

City Economic Insights #1

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This is the first in a series of papers that will examine trends in the Dunedin economy over the last 10 years and make comparisons to other cities and the national economy for reference. They are published by Enterprise Dunedin the Economic Development Agency for Dunedin City Council. The research uses data sourced from Infometrics and government agencies such as NZStats, IRD, and MBIE, the papers are peer reviewed by external economists.

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Understanding Dunedin's Economic Performance – The Story Behind the Numbers for Gross Domestic Product (GDP), Jobs and Income.

When population growth is considered, Dunedin's GDP growth has outperformed New Zealand over the past decade. Dunedin is a more productive and resilient economy than its headline numbers suggest. A deeper look shows that:

- Dunedin is generating strong economic output relative to its population growth
- Employment is growing faster than population growth
- The city's large tertiary education and public sectors significantly influence traditional economic measures
- Dunedin's core working population earns the same as the national average income.

Three key factors help explain why Dunedin's economic performance should be viewed through a broader lens than headline GDP, Jobs and Income figures alone.

1.

Dunedin derives more economic output per person than the national average.

Dunedin has outperformed New Zealand GDP measures when population growth is accounted for and is converting population growth into economic output more efficiently than the national economy. From 2016 to 2025, Dunedin added 3% to its population and the city economy (GDP) grew by 20%.

In Dunedin over the last 10 years, 1% increase in population growth has equated to 6.7% GDP growth, whereas New Zealand's GDP only grew by 1.8% for each 1% of population growth.

Another way to interpret this is to say Dunedin's GDP per capita rose 16% between 2016 and 2025 compared to a 9% per capita increase nationally in the same period.



2.

More people are working in Dunedin than before.

Employment growth provides another positive indicator of Dunedin's economic performance.

Between 2016 and 2025, the number of *filled jobs* in Dunedin increased by 13%, while the city's population grew by 3%. Nationally, *filled jobs* increased by 18% alongside population growth of 13%.

This indicates that while Dunedin's population is growing slowly it is creating employment opportunities at a proportionally faster rate.

More people are actively engaged in the economy, and the unemployment rate is close to recent 10-year lows, which are positive signs.

3.

Dunedin's economy is influenced by its university and public sector.

Dunedin's economy differs from most New Zealand cities due to the significant size of the education and health sectors. The level of Dunedin's GDP sourced from the publicly funded sectors (primarily health and education services) is close to twice the level of New Zealand's economy.

Public sector GDP is calculated differently than private sector GDP because there is no *earnings component* which can make comparisons with other cities less straightforward. This means the GDP measure for Education and Health is lower than for the private sector if all else between them is equal. As a result, comparisons with cities that have pre-dominantly private-sector economies can deflate Dunedin's underlying economic performance.

The city's large tertiary education sector also has a significant impact on economic statistics. Around 27% of Dunedin's working-age population (15–64 years) are tertiary students. Most are studying full-time and, if employed, generally work only part-time. This lowers average income and GDP measures despite reflecting one of Dunedin's significant economic strengths, that we are one of New Zealand's leading education centers. It can make the city appear to have lower income on paper, because students are not full-time earners.

The 30 to 64 age cohort in Dunedin is earning the same as the national median income. In other words, once you remove the student effect, Dunedin's core working population earns the same as the rest of the country.

Rather than indicating economic weakness, these figures reflect the characteristics of a city whose economy is anchored by world-class education and health institutions that provide stability, skilled jobs and long-term resilience.

This paper examines the background to these factors in Dunedin's economic performance.



GDP - private and public sector differences

Gross Domestic Product is the total value of *final goods and services* produced within a defined territorial area. Final goods and services are the finished product and not the component materials used. GDP measures the size of the economy in the specified area regardless of where the company or institution producing the goods or service is owned.

