

Understanding the Hawke's Bay Region economy

*An analysis of the Hawke's
Bay Region's economies
and the interaction of
constituent Districts*

November 2013

The Local Government Commission
STRICTLY CONFIDENTIAL



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Don Riezebos
Chief Executive Officer
Local Government Commission
PO Box 5362
Wellington

7 November 2013

Dear Don

Understanding the Hawke's Bay Region and its constituent economies

We are pleased to attach our report, which examines the Hawke's Bay Region and its constituent economies, and considers the implications of these local economic differences on transport and other infrastructure, as some of the main responsibilities for local councils.

This report should be read in conjunction with the Restrictions in Appendix A.

If you require any clarification or further information, please feel free to contact us.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Craig Rice', written in a cursive style.

Craig Rice
Partner
E-mail: craig.rice@nz.pwc.com
Phone: 09 355 8641

A handwritten signature in black ink, appearing to read 'David Walker', written in a cursive style.

David Walker
Director
E-mail: david.a.walker@nz.pwc.com
Phone: 09 355 8033

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1.0 Executive Summary

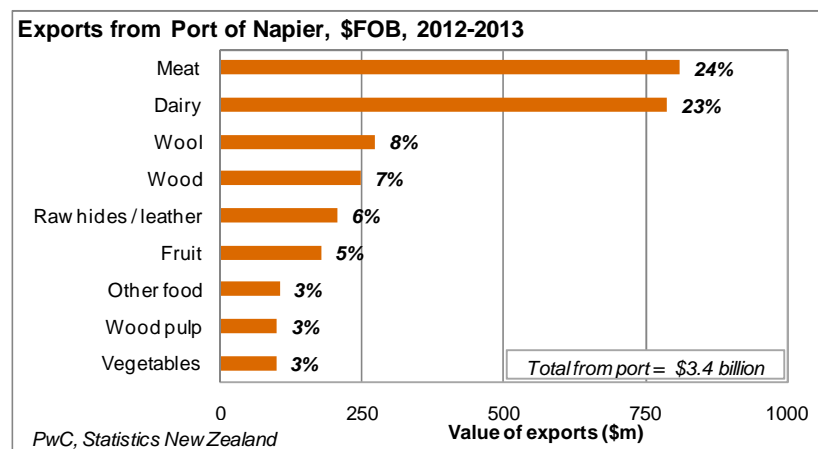
The Local Government Commission (“the Commission”) requested PwC to investigate the economic profile of the Hawke’s Bay Region (‘the Region’), its constituent economies, and the transport infrastructure that serves the Region.

Introducing the Region

The Hawke’s Bay Region is located on the east coast of the North Island, and comprises four complete territorial authorities: Napier, Central Hawke's Bay, Wairoa and Hastings. The Rangitikei and Taupo territorial authorities have small portions of land included in the Hawke’s Bay Region; the size and economic activity in this land is insignificant relative to the rest of the Region, and has not been included in the analysis for this reason.

Two distinct halves, closely related

The Region consists of a rural hinterland comprising Wairoa, rural Hastings, and Central Hawke's Bay, and an urban conurbation of Napier and the town of Hastings.

