8.9%
Construction	6,524	9.8%	279,966	10.4%
Accommodation and Food Services	5,049	7.6%	169,340	6.3%
Professional, Scientific and Technical Services	4,591	6.9%	262,459	9.7%
Manufacturing	3,749	5.7%	246,367	9.1%
Public Administration and Safety	3,438	5.2%	145,096	5.4%
Other Services	2,880	4.3%	107,041	4.0%
Transport, Postal and Warehousing	2,501	3.8%	104,272	3.9%
Administrative and Support Services	2,253	3.4%	130,578	4.8%
Wholesale Trade	2,092	3.2%	126,793	4.7%
Agriculture, Forestry and Fishing	1,536	2.3%	146,644	5.4%
Arts and Recreation Services	1,522	2.3%	48,742	1.8%
Rental, Hiring and Real Estate Services	1,309	2.0%	63,764	2.4%
Financial and Insurance Services	1,106	1.7%	72,235	2.7%
Information Media and Telecommunications	1,038	1.6%	41,673	1.5%
Electricity, Gas, Water and Waste Services	539	0.8%	19,926	0.7%
Mining	69	0.1%	5,942	0.2%
Total	66,341	100%	2,693,301	100%

- Among broad industries Health Care and Social Assistance was the largest in Dunedin City in 2022 accounting for 15.7% of total.
- The second largest was Education and Training (13.8%) followed by Retail Trade (9.9%)

The table on the following page shows the 50 detailed industries among the approximately 500 7-digit ANZSIC industry categories which employ the highest number of people in Dunedin City.

- Higher Education was the largest 7-digit industry in Dunedin City in 2022 employing 4,713 persons and accounting for 7.1% of total employment in the district. By contrast this industry accounted for 1.4% of total employment in New Zealand.
- The second largest employing industries were hospitals (except psychiatric hospitals) (3,911) followed by cafes and restaurants (2,209).

Table 7: 50 largest employing ANZSIC 7-digit industries, 2022

Rank	Industry	Dunedin City		New Zealand
		Jobs	% of total	% of total
1	Higher Education	4,713	7.1%	1.4%
2	Hospitals (except Psychiatric Hospitals)	3,911	5.9%	3.1%
3	Cafes and Restaurants	2,209	3.3%	2.9%
4	Supermarket and Grocery Stores	2,058	3.1%	2.3%
5	Other Social Assistance Services	1,411	2.1%	0.9%
6	House Construction	1,383	2.1%	2.2%
7	Primary Education	1,329	2.0%	2.1%
8	Aged Care Residential Services	1,326	2.0%	1.4%
9	Central Government Administration	1,266	1.9%	1.9%
10	Accommodation	1,243	1.9%	1.1%
11	Technical and Vocational Education and Training	917	1.4%	0.4%
12	Buildings Cleaning Services	896	1.4%	1.1%
13	Secondary Education	831	1.3%	1.4%
14	Road and Bridge Construction	814	1.2%	0.7%
15	Road Freight Transport	809	1.2%	1.3%
16	Takeaway Food Services	806	1.2%	1.2%
17	Computer Systems Design and Related Services	730	1.1%	1.8%
18	Electrical Services	715	1.1%	1.0%
19	Management Advice and Other Consulting Services	695	1.0%	1.7%
20	Preschool Education	654	1.0%	1.1%
21	Local Government Administration	625	0.9%	1.0%
22	Other Residential Care Services	616	0.9%	0.6%
23	Other Allied Health Services	606	0.9%	1.4%
24	Hardware and Building Supplies Retailing	594	0.9%	0.9%
25	Accounting Services	579	0.9%	1.0%
26	Pubs, Taverns and Bars	549	0.8%	0.6%
27	Legal Services	548	0.8%	0.8%
28	Investigation and Security Services	547	0.8%	0.5%
29	Engineering Design and Engineering Consulting Services	540	0.8%	1.2%
30	Other Automotive Repair and Maintenance	539	0.8%	0.7%
31	Real Estate Services	530	0.8%	0.9%
32	Other Heavy and Civil Engineering Construction	497	0.7%	0.8%
33	Newspaper Publishing	493	0.7%	0.1%
34	Hairdressing and Beauty Services	492	0.7%	0.7%
35	Police Services	486	0.7%	0.6%
36	General Practice Medical Services	465	0.7%	0.7%
37	Plumbing Services	444	0.7%	0.7%
38	Car Retailing	441	0.7%	0.5%
39	Department Stores	430	0.6%	0.6%
40	Printing	426	0.6%	0.2%
41	Other Interest Group Services n.e.c.	419	0.6%	0.6%
42	Other Health Care Services n.e.c.	416	0.6%	0.4%
43	Pathology and Diagnostic Imaging Services	375	0.6%	0.2%
44	Painting and Decorating Services	369	0.6%	0.6%
45	Clothing Retailing	356	0.5%	0.6%
46	Pharmaceutical, Cosmetic and Toiletry Goods Retailing	350	0.5%	0.5%
47	Child Care Services	341	0.5%	0.6%
48	Site Preparation Services	326	0.5%	0.5%
49	Dental Services	316	0.5%	0.3%
50	Labour Supply Services	312	0.5%	1.2%
All other industries total		23,598	35.6%	49.2%
Total		66,341	100%	100%

Which industries have created the most jobs?

The section investigates which industries have created and lost the most number of jobs in Dunedin City. The employment numbers differ from those published in Business Demography by Statistics New Zealand. The reasons for these differences are explained in the technical appendix.

Table 8: ANZSIC 1-digit industries ranked by number of jobs created, 2021-2022

Industry	2021	2022	Change	Annual Growth
Health Care and Social Assistance	10,142	10,443	301	3.0%
Construction	6,259	6,524	265	4.2%
Professional, Scientific and Technical Services	4,380	4,591	211	4.8%
Retail Trade	6,419	6,566	147	2.3%
Accommodation and Food Services	4,928	5,049	121	2.5%
Manufacturing	3,647	3,749	102	2.8%
Education and Training	9,055	9,140	85	0.9%
Administrative and Support Services	2,181	2,253	72	3.3%
Other Services	2,808	2,880	72	2.6%
Electricity, Gas, Water and Waste Services	484	539	54	11.2%
Agriculture, Forestry and Fishing	1,506	1,536	29	1.9%
Arts and Recreation Services	1,497	1,522	25	1.7%
Public Administration and Safety	3,413	3,438	25	0.7%
Financial and Insurance Services	1,086	1,106	20	1.8%
Mining	71	69	-2	-2.8%
Rental, Hiring and Real Estate Services	1,326	1,309	-17	-1.3%
Transport, Postal and Warehousing	2,534	2,501	-33	-1.3%
Wholesale Trade	2,137	2,092	-45	-2.1%
Information Media and Telecommunications	1,194	1,038	-157	-13.1%
Total	65,066	66,341	1,275	2.0%

- Health Care and Social Assistance made the largest contribution to employment growth in Dunedin City between 2021 and 2022 with the industry adding 301 jobs.
- The next largest contributor was Construction (265 jobs) followed by Professional, Scientific and Technical Services (211 jobs).
- The largest detractor from growth over the year was Information Media and Telecommunications in which employment declined by 157.

The table on the next page shows the 20 industries (out of a total of approximately 500 industries of the ANZSIC 2006 industry classification¹) that created the most number of jobs over the past year. Table 15 shows the 20 detailed industries that made the lowest contribution to job creation over the same period.

- Residential Building Construction was the largest creator of jobs in Dunedin City between 2021 and 2022, generating an additional 145 positions.
- This was followed by Cafes, Restaurants and Takeaway Food Services, which added 135 jobs over the same period.
- Newspaper, Periodical, Book and Directory Publishing was the largest detractor of jobs in Dunedin City between 2021 and 2022, losing 136 positions.
- This was followed by Public Order and Safety Services, which lost 84 jobs over the same period.

Table 9: The 20 ANZSIC 4-digit industries that created the most jobs, 2021-2022

Rank	Industry	Jobs		Change 2021 - 2022	% of total 2022
		2021	2022		
1	Residential Building Construction	1,350	1,494	145	2.3%
2	Cafes, Restaurants and Takeaway Food Services	3,081	3,217	135	4.8%
3	Tertiary Education	5,526	5,631	105	8.5%
4	Building Cleaning, Pest Control and Gardening Services	1,036	1,140	104	1.7%
5	Other Social Assistance Services	1,323	1,411	87	2.1%
6	Central Government Administration	1,181	1,266	85	1.9%
7	Other Health Care Services	409	490	81	0.7%
8	Hospitals	3,917	3,990	73	6.0%
9	Electricity Distribution	70	130	60	0.2%
10	Specialised Machinery and Equipment Manufacturing	73	130	58	0.2%
11	Architectural, Engineering and Technical Services	1,134	1,188	54	1.8%
12	Management and Other Consulting Services	892	942	50	1.4%
13	Automotive Repair and Maintenance	753	803	49	1.2%
14	Veterinary Services	145	194	49	0.3%
15	Legal and Accounting Services	1,082	1,127	46	1.7%
16	Hardware, Building and Garden Supplies Retailing	642	687	45	1.0%
17	Furniture, Floor Coverings, Houseware and Textile Goods Retailing	251	294	43	0.4%
18	Medical Services	657	699	43	1.1%
19	Building Completion Services	810	849	39	1.3%
20	Building Installation Services	1,418	1,455	38	2.2%
All other industries		39,318	39,204	-114	59.1%
Total		65,066	66,341	1,275	100%

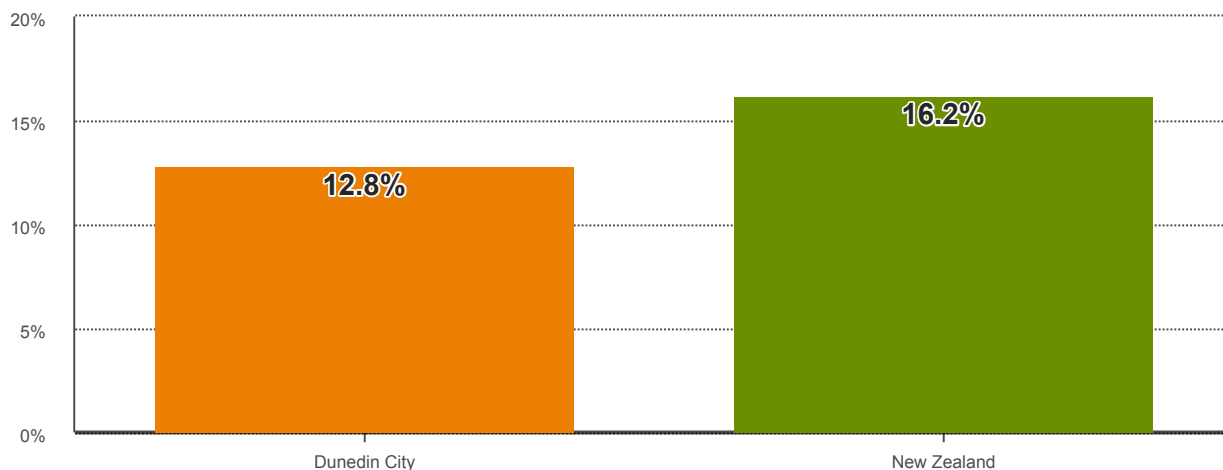
Table 10: The 20 ANZSIC 4-digit industries that lost the most jobs, 2021-2022

Rank	Industry	Jobs		Change 2021 - 2022	% of total 2022
		2021	2022		
1	Newspaper, Periodical, Book and Directory Publishing	655	519	-136	0.8%
2	Public Order and Safety Services	1,426	1,342	-84	2.0%
3	Department Stores	486	430	-55	0.6%
4	Road Passenger Transport	420	365	-54	0.6%
5	Employment Services	656	609	-47	0.9%
6	Scenic and Sightseeing Transport	70	34	-35	0.1%
7	Allied Health Services	1,223	1,195	-28	1.8%
8	Other Food Product Manufacturing	109	82	-27	0.1%
9	Other Transport Support Services	224	196	-27	0.3%
10	Other Transport Equipment Manufacturing	210	187	-23	0.3%
11	Telecommunications Services	57	34	-23	0.1%
12	Basic Ferrous Metal Product Manufacturing	27	5	-22	0.0%
13	Agricultural Product Wholesaling	146	124	-22	0.2%
14	Pubs, Taverns and Bars	570	549	-22	0.8%
15	Travel Agency Services	113	91	-22	0.1%
16	Adult, Community and Other Education	349	327	-21	0.5%
17	Furniture, Floor Coverings and Other Goods Wholesaling	191	170	-21	0.3%
18	Heavy and Civil Engineering Construction	1,330	1,311	-19	2.0%
19	On Selling Electricity and Electricity Market Operation	31	13	-19	0.0%
20	Other Machinery and Equipment Manufacturing	290	271	-18	0.4%
All other industries		56,486	58,489	2,003	88.2%
Total		65,066	66,341	1,275	100%

What proportion of the workforce is self-employed in Dunedin City?

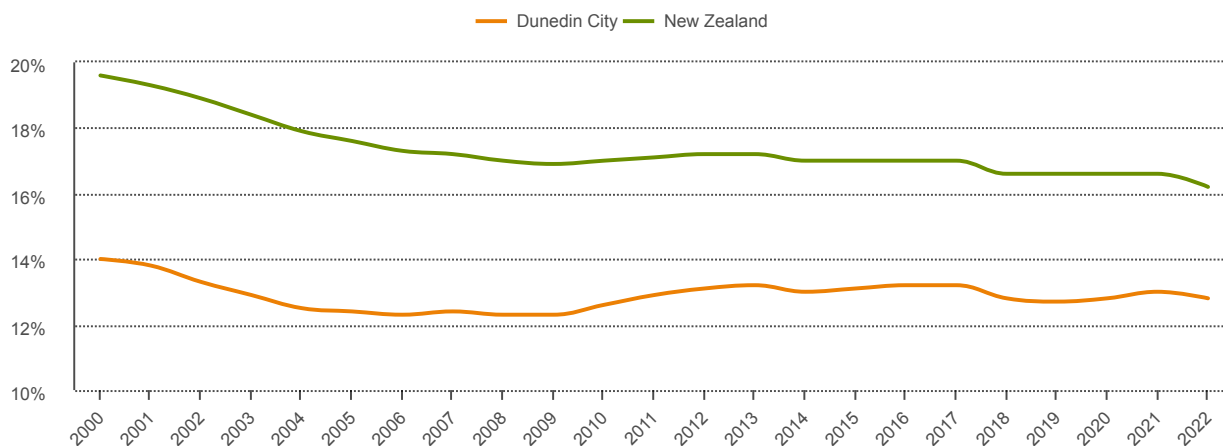
Self-employment makes up a sizeable proportion of total employment in New Zealand although it declined through the economic boom years and stabilised since the recession. This section contrasts self-employment in Dunedin City with the national economy.

