Business performance benchmarks for Whangarei key industries

for Whangarei District Council

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Infometrics

Economics put simply

Authorship

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Overview

Whangarei District Council has commissioned Infometrics to utilise Business Performance Benchmarking data published by Stats NZ from the Annual Enterprise Survey to analyse the performance of businesses in the manufacturing and construction industries.

This analysis of business performance forms part of a broader set of analysis commissioned from Infometrics that encompasses an analysis of the composition and economic performance of the manufacturing and construction industries, and the development of a Business Attractiveness Index for Whangarei District.

The purpose of this broader set of analysis is to enhance Council's understanding of what drives local economic performance and inform better-targeted economic policy that will optimise the performance of existing businesses and attract more high-performing businesses to the area.

Business performance benchmarks

We used six Business Performance Benchmarking metrics in this analysis to analyse four aspects of business performance.

Each benchmark metric provides an indication of the usual, average, outcome for businesses in that industry across New Zealand, and can be used to inform decision makers about some of the financial benchmarks that different businesses might be expected to experience.

The benchmark metrics can also be used to allow businesses to examine their own position in relation to the benchmarked position. Each metric is explained in detailed in the following section. The metrics used in this report include the following benchmarks.

Ability to pay short-term liabilities with short-term assets

- Current ratio
- Quick ratio

Business efficiency

- Return on equity
- Return on total assets

Amount of income spent on labour costs

- Salaries and wages to turnover ratio

Stock turnover

- Stock turnover per annum.

Key data caveats

The metrics used in this analysis are calculated at a national level. Data is not available specifically for Whangarei businesses. The analysis focuses on construction sub-industries and the manufacturing sub-industries, that are key elements of the Whangarei economy.

Data is unavailable for the boatbuilding and repair services industry. Instead, we have calculated benchmarks for the broader "transport equipment manufacturing" sub-industry.

Other metrics considered

We considered including the gross profit ratio in our analysis. However, this metric requires estimates of the sales of goods not further processed which is relevant to industries such as retailing or wholesaling in which sales are generated through buying goods for resale and selling them on for a profit. The gross profit ratio metric is not relevant to manufacturing and construction.

Stock turnover per annum estimates are only available for manufacturing businesses, not construction. This metric requires an estimate of purchases of goods bought for resale which is relevant to manufacturers but not construction firms.

Benchmark results

Key findings

Table 1 showcases the business performance benchmarks for key Whangārei industries in 2021. More detailed findings, and an explanation of each metrics, is set out below.

Table 1

Business Performance Benchmarks for Construction and Manufacturing, 2021

	Current ratio	Quick ratio	Return on equity	Return on total assets	Salaries & wages to turnover ratio	Stock turnover per annum
All Manufacturing	1.46	0.95	0.13	0.06	0.14	0.41
Petroleum & Coal Product Manufacturing	1.59	1.02	-0.21	-0.07	0.03	2.38
Fabricated Metal Product Manufacturing	1.59	1.22	0.35	0.16	0.22	0.44
Machinery & Other Equipment Manufacturing	1.43	1.10	0.37	0.16	0.24	0.46
Wood Product Manufacturing	1.39	1.00	0.24	0.11	0.18	0.41
Transport Equipment Manufacturing	1.73	1.10	0.29	0.12	0.22	0.10
Non-Metallic Mineral Product Manufacturing	1.45	1.14	0.21	0.12	0.16	1.63
All Construction	1.37	0.98	0.42	0.12	0.20	
Residential Building Construction	1.47	0.81	0.64	0.13	0.14	
Non-residential building construction	1.28	1.17	0.29	0.09	0.11	
Heavy and Civil Engineering Construction	1.00	0.89	0.26	0.08	0.24	
Construction Services	1.48	1.06	0.43	0.14	0.26	
All industries	0.78	0.71	0.13	0.04	0.17	

Source: Infometrics analysis of Stats NZ Annual Enterprise Survey data

Both key industries well positioned to pay short-term liabilities

In terms of their ability to pay short-term liabilities with short-term assets, the manufacturing sub-industries that are key to the Whangarei economy were in a strong position in 2021 (the latest data available). The construction sub-industries were also reasonably well positioned. But, when stocks are excluded from current assets, construction sub-industries looked more vulnerable.

Machinery and metal fabrication manufacturing are as efficient as construction, but COVID-19 has weakened manufacturing

In terms of business efficiency, in 2021 the broad construction industry created greater returns on equity and assets than the broad manufacturing industry, particularly residential construction and construction services.