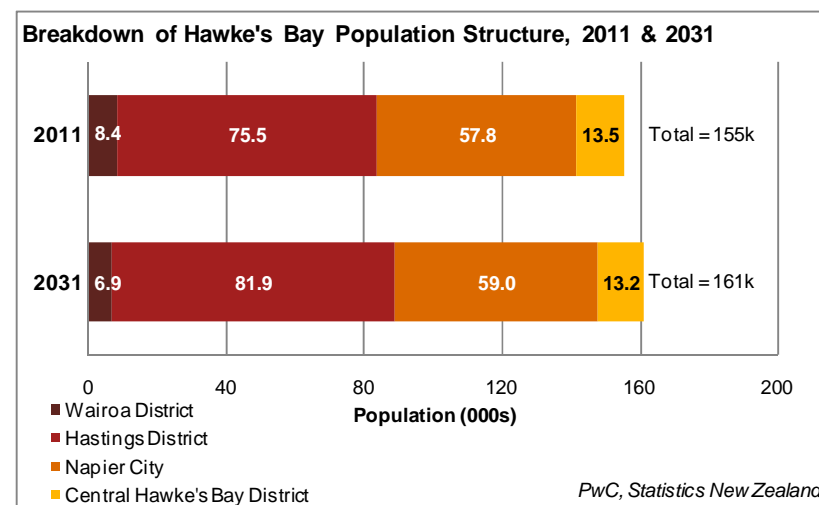


The rural economies are dominated by sheep (Wairoa and Central Hawke's Bay), and horticulture (Hastings), with very few higher end services.

Napier is the service centre for the Region, with the vast bulk of high end services such as financial services, ICT, and other business services. It is also the tourism base for the Region, with the other three Districts generating little from hospitality and food and beverage services.

Nevertheless, the four local authorities are closely linked through the Port of Napier. While wood is the biggest export product in volume terms, meat products are the largest export out of Napier in dollar terms, at around \$800 million a year. Other major exports include wood products, horticulture, and dairy (transported from elsewhere in the lower North Island as the Hawke’s Bay has a very small dairy sector).

Other ways in which the two halves of the Region differ is in terms of economic and demographic growth. Hastings and Napier have enjoyed strong employment growth and an increase in population, which is expected to continue out to 2031.



Wairoa and Central Hawke's Bay both struggle with falling employment and populations. The increase in forestry harvests may make a small impact in arresting population declines in Wairoa, but this is expected to be short-lived. The Ruataniwha irrigation scheme in Central Hawke's Bay may help transform the local economy, leading to more stability in employment and population there.

Implications for roading and other service provision

The implications of the divergent fortunes of constituent local authorities is that it will become increasingly hard for Wairoa and Central Hawke's Bay to meet the service requirements of their Council areas, as a smaller number of ratepayers have to accommodate a falling rates revenue and potentially greater use of roads by heavy trucks.

While the Ruataniwha irrigation scheme may mitigate the risk of population decline in Central Hawke's Bay, overall these two Districts will face challenges in addressing roading and other infrastructure needs from static or declining ratepayer bases. On the other hand, Napier and Hastings are relatively well positioned, with expected growth in population.

In the context of the Commission's review of proposals, governance structures that separate the economically depressed areas from the more successful areas are likely to prove unsustainable over the long-term and quite possibly in the medium term.

2.0 Introduction

The Local Government Commission (“the Commission”) requested PwC to investigate the economic profile of the Hawke’s Bay Region (‘the Region’), its constituent economies, and the transport infrastructure that serves the Region.

This work will help inform the evaluation the Commission is undertaking of proposals to reform the local government structure of the Region.