Figure 10: Self-employment rate, 2022



- Self-employed workers accounted for 12.8% of the workforce in Dunedin City in 2022, which was a lower rate than in the national economy (16.2%)
- A total of 8,523 workers were self-employed in Dunedin City in 2022.

Figure 11: Self-employment rate, 2000-2022



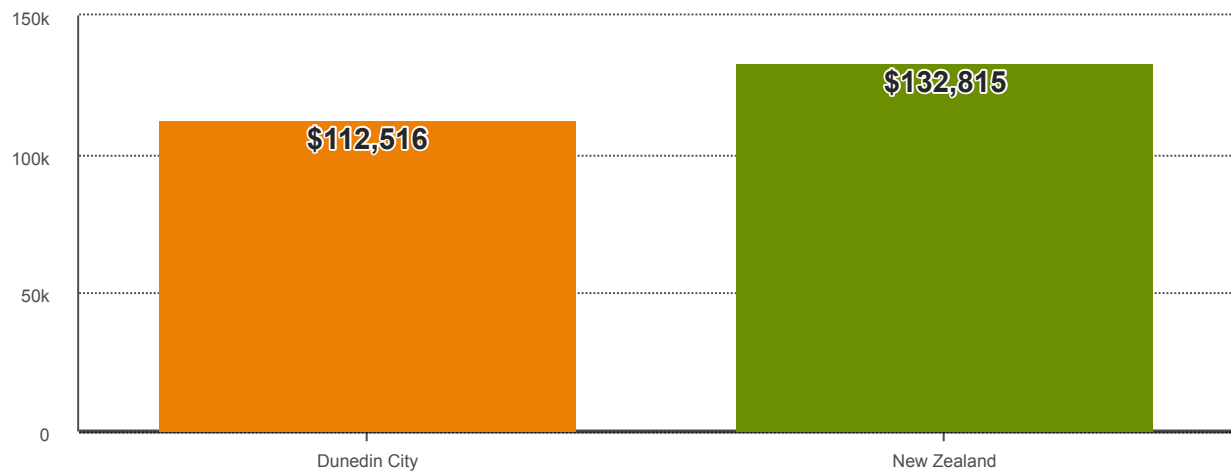
Level	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	12.3%	12.3%	12.6%	12.9%	13.1%	13.2%	13.0%	13.1%	13.2%	13.2%	12.8%	12.7%	12.8%	13.0%	12.8%
New Zealand	17.0%	16.9%	17.0%	17.1%	17.2%	17.2%	17.0%	17.0%	17.0%	17.0%	16.6%	16.6%	16.6%	16.6%	16.2%

PRODUCTIVITY

Productivity is a way of describing the efficiency of production. In this section, we investigate GDP per employee to determine how much economic activity is generated on average by each employee. When looking at this indicator, one needs to consider that labour is only one input into production. As a result, a comparison of a region's labour productivity growth to its own history or to other districts, implicitly assumes that each worker has the same access to machinery, technology, and land.

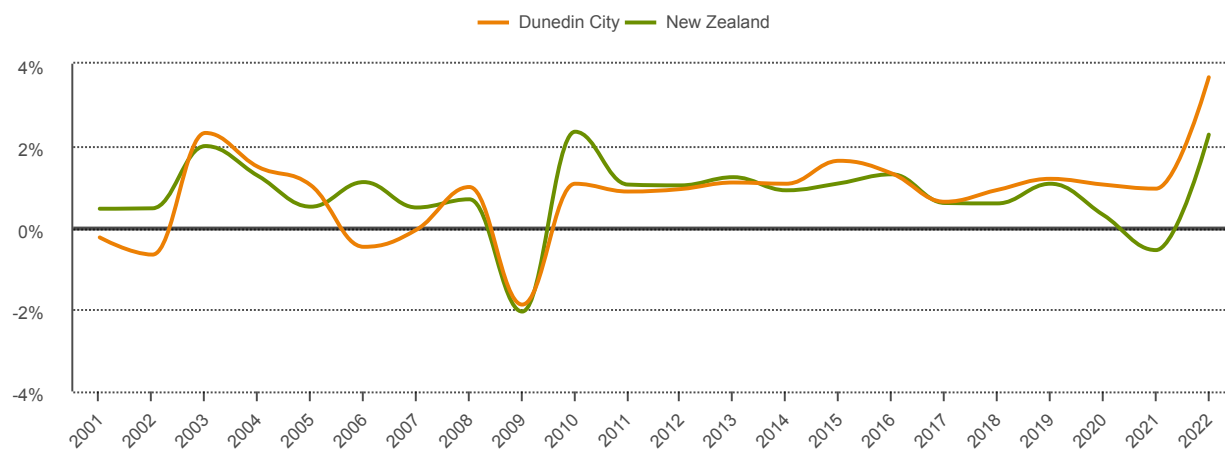
This section describes Dunedin City's productivity level during the year to March 2022 and previous years. Productivity is measured by GDP per employee (in constant 2022 prices).

Figure 12: Productivity, 2022



- GDP per employee in Dunedin City measured \$112,516 in the year to March 2022, which was 15.3% lower than in New Zealand.
- Productivity in Dunedin City increased by 3.7% from a year earlier compared with an increase of 2.3% in New Zealand).
- Productivity growth in Dunedin City averaged 1.3%pa over the last ten years compared with an average of 0.9%pa in New Zealand.

Figure 13: Productivity growth, 2001-2022



Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	1.0%	-1.9%	1.1%	0.9%	0.9%	1.1%	1.1%	1.6%	1.3%	0.6%	0.9%	1.2%	1.1%	1.0%	3.7%
New Zealand	0.7%	-2.0%	2.3%	1.0%	1.0%	1.2%	0.9%	1.1%	1.3%	0.6%	0.6%	1.1%	0.3%	-0.6%	2.3%

What are the most productive industries in Dunedin City?

This section ranks industries according to their level of GDP per employee in Dunedin City. The level of GDP per employee may differ between industries because of the skill levels of workers and their inherent efficiency, as well as due to different amounts of machinery, technology, and land being used as production inputs. Table 11 below ranks broad industries by GDP per employee in Dunedin City and shows the corresponding GDP per employee in the national economy. Since the capital intensity of industries is often a significant explainer of productivity we also show the capital intensity of each industry in the table. Capital intensity is measured as the share of GDP which is attributable to capital. Industries with a high proportion are thus highly capital intensive.

Table 11: ANZSIC 1-digit industries ranked by productivity, 2022

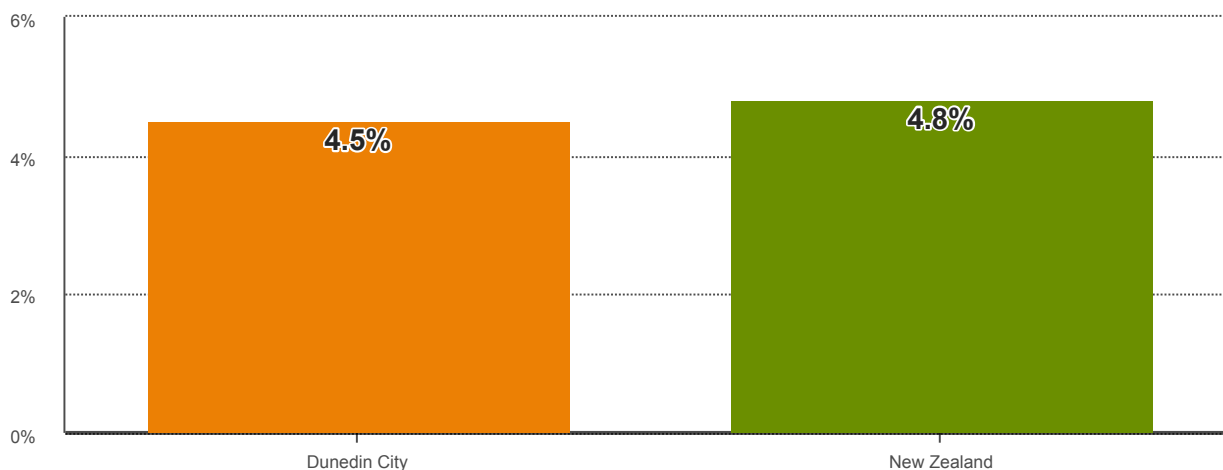
Industry	Productivity		Capital intensity
	Dunedin City	New Zealand	New Zealand
Electricity, Gas, Water and Waste Services	656,604	481,013	0.76
Mining	363,167	491,574	0.76
Rental, Hiring and Real Estate Services	288,458	346,394	0.81
Financial and Insurance Services	172,044	273,556	0.55
Information Media and Telecommunications	149,500	340,469	0.57
Transport, Postal and Warehousing	128,413	124,983	0.42
Professional, Scientific and Technical Services	125,253	129,560	0.27
Agriculture, Forestry and Fishing	120,181	121,406	0.60
Wholesale Trade	104,554	148,287	0.37
Construction	100,848	87,718	0.29
Public Administration and Safety	95,036	115,050	0.18
Manufacturing	89,192	130,207	0.43
Health Care and Social Assistance	72,961	79,814	0.12
Retail Trade	72,771	79,335	0.31
Education and Training	70,802	61,768	0.26
Arts and Recreation Services	66,762	89,484	0.36
Administrative and Support Services	54,483	53,432	0.18
Accommodation and Food Services	48,018	40,797	0.28
Other Services	42,809	57,233	0.21
Total	112,516	132,815	

BUSINESS GROWTH

How fast did the number of business units grow in Dunedin City?

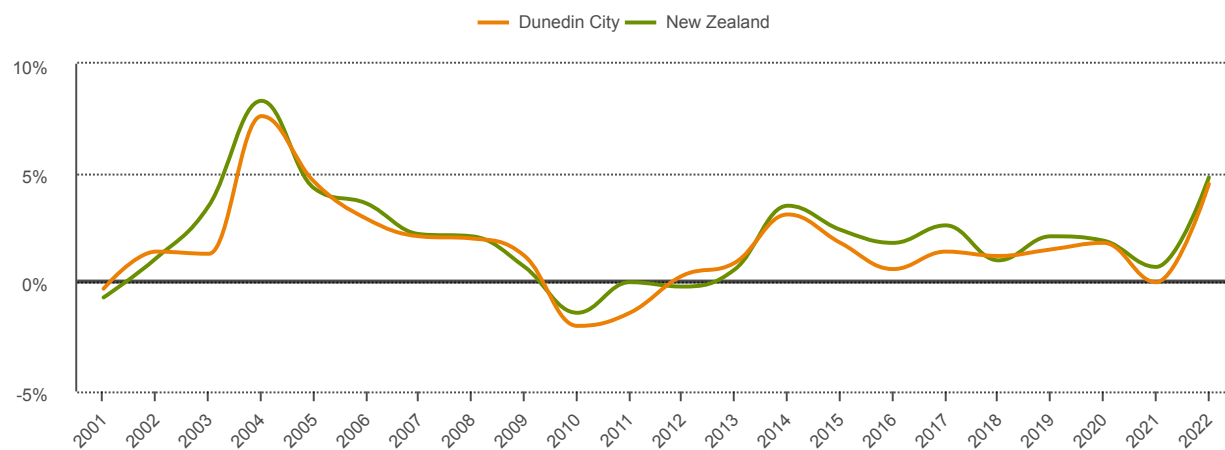
Growth in the number of business units is an indicator of entrepreneurial activity. It indicates an environment in which entrepreneurs are prepared to take risks to start new ventures. This section contrasts Dunedin City's recent performance in business unit growth with other regions in the country.

Figure 14: Business unit growth, year to Mar 2022



- A total of 12,699 business units were recorded in Dunedin City in 2022, up 4.5% from a year earlier.
- The number of business units in New Zealand increased by 4.8% over the same period.
- Growth in the number of business units in Dunedin City averaged 1.7%pa over the past 10 years compared with 2.1%pa in the national economy.
- Business unit growth in Dunedin City varied from a high of 7.6% in 2004 to a low of -2.0% in 2010.

Figure 15: Annual average business unit growth, 2001-2022



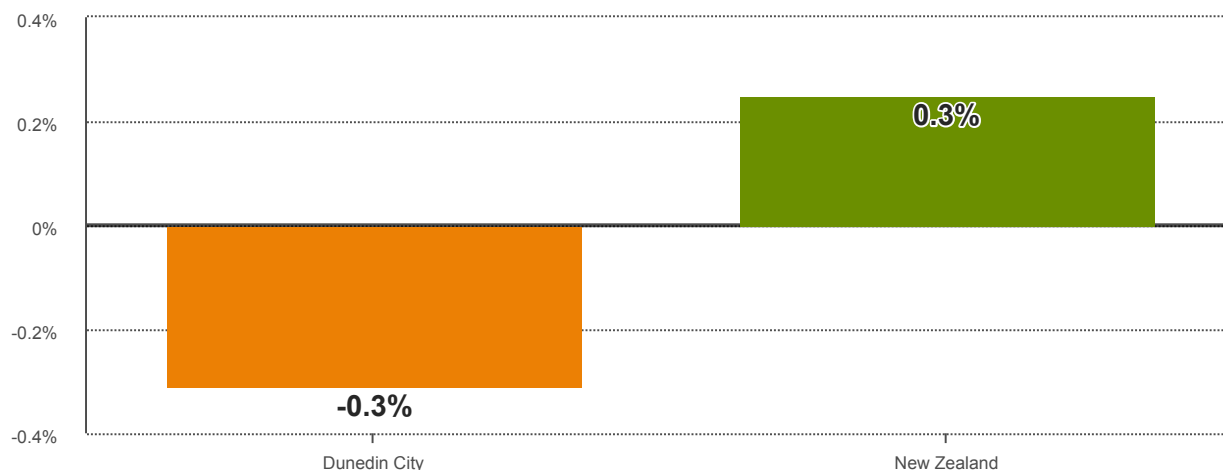
Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	2.0%	1.2%	-2.0%	-1.4%	0.3%	0.9%	3.1%	1.8%	0.6%	1.4%	1.2%	1.5%	1.8%	0.0%	4.5%
New Zealand	2.1%	0.7%	-1.4%	0.0%	-0.2%	0.6%	3.5%	2.4%	1.8%	2.6%	1.0%	2.1%	1.9%	0.7%	4.8%

POPULATION GROWTH

How fast has Dunedin City's population grown?