However, all the manufacturing sub-industries that are key to the Whangarei economy (except for petroleum and coal product manufacturing) created returns that were well above the average across all industries in 2021. Returns in the machinery and other equipment manufacturing and fabricated metal product manufacturing sub-industries were actually higher than in any of the construction sub-industries.

Return on equity across the broad manufacturing industry was notably higher in 2019 than it was in 2021 and 2014. This increased return is indicative of an industry that had been performing well in the years leading up to 2020 but was adversely affected by COVID-19.

In contrast, return on equity in construction was as high in 2021 as it was in 2019, which in turn was much higher than it had been in 2014, reflecting the construction boom that occurred in the years leading up to, and during, the COVID-19 pandemic.

Higher productivity means manufacturing's wage costs are proportionately lower than construction's

The ratio of salaries and wages to turnover income is smaller in manufacturing than in construction because of a combination of two factors. Income generated per worker is higher in manufacturing, but wages in the manufacturing industry are comparable to the construction industry. Manufacturing workers generate more income, on average, than construction workers because manufacturing is more capital intensive, and manufacturers tend to be larger business which means they have the potential to achieve economies of scale.

Within sub-industries, the ratio of salaries and wages to turnover income is highest in construction services, heavy and civil engineering construction, machinery and other equipment manufacturing, transport equipment manufacturing, and fabricated metal product manufacturing.

Stock turnover rates reflect the nature of the product being manufactured

Stock turnover per annum among the manufacturing sub-industries that are key to the Whangarei economy seems to be related to the nature of the product being manufactured. Turnover is relatively high in the non-metallic mineral product manufacturing sub-industry. This industry produces glass, brick, cement and plaster products which are small units with high sales frequency. Contrast that with much lower turnover in the transport equipment manufacturing sub-industry which tends to produce much larger units (such as boats) that would naturally involve less stock turnover.

Current ratio

Calculated as: total current assets divided by total current liabilities.

How to interpret this indicator

The current ratio gives an indication of a business's ability to pay its short-term liabilities. A ratio greater than one indicates that current assets are greater than current liabilities, which means the business is well positioned to pay its short-term liabilities. The ability to meet current liabilities in the short-term is often dependent on how liquid the current assets are.

The current ratio should be interpreted with caution because large group enterprises may have assets and equity held by a holding company that is in a different industry which will artificially deflate the value of assets in the main industry.

Construction and manufacturing industry performance in 2021

Businesses in both the construction sub-industry and the parts of the manufacturing industry that are key to the Whangarei economy were well positioned to pay their short-term liabilities in 2021 (see Table 1). The heavy and civil engineering sub-industry was the most vulnerable with a current ratio of one. For other construction sub-industries and manufacturing sub-industries, the current ratio varied from 1.28 (non-residential building construction) to 1.73 (transport equipment manufacturing).

Construction and manufacturing industry performance over time

Across the broad manufacturing and construction industry, the current ratio was similar in 2021 compared with (pre-COVID) 2019. However, the current ratio in 2019 was much improved compared with five years before that in 2014 which indicates that both the manufacturing and construction industries benefitted from the economic growth that New Zealand enjoyed in the years following the Global Financial Crisis up to the onset of the COVID-19 pandemic to put themselves in a more secure financial position.

Quick ratio

Calculated as: (total current assets minus closing stock) divided by total current liabilities.

How to interpret this indicator

The quick ratio is very similar to the current ratio, but it excludes stock. It tests a business's ability to pay short-term debt from assets that can be readily converted to cash, such as debtors, bank, or cash on hand. A ratio higher than one means a business should be able to pay its short-term liabilities immediately or within a very short timeframe.

The quick ratio should be interpreted with caution for the same reason that the current ratio should – large group enterprises may hold assets in a different industry.

Construction and manufacturing industry performance in 2021

Excluding stock from current assets results in several construction sub-industries that had a current ratio above one having a quick ratio of less than one in 2021 (see Table 1), which means they might have been having difficulty paying their short-term liabilities if these liabilities are called in at once. These sub-industries are residential building construction, and heavy and civil engineering construction. All the manufacturing sub-industries that are key to the Whangarei economy had quick ratios of at least one.