Area of analysis

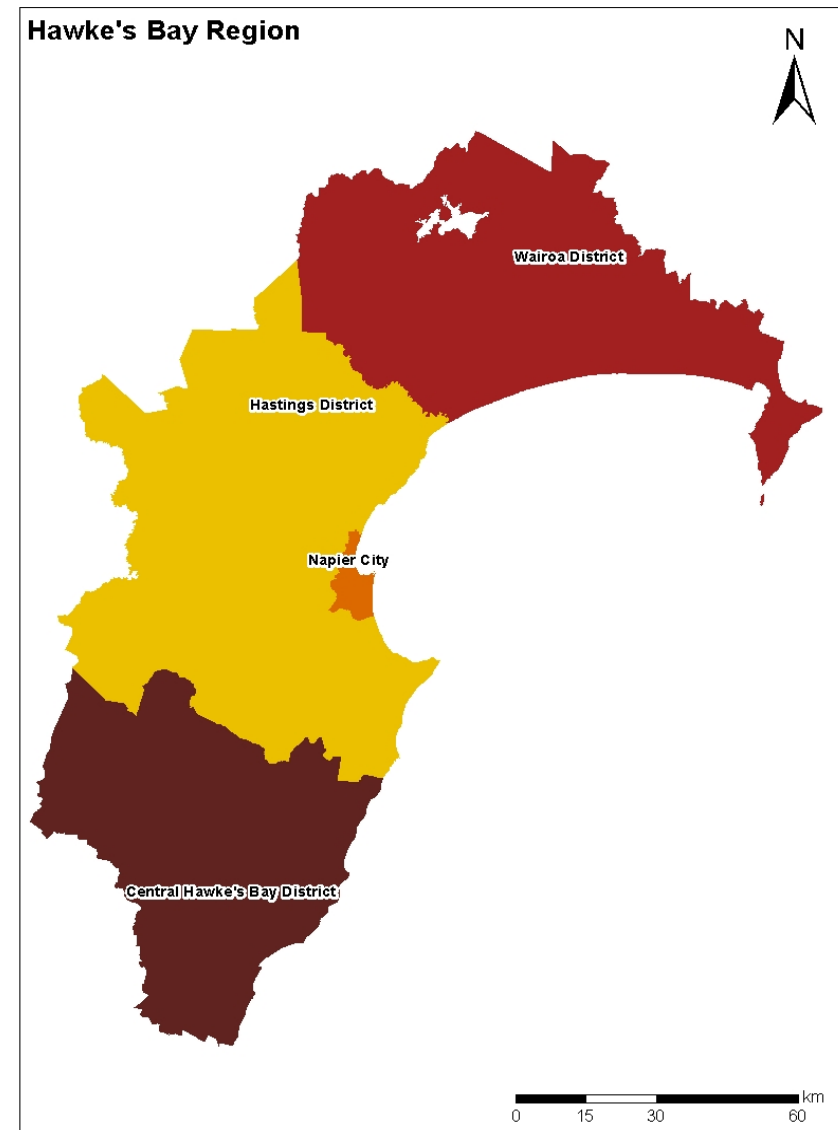
The Hawke’s Bay Region is located on the east coast of the North Island, and comprises four complete territorial authorities: Napier, Central Hawke's Bay, Wairoa and Hastings. The Rangitikei and Taupo territorial authorities have small portions of territory included in the Hawke’s Bay Region; the size and economic activity in this land is insignificant relative to the rest of the Region, and has not been included in the analysis for this reason.

Scope of the report

The report provides a high-level economic analysis of the Region and its constituent districts, including employment, GDP, labour productivity, areas of competitive advantage, and trends in economic growth over the last 10 years.

It also comments on the transport infrastructure in place considering the major commodities that are produced in the region, namely sheep meat, wool, wood products, and horticulture (both pip fruit and viticulture).

Figure 1 - Introducing the Hawke’s Bay Region



Source: PwC Regional Industry Database

3.0 Hawke's Bay Region

The Hawke's Bay Region covers 14,111 km² (5.3% of New Zealand's land mass) and as of 2012 the population was 155,000, or around 3.5% of New Zealand's population. The total GDP produced in the Region in 2012 was \$6.3 billion (3% of New Zealand's GDP), ranking it 8th among the 16 Regions in New Zealand, as shown in Figure 2.