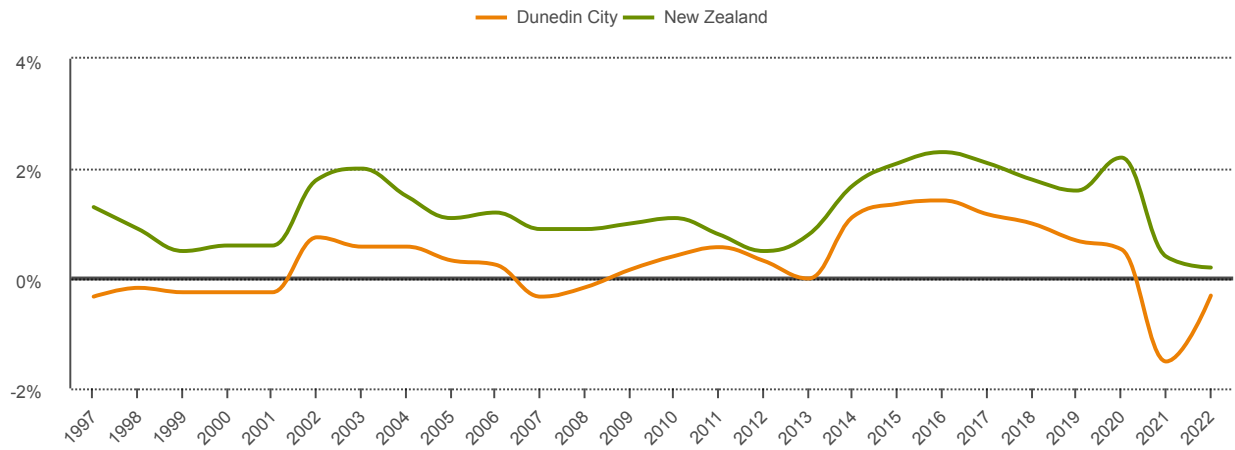
Population growth is an indicator of a region's attractiveness as a place to live and work. A strong regional economy with plentiful job opportunities will help a region retain its population and attract new residents from other regions and abroad. This section contrasts Dunedin City's recent population growth with other districts and the country as a whole.

Figure 16: Population growth, year to Jun 2022



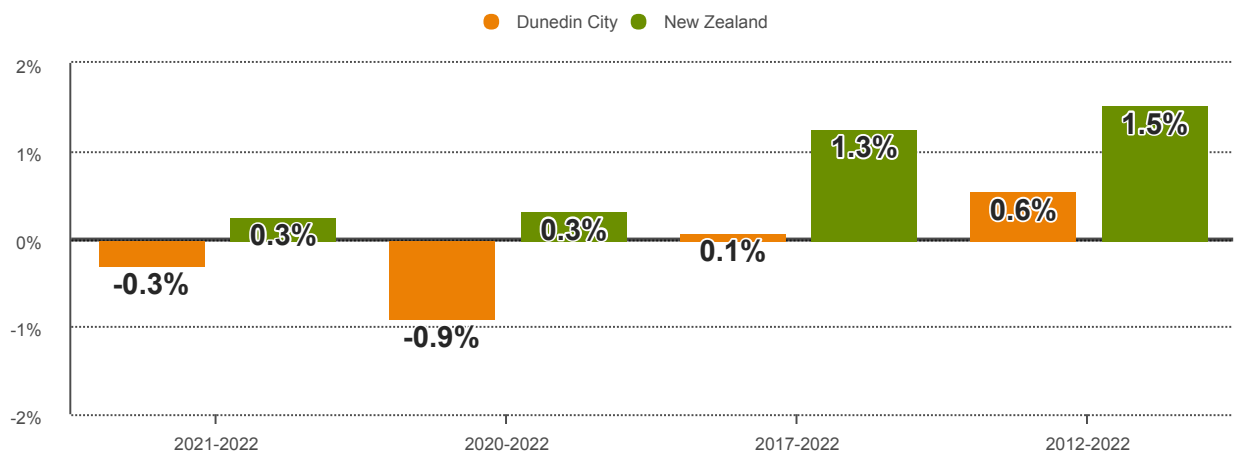
- Dunedin City's population was 130,400 in 2022, down 0.3% from a year earlier. New Zealand's total population grew by 0.2% over the same period.
- Population growth in Dunedin City averaged 0.1%pa over the last 5 years compared with 1.3%pa in New Zealand.
- Since 1996 growth in Dunedin City reached a high of 1.4%pa in 2016 and a low of -1.5%pa in 2021.

Figure 17: Annual population growth, 1997-2022



Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	-0.2%	0.2%	0.4%	0.6%	0.3%	0.0%	1.1%	1.4%	1.4%	1.2%	1.0%	0.7%	0.5%	-1.5%	-0.3%
New Zealand	0.9%	1.0%	1.1%	0.8%	0.5%	0.8%	1.7%	2.1%	2.3%	2.1%	1.8%	1.6%	2.2%	0.4%	0.2%

Figure 18: Population growth over the last 1, 2, 5, and 10 years

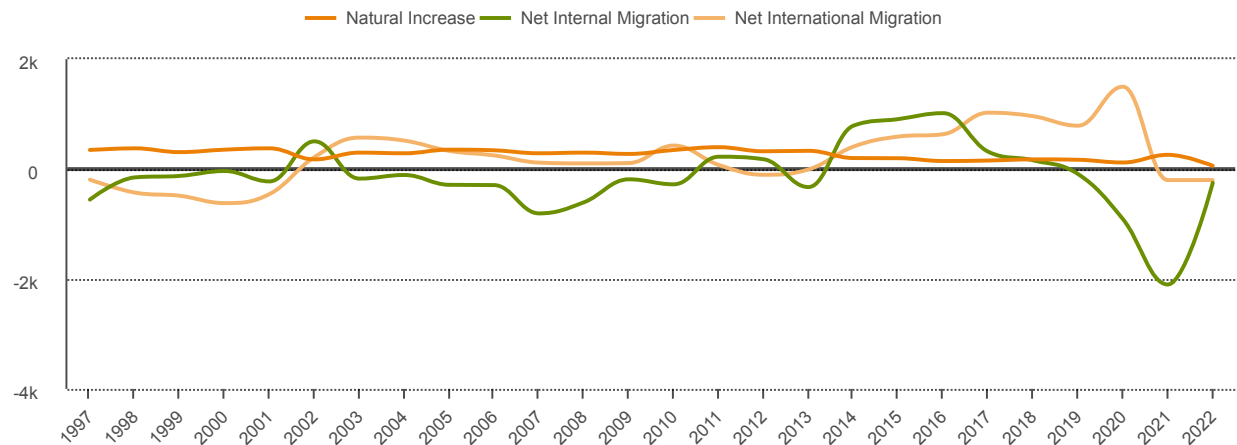


What is the source of Dunedin City's population growth?

A region's population can grow through natural growth (births less deaths), net internal migration, and net international migration. This section describes the relative contributions of these two sources to population growth in Dunedin City.

- Dunedin City's population decreased by 400 people in the year to June 2022. This net decrease was made up of an internal net migration of -250, an international net migration of -200, and natural increase of 60.

Figure 19: Population source of Dunedin City, 1997-2022

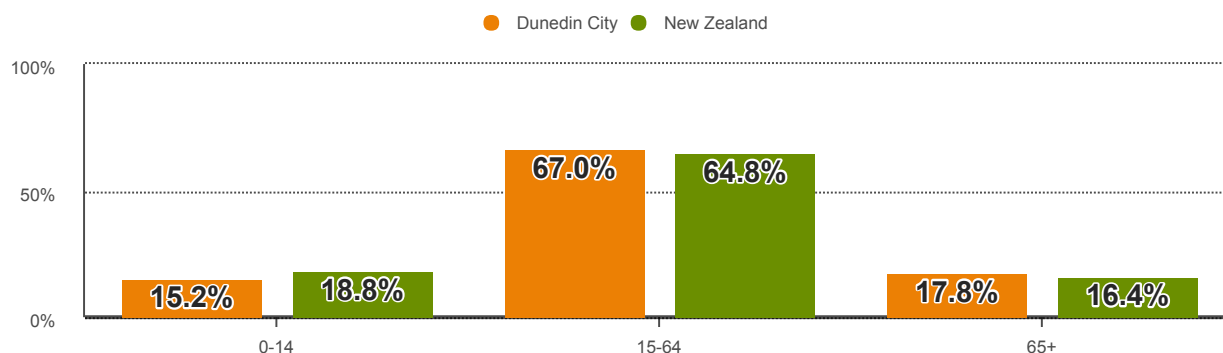


- The relative contribution of total net migration to natural growth in Dunedin City was higher than New Zealand in 2022.

What is the age structure of Dunedin City's population?

- In 2022, 67.0% of Dunedin City's population was of working age (15-64). This was significantly higher than the proportion of the national population (64.8%).
- Dunedin City had a slightly lower proportion (15.2%) of young people (0-14) than the country as a whole (18.8%) and a significantly higher proportion (17.8%) of people 65 years and older compared with New Zealand (16.4%).
- Overall the dependency ratio in Dunedin City (49.2%) was lower than in the national economy (54.4%). The dependency ratio expresses the number of persons outside of the working age as a proportion of the number of persons of working age (15 to 64 years).

Figure 20: Age composition of the population, year to June 2022

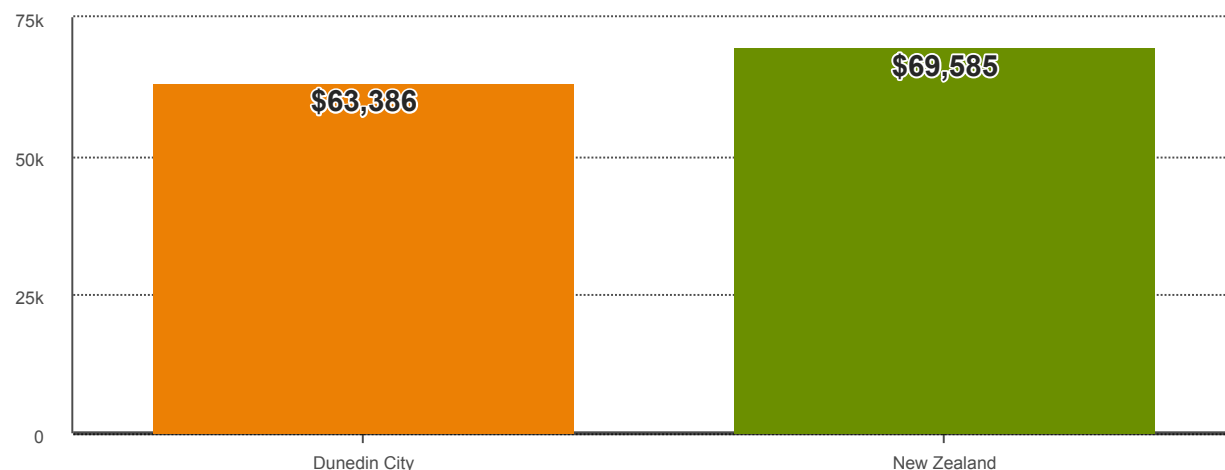


STANDARD OF LIVING

What are the mean earnings in Dunedin City?

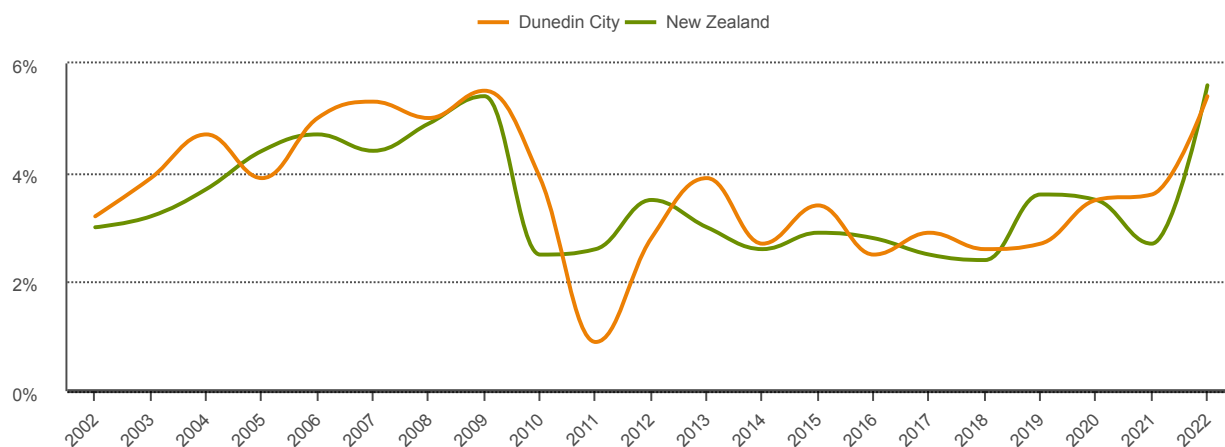
Earnings are income earned through employment. This series measures average annual earnings per filled job. Earnings are typically an important source of household income, well-being and choices available. Earnings in an area are determined by a number of factors including the industries in the area, the skills required in these industries and the ability of employers to find appropriately skilled labour.