The lower than one quick ratio for selected construction sub-industries that have a current ratio above one also highlights that in some construction firms, higher stocks levels are needed to be held to ensure that building activity can be undertaken, given ordering timeframes and supply chain delays.

Construction and manufacturing industry performance over time

Similar to the current ratio, across the broad manufacturing and construction industries, the quick ratio was similar in 2021 compared with (pre-COVID) 2019. However, the quick ratio had improved compared with five years before that in 2014.

Return on equity

Calculated as: total current year taxable profit divided by total proprietor or shareholder funds.

How to interpret this indicator

The return on equity represents the rate of return earned on the owner's equity and investment. It measures a business's efficiency at turning equity (assets less liabilities) into profit. The higher the ratio, the more efficient a business is. The lower the ratio, and a negative ratio (loss), the less efficiently a business has used the owner's investment.

The return on equity should be interpreted with caution for the same reason that the current ratio should – large group enterprises may hold assets in a different industry.

Construction and manufacturing industry performance in 2021

Of the sub-industries listed in Table 1, only the petroleum and coal product manufacturing sub-industry had a negative return on equity in 2021. The Marsden Point Oil Refinery with operations in Whangārei and head office operations elsewhere in New Zealand dominated this sub-industry in 2021. The negative return on equity is perhaps indicative of the financial challenges Marsden Point was facing in 2021 prior to its closure (and subsequent change in activity towards wholesaling and transport, as an import-only terminal).

Broadly speaking, owners and investors received a greater return on equity in the construction industry in 2021, especially residential construction (0.64) and construction services (0.43), than they did in manufacturing.

However, all the manufacturing sub-industries that are key to the Whangarei economy (except for petroleum and coal product manufacturing) delivered returns that were well above the average for all industries (0.13). Return on equity was highest in machinery and other equipment manufacturing (0.37) and fabricated metal product manufacturing (0.35).

Construction and manufacturing industry performance over time

Return on equity in manufacturing was notably higher in 2019 than it was in 2021 and 2014. This higher return is indicative of an industry that had been performing well in the years leading up to the COVID-19 pandemic, then was adversely affected by lockdowns, social distancing, and other measures to limit the spread of COVID-19, as well as disruptions to supply chains and a reduction in global demand for manufactured goods in 2020 and 2021.

In contrast, return on equity in construction was as high in 2021 as it was in 2019, which in turn was much higher than it had been in 2014. Construction had grown strongly in the years leading up to the pandemic, driven by strong net inward migration. The lowering of interest rates during the pandemic, along with a continued housing shortage, and home-owners using money saved during lockdowns to carry out property renovations, led to a construction boom in 2020 and 2021.

Return on total assets

Calculated as: total current year taxable profit divided by total assets.

How to interpret this indicator

The return on total assets is a measure of how effectively the business has converted its assets into net income.

Construction and manufacturing industry performance in 2021

Unsurprisingly, the sub-industries that had a higher return on equity in 2021 also had a higher return on total assets. Broadly speaking, the construction industry delivered a higher return on assets in 2021, particularly residential construction (0.13) and construction services (0.14), compared with the manufacturing industry as a whole.

All the manufacturing sub-industries that are key to the Whangarei economy (except for petroleum and coal product manufacturing) delivered returns that were well above the average for all industries (0.04) in 2021. Returns in the machinery and other equipment manufacturing (0.16) and fabricated metal product manufacturing (0.16) sub-industries were actually higher than in any of the construction sub-industries.

These latter two trends highlight the high levels of investment in fixed assets required in some parts of the manufacturing industry, but also the high return derived from the investment in plant and equipment.

Construction and manufacturing industry performance over time

Return on total assets in manufacturing was notably higher in 2019 than it was in 2021 and 2014. This recent fall in returns reflects a similar trend in the return on equity brought about by the challenges posed by the COVID-19 pandemic. The return on assets in construction has been much more consistent since 2014.

Salaries and wages to turnover ratio

Calculated as: salaries and wages divided by turnover income.