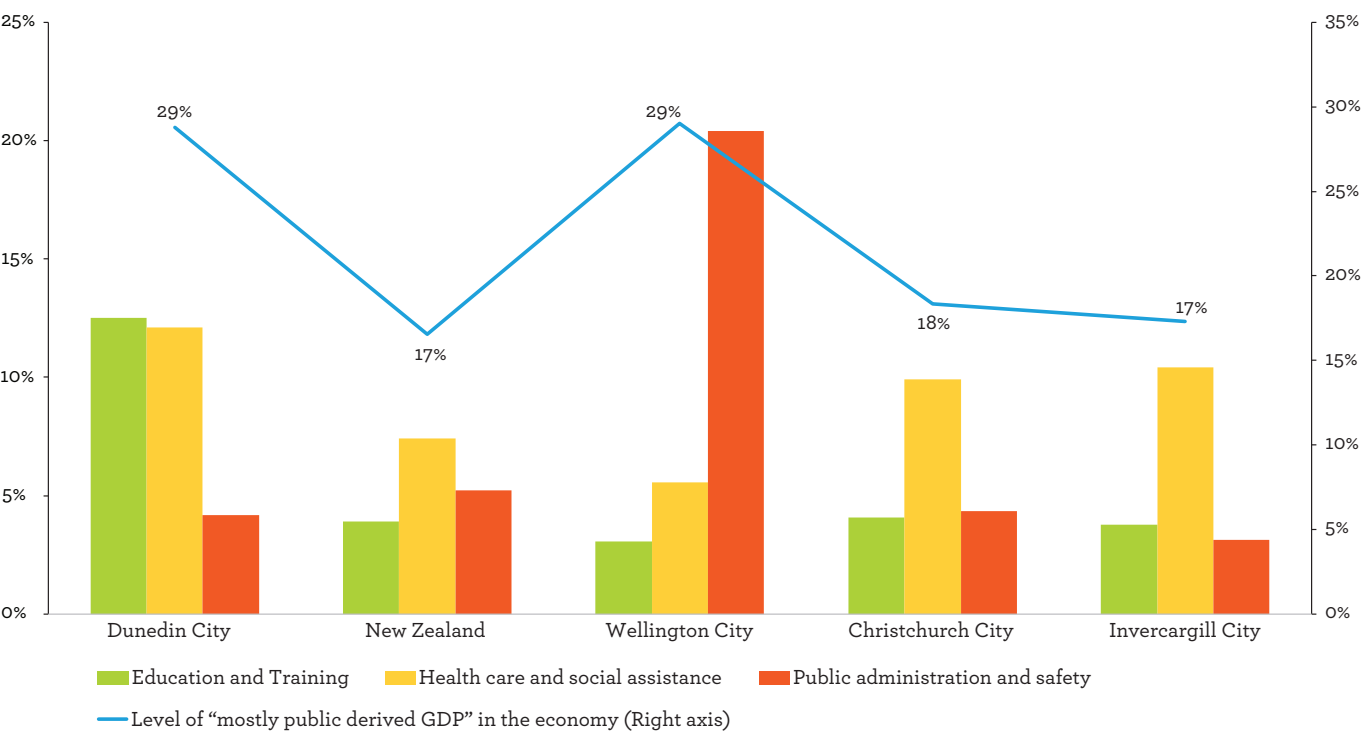
As a measurement of output, GDP is calculated in different ways for public and private sector organisations:

- Private sector GDP is calculated as *earnings before interest and taxes* (EBIT) + salaries and benefits + depreciation
- Public sector GDP calculation is calculated as salaries and benefits + depreciation.

In other words, when measuring GDP for a public sector entity there is no earnings component. This has implications for Dunedin’s economic performance as it lowers the GDP measure for a public organisation versus a private one if all else between them is equal.

If you remove the accounting entry of *Owner-occupied property operation/housing imputation*¹ from the GDP calculation, you get a truer picture of real-world cash flows. Doing so shows some 29% of Dunedin’s GDP is sourced from the public sector (primarily health and education services), the same level as Wellington but close to twice the level of New Zealand’s economy.

Figure 1: The Anchor Tenant. Direct government economic activity as a percentage of GDP in year to December 2025.





Having a large proportion of public sector activity in the economy is an advantage to Dunedin. Like a stable anchor tenant in a commercial property, public sector activity in the city economy provides a well-resourced and relatively stable level of employment and core economic activity regardless of fluctuating business cycles.

