



ANNUAL ECONOMIC PROFILE

Wellington Region



Economics put simply

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ECONOMY

The New Zealand economy in 2020

Economic growth in New Zealand slowed to 1.6% over the March 2020 year, following revised 3.1%pa growth in 2019. The March 2020 year captures only the very early stages of the COVID-19 pandemic, which occurred during the three months to March 2020. In this time, China was in lockdown, the New Zealand border was closed, and our trade activity suffered from global reactions to the pandemic.

The full impact of the COVID-19 pandemic, including the Alert Level 4 lockdown in April/May 2020, will be captured in the March 2021 year. The March 2020 year provides a pre-pandemic baseline for regional economies.

New Zealand's economy was already maturing prior to the pandemic hitting, after having sustained 3%pa+ growth since 2015.

Professional, scientific and technical services was the largest contributor to growth in 2020, with activity in this industry rising 4.9%. Public administration and safety was the second largest contributor, with 5.8%pa growth over the year.

However, not all industries expanded. After being the top contributor to growth in 2019, the agriculture, forestry and fishing industry took a backwards step in 2020, with GDP falling 3.2%pa. Higher costs hit the primary sector in 2020, with drought conditions weighing on farm operators. Prices for livestock also fell as stock were sent to the works early. The early, but swift, impact of COVID-19 on international travel is hinted at in the March 2020 year figures, with the transport, postal and warehousing industry seeing a 1.1%pa fall as borders closed and airlines were squeezed hard.

How fast has Wellington Region's economy grown?

This section measures economic performance in Wellington Region during the year to March 2020 and previous years. All GDP estimates are measured in constant 2020 prices.

- GDP in Wellington Region measured \$43,426m in the year to March 2020, up 2.4% from a year earlier. New Zealand's GDP increased by 1.6% over the same period.
- Economic growth in Wellington Region averaged 2.2%pa over the last 10 years compared with an average of 2.8%pa in the national economy.
- Growth in Wellington Region reached a high of 3.9% in 2007 and a low of -0.4% in 2012.
- Wellington Region accounted for 13.4% of national GDP in 2020.

Figure 1: GDP growth, year to Mar 2020

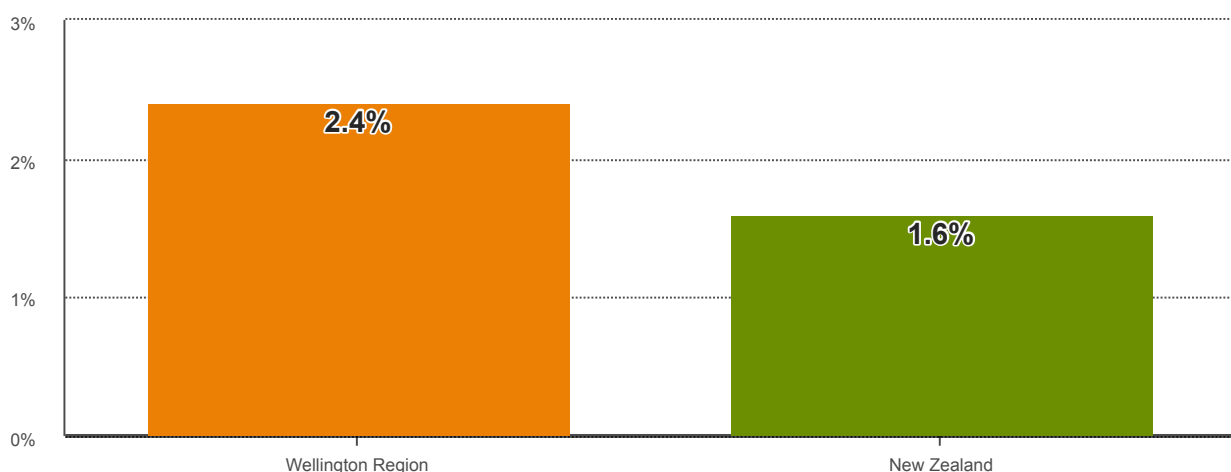


Figure 2: Annual average GDP growth, 2001-2020

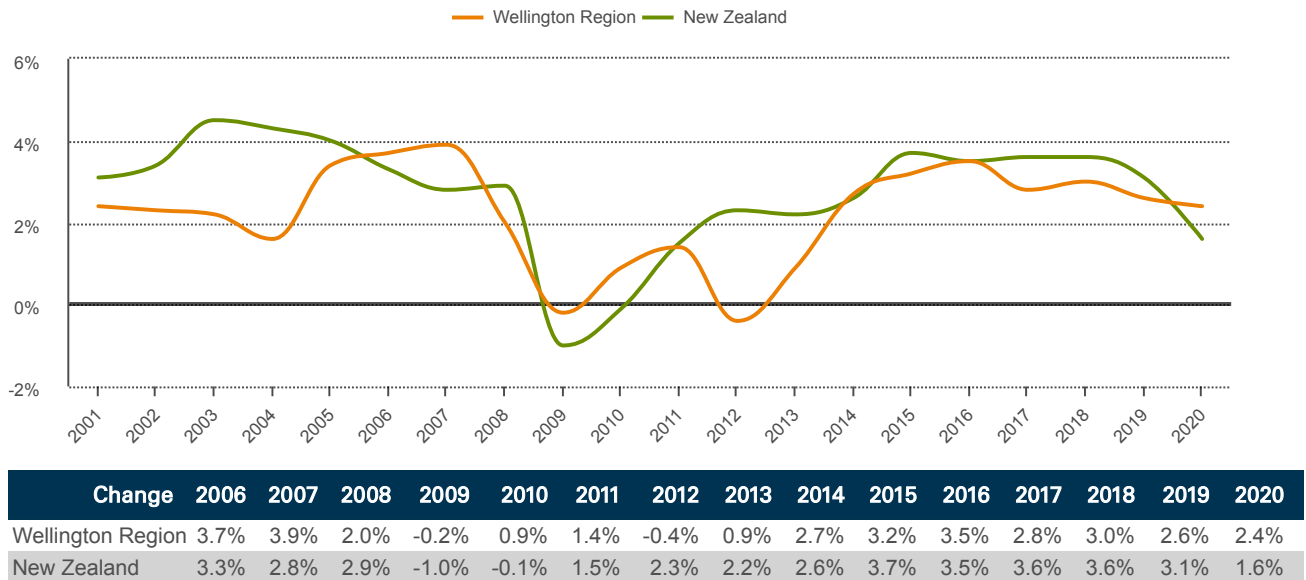
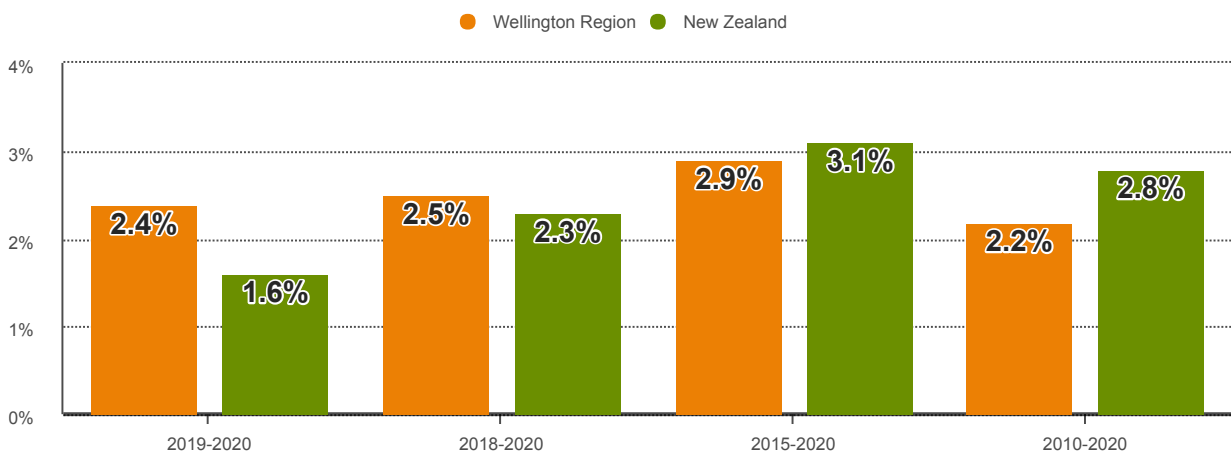


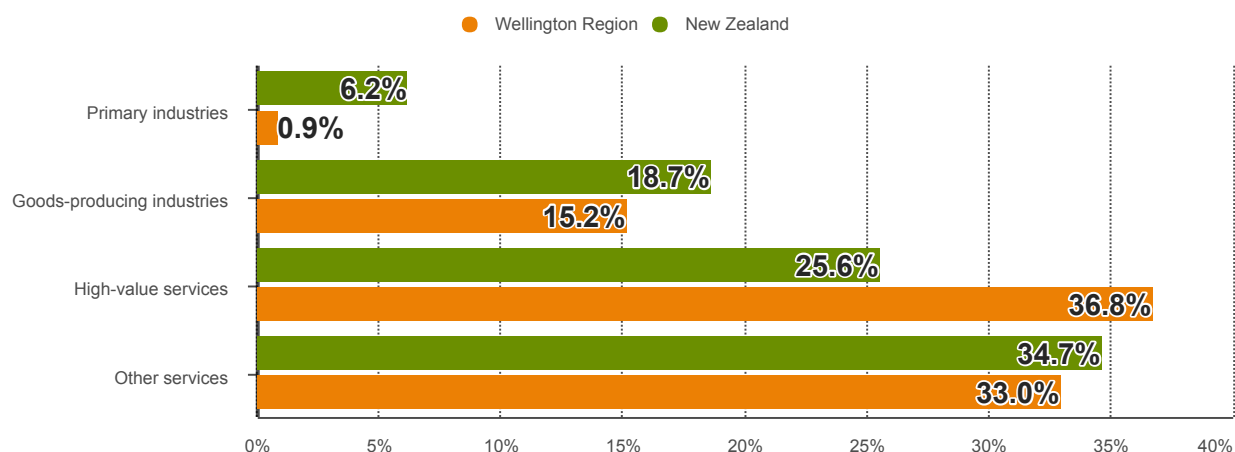
Figure 3: GDP growth over the last 1, 2, 5 & 10 years



What is the industrial structure of Wellington Region'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, 2020



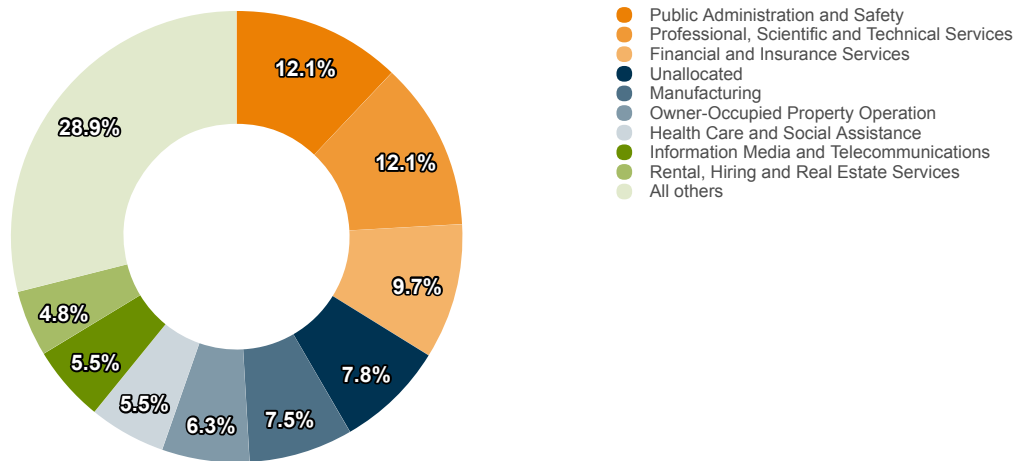
- Primary industries accounted for the smallest proportion in Wellington Region: 0.9% compared with 6.2% in the national economy.
- Goods-producing industries accounted for 15.2% compared with 18.7% in the national economy.
- Other services accounted for 33.0% compared with 34.7% in the national economy.
- High-value services accounted for the largest proportion of GDP (36.8%) in Wellington Region, which is higher than in the national economy (25.6%).

Table 1: GDP by ANZSIC 1-digit industry, 2020

Industry	Wellington Region		New Zealand	
	Level	Share of total	Level	Share of total
Public Administration and Safety	\$5,240m	12.1%	\$14,545m	4.5%
Professional, Scientific and Technical Services	\$5,233m	12.0%	\$27,786m	8.6%
Financial and Insurance Services	\$4,213m	9.7%	\$18,986m	5.9%
Manufacturing	\$3,240m	7.5%	\$30,681m	9.5%
Health Care and Social Assistance	\$2,386m	5.5%	\$19,181m	5.9%
Information Media and Telecommunications	\$2,376m	5.5%	\$12,165m	3.8%
Rental, Hiring and Real Estate Services	\$2,063m	4.8%	\$20,989m	6.5%
Construction	\$1,835m	4.2%	\$21,066m	6.5%
Electricity, Gas, Water and Waste Services	\$1,533m	3.5%	\$8,797m	2.7%
Education and Training	\$1,443m	3.3%	\$12,043m	3.7%
Retail Trade	\$1,441m	3.3%	\$15,949m	4.9%
Transport, Postal and Warehousing	\$1,424m	3.3%	\$13,751m	4.2%
Wholesale Trade	\$1,275m	2.9%	\$16,293m	5.0%
Other Services	\$869m	2.0%	\$5,586m	1.7%
Administrative and Support Services	\$831m	1.9%	\$6,846m	2.1%
Arts and Recreation Services	\$795m	1.8%	\$4,323m	1.3%
Accommodation and Food Services	\$716m	1.6%	\$6,771m	2.1%
Agriculture, Forestry and Fishing	\$310m	0.7%	\$16,096m	5.0%
Mining	\$87.1m	0.2%	\$3,876m	1.2%
Owner-Occupied Property Operation	\$2,725m	6.3%	\$22,973m	7.1%
Unallocated	\$3,392m	7.8%	\$25,318m	7.8%
Total	\$43,426m	100%	\$324,019m	100%

- Among broad industries Public Administration and Safety was the largest in Wellington Region in 2020 accounting for 12.1% of total.
- The second largest was Professional, Scientific and Technical Services (12.0%) followed by Financial and Insurance Services (9.7%)

Figure 5: Share of total GDP, 2020



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 Professional, Scientific & Tech Services was the largest in Wellington Region in 2020 accounting for 12.0% of total.
- The second largest was Central Gov Admin, Defence & Safety (11.5%) followed by Finance (6.9%)