Figure 21: Mean annual earnings, 2022



- Mean annual earnings in Dunedin City were \$63,386 in the year to March 2022, which was lower than the New Zealand mean of \$69,585.
- Mean earnings in Dunedin City increased by 5.4% over the year to March 2022 compared with an increase of 5.6% in New Zealand.
- Since 2001, earnings growth in Dunedin City reached a maximum of 5.5% in 2009 and a minimum of 0.9% in 2011.

Figure 22: Mean earnings growth, 2002-2022

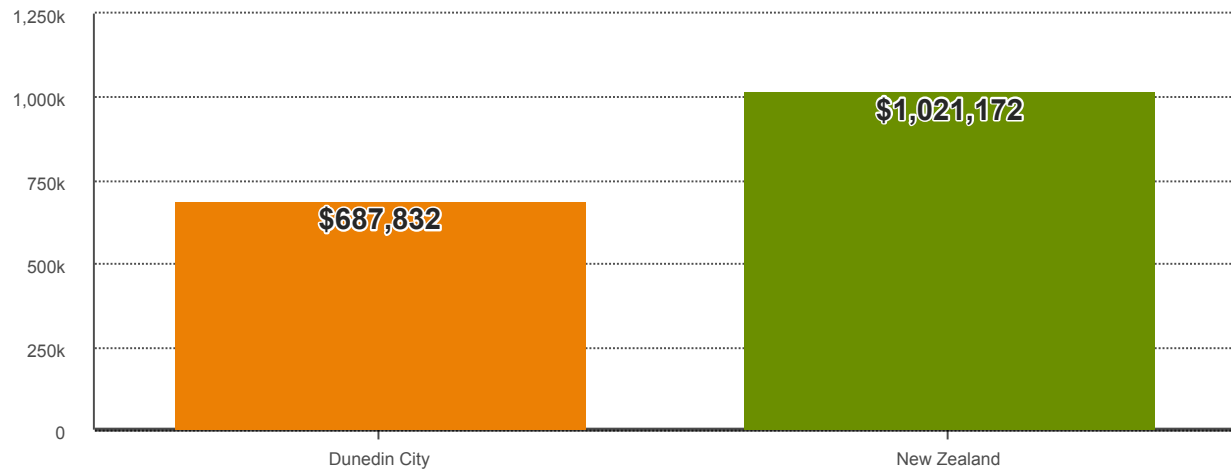


Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	5.0%	5.5%	3.9%	0.9%	2.8%	3.9%	2.7%	3.4%	2.5%	2.9%	2.6%	2.7%	3.5%	3.6%	5.4%
New Zealand	4.9%	5.4%	2.5%	2.6%	3.5%	3.0%	2.6%	2.9%	2.8%	2.5%	2.4%	3.6%	3.5%	2.7%	5.6%

How do house values in Dunedin City compare?

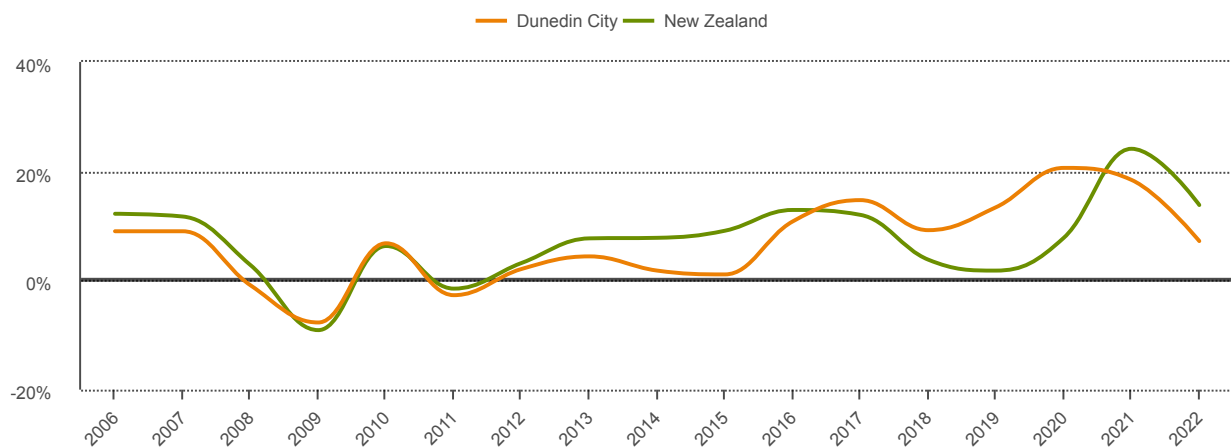
Expenditure on housing is a major component of household spending. This section describes the average current **house values** in Dunedin City relative to the rest of the country.

Figure 23: Average current house values, 2022



- The Average current house value in Dunedin City was \$687,832 in 2022, which was lower than the New Zealand median of \$1,021,172.
- House value growth in Dunedin City was 7.2% for the year to March 2022. Growth was weaker than in New Zealand (13.8%).

Figure 24: House value growth, 2006-2022



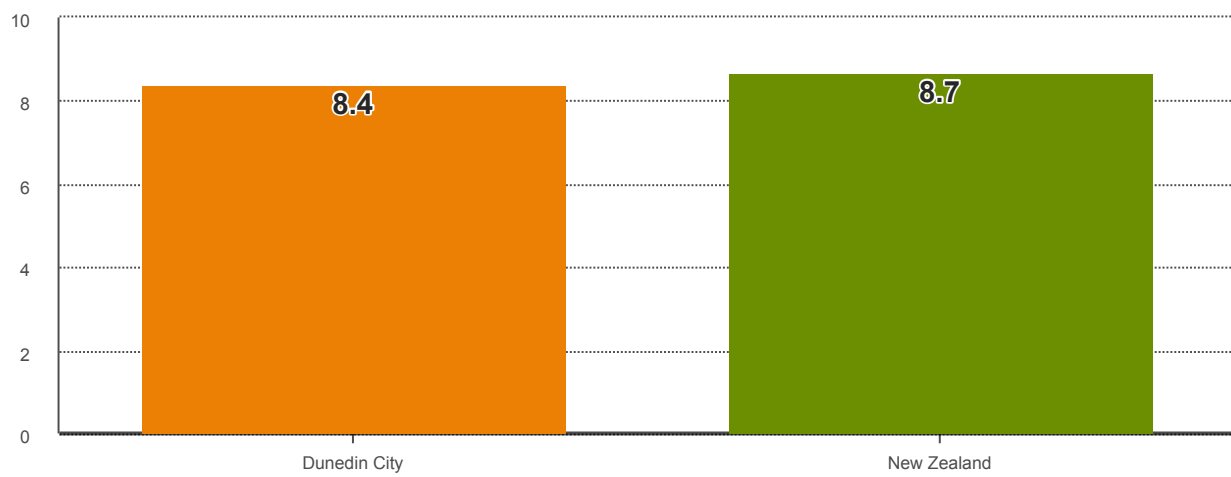
Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	-0.9%	-7.7%	6.8%	-2.7%	2.1%	4.4%	1.8%	1.1%	10.8%	14.7%	9.2%	13.4%	20.6%	18.4%	7.2%
New Zealand	2.8%	-9.1%	6.3%	-1.5%	3.2%	7.7%	7.8%	9.1%	12.9%	12.0%	3.8%	1.8%	7.8%	24.1%	13.8%

How affordable is housing in Dunedin City?

Affordable housing is important for people's well-being. For lower-income households, high housing costs relative to income are often associated with severe financial difficulty, and can leave households with insufficient income to meet other basic needs such as food, clothing, transport, medical care and education. High outgoings-to-income ratios are not as critical for higher-income earners, as there is sufficient income left for their basic needs.

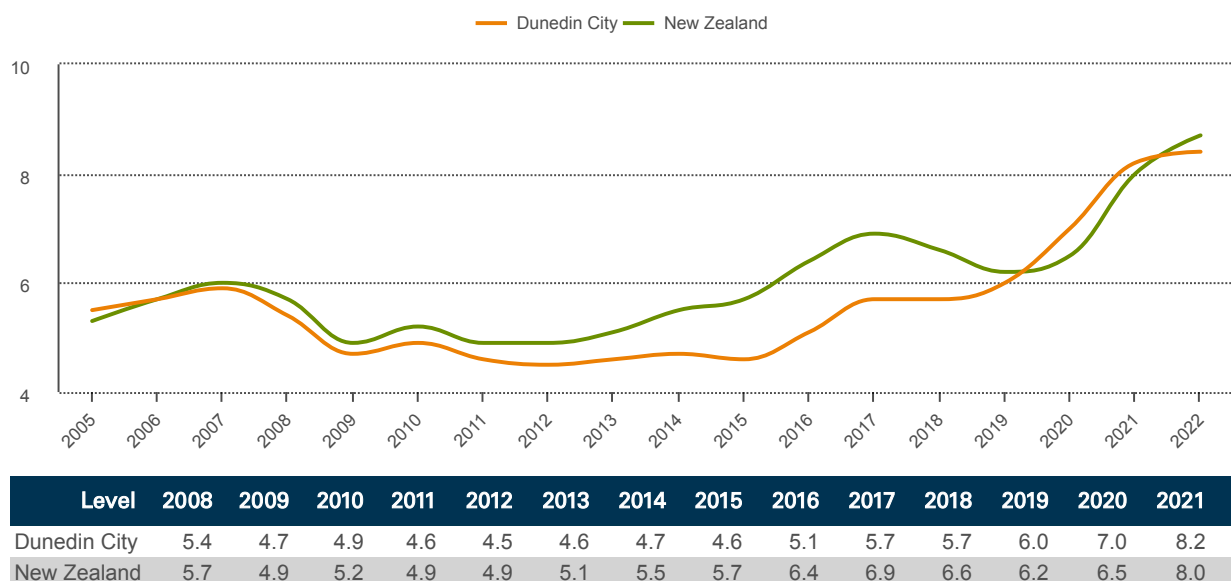
This section investigates the affordability of housing in the Dunedin City and for the country as a whole by comparing average current house values with mean household income. We present a housing affordability index which is the ratio of the average current house value to average household income. A higher ratio, therefore, suggests that median houses cost a greater multiple of typical incomes, which indicates lower housing affordability.

Figure 25: Housing affordability index, 2022



- In Dunedin City, the average house value was 8.4 times the average household income in 2022. Housing was more affordable than in New Zealand (8.7).

Figure 26: Housing affordability, 2005-2022

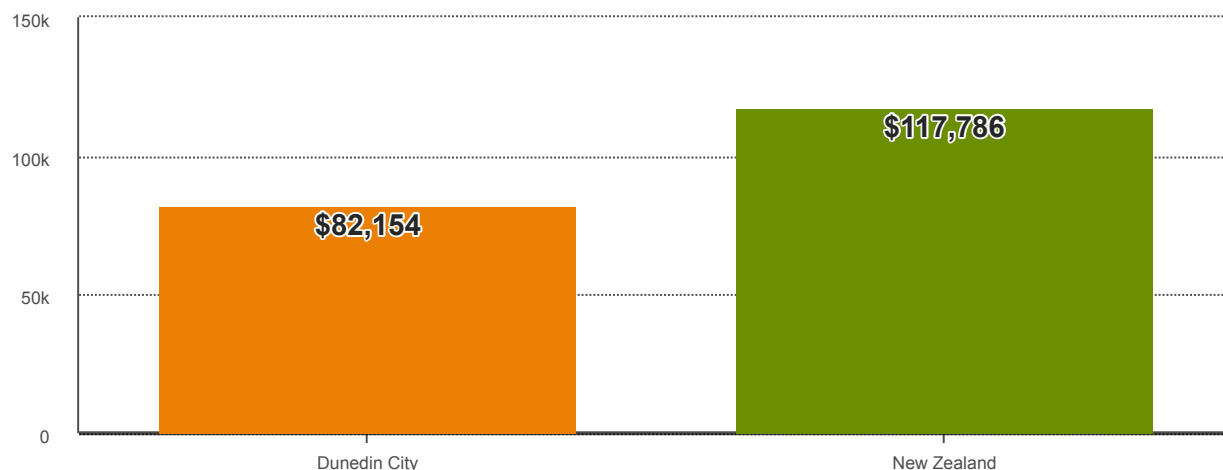


What is the average household income in Dunedin City?

Household income is a fundamental measure of living standards and reflects the economic health of an area. Household income comprises multiples sources including earnings from employment (wages and salaries), earnings from self-employment, allowances, benefits and superannuation. By including incomes of all household members from a range of sources, it provides a more holistic measure of living standard and housing affordability than individual earnings.

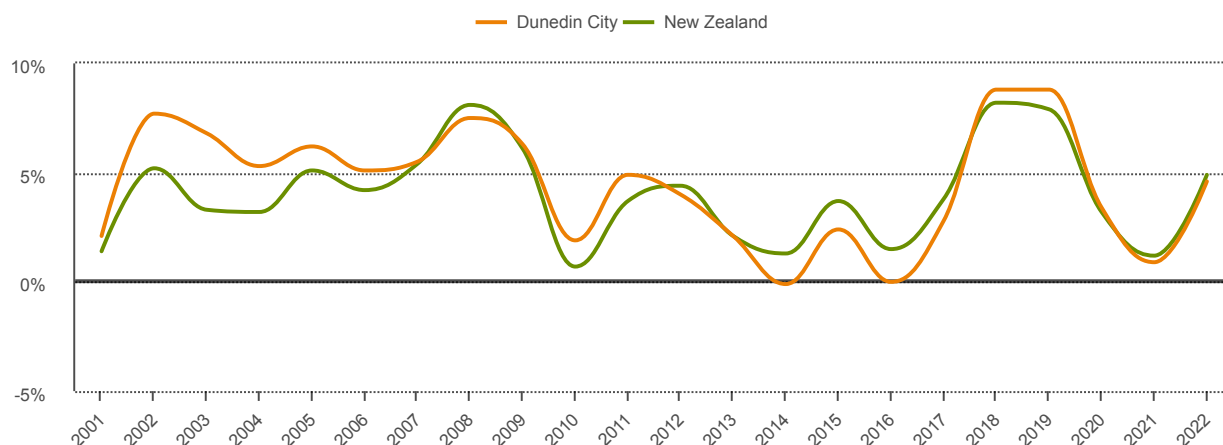
This section looks at how average household income in Dunedin City has changed over time and how this compares against annual average household income nationally. It is measured in current prices.