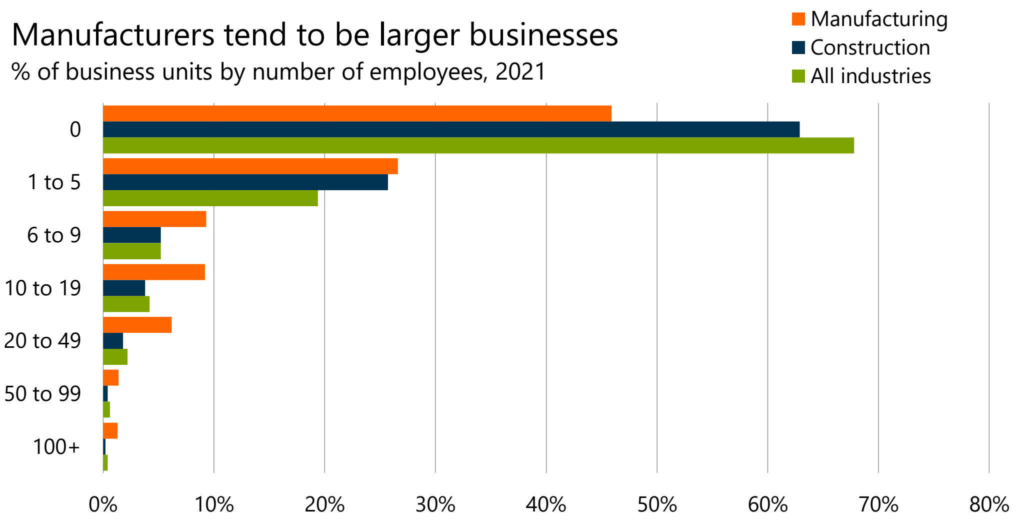
How to interpret this indicator

This ratio represents the percentage of turnover income that is spent on labour costs. It can be an indicator of whether a business is spending too much or too little of its turnover income on staffing the business. This indicator is affected by business size. If an industry is populated by more small and micro businesses with zero or very low staff numbers, labour costs will generally make up a smaller percentage of turnover income.

Construction and manufacturing industry performance

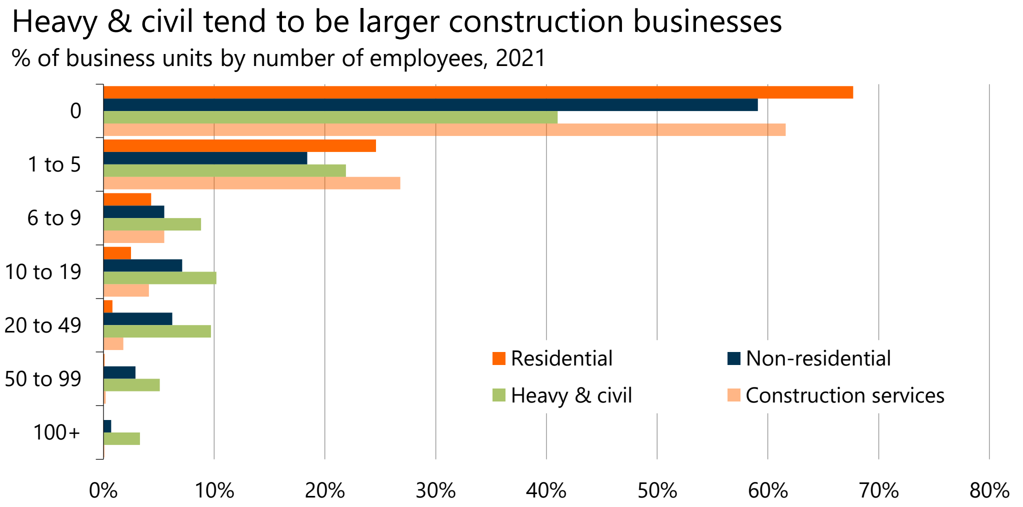
Manufacturers tend to be larger businesses compared with construction businesses (see Chart 1). Despite this, Table 1 shows that the ratio of salaries and wages to turnover is lower in manufacturing (0.14) than in construction (0.20). This difference is because in the manufacturing industry, income generated per worker is higher than in than construction, but average wages are almost the same. Manufacturing workers generate more income because manufacturing is more capital intensive and larger businesses can also achieve economies of scale.

Chart 1



Among construction sub-industries, heavy and civil engineering construction businesses tend to be larger than construction businesses in the other three sub-industries (see Chart 2). These differences in business size are reflected in the ratio of salaries and wages to turnover which is higher in heavy and civil engineering construction (0.24), than in residential construction (0.14) and non-residential construction (0.11 – see Table 1).