Table 2: GDP by 54 industries, 2020

Industry	Wellington Region		New Zealand	
	Level	Share of total	Level	Share of total
Professional, Scientific & Tech Services	\$5,233m	12.0%	\$27,786m	8.6%
Central Gov Admin, Defence & Safety	\$4,987m	11.5%	\$12,795m	3.9%
Finance	\$3,016m	6.9%	\$12,586m	3.9%
Health Care & Social Assistance	\$2,386m	5.5%	\$19,181m	5.9%
Property Operators & Real Estate Services	\$1,774m	4.1%	\$17,392m	5.4%
Telecomms, Internet & Library Services	\$1,649m	3.8%	\$8,806m	2.7%
Education & Training	\$1,443m	3.3%	\$12,043m	3.7%
Electricity & Gas Supply	\$1,277m	2.9%	\$7,224m	2.2%
Wholesale Trade	\$1,275m	2.9%	\$16,293m	5.0%
Construction Services	\$1,008m	2.3%	\$10,751m	3.3%
Other Services	\$869m	2.0%	\$5,586m	1.7%
Petroleum & Coal Product Manufacturing	\$838m	1.9%	\$1,487m	0.5%
Administrative & Support Services	\$831m	1.9%	\$6,846m	2.1%
Other Store & Non Store Retailing	\$805m	1.9%	\$8,948m	2.8%
Arts & Recreation Services	\$795m	1.8%	\$4,323m	1.3%
Information Media Services	\$727m	1.7%	\$3,360m	1.0%
Accommodation & Food Services	\$716m	1.6%	\$6,771m	2.1%
Auxiliary Finance & Insurance Services	\$703m	1.6%	\$3,199m	1.0%
Postal, Courier & Warehousing Services	\$545m	1.3%	\$6,076m	1.9%
Insurance & Superannuation Funds	\$494m	1.1%	\$3,202m	1.0%
Road Transport	\$485m	1.1%	\$4,719m	1.5%
Supermarket & Specialised Food Retailing	\$464m	1.1%	\$4,690m	1.4%
Building Construction	\$419m	1.0%	\$4,507m	1.4%
Heavy & Civil Engineering Construction	\$408m	0.9%	\$5,808m	1.8%
Rail, Water, Air & Other Transport	\$393m	0.9%	\$2,956m	0.9%
Fruit, Cereal & Other Food Product Manu	\$364m	0.8%	\$2,498m	0.8%
Beverage & Tobacco Product Manu	\$350m	0.8%	\$2,633m	0.8%
Rental & Hiring Services	\$289m	0.7%	\$3,596m	1.1%
Water, Sewerage & Waste Services	\$255m	0.6%	\$1,573m	0.5%
Local Government Administration	\$253m	0.6%	\$1,750m	0.5%
Polymer Product & Rubber Product Manu	\$244m	0.6%	\$1,718m	0.5%
Machinery & Other Equipment Manu	\$207m	0.5%	\$4,232m	1.3%
Wood Product Manufacturing	\$181m	0.4%	\$1,745m	0.5%
Basic Chemical & Chemical Product Manu	\$180m	0.4%	\$1,924m	0.6%
Meat & Meat Product Manufacturing	\$178m	0.4%	\$2,169m	0.7%
Motor Vehicle, Parts & Fuel Retailing	\$172m	0.4%	\$2,311m	0.7%
Non-Metallic Mineral Product Manu	\$153m	0.4%	\$1,429m	0.4%
Fabricated Metal Product Manufacturing	\$148m	0.3%	\$2,742m	0.8%
Printing	\$102m	0.2%	\$744m	0.2%
Sheep, Beef Cattle & Grain Farming	\$91.1m	0.2%	\$3,147m	1.0%
Mining	\$87.1m	0.2%	\$3,876m	1.2%
Dairy Cattle Farming	\$72.5m	0.2%	\$6,202m	1.9%
Furniture & Other Manufacturing	\$69.7m	0.2%	\$891m	0.3%
Transport Equipment Manufacturing	\$68.7m	0.2%	\$1,679m	0.5%
Pulp & Paper Product Manufacturing	\$56.8m	0.1%	\$965m	0.3%
Textile, Leather, Clothing, Footwear Manu	\$50.2m	0.1%	\$808m	0.2%
Agric Support Services & Hunting	\$46.0m	0.1%	\$2,302m	0.7%
Forestry & Logging	\$39.6m	0.1%	\$2,016m	0.6%
Horticulture & Fruit Growing	\$25.9m	0.1%	\$1,485m	0.5%
Poultry, Deer & Other Livestock Farming	\$24.6m	0.1%	\$462m	0.1%
Primary Metal & Metal Product Manu	\$24.4m	0.1%	\$789m	0.2%
Dairy Product Manufacturing	\$15.5m	0.0%	\$1,731m	0.5%
Fishing & Aquaculture	\$10.1m	0.0%	\$483m	0.1%
Seafood Processing	\$8.38m	0.0%	\$497m	0.2%
Owner-Occupied Property Operation	\$2,725m	6.3%	\$22,973m	7.1%
Unallocated	\$3,392m	7.8%	\$25,318m	7.8%
Total	\$43,426m	100%	\$324,019m	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 Wellington Region's economy taking into account their relative sizes.

- Public Administration and Safety made the largest contribution to overall growth in Wellington Region between 2019 and 2020. The industry grew by 5.6% over the year and contributed 0.66 percentage points to the district's total growth of 2.4%.
- The next largest contributor was professional, scientific and technical services (0.47 percentage points) followed by financial and insurance services (0.43 percentage points).
- The largest detractor from growth over the year was Electricity, Gas, Water and Waste Services which declined by 3.7% and contributed -0.14 percentage points to the total growth of 2.4%. Agriculture, Forestry and Fishing (-0.02 percentage points) was the next largest detractor.

Table 3: ANZSIC 1-digit industries ranked by % point contribution to GDP growth, 2019-2020

Industry	2019	2020	% point contribution to growth	Annual Growth
Public Administration and Safety	4,961	5,240	0.66%	5.6%
Professional, Scientific and Technical Services	5,033	5,233	0.47%	4.0%
Financial and Insurance Services	4,031	4,213	0.43%	4.5%
Rental, Hiring and Real Estate Services	2,010	2,063	0.13%	2.7%
Construction	1,784	1,835	0.12%	2.9%
Retail Trade	1,393	1,441	0.11%	3.5%
Information Media and Telecommunications	2,333	2,376	0.10%	1.8%
Health Care and Social Assistance	2,352	2,386	0.08%	1.4%
Wholesale Trade	1,260	1,275	0.04%	1.2%
Administrative and Support Services	819	831	0.03%	1.5%
Manufacturing	3,231	3,240	0.02%	0.3%
Other Services	866	869	0.01%	0.4%
Transport, Postal and Warehousing	1,421	1,424	0.01%	0.2%
Mining	85	87	0.01%	3.0%
Accommodation and Food Services	720	716	-0.01%	-0.4%
Education and Training	1,447	1,443	-0.01%	-0.3%
Arts and Recreation Services	802	795	-0.02%	-1.0%
Agriculture, Forestry and Fishing	319	310	-0.02%	-2.8%
Electricity, Gas, Water and Waste Services	1,592	1,533	-0.14%	-3.7%
Owner-Occupied Property Operation	2,679.2	2,725.1	0.11%	1.7%
Unallocated	3,291.4	3,392.3	0.24%	3.1%
Total	42,428	43,426	2.4%	2.4%

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.

- Central Gov Admin, Defence & Safety made the largest contribution to overall growth in Wellington Region between 2019 and 2020. The industry grew by 5.7% over the year and contributed 0.63 percentage points to the district's total growth of 2.4%.
- The next largest contributor was professional, scientific & tech services (0.47 percentage points) followed by auxiliary finance & insurance services (0.17 percentage points).
- The largest detractor from growth over the year was Electricity & Gas Supply which declined by 3.8% and contributed -0.12 percentage points to the total growth of 2.4%. Meat & Meat Product Manufacturing (-0.07 percentage points) was the next largest detractor.

Table 4: 54 industries ranked by percentage point contribution to growth, 2019-2020

Industry	2019	2020	% point contribution to growth	Annual Growth
Central Gov Admin, Defence & Safety	4,719	4,987	0.63%	5.7%
Professional, Scientific & Tech Services	5,033	5,233	0.47%	4.0%
Auxiliary Finance & Insurance Services	631	703	0.17%	11.3%
Insurance & Superannuation Funds	435	494	0.14%	13.5%
Finance	2,965	3,016	0.12%	1.7%
Property Operators & Real Estate Services	1,730	1,774	0.11%	2.6%
Information Media Services	689	727	0.09%	5.4%
Petroleum & Coal Product Manufacturing	801	838	0.09%	4.6%
Health Care & Social Assistance	2,352	2,386	0.08%	1.4%
Other Store & Non Store Retailing	779	805	0.06%	3.2%
Construction Services	985	1,008	0.05%	2.3%
Beverage & Tobacco Product Manu	333	350	0.04%	5.3%
Building Construction	402	419	0.04%	4.3%
Supermarket & Specialised Food Retailing	448	464	0.04%	3.8%
Wholesale Trade	1,260	1,275	0.04%	1.2%
Administrative & Support Services	819	831	0.03%	1.5%
Heavy & Civil Engineering Construction	397	408	0.03%	2.8%
Local Government Administration	243	253	0.03%	4.4%
Rental & Hiring Services	280	289	0.02%	3.1%
Motor Vehicle, Parts & Fuel Retailing	165	172	0.02%	4.1%
Telecomms, Internet & Library Services	1,644	1,649	0.01%	0.3%
Wood Product Manufacturing	177	181	0.01%	2.4%
Basic Chemical & Chemical Product Manu	175	180	0.01%	2.4%
Postal, Courier & Warehousing Services	541	545	0.01%	0.6%
Other Services	866	869	0.01%	0.4%
Mining	85	87	0.01%	3.0%
Agric Support Services & Hunting	44	46	0.00%	4.3%
Poultry, Deer & Other Livestock Farming	23	25	0.00%	7.4%
Rail, Water, Air & Other Transport	392	393	0.00%	0.4%
Pulp & Paper Product Manufacturing	56	57	0.00%	2.2%
Fishing & Aquaculture	10	10	0.00%	1.7%
Fabricated Metal Product Manufacturing	148	148	0.00%	0.0%
Primary Metal & Metal Product Manu	24	24	0.00%	0.2%
Furniture & Other Manufacturing	70	70	0.00%	-0.3%
Printing	102	102	0.00%	-0.2%
Machinery & Other Equipment Manu	209	207	0.00%	-0.6%
Fruit, Cereal & Other Food Product Manu	365	364	0.00%	-0.4%
Forestry & Logging	41	40	0.00%	-3.4%
Horticulture & Fruit Growing	27	26	0.00%	-5.2%
Non-Metallic Mineral Product Manu	155	153	-0.01%	-1.4%
Road Transport	488	485	-0.01%	-0.5%
Dairy Product Manufacturing	18	16	-0.01%	-13.1%
Textile, Leather, Clothing, Footwear Manu	53	50	-0.01%	-4.6%
Seafood Processing	11	8	-0.01%	-22.7%
Accommodation & Food Services	720	716	-0.01%	-0.4%
Dairy Cattle Farming	76	73	-0.01%	-4.4%
Education & Training	1,447	1,443	-0.01%	-0.3%
Transport Equipment Manufacturing	74	69	-0.01%	-6.8%
Sheep, Beef Cattle & Grain Farming	98	91	-0.02%	-6.6%
Polymer Product & Rubber Product Manu	251	244	-0.02%	-2.7%
Arts & Recreation Services	802	795	-0.02%	-1.0%
Water, Sewerage & Waste Services	265	255	-0.02%	-3.6%
Meat & Meat Product Manufacturing	209	178	-0.07%	-14.8%
Electricity & Gas Supply	1,327	1,277	-0.12%	-3.8%
Owner-Occupied Property Operation	2,679.2	2,725.1	0.11%	1.7%
Unallocated	3,291.4	3,392.3	0.24%	3.1%
Total	42,428	43,426	2.4%	2.4%

In which industries does Wellington Region 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 Wellington Region has the largest comparative advantages are Petroleum & Coal Product Manufacturing (location quotient = 4.2), Central Gov Admin, Defence & Safety (2.9), and Finance (1.8).

Table 5: Location Quotient, 2020

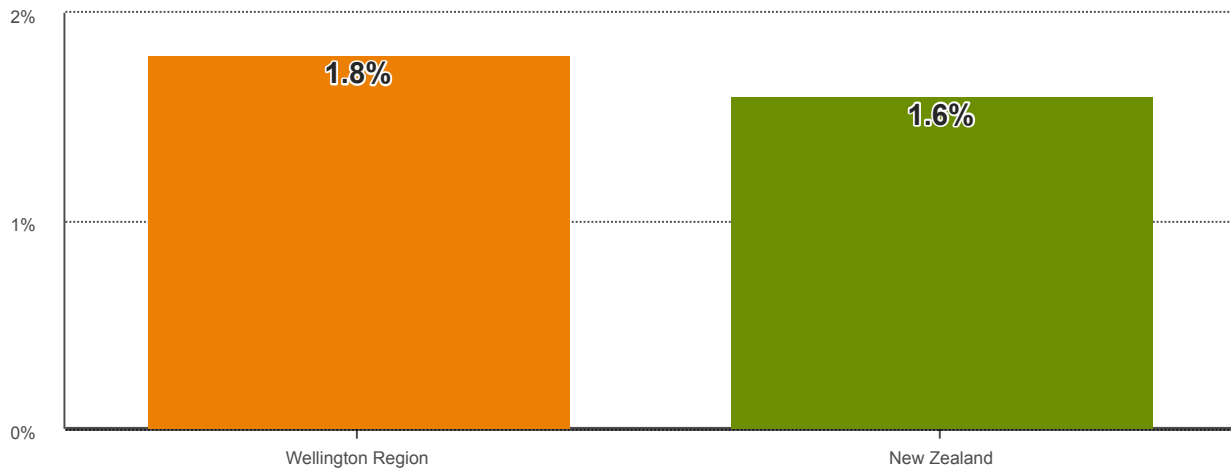
Industry	Wellington Region		New Zealand
	Location Quotient	Share of total GDP	Share of total GDP
Petroleum & Coal Product Manufacturing	4.2	1.9%	0.5%
Central Gov Admin, Defence & Safety	2.9	11.5%	3.9%
Finance	1.8	6.9%	3.9%
Auxiliary Finance & Insurance Services	1.6	1.6%	1.0%
Information Media Services	1.6	1.7%	1.0%
Professional, Scientific & Tech Services	1.4	12.0%	8.6%
Telecomms, Internet & Library Services	1.4	3.8%	2.7%
Arts & Recreation Services	1.4	1.8%	1.3%
Electricity & Gas Supply	1.3	2.9%	2.2%
Water, Sewerage & Waste Services	1.2	0.6%	0.5%
Other Services	1.2	2.0%	1.7%
Insurance & Superannuation Funds	1.2	1.1%	1.0%
Fruit, Cereal & Other Food Product Manu	1.1	0.8%	0.8%
Local Government Administration	1.1	0.6%	0.5%
Polymer Product & Rubber Product Manu	1.1	0.6%	0.5%
Printing	1.0	0.2%	0.2%
Beverage & Tobacco Product Manu	1.0	0.8%	0.8%
Rail, Water, Air & Other Transport	1.0	0.9%	0.9%
Health Care & Social Assistance	0.9	5.5%	5.9%
Administrative & Support Services	0.9	1.9%	2.1%
Education & Training	0.9	3.3%	3.7%
Non-Metallic Mineral Product Manu	0.8	0.4%	0.4%
Accommodation & Food Services	0.8	1.6%	2.1%
Wood Product Manufacturing	0.8	0.4%	0.5%
Road Transport	0.8	1.1%	1.5%
Property Operators & Real Estate Services	0.8	4.1%	5.4%
Supermarket & Specialised Food Retailing	0.7	1.1%	1.4%
Construction Services	0.7	2.3%	3.3%
Basic Chemical & Chemical Product Manu	0.7	0.4%	0.6%
Building Construction	0.7	1.0%	1.4%
Other Store & Non Store Retailing	0.7	1.9%	2.8%
Postal, Courier & Warehousing Services	0.7	1.3%	1.9%
Meat & Meat Product Manufacturing	0.6	0.4%	0.7%
Rental & Hiring Services	0.6	0.7%	1.1%
Wholesale Trade	0.6	2.9%	5.0%
Furniture & Other Manufacturing	0.6	0.2%	0.3%
Motor Vehicle, Parts & Fuel Retailing	0.6	0.4%	0.7%
Heavy & Civil Engineering Construction	0.5	0.9%	1.8%
Textile, Leather, Clothing, Footwear Manu	0.5	0.1%	0.2%
Pulp & Paper Product Manufacturing	0.4	0.1%	0.3%
Fabricated Metal Product Manufacturing	0.4	0.3%	0.8%
Poultry, Deer & Other Livestock Farming	0.4	0.1%	0.1%
Machinery & Other Equipment Manu	0.4	0.5%	1.3%
Transport Equipment Manufacturing	0.3	0.2%	0.5%
Primary Metal & Metal Product Manu	0.2	0.1%	0.2%
Sheep, Beef Cattle & Grain Farming	0.2	0.2%	1.0%
Mining	0.2	0.2%	1.2%
Fishing & Aquaculture	0.2	0.0%	0.1%
Agric Support Services & Hunting	0.1	0.1%	0.7%
Forestry & Logging	0.1	0.1%	0.6%
Horticulture & Fruit Growing	0.1	0.1%	0.5%
Seafood Processing	0.1	0.0%	0.2%
Dairy Cattle Farming	0.1	0.2%	1.9%
Dairy Product Manufacturing	0.1	0.0%	0.5%