Figure 27: Mean household income, 2022



- The average household income in Dunedin City was \$82,154 in 2022, which was lower than the New Zealand average of \$117,786.
- Household income growth in Dunedin City was 4.6% for the year to March 2022. Growth was lower than in New Zealand (4.9%).
- Since 2000, household income growth in Dunedin City reached a maximum of 8.8% in 2019 and a minimum of -0.1% in 2014.

Figure 28: Mean household income growth, 2001-2022



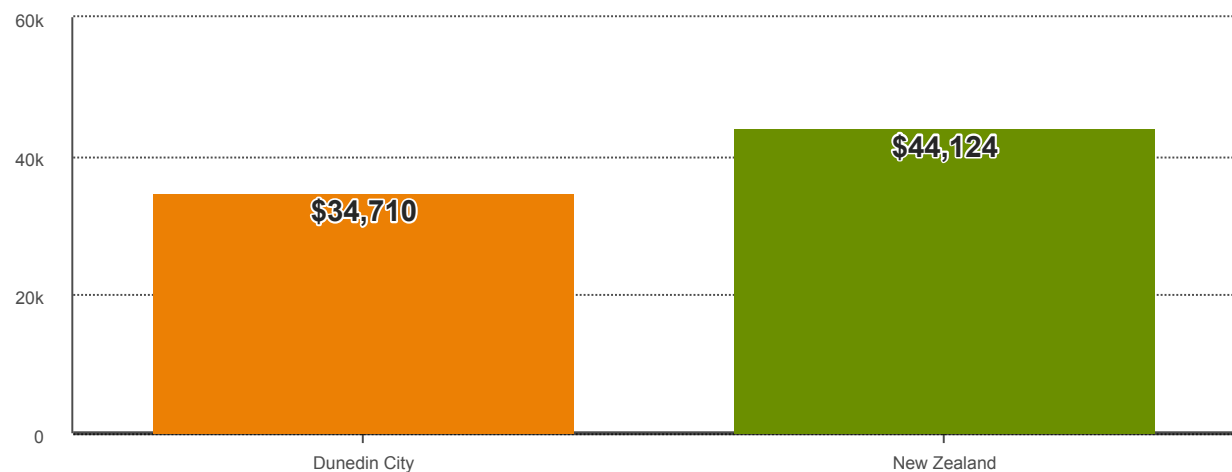
Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	7.5%	6.3%	1.9%	4.9%	4.0%	2.1%	-0.1%	2.4%	0.0%	2.8%	8.8%	8.8%	3.4%	0.9%	4.6%
New Zealand	8.1%	6.1%	0.7%	3.7%	4.4%	2.1%	1.3%	3.7%	1.5%	3.8%	8.2%	7.9%	3.2%	1.2%	4.9%

What is the average per capita income in Dunedin City?

Per capita income is a widely used measure of living standard, as it accounts for all sources of household of income as well as household size. Household size is an important consideration, as households with a similar household income may have drastically different living standards depending on how many individuals their income is spread across. Per capita income is based on our household income series, adjusted for population.

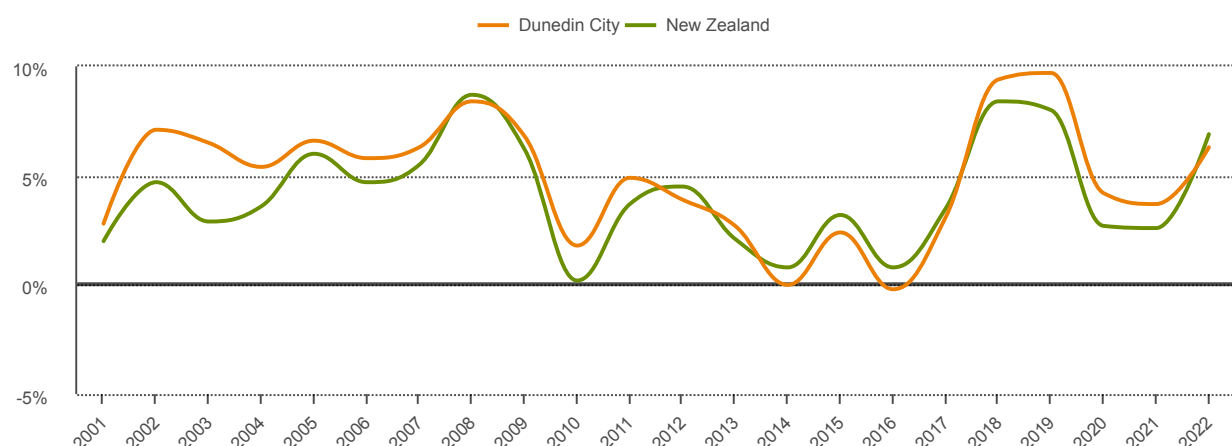
This section looks at how average per capita income in Dunedin City has changed over time and how this compares against annual average per capita income nationally. It is measured in current prices.

Figure 29: Mean per capita income, 2022



- The average per capita income in Dunedin City was \$34,710 in 2022, which was lower than the New Zealand average of \$44,124.
- Per capita income growth in Dunedin City was 6.3% for the year to March 2022. Growth was lower than in New Zealand (6.9%).
- Since 2000, per capita income growth in Dunedin City reached a maximum of 9.7% in 2019 and a minimum of -0.2% in 2016.

Figure 30: Mean per capita income growth, 2001-2022

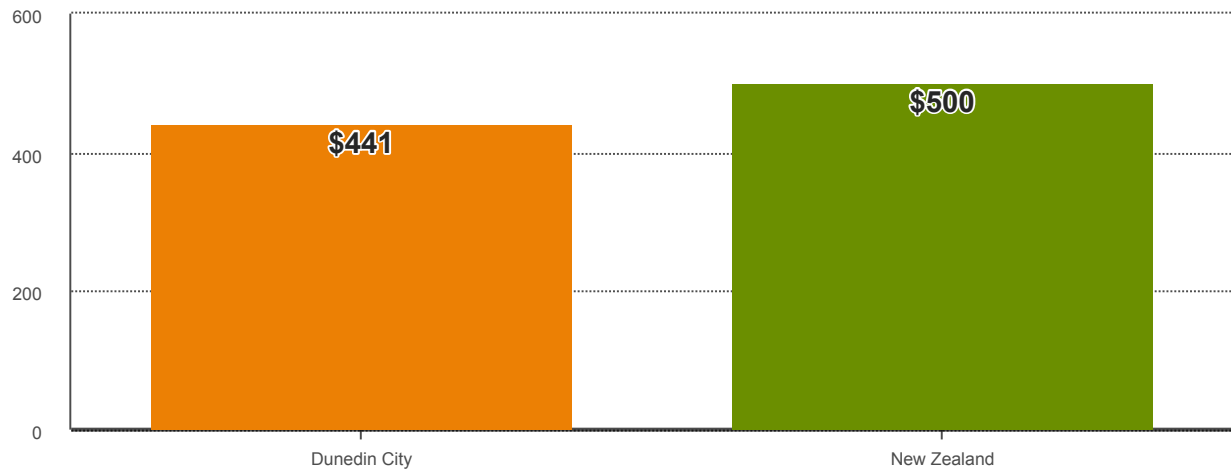


Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	8.4%	6.8%	1.8%	4.9%	3.9%	2.7%	0.0%	2.4%	-0.2%	3.1%	9.4%	9.7%	4.2%	3.7%	6.3%
New Zealand	8.7%	6.2%	0.2%	3.7%	4.5%	2.1%	0.8%	3.2%	0.8%	3.5%	8.4%	8.0%	2.7%	2.6%	6.9%

How do rents in Dunedin City compare?

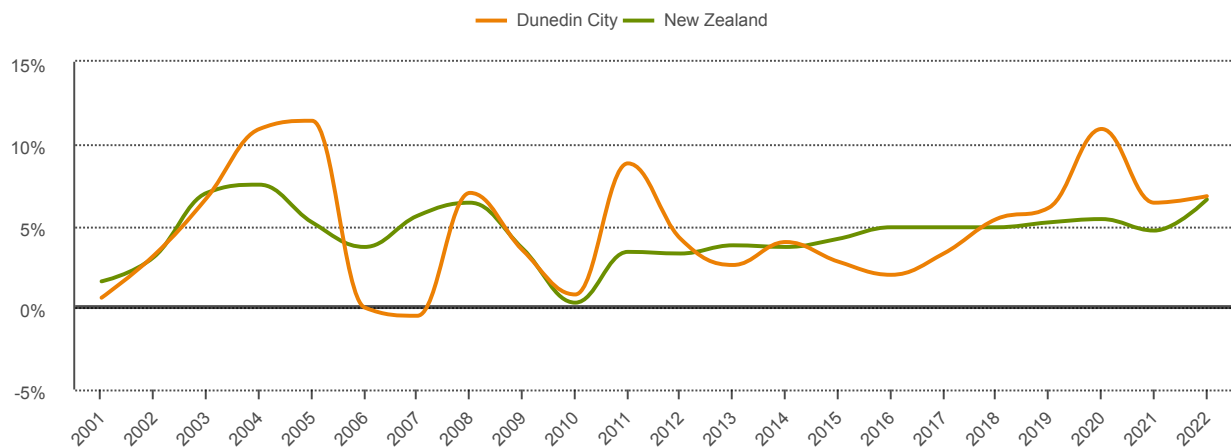
Rent is a major component of household spending. This section gives average weekly rental prices each year for Dunedin City, relative to the rest of the country.

Figure 31: Average weekly rent, year to March 2022



- Average weekly rent in Dunedin City was \$441 in 2022, which was lower than the New Zealand average of \$500.
- Growth in average weekly rent in Dunedin City was 6.8% for the year to March 2022. Growth was higher than in New Zealand (6.6%).
- Since 2000, average weekly rent growth in Dunedin City reached a maximum of 11.4% in 2005 and a minimum of -0.5% in 2007.

Figure 32: Growth in average rent, 2001-2022

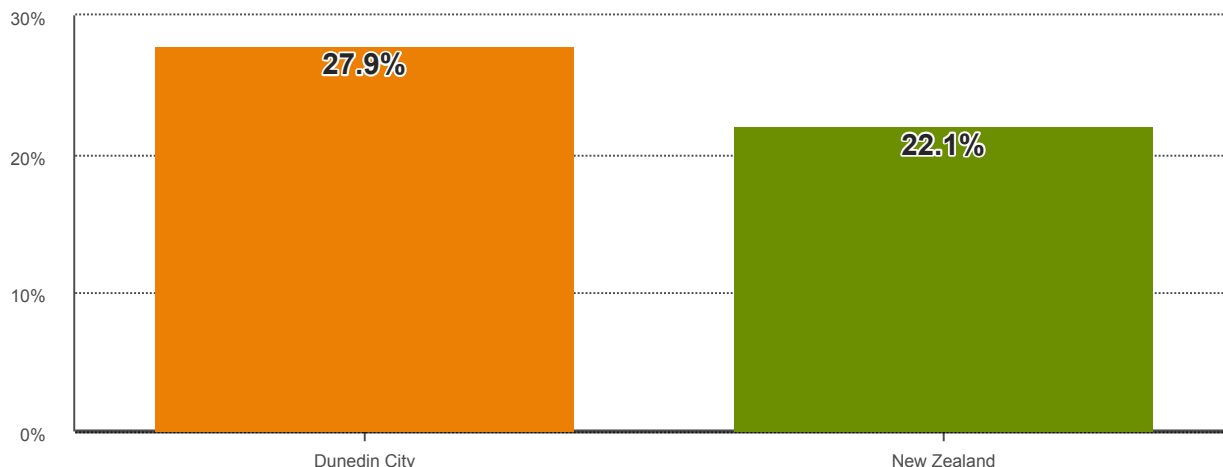


Change	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	7.0%	3.5%	0.8%	8.8%	4.2%	2.6%	4.0%	2.8%	2.0%	3.3%	5.4%	6.1%	10.9%	6.4%	6.8%
New Zealand	6.4%	3.6%	0.3%	3.4%	3.3%	3.8%	3.7%	4.2%	4.9%	4.9%	4.9%	5.2%	5.4%	4.7%	6.6%

How affordable is renting in Dunedin City?

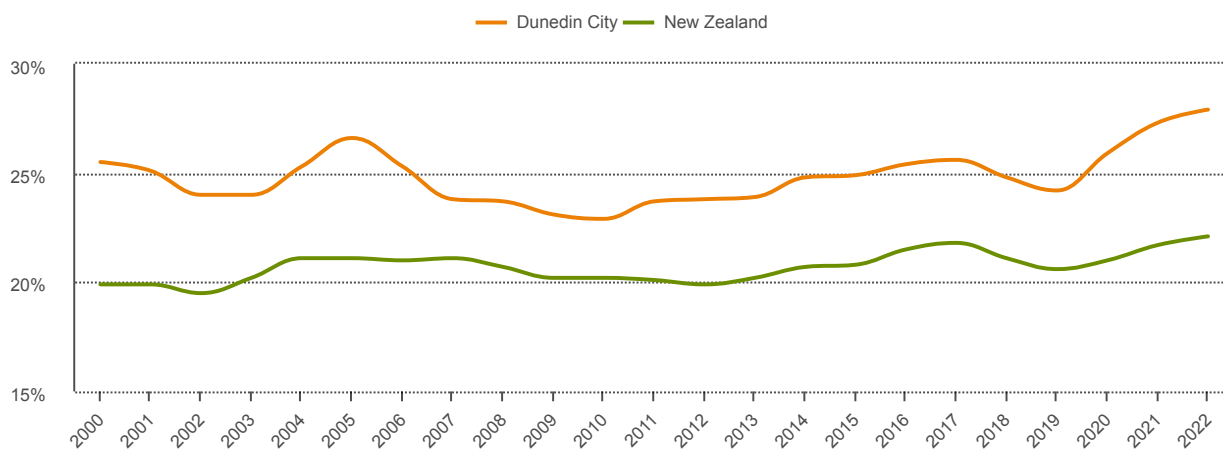
This section investigates the affordability of renting by comparing average weekly rents with average weekly household income. We present a rental affordability index which is the ratio of the average weekly rent to average household income. A higher ratio, therefore, suggests that average rents cost a greater multiple of typical incomes, which indicates lower rental affordability.