Figure 1 shows the components that make up public sector GDP, and their proportion of total GDP across selected locations.

Dunedin benefits again from central government funding in the *Public administration and safety* segment of GDP where 83.5% of the total is from regional offices of national organisation's such as fire, police and social development services.

¹ Owner-occupied property operation is an accounting entry that estimates the “rental value” of homes lived in by their owners. It measures the economic value of housing services, but because it does not involve actual cash changing hands. In 2025 owner-occupied property operation made up 10% of Dunedin's GDP and 8% of New Zealand's as a whole. Owner-occupied property operation is also referred to as a “housing imputation”.

General Economic Profile

Invercargill has strong levels of manufacturing activity due to its regional concentration of primary industry services. Wellington has strong levels of high-value services, due to its location as the seat of government, and as a headquarters of government ministries and private sector corporates.

Dunedin’s GDP profile is closer to Christchurch and the New Zealand average as illustrated in Figure 2. The largest contributors to GDP in Dunedin are education and healthcare (see Figure 3). Both attract people to the city from the wider region, nationally and internationally.

In the case of education, the combined tertiary student population of University of Otago and Otago Polytechnic is around 28,000, although these figures include enrolments at satellite campuses outside Dunedin. This significant input contributes to spending in other sectors of the economy such as accommodation and retail.

Over the last ten years Dunedin’s GDP grew by 20% with Education and Training, Healthcare, Construction and Professional Scientific and Technical Services gaining the most by value (see Figure 4).

Figure 2: Economic profile shown as a percentage of total GDP in year to December 2025.