EMPLOYMENT

How fast has employment grown in Wellington Region?

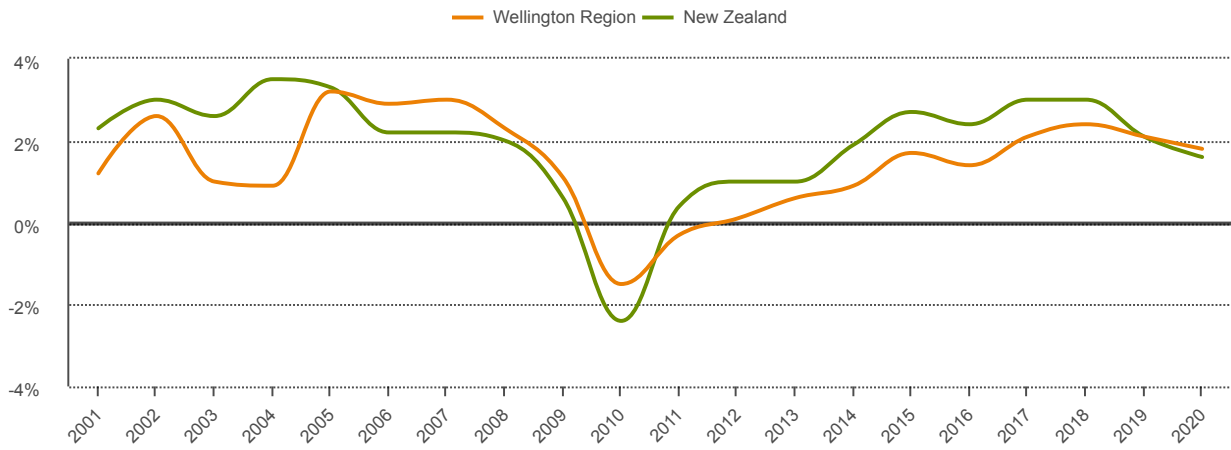
Employment growth provides new opportunities for the region's population to earn income and contribute to the region's economy. This section contrasts Wellington Region's recent performance in creating jobs with other regions in the country.

Figure 6: Employment growth, year to Mar 2020



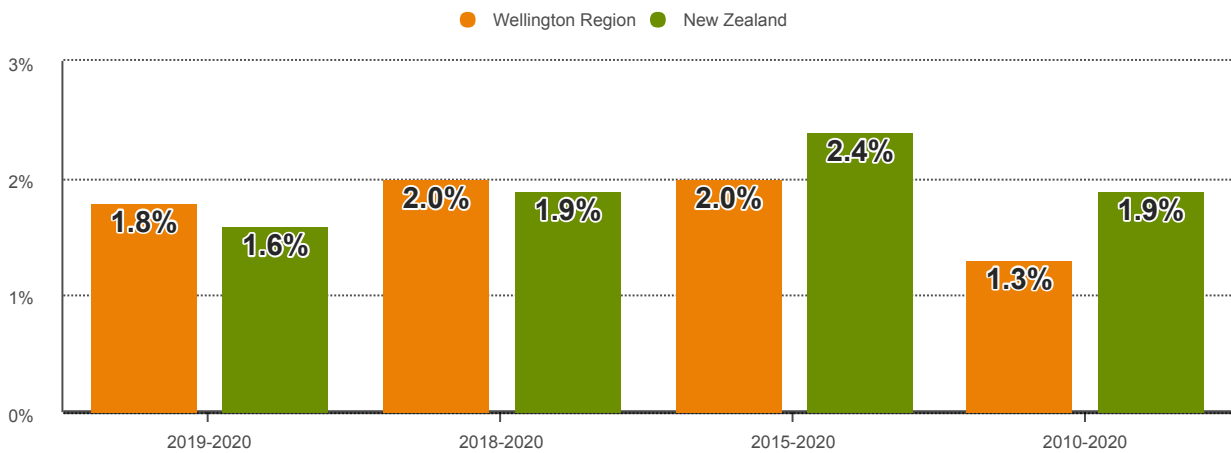
- Total employment in Wellington Region averaged 298,894 in the year to March 2020, up 1.8% from a year earlier. Employment in New Zealand increased by 1.6% over the same period.
- Employment growth in Wellington Region averaged 1.3%pa over the last 10 years compared with 1.9%pa in the national economy.
- Employment growth in Wellington Region reached a high of 3.2% in 2005 and a low of -1.5% in 2010.

Figure 7: Annual average employment growth, 2001-2020



Change	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wellington Region	2.9%	3.0%	2.3%	1.1%	-1.5%	-0.3%	0.1%	0.6%	0.9%	1.7%	1.4%	2.1%	2.4%	2.1%	1.8%
New Zealand	2.2%	2.2%	2.0%	0.6%	-2.4%	0.4%	1.0%	1.0%	1.9%	2.7%	2.4%	3.0%	3.0%	2.1%	1.6%

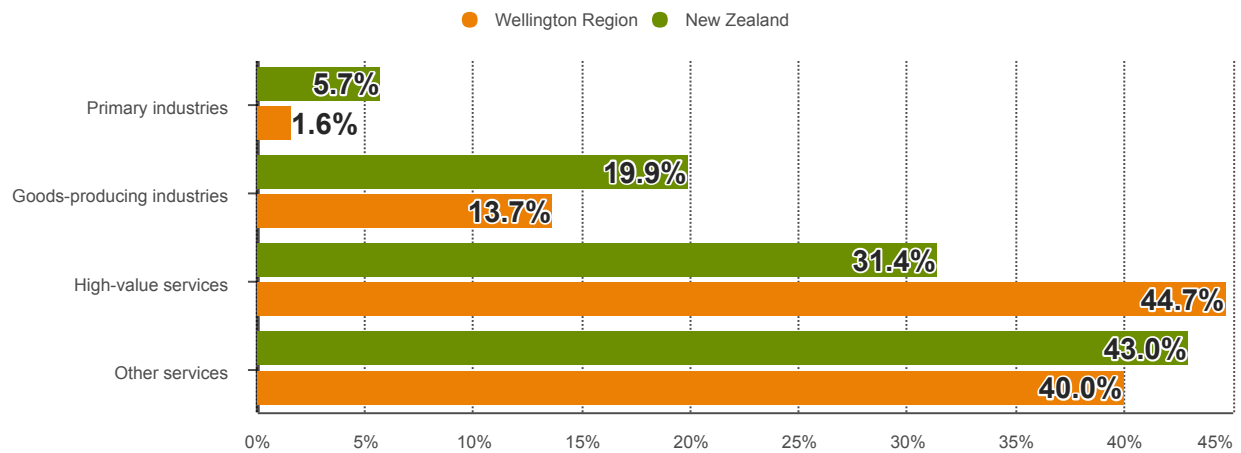
Figure 8: Employment growth over the last 1, 2, 5 & 10 years



What is the industrial structure of employment in Wellington Region?

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, 2020



- Primary industries accounted for 1.6% in Wellington Region compared with 5.7% in New Zealand.
- Goods-producing industries accounted for 13.7% in Wellington Region compared with 19.9% in New Zealand.
- Other services accounted for 40.0% in Wellington Region compared with 43.0% in New Zealand.
- High-value services industries accounted for the largest proportion of employment (44.7%) in Wellington Region, which is higher than in New Zealand (31.4%).

Which are the largest employing industries in Wellington Region?

This section identifies the broad industries that make the largest contribution to employment in Wellington Region.

Table 6: ANZSIC 1-digit industries ranked by size of employment, 2020

Industry	Wellington Region		New Zealand	
	Level	Share of total	Level	Share of total
Professional, Scientific and Technical Services	41,787	14.0%	249,058	9.6%
Public Administration and Safety	36,723	12.3%	132,612	5.1%
Health Care and Social Assistance	28,245	9.4%	255,006	9.8%
Education and Training	24,806	8.3%	199,529	7.7%
Construction	24,369	8.2%	253,915	9.8%
Retail Trade	22,957	7.7%	230,026	8.9%
Accommodation and Food Services	20,337	6.8%	172,458	6.7%
Administrative and Support Services	15,404	5.2%	134,338	5.2%
Manufacturing	14,346	4.8%	244,404	9.4%
Financial and Insurance Services	12,761	4.3%	69,281	2.7%
Other Services	11,746	3.9%	99,213	3.8%
Transport, Postal and Warehousing	9,548	3.2%	109,456	4.2%
Wholesale Trade	8,842	3.0%	125,648	4.8%
Information Media and Telecommunications	7,527	2.5%	41,509	1.6%
Arts and Recreation Services	7,063	2.4%	49,299	1.9%
Rental, Hiring and Real Estate Services	5,335	1.8%	61,836	2.4%
Agriculture, Forestry and Fishing	4,177	1.4%	140,565	5.4%
Electricity, Gas, Water and Waste Services	2,282	0.8%	18,199	0.7%
Mining	640	0.2%	6,035	0.2%
Total	298,894	100%	2,592,389	100%

- Among broad industries Professional, Scientific and Technical Services was the largest in Wellington Region in 2020 accounting for 14.0% of total.
- The second largest was Public Administration and Safety (12.3%) followed by Health Care and Social Assistance (9.4%)

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 Wellington Region.

- Central Government Administration was the largest 7-digit industry in Wellington Region in 2020 employing 19,104 persons and accounting for 6.4% of total employment in the district. By contrast this industry accounted for 1.6% of total employment in New Zealand.
- The second largest employing industries were computer systems design and related services (11,775) followed by cafes and restaurants (8,889).

Table 7: 50 largest employing ANZSIC 7-digit industries, 2020

Rank	Industry	Wellington Region		New Zealand
		Jobs	% of total	% of total
1	Central Government Administration	19,104	6.4%	1.6%
2	Computer Systems Design and Related Services	11,775	3.9%	1.8%
3	Cafes and Restaurants	8,889	3.0%	2.9%
4	Hospitals (except Psychiatric Hospitals)	7,972	2.7%	2.9%
5	Management Advice and Other Consulting Services	7,278	2.4%	1.7%
6	Banking	6,858	2.3%	1.0%
7	Supermarket and Grocery Stores	6,831	2.3%	2.4%
8	Primary Education	5,943	2.0%	2.1%
9	Higher Education	5,667	1.9%	1.4%
10	Corporate Head Office Management Services	4,946	1.7%	1.0%
11	House Construction	4,904	1.6%	2.0%
12	Employment Placement and Recruitment Services	4,891	1.6%	0.7%
13	Other Allied Health Services	4,113	1.4%	1.3%
14	Aged Care Residential Services	3,940	1.3%	1.4%
15	Takeaway Food Services	3,660	1.2%	1.2%
16	Secondary Education	3,654	1.2%	1.4%
17	Accommodation	3,429	1.1%	1.4%
18	Police Services	3,419	1.1%	0.6%
19	Engineering Design and Engineering Consulting Services	3,354	1.1%	1.2%
20	Accounting Services	3,180	1.1%	1.0%
21	Preschool Education	3,129	1.0%	1.1%
22	Defence	3,003	1.0%	0.5%
23	Other Social Assistance Services	2,964	1.0%	0.8%
24	Buildings Cleaning Services	2,961	1.0%	1.1%
25	Legal Services	2,947	1.0%	0.8%
26	Regulatory Services	2,942	1.0%	0.3%
27	Labour Supply Services	2,901	1.0%	1.3%
28	Local Government Administration	2,632	0.9%	1.0%
29	Electrical Services	2,334	0.8%	0.9%
30	Real Estate Services	2,301	0.8%	0.9%
31	Pubs, Taverns and Bars	2,293	0.8%	0.6%
32	Other Auxiliary Finance and Investment Services	2,211	0.7%	0.4%
33	Adult, Community and Other Education n.e.c.	2,092	0.7%	0.5%
34	Other Interest Group Services n.e.c.	2,073	0.7%	0.5%
35	Hairdressing and Beauty Services	2,042	0.7%	0.7%
36	Hardware and Building Supplies Retailing	1,984	0.7%	0.8%
37	Road Freight Transport	1,903	0.6%	1.3%
38	General Practice Medical Services	1,891	0.6%	0.6%
39	Other Heavy and Civil Engineering Construction	1,886	0.6%	0.8%
40	Postproduction Services and Other Motion Picture and Video Activities	1,844	0.6%	0.1%
41	Department Stores	1,805	0.6%	0.7%
42	Clothing Retailing	1,775	0.6%	0.6%
43	Painting and Decorating Services	1,769	0.6%	0.6%
44	Other Residential Care Services	1,752	0.6%	0.6%
45	Scientific Research Services	1,748	0.6%	0.3%
46	Plumbing Services	1,721	0.6%	0.6%
47	Child Care Services	1,716	0.6%	0.6%
48	Catering Services	1,643	0.5%	0.4%
49	Justice	1,605	0.5%	0.2%
50	Investigation and Security Services	1,567	0.5%	0.5%
	All other industries total	109,654	36.7%	49.0%
	Total	298,894	100%	100%

Which industries have created the most jobs?