Figure 33: Rental affordability index, 2022



- In Dunedin City, the average weekly rent accounted for 27.9% of the average household income in 2022. Renting was less affordable than in New Zealand (22.1%).

Figure 34: Rental affordability index, 2001-2022

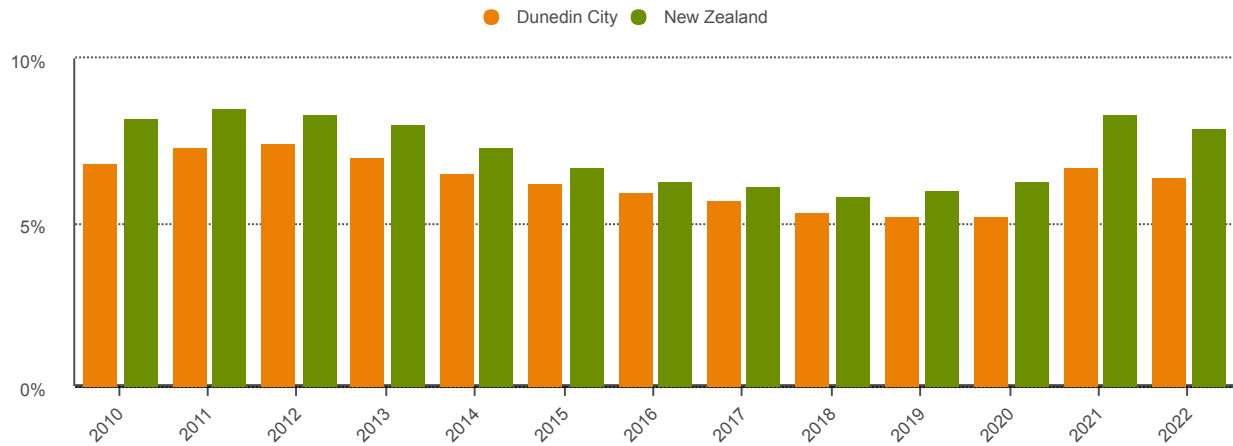


Level	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	23.7%	23.1%	22.9%	23.7%	23.8%	23.9%	24.8%	24.9%	25.4%	25.6%	24.8%	24.2%	25.9%	27.3%	27.9%
New Zealand	20.7%	20.2%	20.2%	20.1%	19.9%	20.2%	20.7%	20.8%	21.5%	21.8%	21.1%	20.6%	21.0%	21.7%	22.1%

How many beneficiaries are there in Dunedin City?

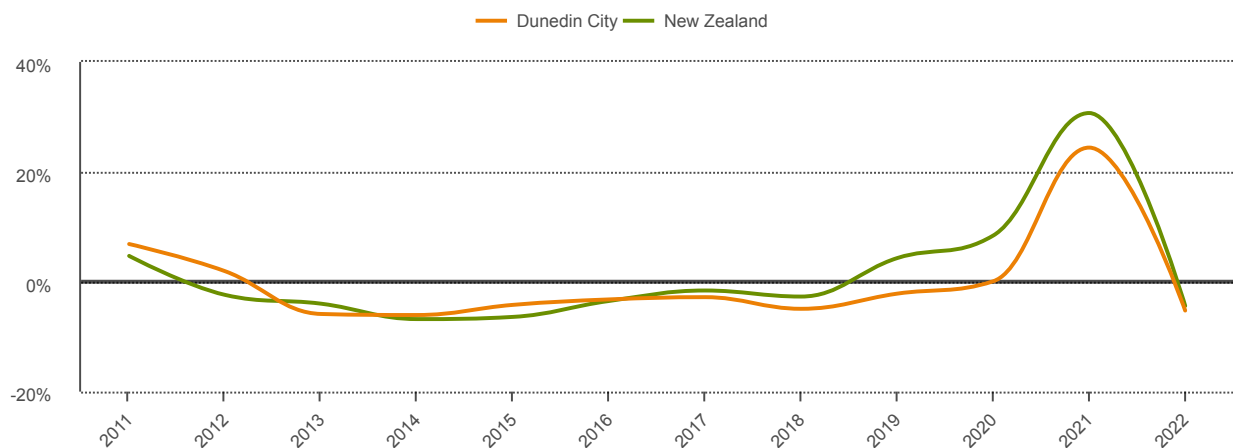
This section looks at the number of people in Dunedin City receiving benefits relative to the rest of the country.

Figure 35: Total beneficiaries as a proportion of working age (15-64) population, 2010-2022



- In Dunedin City there were 5,561 people on a benefit in 2022. This was a 5.2% decrease compared to the previous year.

Figure 36: Growth in beneficiary numbers, 2011-2022



Change	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dunedin City	6.9%	1.9%	-5.9%	-6.1%	-4.2%	-3.2%	-2.8%	-4.9%	-2.2%	0.1%	24.4%	-5.2%
New Zealand	4.7%	-2.4%	-4.0%	-6.8%	-6.4%	-3.5%	-1.6%	-2.7%	4.3%	8.4%	30.7%	-4.4%

WORKFORCE AND SKILLS

How do skill levels in Dunedin City compare with New Zealand?

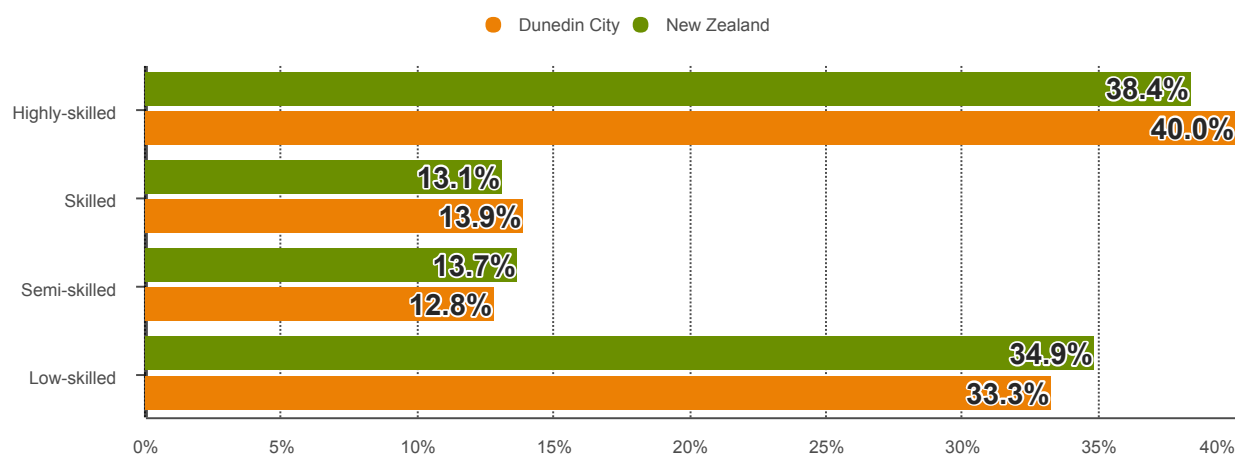
A region that can offer high skilled jobs can generally offer a higher standard of living to its residents. It is also has a better chance of retaining its residents and attracting new skills. This section contrasts the skill levels required by jobs in Dunedin City with those required in the national economy. The broad skill categories used are defined in the technical section at the end of the report.

Table 12: Employment by broad skill level, 2022

Skill level	Dunedin City		New Zealand	
	Jobs	% of total	Jobs	% of total
Highly-skilled	26,507	40.0%	1,033,711	38.4%
Skilled	9,245	13.9%	352,652	13.1%
Semi-skilled	8,494	12.8%	368,081	13.7%
Low-skilled	22,096	33.3%	938,857	34.9%
Total	66,341	100%	2,693,301	100%

- Approximately 40.0% of Dunedin City's workforce was employed in highly skilled occupations in 2022. This is higher than in New Zealand (38.4%).
- Approximately 33.3% of Dunedin City's workforce was employed in low-skilled occupations in 2022. This is lower than in New Zealand 34.9%.

Figure 37: Employment by broad skill level, 2022



What is the occupational structure of employment in Dunedin City?

This section describes the types of occupations that are employed in Dunedin City. The following graph shows the distribution of employment across broad occupational categories (1-digit occupations).

- Professionals accounted for the largest share of employment (28.7%) in Dunedin City, which is higher than New Zealand (24.8%).
- Managers accounted for the second largest share of employment (15.8%) in Dunedin City, which is lower than New Zealand (17.9%).
- Machinery operators and drivers accounted for the lowest share of employment (4.2%) in Dunedin City, which is lower than New Zealand (5.2%).

Figure 38: Employment by broad occupation, 2022

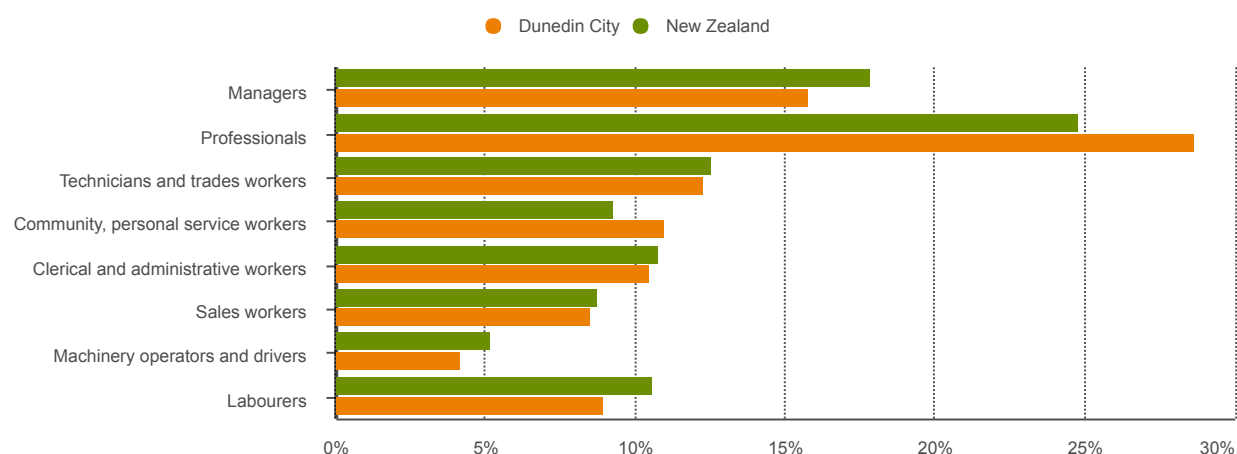


Table 13 shows a ranking of employment by 2-digit occupations.

- Education Professionals is the largest 2-digit occupation in Dunedin City, accounting for 8.1% of employment. By comparison 5.7% of the national workforce are employed as education professionals.
- The next largest 2-digit occupations in Dunedin City are specialist managers (7.8%) and health professionals (6.4%).

Table 13: Employment by ANZSIC 2-digit occupation, 2022

Occupation	Dunedin City		New Zealand	
	Employment	% of total	Employment	% of total
Education Professionals	5,401	8.1%	154,305	5.7%
Specialist Managers	5,152	7.8%	227,218	8.4%
Health Professionals	4,257	6.4%	117,703	4.4%
Business, HR & Marketing Professionals	3,311	5.0%	145,920	5.4%
Sales Assistants & Salespersons	3,211	4.8%	127,174	4.7%
Carers & Aides	2,840	4.3%	92,734	3.4%
Hospitality, Retail & Service Managers	2,559	3.9%	95,881	3.6%
Chief Execs, General Managers, Legislators	2,076	3.1%	93,313	3.5%
Legal, Social & Welfare Professionals	2,061	3.1%	63,215	2.3%
Design, Engineering, Science Professionals	2,035	3.1%	95,062	3.5%
Office Managers & Program Administrators	1,781	2.7%	70,830	2.6%
Cleaners & Laundry Workers	1,673	2.5%	55,799	2.1%
Other Labourers	1,668	2.5%	71,259	2.6%
Sales Representatives & Agents	1,662	2.5%	80,298	3.0%
Construction Trades Workers	1,644	2.5%	71,940	2.7%
Automotive & Engineering Trades Workers	1,466	2.2%	65,364	2.4%
Hospitality Workers	1,422	2.1%	50,450	1.9%
Engineering, ICT & Science Technicians	1,336	2.0%	53,746	2.0%
ICT Professionals	1,302	2.0%	66,593	2.5%
Road & Rail Drivers	1,268	1.9%	54,898	2.0%
General Clerical Workers	1,241	1.9%	48,666	1.8%
Food Trades Workers	1,172	1.8%	45,211	1.7%
Sports & Personal Service Workers	1,072	1.6%	41,295	1.5%
Other Technicians & Trades Workers	1,043	1.6%	41,691	1.5%
Inquiry Clerks & Receptionists	1,035	1.6%	36,647	1.4%
Protective Service Workers	1,024	1.5%	36,671	1.4%
Other Clerical & Administrative Workers	1,018	1.5%	46,563	1.7%
Numerical Clerks	925	1.4%	47,518	1.8%
Health & Welfare Support Workers	921	1.4%	30,049	1.1%
Electrotech & Telecoms Trades Workers	868	1.3%	34,330	1.3%
Sales Support Workers	779	1.2%	28,889	1.1%
Farm, Forestry & Garden Workers	750	1.1%	55,772	2.1%
Farmers & Farm Managers	699	1.1%	66,111	2.5%
Factory Process Workers	679	1.0%	50,922	1.9%
Machine & Stationary Plant Operators	663	1.0%	35,741	1.3%
Arts & Media Professionals	656	1.0%	24,594	0.9%
Construction & Mining Labourers	641	1.0%	30,343	1.1%
Skilled Animal & Horticultural Workers	617	0.9%	28,215	1.0%
Personal Assistants & Secretaries	581	0.9%	22,137	0.8%
Food Preparation Assistants	573	0.9%	20,766	0.8%
Mobile Plant Operators	443	0.7%	24,607	0.9%
Storepersons	427	0.6%	24,147	0.9%
Clerical & Office Support Workers	391	0.6%	18,715	0.7%
Total employment	66,341	100%	2,693,301	100%

Employment in knowledge intensive industries in Dunedin City

Knowledge intensive industries are those in which the generation and exploitation of knowledge play the predominant part in the creation of wealth. These sectors represent an increasing share of the New Zealand economy's output and employment, and will most likely be the source of future productivity growth.