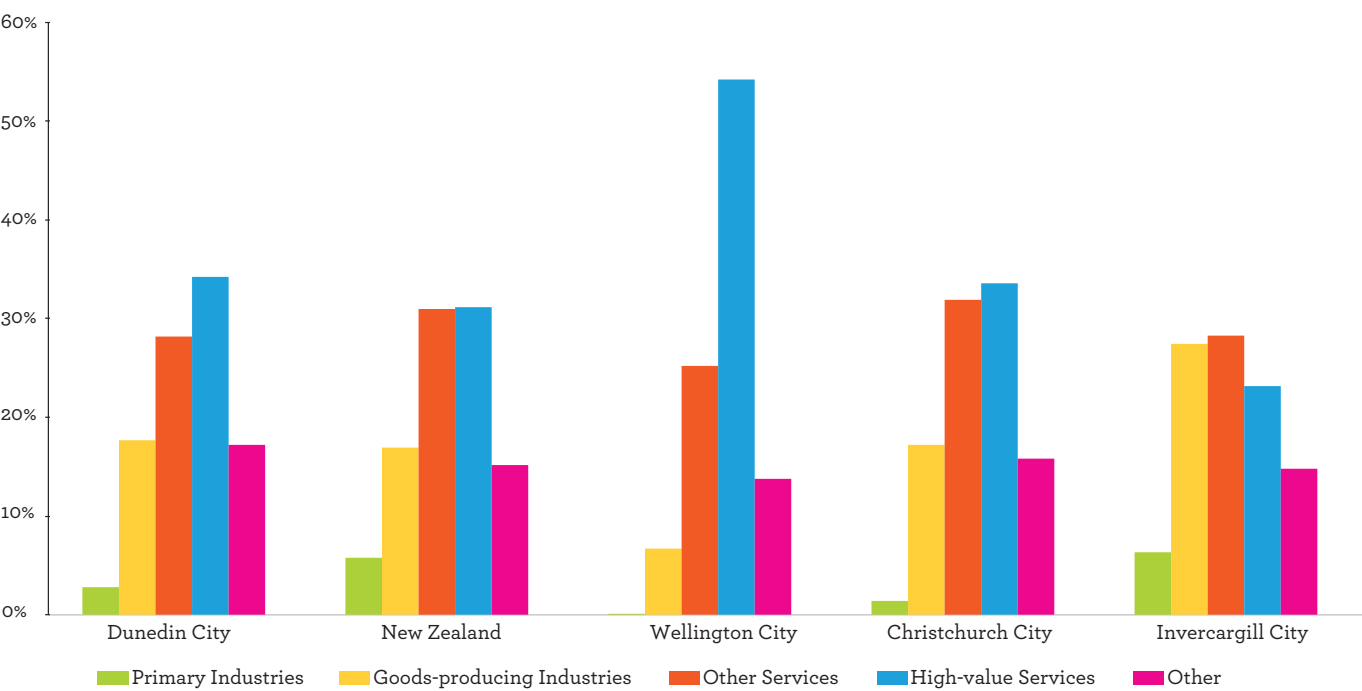


Figure 3: Top ten contributors to Dunedin GDP in year to December 2025.