The section investigates which industries have created and lost the most number of jobs in Wellington Region. 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, 2019-2020

Industry	2019	2020	Change	Annual Growth
Public Administration and Safety	34,347	36,723	2,375	6.9%
Construction	23,492	24,369	877	3.7%
Administrative and Support Services	14,794	15,404	610	4.1%
Financial and Insurance Services	12,226	12,761	535	4.4%
Transport, Postal and Warehousing	9,239	9,548	309	3.3%
Health Care and Social Assistance	27,948	28,245	297	1.1%
Accommodation and Food Services	20,052	20,337	285	1.4%
Professional, Scientific and Technical Services	41,527	41,787	260	0.6%
Education and Training	24,601	24,806	205	0.8%
Rental, Hiring and Real Estate Services	5,242	5,335	93	1.8%
Other Services	11,665	11,746	81	0.7%
Retail Trade	22,908	22,957	50	0.2%
Arts and Recreation Services	7,027	7,063	36	0.5%
Wholesale Trade	8,816	8,842	26	0.3%
Agriculture, Forestry and Fishing	4,178	4,177	-1	0.0%
Electricity, Gas, Water and Waste Services	2,304	2,282	-22	-0.9%
Manufacturing	14,434	14,346	-89	-0.6%
Mining	759	640	-119	-15.7%
Information Media and Telecommunications	8,015	7,527	-488	-6.1%
Total	293,574	298,894	5,320	1.8%

- Public Administration and Safety made the largest contribution to employment growth in Wellington Region between 2019 and 2020 with the industry adding 2,375 jobs.
- The next largest contributor was Construction (877 jobs) followed by Administrative and Support Services (610 jobs).
- The largest detractor from growth over the year was Information Media and Telecommunications in which employment declined by 488.

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.

- Central Government Administration was the largest creator of jobs in Wellington Region between 2019 and 2020, generating an additional 1,780 positions.
- This was followed by Employment Services, which added 435 jobs over the same period.
- Telecommunications Services was the largest detractor of jobs in Wellington Region between 2019 and 2020, losing 190 positions.
- This was followed by Oil and Gas Extraction, which lost 142 jobs over the same period.

Table 9: The 20 ANZSIC 4-digit industries that created the most jobs, 2019-2020

Rank	Industry	Jobs		Change 2019 - 2020	% of total 2020
		2019	2020		
1	Central Government Administration	17,324	19,104	1,780	6.4%
2	Employment Services	7,356	7,791	435	2.6%
3	Public Order and Safety Services	6,745	7,161	417	2.4%
4	Residential Building Construction	5,210	5,492	282	1.8%
5	Building Installation Services	5,631	5,887	256	2.0%
6	Hospitals	7,932	8,159	227	2.7%
7	Auxiliary Finance and Investment Services	2,260	2,481	221	0.8%
8	Other Social Assistance Services	2,810	2,964	154	1.0%
9	Auxiliary Insurance Services	1,066	1,188	122	0.4%
10	Water Passenger Transport	542	663	121	0.2%
11	Other Administrative Services	2,873	2,986	113	1.0%
12	Cafes, Restaurants and Takeaway Food Services	14,081	14,192	110	4.7%
13	Pubs, Taverns and Bars	2,188	2,293	105	0.8%
14	Life Insurance	570	674	104	0.2%
15	Heavy and Civil Engineering Construction	2,814	2,914	100	1.0%
16	Road Passenger Transport	2,023	2,122	98	0.7%
17	Recreational Goods Retailing	1,085	1,180	96	0.4%
18	Justice	1,516	1,605	88	0.5%
19	Other Construction Services	2,118	2,204	86	0.7%
20	Other Food Product Manufacturing	766	850	84	0.3%
	All other industries	206,666	206,985	320	69.3%
	Total	293,574	298,894	5,320	100%

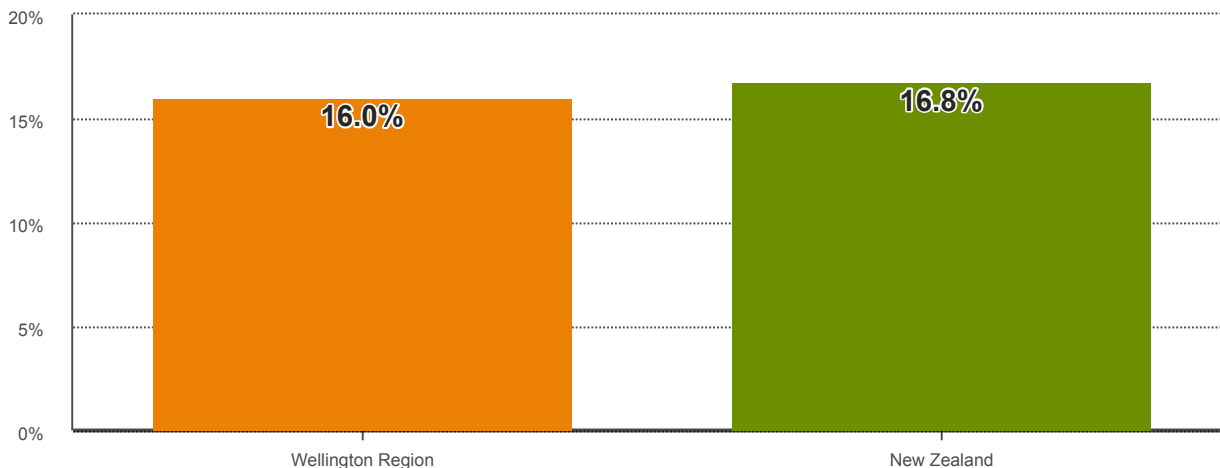
Table 10: The 20 ANZSIC 4-digit industries that lost the most jobs, 2019-2020

Rank	Industry	Jobs		Change 2019 - 2020	% of total 2020
		2019	2020		
1	Telecommunications Services	1,713	1,523	-190	0.5%
2	Oil and Gas Extraction	617	474	-142	0.2%
3	Meat and Meat Product Manufacturing	1,106	981	-124	0.3%
4	Libraries and Archives	1,094	972	-122	0.3%
5	Newspaper, Periodical, Book and Directory Publishing	612	523	-89	0.2%
6	Department Stores	1,894	1,805	-89	0.6%
7	Motion Picture and Video Activities	3,106	3,024	-82	1.0%
8	Pathology and Diagnostic Imaging Services	539	460	-79	0.2%
9	Rail Passenger Transport	547	480	-67	0.2%
10	Pharmaceutical and Other Store-Based Retailing	2,800	2,739	-61	0.9%
11	Child Care Services	1,772	1,716	-56	0.6%
12	Clothing and Footwear Manufacturing	262	208	-54	0.1%
13	Depository Financial Intermediation	6,963	6,912	-52	2.3%
14	Gambling Activities	558	509	-48	0.2%
15	Electricity Generation	162	115	-47	0.0%
16	Rail Freight Transport	118	71	-47	0.0%
17	Advertising Services	663	619	-44	0.2%
18	Grain, Sheep and Beef Cattle Farming	1,177	1,136	-41	0.4%
19	Pharmaceutical and Toiletry Goods Wholesaling	389	350	-39	0.1%
20	Other Fabricated Metal Product Manufacturing	468	430	-38	0.1%
	All other industries	267,015	273,846	6,831	91.6%
	Total	293,574	298,894	5,320	100%

What proportion of the workforce is self-employed in Wellington Region?

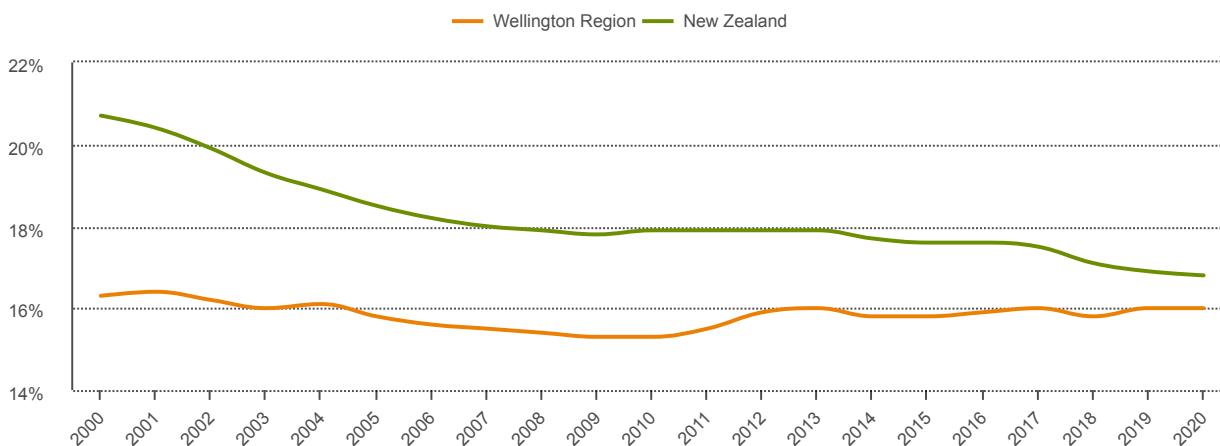
Self-employment makes up a sizeable proportion of total employment in New Zealand although it declined through the economic boom years and stabilised since the recession. This section contrasts self-employment in Wellington Region with the national economy.

Figure 10: Self employment rate, 2020



- Self-employed workers accounted for 16.0% of the workforce in Wellington Region in 2020, which was a lower rate than in the national economy (16.8%)
- A total of 47,773 workers were self-employed in Wellington Region in 2020.

Figure 11: Self employment rate, 2000-2020



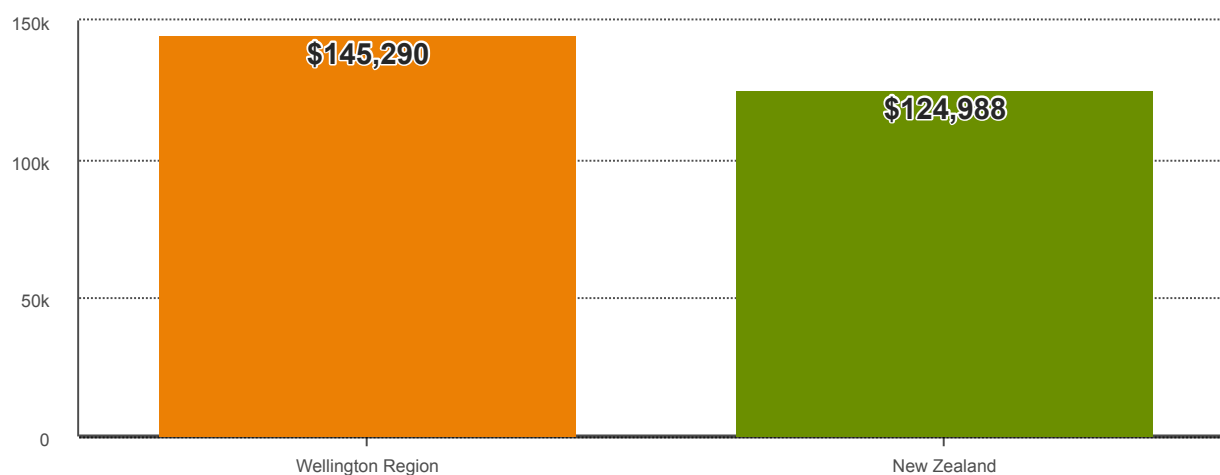
Level	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wellington Region	15.6%	15.5%	15.4%	15.3%	15.3%	15.5%	15.9%	16.0%	15.8%	15.8%	15.9%	16.0%	15.8%	16.0%	16.0%
New Zealand	18.2%	18.0%	17.9%	17.8%	17.9%	17.9%	17.9%	17.9%	17.7%	17.6%	17.6%	17.5%	17.1%	16.9%	16.8%

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.

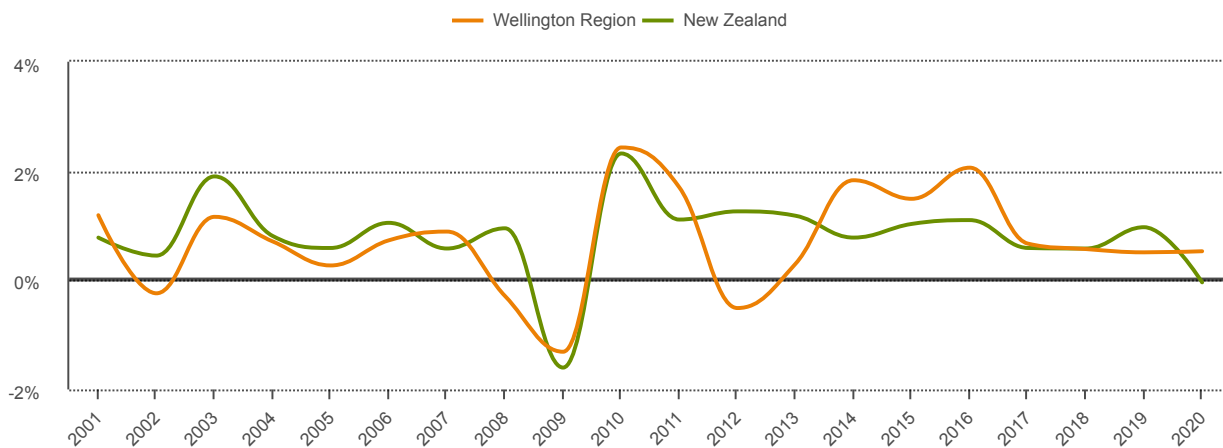
This section describes Wellington Region's productivity level during the year to March 2020 and previous years. Productivity is measured by GDP per employee (in constant 2020 prices).

Figure 12: Productivity, 2020



- GDP per employee in Wellington Region measured \$145,290 in the year to March 2020, which was 16.2% higher than in New Zealand.
- Productivity in Wellington Region increased by 0.5% from a year earlier compared with an decrease of 0% in New Zealand).
- Productivity growth in Wellington Region averaged 0.9%pa over the last ten years compared with an average of 0.9%pa in New Zealand.