An industry is defined as knowledge-intensive if it meets two criteria: at least 25 per cent of the workforce is qualified to degree level and at least 30 per cent of the workforce is in professional, managerial and scientific and technical occupations. Further details of the definition are providing in the technical notes at the end of the report.

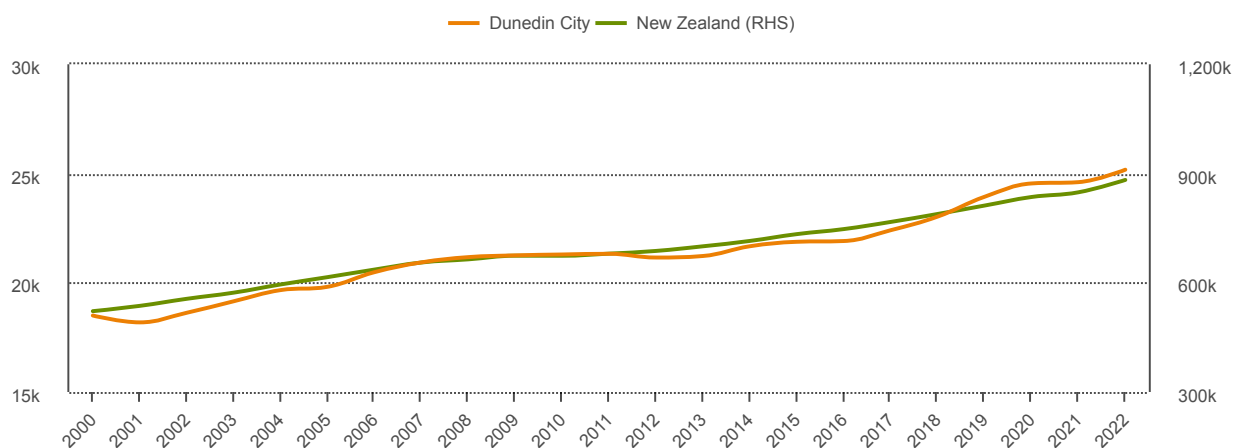
This section describes employment in knowledge intensive industries in Dunedin City.

Table 14: Employment in knowledge intensive industries, 2022

	Employment in KI industries 2022	KI employment as share of total employment 2022	Annual growth in KI employment 2022	Annual average growth in KI employment 2012-2022
Dunedin City	25,176	37.9%	2.3%	1.8%
New Zealand	882,456	32.8%	4.0%	2.5%

- During 2022, there were 25,176 jobs in Dunedin City's knowledge intensive industries. At 37.9% of total employment, this was higher than in New Zealand (32.8%).
- During the year to March 2022, growth in employment in knowledge intensive industries was 2.3%, compared with a change of 4.0% in New Zealand.

Figure 39: Employment in knowledge intensive industries, 2000-2022



What are the top knowledge intensive industries in Dunedin City?

Table 15: Top 30 knowledge intensive industries in Dunedin City, 2022

Rank	Industry	Dunedin City		New Zealand	
		Employment	% of total employment	Employment	% of total employment
1	Higher Education	4,713	7.1%	36,503	1.4%
2	Hospitals (except Psychiatric Hospitals)	3,911	5.9%	83,236	3.1%
3	Primary Education	1,329	2.0%	57,438	2.1%
4	Central Government Administration	1,266	1.9%	49,859	1.9%
5	Technical and Vocational Education and Training	917	1.4%	9,845	0.4%
6	Secondary Education	831	1.3%	36,966	1.4%
7	Computer Systems Design and Related Services	730	1.1%	49,201	1.8%
8	Management Advice and Other Consulting Services	695	1.0%	45,580	1.7%
9	Local Government Administration	625	0.9%	25,703	1.0%
10	Other Allied Health Services	606	0.9%	38,492	1.4%
11	Accounting Services	579	0.9%	25,953	1.0%
12	Legal Services	548	0.8%	21,173	0.8%
13	Engineering Design and Engineering Consulting Services	540	0.8%	33,353	1.2%
14	General Practice Medical Services	465	0.7%	18,129	0.7%
15	Other Interest Group Services n.e.c.	419	0.6%	15,665	0.6%
16	Other Health Care Services n.e.c.	416	0.6%	9,815	0.4%
17	Pathology and Diagnostic Imaging Services	375	0.6%	5,521	0.2%
18	Pharmaceutical, Cosmetic and Toiletry Goods Retailing	350	0.5%	12,963	0.5%
19	Dental Services	316	0.5%	8,523	0.3%
20	Employment Placement and Recruitment Services	297	0.4%	20,160	0.7%
21	Museum Operation	267	0.4%	2,991	0.1%
22	Religious Services	259	0.4%	10,413	0.4%
23	Corporate Head Office Management Services	247	0.4%	24,903	0.9%
24	Specialist Medical Services	234	0.4%	6,416	0.2%
25	Combined Primary and Secondary Education	219	0.3%	6,424	0.2%
26	Architectural Services	216	0.3%	11,283	0.4%
27	Adult, Community and Other Education n.e.c.	207	0.3%	11,702	0.4%
28	Scientific Research Services	205	0.3%	9,355	0.3%
29	Veterinary Services	194	0.3%	7,187	0.3%
30	Other Auxiliary Finance and Investment Services	192	0.3%	12,060	0.4%

Which qualifications are in demand in Dunedin City?

This section examines the types of qualifications, in terms of NZQA level and field of study, that are in demand in Dunedin City. The demand for qualifications is derived from our estimates of the demand for occupations by using assumptions about the types of qualifications which are ideally required for each occupation. Thus our estimates do not describe the educational profile of the region's workforce but rather the type of qualifications that are ideally required in the region. Further details are provided in the technical notes at the end.

Table 16: Employment by level of qualification and field of study in Dunedin City, 2022

	Field of study	Certificate (level 1-3)	Certificate (level 4)	Diploma (level 5-6)	Degree (level 7+)	Total
Number						
Natural and Physical Sciences		397	48	317	2,143	2,905
Information Technology		1,036	53	251	867	2,207
Engineering and Related Technologies		3,264	3,275	1,043	2,256	9,838
Architecture and Building		1,079	1,758	446	608	3,890
Agriculture, Environmental and Related Studies		1,420	410	188	462	2,480
Health		1,813	294	1,018	4,953	8,078
Education		972	403	493	3,682	5,551
Management and Commerce		5,396	748	2,839	5,061	14,044
Society and Culture		2,839	369	1,121	4,907	9,235
Creative Arts		754	199	629	1,542	3,124
Food, Hospitality and Personal Services		3,126	937	899	27	4,988
Totals		22,096	8,494	9,245	26,507	66,341
% of total						
Natural and Physical Sciences		0.6%	0.1%	0.5%	3.2%	4.4%
Information Technology		1.6%	0.1%	0.4%	1.3%	3.3%
Engineering and Related Technologies		4.9%	4.9%	1.6%	3.4%	14.8%
Architecture and Building		1.6%	2.6%	0.7%	0.9%	5.9%
Agriculture, Environmental and Related Studies		2.1%	0.6%	0.3%	0.7%	3.7%
Health		2.7%	0.4%	1.5%	7.5%	12.2%
Education		1.5%	0.6%	0.7%	5.6%	8.4%
Management and Commerce		8.1%	1.1%	4.3%	7.6%	21.2%
Society and Culture		4.3%	0.6%	1.7%	7.4%	13.9%
Creative Arts		1.1%	0.3%	0.9%	2.3%	4.7%
Food, Hospitality and Personal Services		4.7%	1.4%	1.4%	0.0%	7.5%
Totals		33.3%	12.8%	13.9%	40.0%	100%

- The greatest demand in Dunedin City in 2022 was for qualifications at the level of Degree (level 7+). Approximately 40.0% of all positions in Dunedin City required this level of qualification.
- By field of study, the highest demand was for Management and Commerce. Approximately 21.2% of all positions in Dunedin City required this field of study.

Table 17: Change in employment by level of qualification and field of study in Dunedin City, 2012-2022

Field of study	Certificate (level 1-3)	Certificate (level 4)	Diploma (level 5-6)	Degree (level 7+)	Total
Absolute change					
Natural and Physical Sciences	9	6	30	350	396
Information Technology	-8	-1	27	206	224
Engineering and Related Technologies	187	414	137	426	1,165
Architecture and Building	105	375	97	151	728
Agriculture, Environmental and Related Studies	87	5	20	49	161
Health	96	49	131	1,105	1,381
Education	16	65	48	496	626
Management and Commerce	-52	2	259	671	879
Society and Culture	139	35	201	760	1,135
Creative Arts	-7	-10	73	209	265
Food, Hospitality and Personal Services	-6	111	123	3	232
Totals	566	1,051	1,147	4,426	7,191
annual average % change					
Natural and Physical Sciences	0.2%	1.3%	1.0%	1.8%	1.5%
Information Technology	-0.1%	-0.1%	1.1%	2.7%	1.1%
Engineering and Related Technologies	0.6%	1.4%	1.4%	2.1%	1.3%
Architecture and Building	1.0%	2.4%	2.5%	2.9%	2.1%
Agriculture, Environmental and Related Studies	0.6%	0.1%	1.1%	1.1%	0.7%
Health	0.5%	1.8%	1.4%	2.6%	1.9%
Education	0.2%	1.8%	1.0%	1.5%	1.2%
Management and Commerce	-0.1%	0.0%	1.0%	1.4%	0.6%
Society and Culture	0.5%	1.0%	2.0%	1.7%	1.3%
Creative Arts	-0.1%	-0.5%	1.2%	1.5%	0.9%
Food, Hospitality and Personal Services	0.0%	1.3%	1.5%	1.4%	0.5%
Totals	0.3%	1.3%	1.3%	1.8%	100%

- The number of positions in Dunedin City requiring a Degree (level 7+) increased by 4,426 between 2012 and 2022, ranking it as the qualification level with the largest absolute increase in demand.
- By field of study, Health experienced the highest increase in demand between 2012 and 2022. The number of positions requiring this field of study increased by 1,381 over the 10 year period.

TOURISM

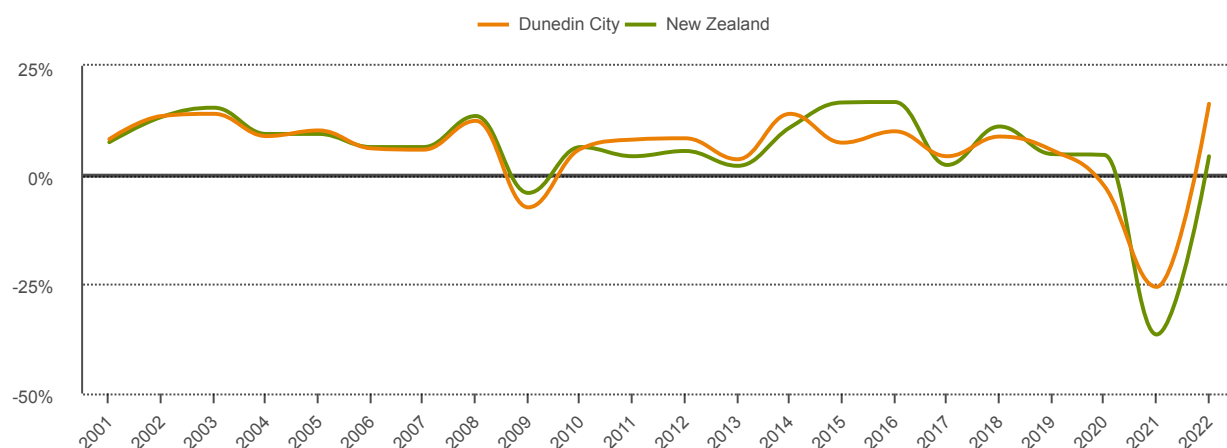
Tourism has grown rapidly in New Zealand since 2000. Not only has the number of overseas tourist arrivals increased substantially, but the level of domestic tourism has also expanded rapidly as spending on leisure by New Zealand residents increased. This section describes the contribution of tourism to Dunedin City's economy.

Tourism GDP

Table 18: Tourism GDP, 2001-2022

Year	Dunedin City		New Zealand	
	Level	Change	Level	Change
2000	\$80.0m		\$3,239m	
2001	\$86.6m	8.2%	\$3,484m	7.5%
2002	\$98.3m	13.5%	\$3,948m	13.3%
2003	\$112m	14.0%	\$4,555m	15.4%
2004	\$122m	8.9%	\$4,982m	9.4%
2005	\$134m	10.2%	\$5,452m	9.4%
2006	\$143m	6.1%	\$5,800m	6.4%
2007	\$151m	5.8%	\$6,172m	6.4%
2008	\$170m	12.4%	\$7,004m	13.5%
2009	\$157m	-7.4%	\$6,718m	-4.1%
2010	\$167m	6.0%	\$7,151m	6.4%
2011	\$180m	8.1%	\$7,460m	4.3%
2012	\$195m	8.4%	\$7,869m	5.5%
2013	\$202m	3.6%	\$8,033m	2.1%
2014	\$231m	14.0%	\$8,908m	10.9%
2015	\$248m	7.4%	\$10,385m	16.6%
2016	\$273m	10.0%	\$12,121m	16.7%
2017	\$284m	4.3%	\$12,405m	2.3%
2018	\$309m	8.8%	\$13,788m	11.1%
2019	\$327m	5.7%	\$14,444m	4.8%
2020	\$319m	-2.5%	\$15,108m	4.6%
2021	\$237m	-25.6%	\$9,588m	-36.5%
2022	\$276m	16.3%	\$10,005m	4.3%

Figure 40: Annual average tourism GDP growth, 2001-2022



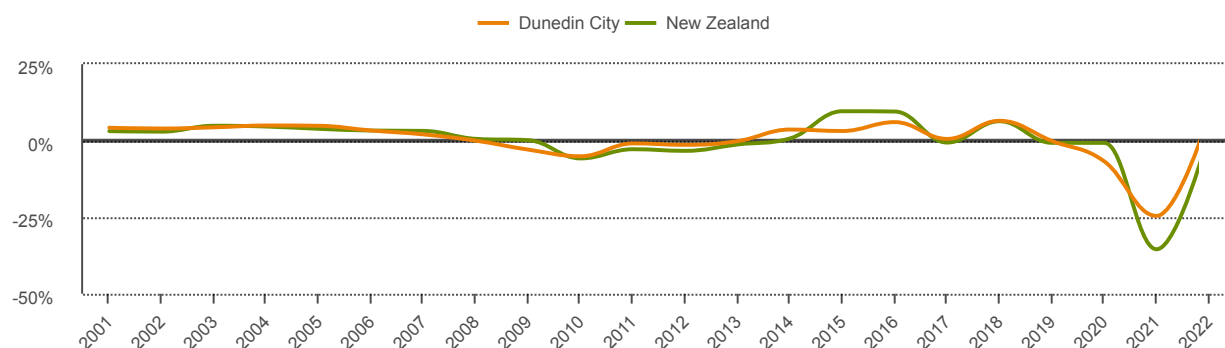
- The tourism industry contributed \$276m towards GDP in Dunedin City in 2022. This amounted to 3.7% of the Dunedin City's economic output in 2022, up from 3.4% ten years ago.
- Economic output in Dunedin City's tourism industry increased by 16.3% in 2022, compared with a 4.3% increase in New Zealand.
- Growth in the industry in Dunedin City has averaged 3.5% over the last ten years, compared with 2.4% in New Zealand.