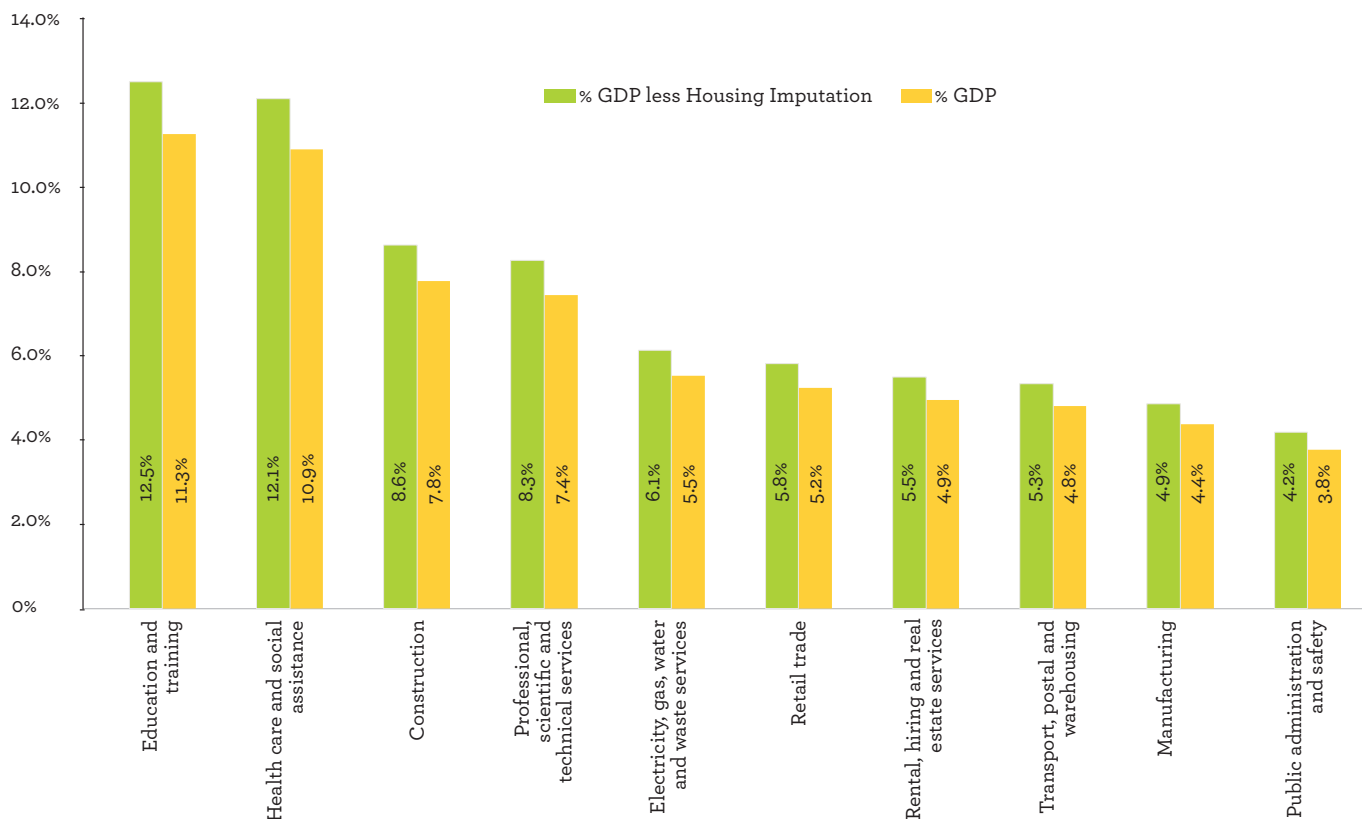


Figure 4: Dunedin GDP growth by sector 2016 to 2025 (\$M)