Figure 13: Productivity growth, 2001-2020



Change	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wellington Region	0.7%	0.9%	-0.3%	-1.3%	2.4%	1.7%	-0.5%	0.3%	1.8%	1.5%	2.1%	0.7%	0.6%	0.5%	0.5%
New Zealand	1.0%	0.6%	0.9%	-1.6%	2.3%	1.1%	1.3%	1.2%	0.8%	1.0%	1.1%	0.6%	0.6%	1.0%	0.0%

What are the most productive industries in Wellington Region?

This section ranks industries according to their level of GDP per employee in Wellington Region. 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 Wellington Region 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, 2020

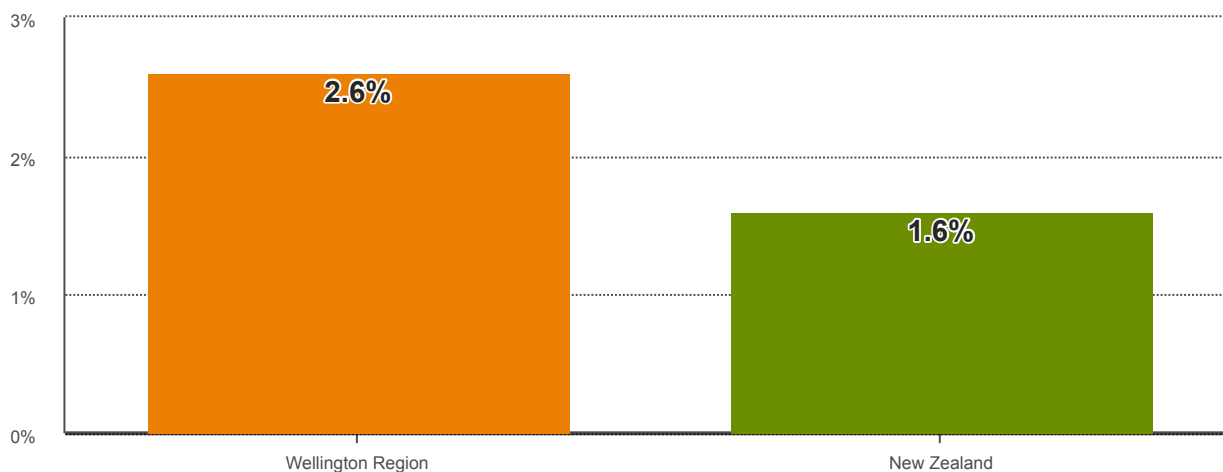
Industry	Productivity		Capital intensity
	Wellington Region	New Zealand	New Zealand
Electricity, Gas, Water and Waste Services	671,558	483,361	0.77
Rental, Hiring and Real Estate Services	386,750	339,422	0.83
Financial and Insurance Services	330,142	274,046	0.57
Information Media and Telecommunications	315,631	293,069	0.58
Manufacturing	225,834	125,532	0.44
Transport, Postal and Warehousing	149,104	125,629	0.44
Wholesale Trade	144,156	129,675	0.40
Public Administration and Safety	142,695	109,680	0.19
Mining	136,131	642,217	0.76
Professional, Scientific and Technical Services	125,220	111,563	0.25
Arts and Recreation Services	112,514	87,683	0.36
Health Care and Social Assistance	84,473	75,217	0.13
Construction	75,292	82,963	0.25
Agriculture, Forestry and Fishing	74,198	114,512	0.61
Other Services	74,008	56,307	0.19
Retail Trade	62,782	69,335	0.32
Education and Training	58,173	60,356	0.26
Administrative and Support Services	53,950	50,964	0.19
Accommodation and Food Services	35,222	39,259	0.25
Total	145,290	124,988	

BUSINESS GROWTH

How fast did the number of business units grow in Wellington Region?

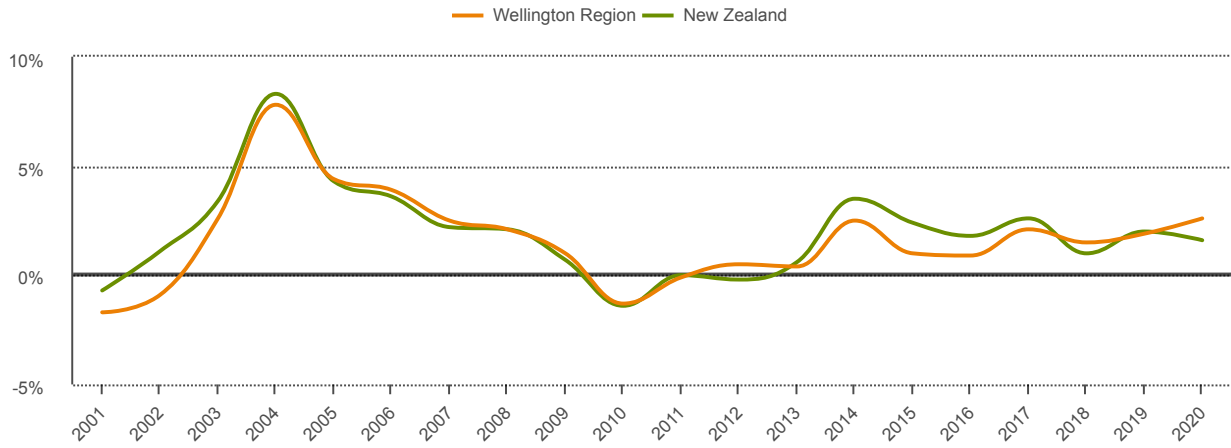
Growth in the number of business units is an indicator of entrepreneurial activity. It indicates an environment in which entrepreneurs are prepared to take risks to start new ventures. This section contrasts Wellington Region's recent performance in business unit growth with other regions in the country.

Figure 14: Business unit growth, year to Mar 2020



- A total of 59,448 business units were recorded in Wellington Region in 2020, up 2.6% from a year earlier.
- The number of business units in New Zealand increased by 1.6% over the same period.
- Growth in the number of business units in Wellington Region averaged 1.3%pa over the past 10 years compared with 1.5%pa in the national economy.
- Business unit growth in Wellington Region varied from a high of 7.8% in 2004 to a low of -1.7% in 2001.

Figure 15: Annual average business unit growth, 2001-2020



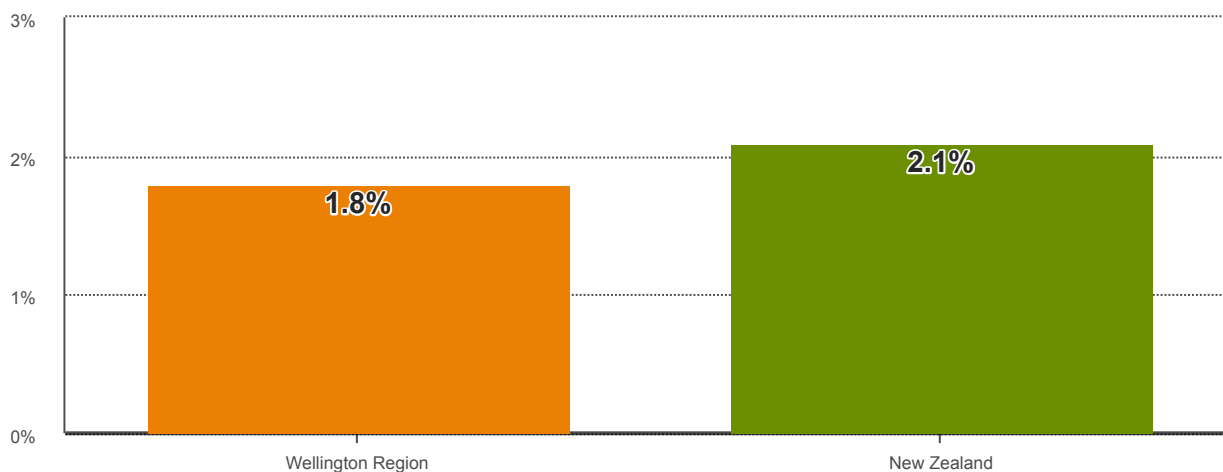
Change	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wellington Region	3.9%	2.5%	2.1%	1.0%	-1.3%	-0.1%	0.5%	0.4%	2.5%	1.0%	0.9%	2.1%	1.5%	1.9%	2.6%
New Zealand	3.6%	2.2%	2.1%	0.7%	-1.4%	0.0%	-0.2%	0.6%	3.5%	2.4%	1.8%	2.6%	1.0%	2.0%	1.6%

POPULATION GROWTH

How fast has Wellington Region'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 Wellington Region's recent population growth with other districts and the country as a whole.

Figure 16: Population growth, year to Jun 2020



- Wellington Region's population was 542,000 in 2020, up 1.8% from a year earlier. New Zealand's total population grew by 2.1% over the same period.
- Population growth in Wellington Region averaged 1.6%pa over the last 5 years compared with 2.0%pa in New Zealand.
- Since 1996 growth in Wellington Region reached a high of 1.8%pa in 2016 and a low of 0.3%pa in 2013.

Figure 17: Annual population growth, 1997-2020

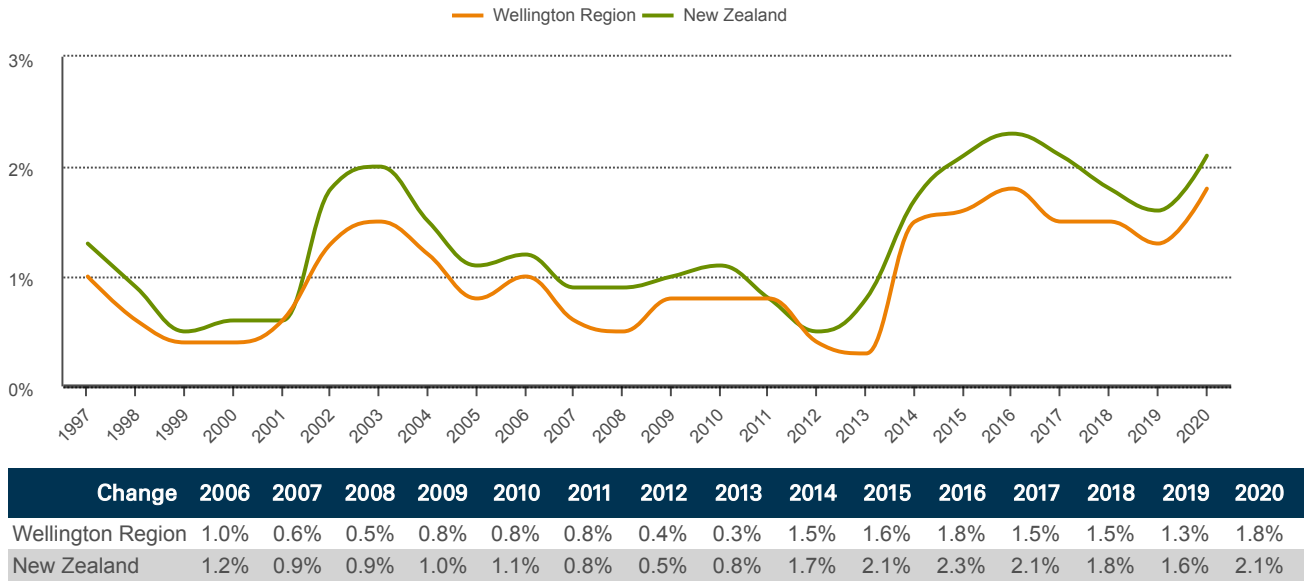
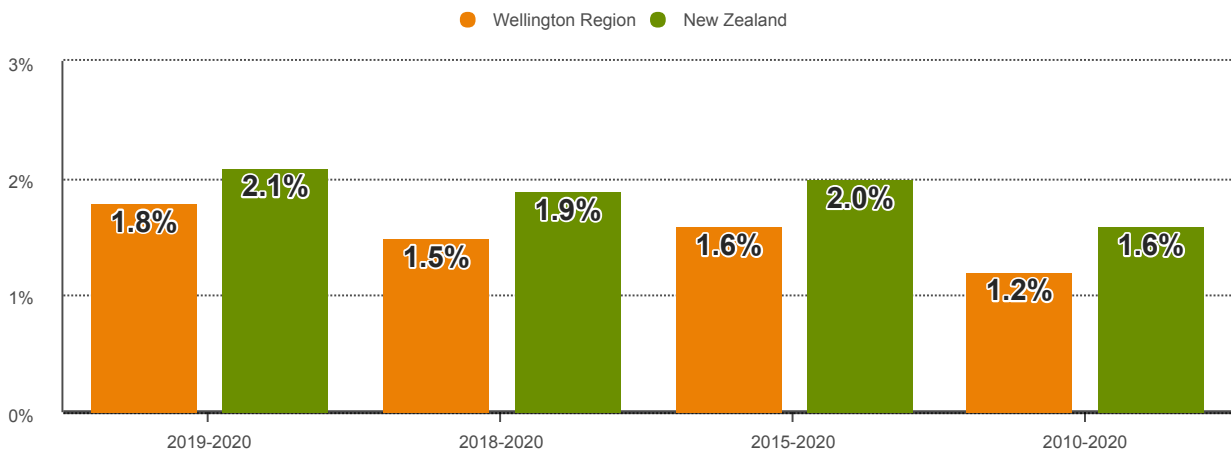


Figure 18: Population growth over the last 1, 2, 5, and 10 years

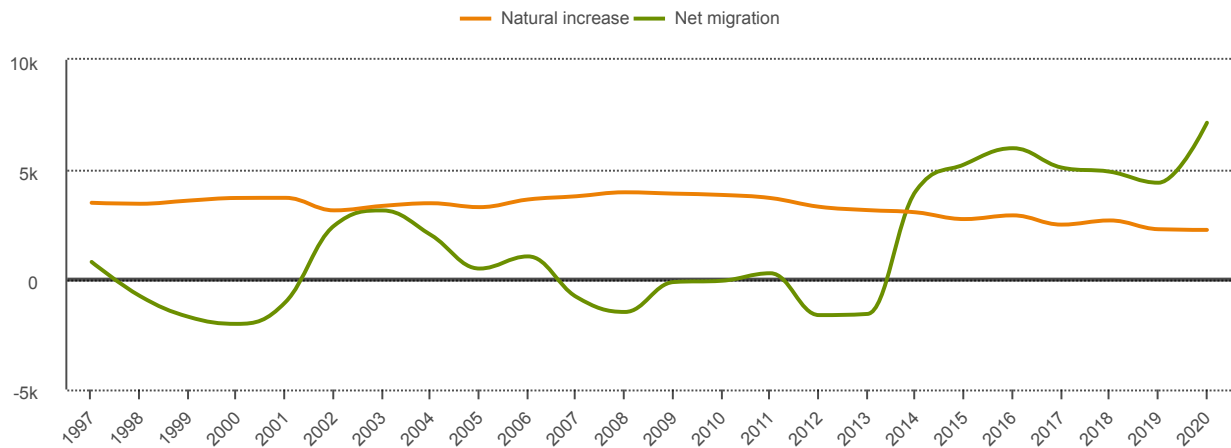


What is the source of Wellington Region's population growth?