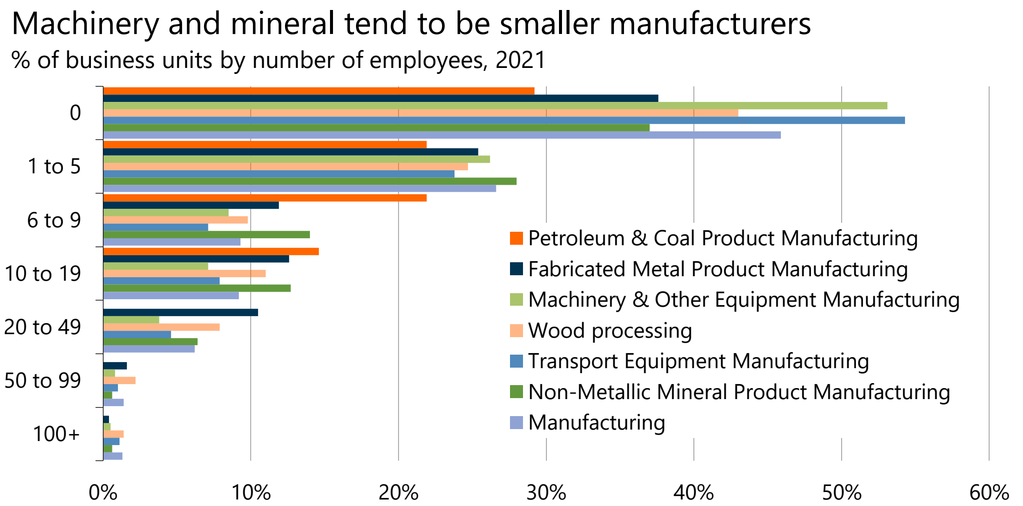
Chart 2



The salaries and wages to turnover ratio is highest in construction services (0.26), despite this industry having a relatively large number of businesses employing zero or very few staff. This higher ratio is because income generated per worker is lower in construction services compared with the other construction sub-industries.

Among the manufacturing sub-industries that are key to the Whangarei economy, machinery and other equipment manufacturers and transport equipment manufacturers tend to be smaller businesses (see Chart 3).

Chart 3



Despite employing fewer employees on average, the ratio of salaries and wages to turnover in machinery and transport manufacturing is higher than in other manufacturing sub-industries (see Table 1). This higher ratio is because in machinery and transport equipment manufacturing, income generated per worker is low compared with other manufacturing sub-industries.

Construction and manufacturing industry performance over time

The ratio of salaries and wages to turnover in both construction and manufacturing have remained at similar levels since 2014.

Stock turnover per annum

Calculated as: cost of goods sold divided by average stock level.

How to interpret this indicator

Stock turnover, also known as inventory turnover, represents the number of times stock is sold and replaced within a year. A high stock turnover may indicate a high-volume low-mark-up business model, the business is holding very low stock levels, and/or the business has a lot of wastage.

Manufacturing industry performance in 2021

Among the manufacturing sub-industries that are key to the Whangarei economy, stock turnover is highest in petroleum and coal product manufacturing (2.38) presumably because this sub-industry, which was dominated by the Marsden Point Oil Refinery in 2021, maintains low stock levels with refined petroleum pumped out of the refinery as soon as the refining process is complete.

Turnover is also relatively high in the non-metallic mineral product manufacturing sub-industry (1.63). Contrast this high turnover with much lower turnover in the transport equipment manufacturing sub-industry (0.10). These two sub-industries manufacture very different products, with transport equipment tending to be much larger units such as boats that would naturally involve less stock turnover compared with much smaller, higher turnover, glass, brick, cement and plaster products that are produced by the non-metallic mineral product manufacturing sub-industry.

Fabricated metal product (0.44), machinery and other equipment (0.46) and wood product manufacturers (0.41) all have stock turnover ratios that are comparable with the broader manufacturing industry (0.41).

Construction and manufacturing industry performance over time

It is difficult to discern any patterns in how stock turnover has changed over time in the manufacturing sub-industries that are key to the Whangarei economy. Across manufacturing as a whole, stock turnover declined from 2014 to 2021. Over this same period, turnover rose in the non-metallic mineral product manufacturing sub-industry and the transport equipment manufacturing sub-industry.

From 2014 to 2019 turnover fell in the machinery and other equipment manufacturing subindustry and the wood processing subindustry. These declines reversed in the period 2019 to 2021. In the fabricated metal product manufacturing sub-industry and the petroleum and coal product manufacturing sub-industry, turnover rose between 2014 and 2019, then declined from 2019 to 2021.