Dunedin GDP, top ten 2025 industries 10-year view (\$m).					
Rank	Industry	GDP	% 2025 GDP	Gain since 2016	% Growth since 2016
1	Education and training	1,008.5	11.3%	87.2	9.5%
2	Health care and social assistance	976.2	10.9%	305.8	45.6%
3	Construction	696.1	7.8%	152.9	28.1%
4	Professional, scientific, and technical services	666.4	7.4%	226.6	51.5%
5	Electricity, gas, water, and waste services	494.6	5.5%	77.3	18.5%
6	Retail trade	469.1	5.2%	55.1	13.3%
7	Rental, hiring and real estate services	443.0	5.0%	29.9	7.2%
8	Transport, postal and warehousing	430.3	4.8%	32.7	8.2%
9	Manufacturing	392.0	4.4%	12.3	3.2%
10	Public administration and safety	337.6	3.8%	72.9	27.5%
Total GDP including unallocated and housing imputation		8,951.4	100%	1,495.7	20.1%

Simply adding more people increases GDP

Dunedin’s GDP has outperformed New Zealand’s when population growth is accounted for (Figure 5).

Gross Domestic Product grows for several reasons, especially:

- more consumption – higher incomes, household spending increases, population growth
- more investment – businesses expand and invest in more capacity for production
- government spending increases, e.g., infrastructure work, health and education services expand
- exports improve or imports fall.

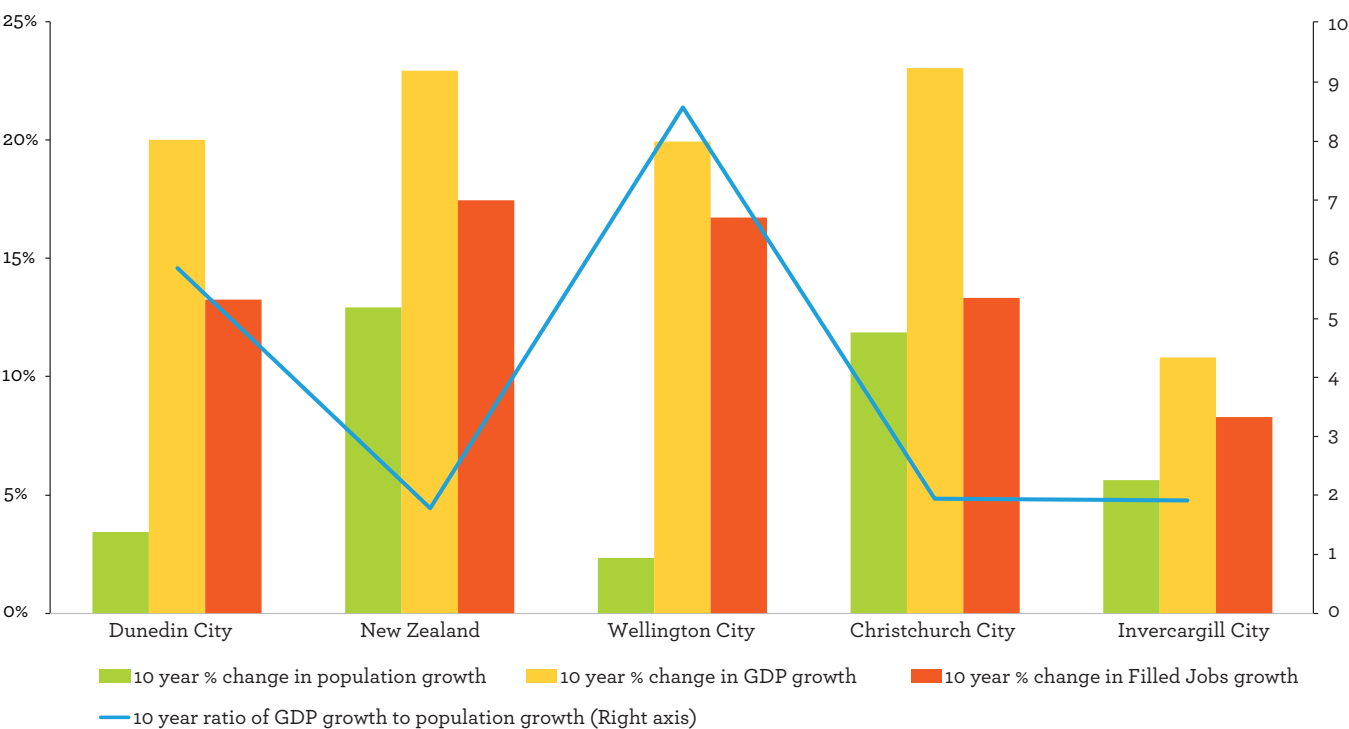
Dunedin’s 20% growth in GDP from 2016 to 2025 is less than the 23% recorded by New Zealand in the same period. However, New Zealand added 13% to its population in the 10