A region's population can grow through natural growth (births less deaths) and net migration (arrivals less departures). This section describes the relative contributions of these two sources to population growth in Wellington Region.

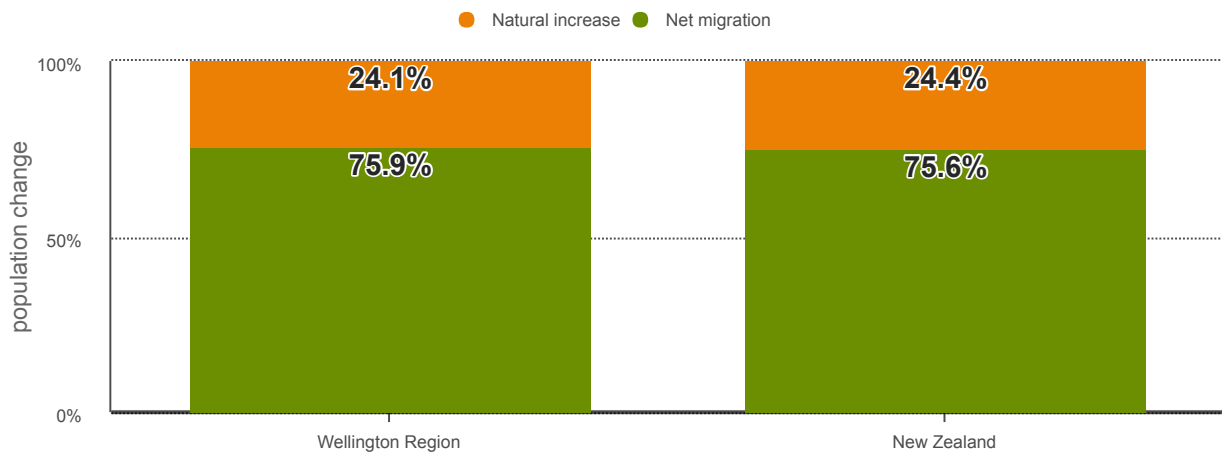
- Wellington Region's population increased by 9,400 people in the year to June 2020. This net increase was made up of net migration of 7,138 and natural increase of 2,262.

Figure 19: Population source of Wellington Region, 1997-2020



- The relative contribution of net migration to natural growth in Wellington Region was higher than New Zealand in 2020.

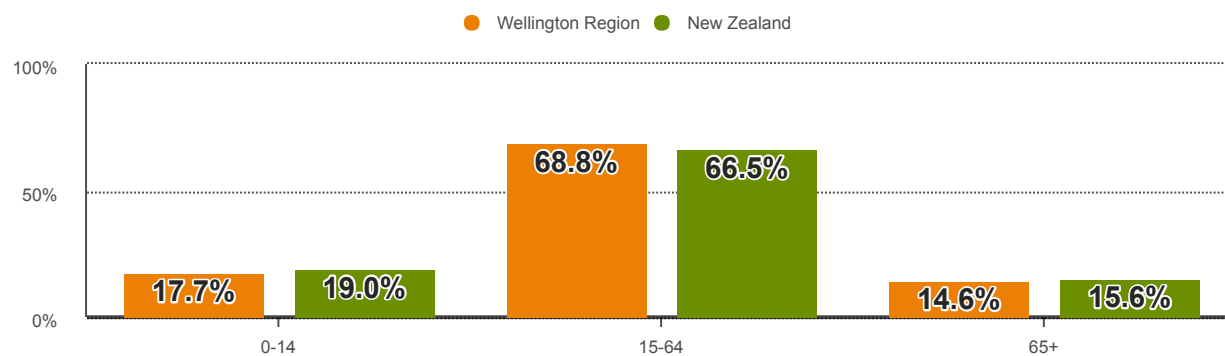
Figure 20: Sources of population growth, 2020



What is the age structure of Wellington Region's population?

- In 2020, 68.8% of Wellington Region's population was of working age (15-64). This was significantly higher than the proportion of the national population (66.5%).
- Wellington Region had a slightly lower proportion (17.7%) of young people (0-14) than the country as a whole (19.0%) and a significantly lower proportion (14.6%) of people 65 years and older compared with New Zealand (15.6%).
- Overall the dependency ratio in Wellington Region (45.4%) was lower than in the national economy (50.3%). 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 21: Age composition of the population, year to June 2020



STANDARD OF LIVING

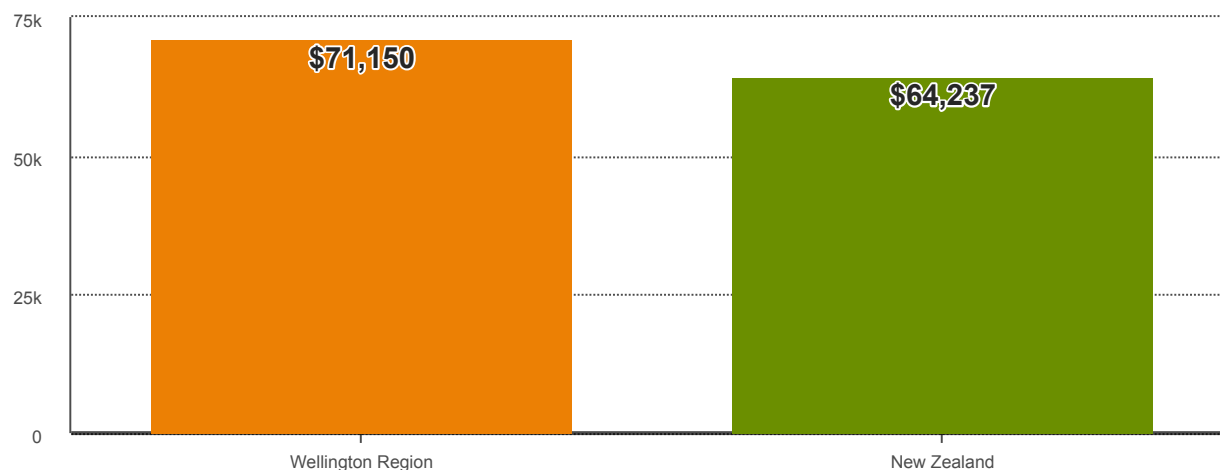
This section describes a few indicators of economic standard of living. It investigates average earnings, house prices and housing affordability.

What are the mean earnings in Wellington Region?

Income earned in employment is an important source of household income, well-being and choices available. Average 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.

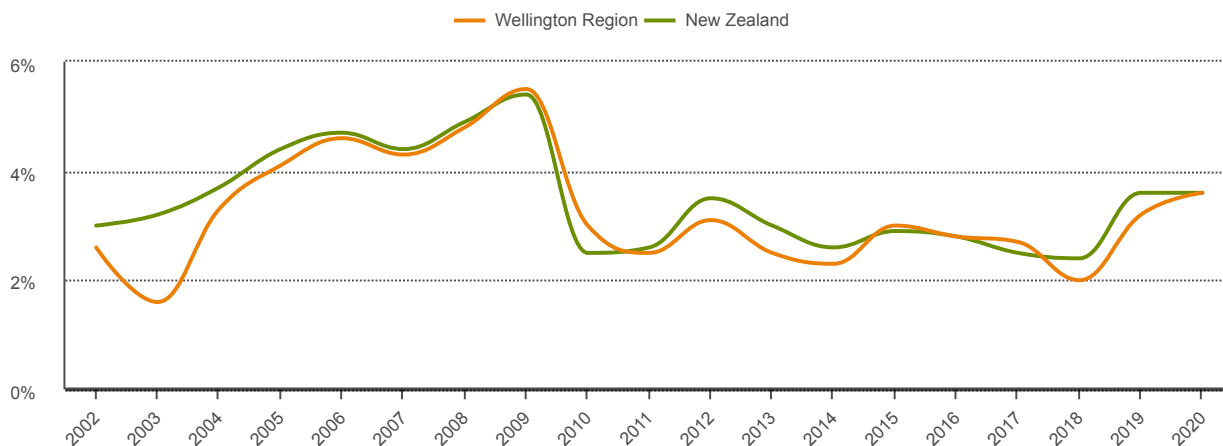
This section looks at how average annual earnings in the Wellington Region has changed over time and how this compares against annual average earnings nationally.

Figure 22: Earnings, 2020



- Mean annual earnings in Wellington Region was \$71,150 in the year to March 2020, which was higher than the New Zealand mean of \$64,237.
- Mean earnings in Wellington Region increased by 3.6% over the year to March 2020 compared with an increase of 3.6% in New Zealand.
- Over the last ten years earnings growth in Wellington Region reached a maximum of 5.5% in 2009 and a minimum of 1.6% in 2003.

Figure 23: Annual earnings growth, 2002-2020



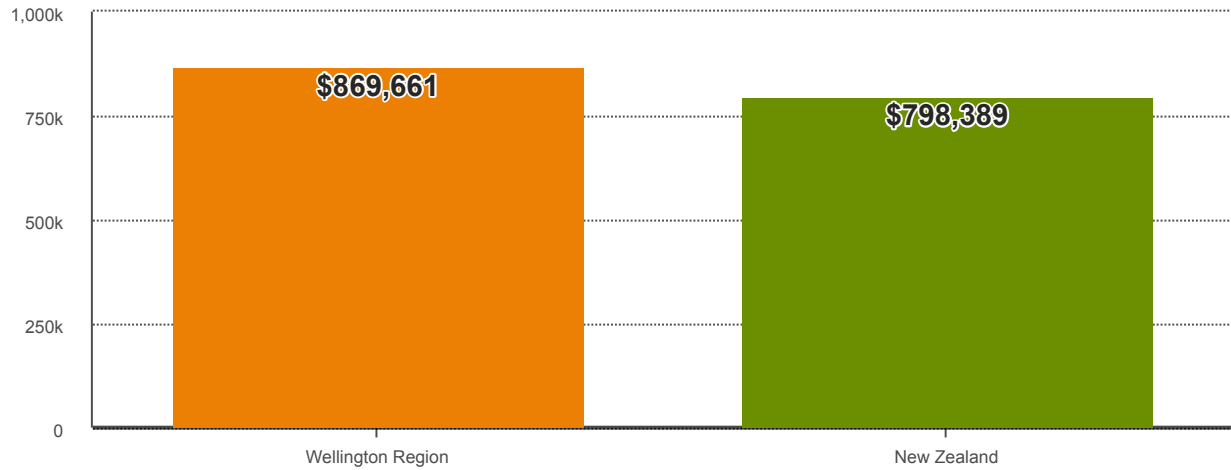
Change	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wellington Region	4.6%	4.3%	4.8%	5.5%	3.0%	2.5%	3.1%	2.5%	2.3%	3.0%	2.8%	2.7%	2.0%	3.2%	3.6%
New Zealand	4.7%	4.4%	4.9%	5.4%	2.5%	2.6%	3.5%	3.0%	2.6%	2.9%	2.8%	2.5%	2.4%	3.6%	3.6%

- Mean annual earnings in Wellington Region was \$71,150 in the year to March 2020, which was higher than the New Zealand mean of \$64,237.
- Mean earnings in Wellington Region increased by 3.6% over the year to March 2020 compared with an increase of 3.6% in New Zealand.
- Over the last ten years earnings growth in Wellington Region reached a maximum of 5.5% in 2009 and a minimum of 1.6% in 2003.

How do house prices in Wellington Region compare?

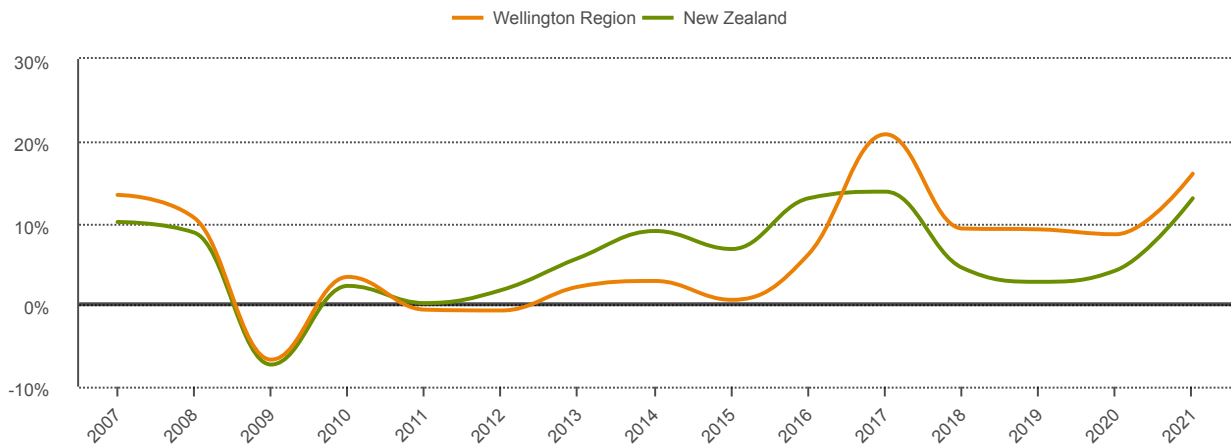
The cost of housing is a major component of household spending. This section describes the cost of housing in Wellington Region relative to the rest of the country.

Figure 24: Average current house value, 2021



- The Average current house value in Wellington Region was \$869,661 in 2021, which was higher than the New Zealand median of \$798,389.
- House price growth in Wellington Region was 16.0% for the year to March 2021. Growth was stronger than in New Zealand (13.0%).

Figure 25: Annual Average current house value growth, 2007-2021

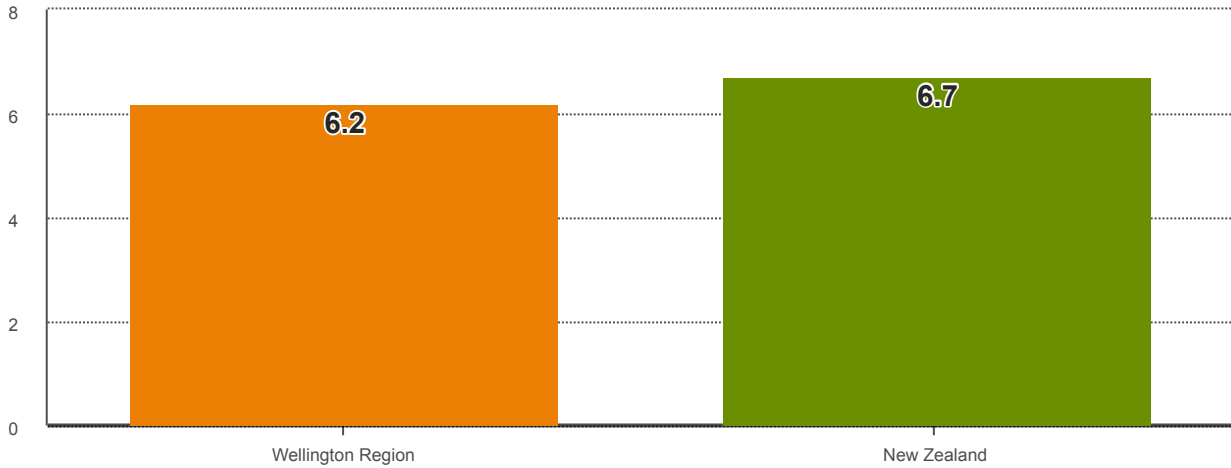


Change	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Wellington Region	13.4%	10.6%	-6.7%	3.4%	-0.6%	-0.7%	2.2%	2.9%	0.6%	6.2%	20.8%	9.3%	9.2%	8.6%	16.0%
New Zealand	10.1%	8.8%	-7.3%	2.3%	0.2%	1.8%	5.7%	9.0%	6.8%	13.0%	13.8%	4.5%	2.8%	4.2%	13.0%

How affordable is housing in Wellington Region?