Tourism Employment

Table 19: Tourism employment, 2001-2022

Year	Dunedin City		New Zealand	
	Level	Change	Level	Change
2000	4,275		152,607	
2001	4,456	4.2%	157,386	3.1%
2002	4,634	4.0%	162,042	3.0%
2003	4,836	4.4%	169,968	4.9%
2004	5,076	5.0%	177,861	4.6%
2005	5,324	4.9%	184,761	3.9%
2006	5,502	3.3%	190,893	3.3%
2007	5,615	2.1%	197,028	3.2%
2008	5,615	0.0%	198,219	0.6%
2009	5,452	-2.9%	198,558	0.2%
2010	5,175	-5.1%	187,083	-5.8%
2011	5,129	-0.9%	181,881	-2.8%
2012	5,060	-1.3%	175,866	-3.3%
2013	5,054	-0.1%	173,724	-1.2%
2014	5,238	3.7%	175,023	0.7%
2015	5,404	3.2%	191,886	9.6%
2016	5,732	6.1%	210,180	9.5%
2017	5,766	0.6%	208,920	-0.6%
2018	6,141	6.5%	222,201	6.4%
2019	6,137	-0.1%	220,665	-0.7%
2020	5,723	-6.8%	219,093	-0.7%
2021	4,318	-24.6%	141,417	-35.5%
2022	4,683	8.5%	145,032	2.6%

Figure 41: Annual average tourism employment growth, 2001-2022



- The tourism industry employed an average of 4,683 people in Dunedin City in 2022. This amounted to 7.1% of the Dunedin City's total employment in 2022, down from 8.6% in 2012.
- Employment growth in the industry in Dunedin City has averaged -0.8% over the last ten years, compared with -1.9% in New Zealand.
- Employment in the tourism industry increased by 8.5% in 2022, compared with a 2.6% increase in New

TECHNICAL NOTES

Time period

This economic profile reports on March years (eg 2022 refers to the 12 months to March 2022) for all indicators except population (as at June) and dairy sector statistics (May year) and business units (snapshot as at February).

Broad economic sectors

Primary industries extract or harvest products from the earth and include agriculture, forestry, fishing, and mining. Goods-producing industries produce manufactured and other processed goods and include manufacturing, electricity, gas and water, and construction. High-value services include **knowledge intensive** service industries. Other services include all service industries that are not knowledge intensive, such as retail trade, and food and accommodation services. 'Other' includes owner occupied property operation and **unallocated** activity.

Broad skill levels

Highly skilled occupations typically require a bachelor degree or higher qualification and include professionals such as accountants, teachers, and engineers, as well as most managers such as chief executives. This category is consistent with skill level one of the Australia New Zealand Standard Classification of Occupations (ANZSCO).

Medium-high skilled occupations typically require an NZ Register Diploma, an Associate Degree or Advanced Diploma. The category includes some managers (such as retail managers) and technicians (such as architectural draftspersons, ICT support technicians and dental hygienists). This category is consistent with skill level two of the ANZSCO classification.

Medium skilled occupations typically require an NZ Register Level 4 qualification. The category includes tradespersons (such as motor mechanics), skilled service workers (such as firefighters), as well as skilled clerical and sales workers (such as legal secretaries and estate agents). This category is consistent with skill level three of the ANZSCO classification.

Low skilled occupations typically require an NZ Register Level 3 qualification or lower. It includes a range of lower skilled occupations from general clerks, caregivers, and sales assistants, through to cleaners and labourers. This category is consistent with skill level four and five of the ANZSCO classification.

Business units

Data on the number of businesses is sourced from the Business Demography statistics from Statistics New Zealand. Businesses are measured by geographic units, which represent a business location engaged in one, or predominantly one, kind of economic activity at a single physical site or base (eg a factory, a farm, a shop, an office, etc). All non-trading or dormant enterprises, as well as enterprises outside of New Zealand, are excluded from business demography statistics.

The number of business units is based on a snapshot as at February each year.

A significant number of enterprises are recorded as having zero employment. Enterprises in the zero employee count size category may have:

- working owners who do not draw a wage from their business
- labour provided by other businesses or contractors
- business activity that requires no labour (eg holding company).

Only business units that are economically significant enterprises are included. To be regarded as economically significant they must meet at least one of the following criteria:

- annual expenses or sales subject to GST of more than \$30,000
- 12-month rolling mean employee count of greater than three
- part of a group of enterprises
- registered for GST and involved in agriculture or forestry
- over \$40,000 of income recorded in the IR10 annual tax return (this includes some units in residential property leasing and rental).

Dependency ratio

The dependency ratio is the number of under 15 year olds and over 65 year olds as a ratio of the rest of the population (working age).

Earnings

Earnings data comes from the quarterly Linked Employer Employee Data published by Statistics New Zealand. LEED publishes the mean earnings of full quarter jobs for each quarter. Full quarter jobs may include full time and part time jobs. Earnings include overtime and lump sum payments. We sum the mean earnings for the four quarters making up the year to arrive at an estimate of average annual earnings.

Employment by industry

Employment is measured as an average of the four quarters making up each year. The unit of measurement is filled jobs, based on work place address.

Regional employment numbers are from Infometrics' Regional Industry Employment Model (RIEM). The model draws heavily on quarterly and annual Linked Employer Employee Data (LEED) published by Statistics New Zealand. RIEM differs from data from Business Demography in that it is a quarterly series (BD is annual) and it includes both employees and self-employed, whereas BD only includes employees.

Employment by occupation

Employment in each industry is converted to occupational employment using the relationship between industry and occupational employment observed in various Population Censuses. The Population Census measures the occupational composition of employment in each industry and how this changes over time. Occupations conform to the categories used in the Australian New Zealand Standard Classification of Occupations (ANZSCO).

Employment by qualification and field of study

Employment by occupation is converted to employment by qualification using the unique matching between occupation and **the five qualification or skill levels used** in the Australian New Zealand Standard Classification of Occupations (ANZSCO). Fields of study for each combination of occupation and skill are obtained from Population Census. Shares of employment in a particular occupation and skill combination for each field of study can, thus, be aggregated into demand for labour by skill/qualification.

Gross Domestic Product

Gross Domestic Product (GDP) measures the value economic units add to their inputs. It should not be confused with revenue or turnover.

Total GDP is calculated by summing the value added to all goods and services for final consumption – ie it does not include the value added to goods and services used as intermediate inputs for the production of other goods as this would result in double counting. As a result, GDP estimates should not be confused with revenue/turnover/gross output.

In this profile Gross Domestic Product for each region and territorial authority (TA) is estimated by Infometrics. A top-down approach breaks national production-based GDP for each industry (published by Statistics New Zealand) down to territorial authority level by applying TA shares to the national total. Each TA's share of industry output is based on the share of employment measured in the Linked Employer Employee Data (LEED), which is, in turn, based on taxation data. Our estimates are benchmarked on regional GDP published by Statistics New Zealand which ensures we capture differences in regional industry productivity and changes in productivity over time. In the 2022 GDP estimates we incorporate Infometrics' estimates of the proportions of industries in each territorial authority which were able to operate under each COVID-19 alert level to capture the economic impacts of the pandemic.

GDP is measured in constant 2022 prices.

Household income

The Infometrics household income series is a comprehensive estimate of average household incomes within each region or territorial authority area. The series captures labour market earnings (wages, salaries and self-employment) as well as allowances (e.g. Disability Allowance), benefits (e.g. Jobseeker Support) and superannuation. Investment income is excluded.

Infometrics models the series with a top-down approach, first measuring all incomes received by households in New Zealand, then apportioning them to smaller areas using various sources of administrative data. As there is a time lag in the availability of administrative data we use contemporary indicators to project our estimates to the most recent quarter. Infometrics estimates of the number of occupied private households are used to translate total income in each area into a per household mean.

The Infometrics household income series tends to be slightly higher than Census measures. Census tends to underestimate household incomes because individuals often fail to recall all their income when completing their Census form.

House values

House values (dollar value) are sourced from QVNZ. The levels used are average current values. An average current value is the average (mean) value of all developed residential properties in the area based on the latest house value index from QVNZ. It is not an average or median sales price, as both of those figures only measure what happens to have sold in the period. These average current values are affected by the underlying value of houses (including those not on the market) and are quality adjusted based on the growth in each house's price between sales.

Industrial classification

This profile uses industry categories from the 2006 Australia New Zealand Standard Industrial Classification (ANZSIC). The ANZSIC is a hierarchical classification with four levels, namely divisions (the broadest level also referred to as 1-digit categories), subdivisions (3-digit), groups (4-digit) and classes (7-digit). There are approximately 500 7-digit industries.

This profile also uses a grouping of 54 industries. These are the industries used by Statistics New Zealand in the national accounts.

Knowledge intensive employment

Knowledge intensive employment is measured as employment in industries (measured at the 7-digit industry level) which are defined as **knowledge intensive**.

Knowledge intensive industries

Knowledge-intensive industries are industries that satisfy two basic criteria: At least 25 per cent of the workforce must be qualified to degree level and at least 30 per cent of the workforce must be employed in professional, managerial, as well as scientific and technical occupations.

Māori industry and occupational employment

Infometrics models Māori industry and occupational employment data by drawing on detailed data from the Census, Household Labour Force Survey (HLFS) as well as the Infometrics Regional Employment Industry Model (REIM) and the Infometrics Regional Industry-Occupational matrix. Employment is measured at the place of work.

Per capita income

Per capita income is based on the Infometrics household income series, and translated into per capita incomes using estimates of the number of occupied private households and population.

Population

The population numbers presented in this profile are based on Statistics New Zealand's Estimated Resident Population (ERP). The ERP is an estimate of all people who usually live in an area at a given date. Visitors from elsewhere in New Zealand or from overseas are excluded.

The ERP is not directly comparable with the census usually resident population count because of a number of adjustments. The ERP at 30 June 2018 is based on the 2018 census usually resident population count, adjusted for:

- net census undercount (based on the 2018 Post-enumeration Survey)
- residents temporarily overseas on census night
- births, deaths, and net migration between census night and the date of the estimate
- reconciliation with demographic estimates at ages 0–9 years.

Prices

In this profile, we present all GDP estimates in constant 2022 prices. GDP presented in constant prices is sometimes referred to as real GDP. By using constant prices we remove the distractionary effect of inflation. It enables us to meaningfully compare GDP from one year to the next.

Productivity

Productivity measures the efficiency of production. In this profile, we measure productivity as GDP per filled job (ie the amount of economic activity generated on average by each filled job). Labour is only one input into production. The output of each employee may differ across industries in a region due to differing access to machinery, technology, and land. Therefore, productivity comparisons should only be made in circumstances where it is reasonable to assume that capital intensity will be broadly the same – for example, when looking at productivity within an industry over a limited-time period, or when comparing productivity of a particular industry with that same industry in another region.

Rents

Rents (\$ per week) are sourced from monthly data provided by MBIE and averaged across each year using weighted geometric means. Rental data pertains to averages from data collected when bonds are lodged and does not control for specifications of the home (eg size, number of bedrooms, age of home, etc).

Self-employment

Self-employment rates are from Annual Linked Employer Employee Data (LEED).

Tourism employment

Our estimates of tourism employment leverage off our tourism GDP estimates. We are able to use our understanding of the proportion of output in each industry in a territorial authority that is associated with tourism and apply this proportion to underlying employment levels in that industry. Summing up tourism employment by industry gives us an indication of the total number of jobs in a region that are attributable to the tourism industry.

Tourism GDP

Our estimates of tourism GDP are measured in millions of dollars and are in 2022 **prices**. The estimates draw on the Tourism Satellite Accounts (TSA) published by Statistics New Zealand, in conjunction with data on guest nights, visitor expenditure data from MBIE, and Infometrics' regional GDP model. The TSA estimates the contribution of the tourism industry to GDP nationally. For the years 2009-2013, we have apportioned tourism GDP from the TSA to each territorial authority (TA) using constrained shares of visitor expenditure from MBIE's visitor expenditure data.

For the years before 2009, we have calculated growth rates in each TA's tourism GDP, by adjusting TSA industry ratios (that summarise the proportion each industry's output associated with tourism) and applying these adjusted ratios to our estimates of the TA's GDP. Our adjustment takes into consideration each TA's relative exposures to industries and guest night shares compared to the national economy. The estimates for each TA are then benchmarked on the national total from the TSA.

Unallocated

Unallocated items include taxes levied on the purchaser rather than the producing industry (such as GST, import duties, and taxes on capital transactions), and items that cannot easily be allocated to a specific industry (such as the seasonal adjustment balancing item). A seasonal adjustment balancing item is necessary to ensure that the sum of all seasonally adjusted industries can be reconciled with total GDP.