years since 2016 for 23% growth in GDP while Dunedin added 3% to its population for 20% growth in GDP in the same period. For every percentage point of population growth New Zealand’s GDP grew by 1.8%. Dunedin had 6.7% GDP growth for each percentage of population growth.

In the same period the number of people in *filled jobs* in Dunedin grew 13% while the population grew by 3%, indicating growing participation in the workforce. At the national level employment as measured by *filled jobs* has expanded 18% from a 13% population increase.

Dunedin’s performance is also reflected in the December 2025 unemployment rates where the city at 3.7% was close to its 10-year lowest rate of unemployment (3.6% in 2016) whereas the national figure of 5.3% unemployment was at a 10-year high.

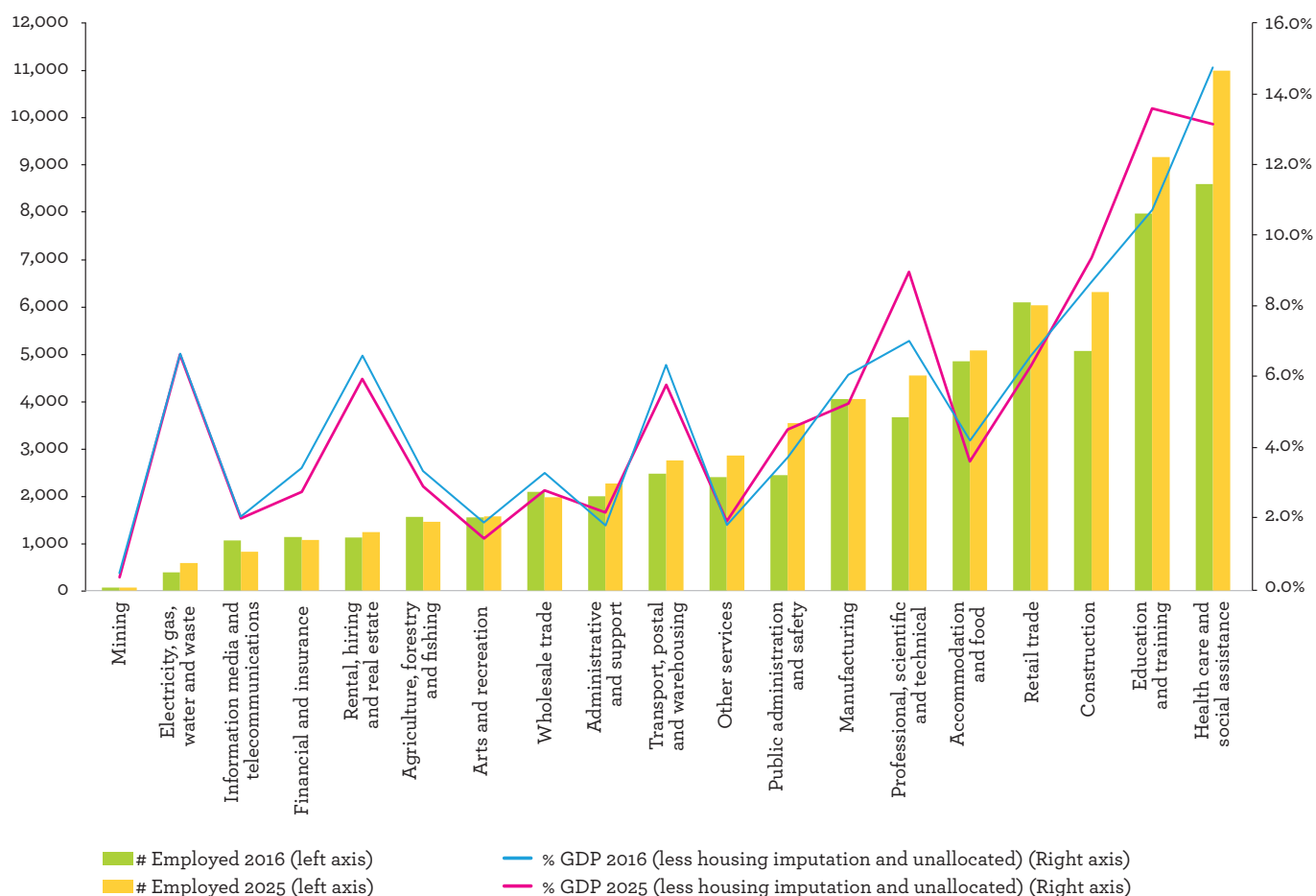
Figure 5: GDP growth, population growth and filled jobs growth 2016 to 2025.