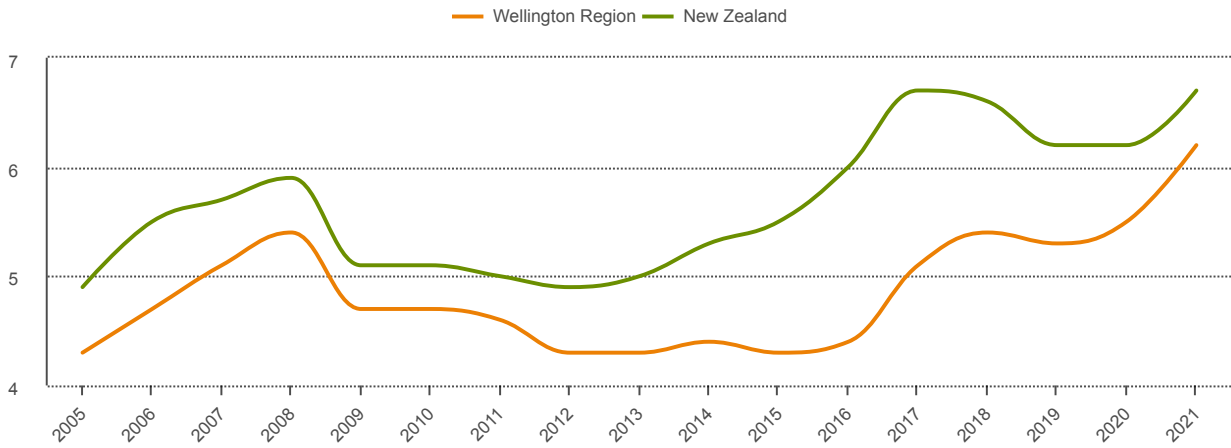
This section investigates the affordability of housing by comparing average current house values with average earnings. We have estimated a housing affordability index which is the ratio of the average current house value to annual average earnings measured in the Linked Employer Employee Data. A higher ratio therefore indicates lower housing affordability.

Figure 26: Housing affordability index, 2021



- The housing affordability index in Wellington Region was 6.2 in the year to March 2021, which was lower than New Zealand's index of 6.7. This means that housing is more affordable in Wellington Region than in New Zealand.

Figure 27: Housing affordability, 2005-2021



Level	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Wellington Region	5.1	5.4	4.7	4.7	4.6	4.3	4.3	4.4	4.3	4.4	5.1	5.4	5.3	5.5	6.2
New Zealand	5.7	5.9	5.1	5.1	5.0	4.9	5.0	5.3	5.5	6.0	6.7	6.6	6.2	6.2	6.7

WORKFORCE AND SKILLS

How do skill levels in Wellington Region compare with New Zealand?

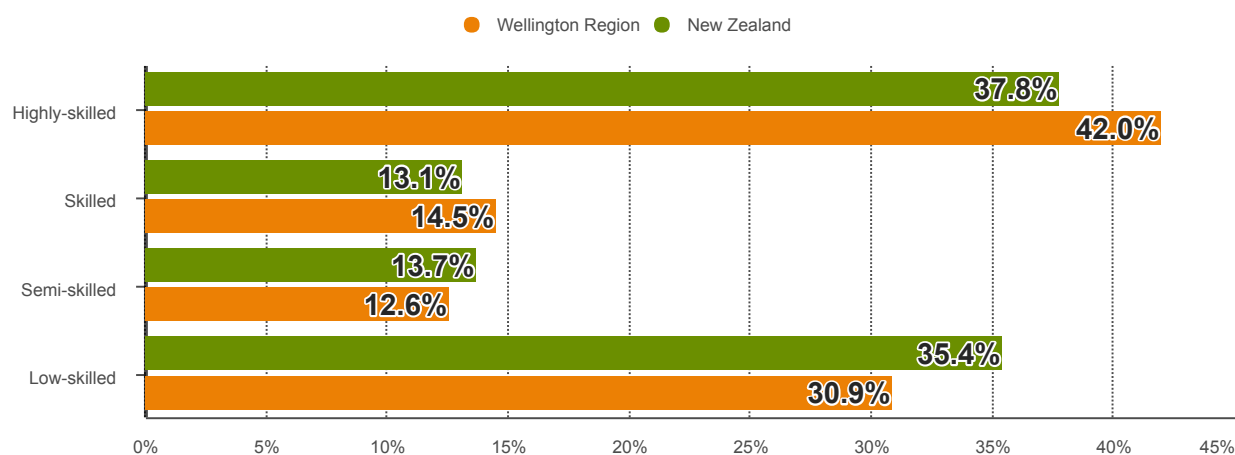
A region that can offer high skilled jobs can generally offer a higher standard of living to its residents. It is also has a better chance of retaining its residents and attracting new skills. This section contrasts the skill levels required by jobs in Wellington Region with those required in the national 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, 2020

Skill level	Wellington Region		New Zealand	
	Jobs	% of total	Jobs	% of total
Highly-skilled	125,575	42.0%	979,789	37.8%
Skilled	43,354	14.5%	338,765	13.1%
Semi-skilled	37,647	12.6%	355,374	13.7%
Low-skilled	92,318	30.9%	918,459	35.4%
Total	298,894	100%	2,592,389	100%

- Approximately 42.0% of Wellington Region's workforce was employed in highly skilled occupations in 2020. This is higher than in New Zealand (37.8%).
- Approximately 30.9% of Wellington Region's workforce was employed in low-skilled occupations in 2020. This is lower than in New Zealand 35.4%.

Figure 28: Employment by broad skill level, 2020



What is the occupational structure of employment in Wellington Region?

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

- Professionals accounted for the largest share of employment (30.4%) in Wellington Region, which is higher than New Zealand (24.3%).
- Managers accounted for the second largest share of employment (16.4%) in Wellington Region, which is lower than New Zealand (18.0%).
- Machinery operators and drivers accounted for the lowest share of employment (3.6%) in Wellington Region, which is lower than New Zealand (5.3%).

Figure 29: Employment by broad occupation, 2020

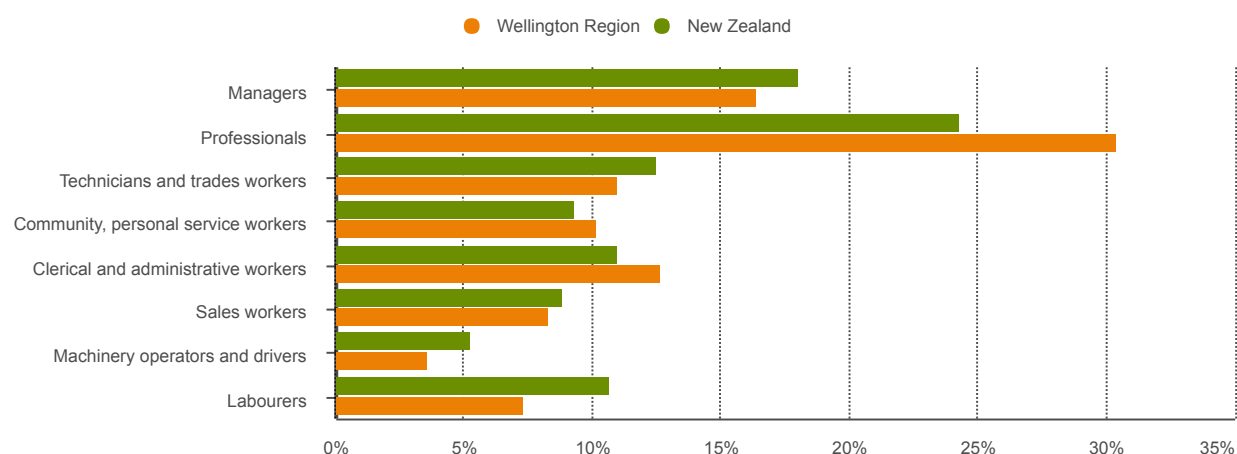


Table 13 shows a ranking of employment by 2-digit occupations.

- Specialist Managers is the largest 2-digit occupation in Wellington Region, accounting for 8.5% of employment. By comparison 8.3% of the national workforce are employed as specialist managers.
- The next largest 2-digit occupations in Wellington Region are business, hr & marketing professionals (7.7%) and education professionals (6.3%).

Table 13: Employment by ANZSIC 2-digit occupation, 2020

Occupation	Wellington Region		New Zealand	
	Employment	% of total	Employment	% of total
Specialist Managers	25,323	8.5%	216,009	8.3%
Business, HR & Marketing Professionals	23,034	7.7%	138,429	5.3%
Education Professionals	18,873	6.3%	150,204	5.8%
Sales Assistants & Salespersons	12,563	4.2%	123,965	4.8%
Health Professionals	11,951	4.0%	107,032	4.1%
ICT Professionals	11,787	3.9%	62,227	2.4%
Design, Engineering, Science Professionals	10,984	3.7%	90,214	3.5%
Hospitality, Retail & Service Managers	10,930	3.7%	95,098	3.7%
Legal, Social & Welfare Professionals	10,375	3.5%	58,092	2.2%
Chief Execs, General Managers, Legislators	10,274	3.4%	90,711	3.5%
Carers & Aides	10,168	3.4%	87,144	3.4%
Sales Representatives & Agents	9,335	3.1%	78,627	3.0%
Office Managers & Program Administrators	8,241	2.8%	67,171	2.6%
Numerical Clerks	7,002	2.3%	46,892	1.8%
Construction Trades Workers	6,735	2.3%	65,521	2.5%
General Clerical Workers	6,579	2.2%	49,416	1.9%
Engineering, ICT & Science Technicians	6,340	2.1%	50,639	2.0%
Protective Service Workers	6,208	2.1%	34,722	1.3%
Other Clerical & Administrative Workers	6,137	2.1%	44,712	1.7%
Hospitality Workers	5,950	2.0%	50,990	2.0%
Other Labourers	5,825	1.9%	70,062	2.7%
Cleaners & Laundry Workers	5,630	1.9%	55,723	2.1%
Road & Rail Drivers	5,063	1.7%	55,672	2.1%
Food Trades Workers	4,937	1.7%	44,028	1.7%
Sports & Personal Service Workers	4,925	1.6%	42,620	1.6%
Automotive & Engineering Trades Workers	4,702	1.6%	65,091	2.5%
Other Technicians & Trades Workers	4,368	1.5%	39,308	1.5%
Inquiry Clerks & Receptionists	4,190	1.4%	36,250	1.4%
Arts & Media Professionals	3,731	1.2%	23,543	0.9%
Health & Welfare Support Workers	3,366	1.1%	25,970	1.0%
Electrotech & Telecoms Trades Workers	3,217	1.1%	32,566	1.3%
Personal Assistants & Secretaries	3,141	1.1%	21,679	0.8%
Sales Support Workers	3,054	1.0%	28,679	1.1%
Factory Process Workers	2,929	1.0%	49,799	1.9%
Clerical & Office Support Workers	2,735	0.9%	18,031	0.7%
Machine & Stationary Plant Operators	2,590	0.9%	34,944	1.3%
Farm, Forestry & Garden Workers	2,572	0.9%	53,701	2.1%
Construction & Mining Labourers	2,564	0.9%	27,960	1.1%
Farmers & Farm Managers	2,486	0.8%	63,804	2.5%
Skilled Animal & Horticultural Workers	2,482	0.8%	27,074	1.0%
Food Preparation Assistants	2,375	0.8%	20,432	0.8%
Storepersons	1,778	0.6%	23,779	0.9%
Mobile Plant Operators	1,448	0.5%	23,859	0.9%
Total employment	298,894	100%	2,592,389	100%

Employment in knowledge intensive industries in Wellington Region

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.

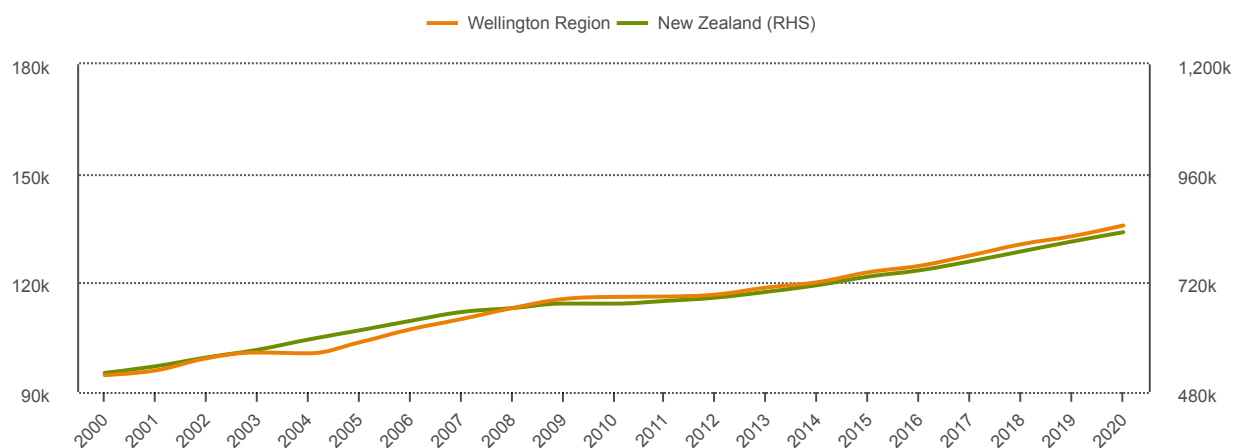
This section describes employment in knowledge intensive industries in Wellington Region.

Table 14: Employment in knowledge intensive industries, 2020

	Employment in KI industries 2020	KI employment as share of total employment 2020	Annual growth in KI employment 2020	Annual average growth in KI employment 2010-2020
Wellington Region	135,732	45.4%	2.2%	1.6%
New Zealand	831,101	32.1%	2.5%	2.1%

- During 2020, there were 135,732 jobs in Wellington Region's knowledge intensive industries. At 45.4% of total employment, this was higher than in New Zealand (32.1%).
- During the year to March 2020, growth in employment in knowledge intensive industries was 2.2%, compared with a change of 2.5% in New Zealand.

Figure 30: Employment in knowledge intensive industries, 2000-2020



What are the top knowledge intensive industries in Wellington Region?

Table 15: Top 30 knowledge intensive industries in Wellington Region, 2020

Rank	Industry	Wellington Region		New Zealand	
		Employment	% of total employment	Employment	% of total employment
1	Central Government Administration	19,104	6.4%	42,486	1.6%
2	Computer Systems Design and Related Services	11,775	3.9%	45,829	1.8%
3	Hospitals (except Psychiatric Hospitals)	7,972	2.7%	75,871	2.9%
4	Management Advice and Other Consulting Services	7,278	2.4%	42,906	1.7%
5	Primary Education	5,943	2.0%	55,142	2.1%
6	Higher Education	5,667	1.9%	36,115	1.4%
7	Corporate Head Office Management Services	4,946	1.7%	26,276	1.0%
8	Employment Placement and Recruitment Services	4,891	1.6%	19,443	0.7%
9	Other Allied Health Services	4,113	1.4%	34,993	1.3%
10	Secondary Education	3,654	1.2%	36,327	1.4%
11	Engineering Design and Engineering Consulting Services	3,354	1.1%	30,493	1.2%
12	Accounting Services	3,180	1.1%	25,344	1.0%
13	Legal Services	2,947	1.0%	19,791	0.8%
14	Regulatory Services	2,942	1.0%	7,413	0.3%
15	Local Government Administration	2,632	0.9%	24,982	1.0%
16	Other Auxiliary Finance and Investment Services	2,211	0.7%	10,326	0.4%
17	Adult, Community and Other Education n.e.c.	2,092	0.7%	12,734	0.5%
18	Other Interest Group Services n.e.c.	2,073	0.7%	13,979	0.5%
19	General Practice Medical Services	1,891	0.6%	16,630	0.6%
20	Postproduction Services and Other Motion Picture and Video Activities	1,844	0.6%	2,344	0.09%
21	Scientific Research Services	1,748	0.6%	8,760	0.3%
22	Justice	1,605	0.5%	4,233	0.2%
23	Technical and Vocational Education and Training	1,426	0.5%	10,334	0.4%
24	Architectural Services	1,425	0.5%	10,229	0.4%
25	Religious Services	1,326	0.4%	9,561	0.4%
26	Business and Professional Association Services	1,193	0.4%	2,599	0.1%
27	Other Administrative Services n.e.c.	1,192	0.4%	10,518	0.4%
28	Wired Telecommunications Network Operation	1,167	0.4%	6,413	0.2%
29	Educational Support Services	1,108	0.4%	4,253	0.2%
30	Pharmaceutical, Cosmetic and Toiletry Goods Retailing	1,080	0.4%	11,565	0.4%

Which qualifications are in demand in Wellington Region?

This section examines the types of qualifications, in terms of NZQA level and field of study, that are in demand in Wellington Region. 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 Wellington Region, 2020

Field of study	Certificate (level 1-3)	Certificate (level 4)	Diploma (level 5-6)	Degree (level 7+)	Total
Number					
Natural and Physical Sciences	4,304	908	2,153	7,862	15,226
Information Technology	3,885	479	1,405	7,222	12,990
Engineering and Related Technologies	15,151	12,349	5,688	13,953	47,141
Architecture and Building	5,249	9,967	2,003	3,869	21,088
Agriculture, Environmental and Related Studies	4,212	2,041	909	2,259	9,420
Health	7,803	1,714	3,316	15,308	28,140
Education	5,493	904	1,623	14,474	22,493
Management and Commerce	23,490	4,763	8,682	25,710	62,645
Society and Culture	14,117	3,354	5,934	21,361	44,766
Creative Arts	6,980	1,758	1,837	7,829	18,405
Food, Hospitality and Personal Services	7,889	5,401	1,945	1,344	16,578
Totals	98,572	43,638	35,494	121,190	298,894
% of total					
Natural and Physical Sciences	1.4%	0.3%	0.7%	2.6%	5.1%
Information Technology	1.3%	0.2%	0.5%	2.4%	4.3%
Engineering and Related Technologies	5.1%	4.1%	1.9%	4.7%	15.8%
Architecture and Building	1.8%	3.3%	0.7%	1.3%	7.1%
Agriculture, Environmental and Related Studies	1.4%	0.7%	0.3%	0.8%	3.2%
Health	2.6%	0.6%	1.1%	5.1%	9.4%
Education	1.8%	0.3%	0.5%	4.8%	7.5%
Management and Commerce	7.9%	1.6%	2.9%	8.6%	21.0%
Society and Culture	4.7%	1.1%	2.0%	7.1%	15.0%
Creative Arts	2.3%	0.6%	0.6%	2.6%	6.2%
Food, Hospitality and Personal Services	2.6%	1.8%	0.7%	0.4%	5.5%
Totals	33.0%	14.6%	11.9%	40.5%	100%

- The greatest demand in Wellington Region in 2020 was for qualifications at the level of Degree (level 7+). Approximately 40.5% of all positions in Wellington Region required this level of qualification.
- By field of study, the highest demand was for Management and Commerce. Approximately 21.0% of all positions in Wellington Region required this field of study.

Table 17: Change in employment by level of qualification and field of study in Wellington Region, 2010-2020

Field of study	Certificate (level 1-3)	Certificate (level 4)	Diploma (level 5-6)	Degree (level 7+)	Total
Absolute change					
Natural and Physical Sciences	69	97	303	1,571	2,039
Information Technology	11	47	154	2,129	2,341
Engineering and Related Technologies	625	718	660	2,819	4,823
Architecture and Building	426	1,601	439	783	3,249
Agriculture, Environmental and Related Studies	197	193	154	373	917
Health	327	173	725	2,865	4,090
Education	283	49	347	2,435	3,113
Management and Commerce	-208	288	1,565	4,223	5,869
Society and Culture	445	319	1,306	3,407	5,477
Creative Arts	103	142	289	1,544	2,079
Food, Hospitality and Personal Services	444	1,065	252	221	1,982
Totals	2,722	4,692	6,196	22,370	35,980
annual average % change					
Natural and Physical Sciences	0.2%	1.1%	1.5%	2.3%	1.4%
Information Technology	0.0%	1.0%	1.2%	3.6%	2.0%
Engineering and Related Technologies	0.4%	0.6%	1.2%	2.3%	1.1%
Architecture and Building	0.9%	1.8%	2.5%	2.3%	1.7%
Agriculture, Environmental and Related Studies	0.5%	1.0%	1.9%	1.8%	1.0%
Health	0.4%	1.1%	2.5%	2.1%	1.6%
Education	0.5%	0.6%	2.4%	1.9%	1.5%
Management and Commerce	-0.1%	0.6%	2.0%	1.8%	1.0%
Society and Culture	0.3%	1.0%	2.5%	1.8%	1.3%
Creative Arts	0.1%	0.8%	1.7%	2.2%	1.2%
Food, Hospitality and Personal Services	0.6%	2.2%	1.4%	1.8%	1.3%
Totals	0.3%	1.1%	1.9%	2.1%	100%

- The number of positions in Wellington Region requiring a Degree (level 7+) increased by 22,370 between 2010 and 2020, ranking it as the qualification level with the largest absolute increase in demand.
- By field of study, Management and Commerce experienced the highest increase in demand between 2010 and 2020. The number of positions requiring this field of study increased by 5,869 over the 10 year period.

TOURISM

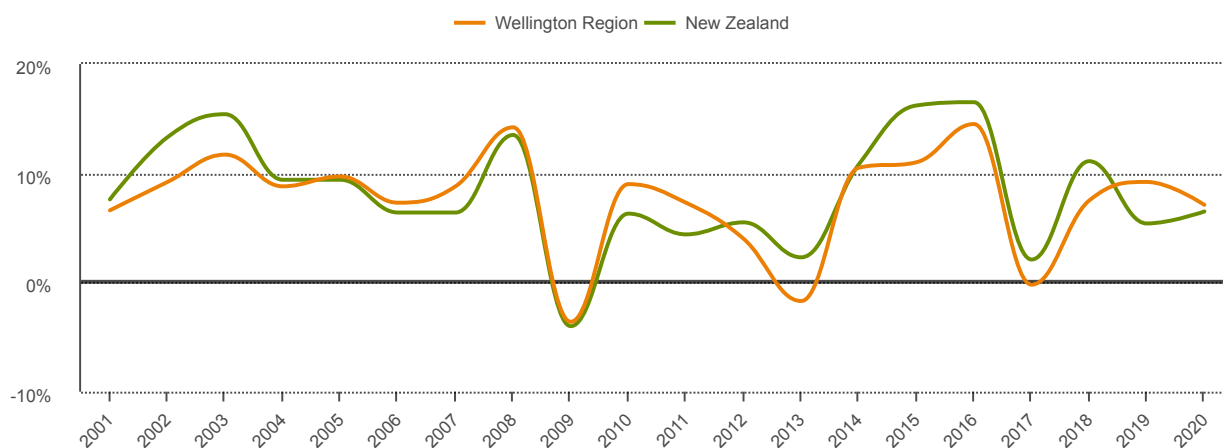
Tourism has grown rapidly in New Zealand since 2000. Not only has the number of overseas tourist arrivals increased substantially, but the level of domestic tourism has also expanded rapidly as spending on leisure by New Zealand residents increased. This section describes the contribution of tourism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

Tourism GDP

Table 18: Tourism GDP, 2001-2020

Year	Wellington Region		New Zealand	
	Level	Change	Level	Change
2000	\$371m		\$3,451m	
2001	\$396m	6.6%	\$3,712m	7.6%
2002	\$432m	9.2%	\$4,206m	13.3%
2003	\$482m	11.7%	\$4,853m	15.4%
2004	\$525m	8.8%	\$5,308m	9.4%
2005	\$576m	9.7%	\$5,809m	9.4%
2006	\$618m	7.3%	\$6,180m	6.4%
2007	\$672m	8.8%	\$6,575m	6.4%
2008	\$767m	14.2%	\$7,462m	13.5%
2009	\$740m	-3.6%	\$7,161m	-4.0%
2010	\$807m	9.0%	\$7,616m	6.3%
2011	\$865m	7.3%	\$7,951m	4.4%
2012	\$900m	4.0%	\$8,388m	5.5%
2013	\$885m	-1.7%	\$8,582m	2.3%
2014	\$978m	10.5%	\$9,506m	10.8%
2015	\$1,085m	11.0%	\$11,050m	16.2%
2016	\$1,243m	14.5%	\$12,873m	16.5%
2017	\$1,241m	-0.2%	\$13,146m	2.1%
2018	\$1,333m	7.5%	\$14,610m	11.1%
2019	\$1,455m	9.2%	\$15,397m	5.4%
2020	\$1,558m	7.1%	\$16,400m	6.5%

Figure 31: Annual average tourism GDP growth, 2001-2020



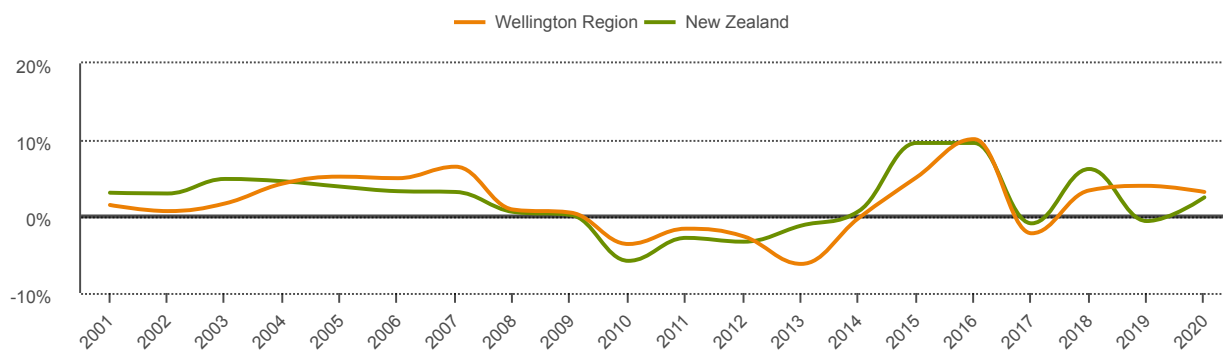
- The tourism industry contributed \$1,558m towards GDP in Wellington Region in 2020. This amounted to 3.6% of the Wellington Region's economic output in 2020, up from 2.3% ten years ago.
- Economic output in Wellington Region's tourism industry increased by 7.1% in 2020, compared with a 6.5% increase in New Zealand.
- Growth in the industry in Wellington Region has averaged 6.8% over the last ten years, compared with 8.0% in New Zealand.

Tourism Employment

Table 19: Tourism employment, 2001-2020

Year	Wellington Region		New Zealand	
	Level	Change	Level	Change
2000	16,525		152,607	
2001	16,773	1.5%	157,386	3.1%
2002	16,885	0.7%	162,042	3.0%
2003	17,169	1.7%	169,965	4.9%
2004	17,909	4.3%	177,861	4.6%
2005	18,847	5.2%	184,761	3.9%
2006	19,792	5.0%	190,893	3.3%
2007	21,071	6.5%	197,025	3.2%
2008	21,271	0.9%	198,216	0.6%
2009	21,374	0.5%	198,555	0.2%
2010	20,613	-3.6%	187,083	-5.8%
2011	20,275	-1.6%	181,881	-2.8%
2012	19,749	-2.6%	175,863	-3.3%
2013	18,522	-6.2%	173,724	-1.2%
2014	18,479	-0.2%	175,023	0.7%
2015	19,420	5.1%	191,796	9.6%
2016	21,386	10.1%	210,126	9.6%
2017	20,910	-2.2%	208,323	-0.9%
2018	21,623	3.4%	221,157	6.2%
2019	22,492	4.0%	219,867	-0.6%
2020	23,207	3.2%	225,384	2.5%

Figure 32: Annual average tourism employment growth, 2001-2020



- The tourism industry employed an average of 23,207 people in Wellington Region in 2020. This amounted to 7.8% of the Wellington Region's total employment in 2020, down from 7.8% in 2010.
- Employment growth in the industry in Wellington Region has averaged 1.2% over the last ten years, compared with 1.9% in New Zealand.
- Employment in the tourism industry increased by 3.2% in 2020, compared with a 2.5% increase in New Zealand.

TECHNICAL NOTES

Time period

This economic profile reports on March years (eg 2020 refers to the 12 months to March 2020) 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 three and four 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.

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.

GDP is measured in constant 2020 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.

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 2020 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.

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 2020 **prices** and make use of 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.