Employment vs. filled jobs, and average annual earnings

Employment measures those people 15-years-old and over who are participating in the workforce. Dunedin employment has expanded faster off a lower population base growth than all comparator localities except Wellington City. Employment growth has been strongest in Dunedin in the same sectors that contribute most to GDP, as illustrated in Figure 6.

Figure 6: 2016 to 2025 changes in Dunedin employment by industry and industry percentage of GDP*



Dunedin's demographic profile is unlike any other city in the country due to the large number of students.

Many students have part-time employment only. This statistically *averages down* earnings per *filled job* at a citywide reporting level, while not affecting the real level of salary received by Dunedin's full-time working population.

Note that there is a difference between *employment* and *filled jobs*:

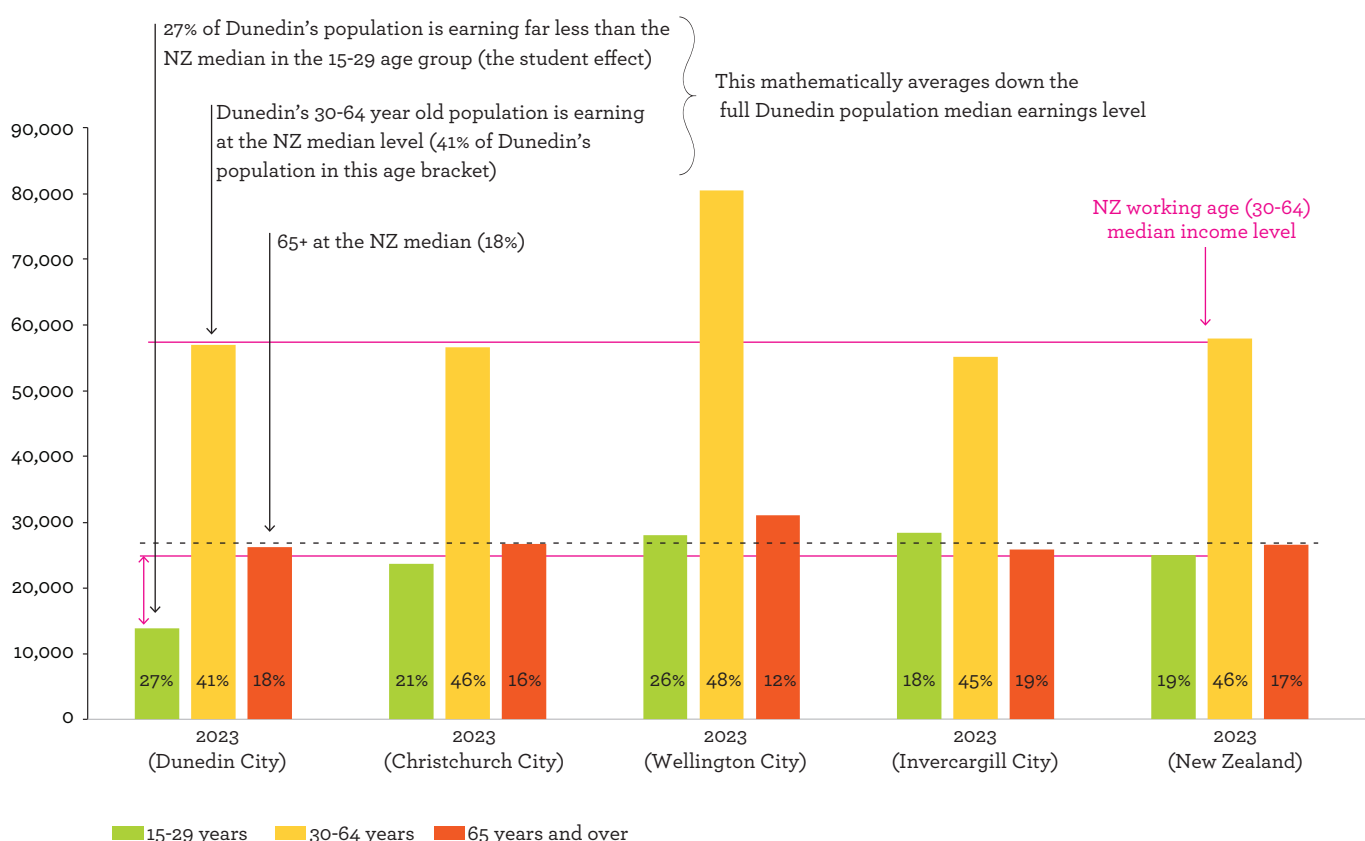
- *employment* is the number of individual people in either full-time or part-time jobs.
- *filled jobs* are the number of individual payroll records. One person may well have several jobs with various employers.

This has implications for Dunedin's *Average Annual Earnings* per filled job. Essentially *average annual earnings per filled job* equals: total *PAYE take* divided by the *number of filled jobs*.

According to Infometrics, the *Average Annual Earnings* in Dunedin was \$74,818 in 2025, or 9.5% less than the national average level of \$81,958.

This *averaging down* effect is clearly seen in the median income data reported in the 2023 Census (see Figure 7).*

Figure 7: Median Income Levels by age cohorts (NZ Census)



***Average and Median:** The median is the middle number in a series, whilst the average is the sum of the series divided by the number of instances in the series. This can lead to divergent results; if four people in a group earn \$10 each and a fifth earns \$100, the group's median earnings level will be \$10 (the third or middle number if the numbers are ranked), whereas the group's average earnings level will be \$28.

The high number of 15 to 29-year-olds enrolled as students in Dunedin earn, as a median, considerably less than their demographic peers in the other New Zealand centers. This age bracket's median income is reduced by students with no income from employment, and the prevalence of limited-hours, part-time work amongst those students who are employed.

In contrast Dunedin's non-student, 30-64-year-olds, have earnings entirely consistent with the New Zealand median income levels.

So, while Stats NZ can correctly say that Dunedin's median income in the 2023 census was \$33,500 compared to New Zealand's \$41,500, their data also shows that Dunedin's 30 to 64 age cohort and those 65 plus, are earning the same as the national median income.

This is not to say Dunedin's large student population (see Figure 8) is a disadvantage. The GDP figures and earnings from our large student population are not a problem, they are a feature of the strong education sector, which supports a great deal of the city's economic, cultural, and social activity.



Figure 8: Population by age brackets and proportion of total.