Figure 2 - Hawke's Bay is a mid range contributor to GDP

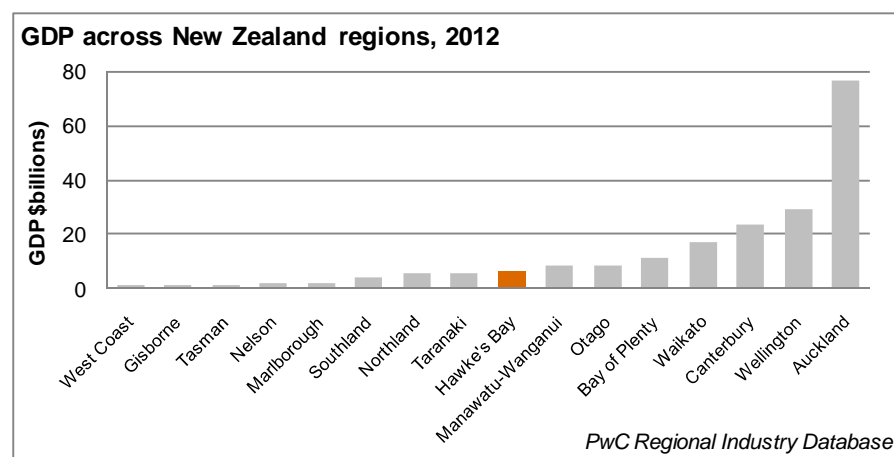
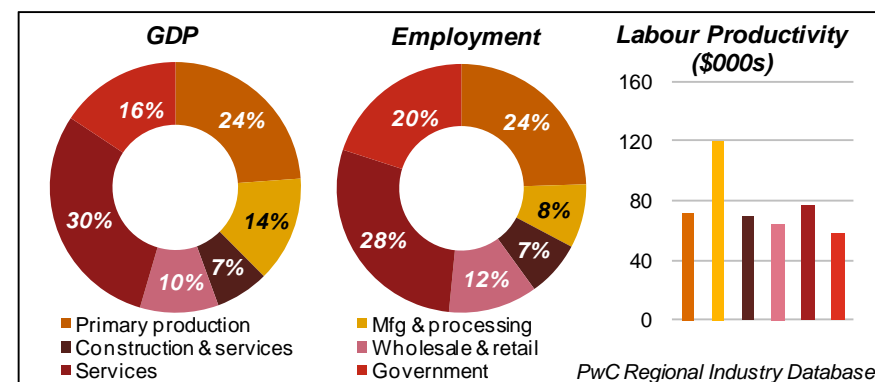


Figure 3 shows a summary of the GDP, employment and labour productivity by major sector across the Hawke's Bay Region.

Figure 3 - Summary of Hawke's Bay economy in 2012



Primary production is the largest driver of the Hawke's Bay economy. The Region has a large sheep industry, and the headquarters of several larger forestry companies are located in Napier City.

Services and construction make up the largest share of both employment and GDP, in part due to a strong utilities and construction sector in Hastings District. Yet the role of service industries in the Region is significantly smaller than that seen across New Zealand as a whole.

The most productive industry is manufacturing and processing, which is traditionally a high productivity industry due to the capital intensive nature of production, although this is a small part of the Hawke's Bay economy.

Overall, the Hawke's Bay economy has slightly lower labour productivity than New Zealand. This reflects the diseconomies of scale of a small Region, and concentration of employment in lower productivity industries such as services and government.

Major industries and geographic location

Of the \$6.3 billion GDP produced by the Hawke's Bay Region, the majority is produced in Hastings and Napier. This is also true for the majority of the approximately 80,000 full-time equivalent (FTE) workers employed in the Region in 2012.

Figures 4 and 5 on the following pages show total GDP and employment in the Hawke's Bay Region, broken down by the constituent territorial authorities, and also by aggregated industry.

The different colours represent the different territorial authorities within the Hawke's Bay Region, while the size of each box represents the share of the total GDP or employment for Hawke's Bay for that industry.

GDP dominated by Hastings and Napier City

The predominance of orange and brown (Hastings and Napier respectively) in Figure 4 shows how significant these two local authorities are to the total

The mix of industries that characterise Napier set it apart as the main urban centre of the Hawke's Bay Region, despite the size of urban Hastings.

Hawke's Bay economy.

Manufacturing and horticulture are among the largest industries.

The larger industries in Napier reflect the city's service-orientation, with real estate and retail among

the largest three industries. The mix of industries that characterise Napier set it apart as the main urban centre of the Hawke's Bay Region, despite the size of urban Hastings.

For the smaller Districts of Wairoa and Central Hawke's Bay, the only significant industry is sheep farming, by far the largest industry in both of the Districts.

Employment driven by Horticulture in Hastings

The overall structure of employment in the Hawke's Bay Region is similar to that of the GDP produced in 2012. The picture is dominated by Hastings and Napier.

The horticulture industry in Hastings is the largest sector of employment, with more than 5,000 workers employed in the industry in 2012, making up more than 80% of the horticulture workers in the Region. These workers are primarily employed in viticulture, supporting the Hawke's Bay Region's reputation as one of the largest producers of wine in New Zealand.

Figure 4 - GDP in the Region dominated by Hastings and Napier City

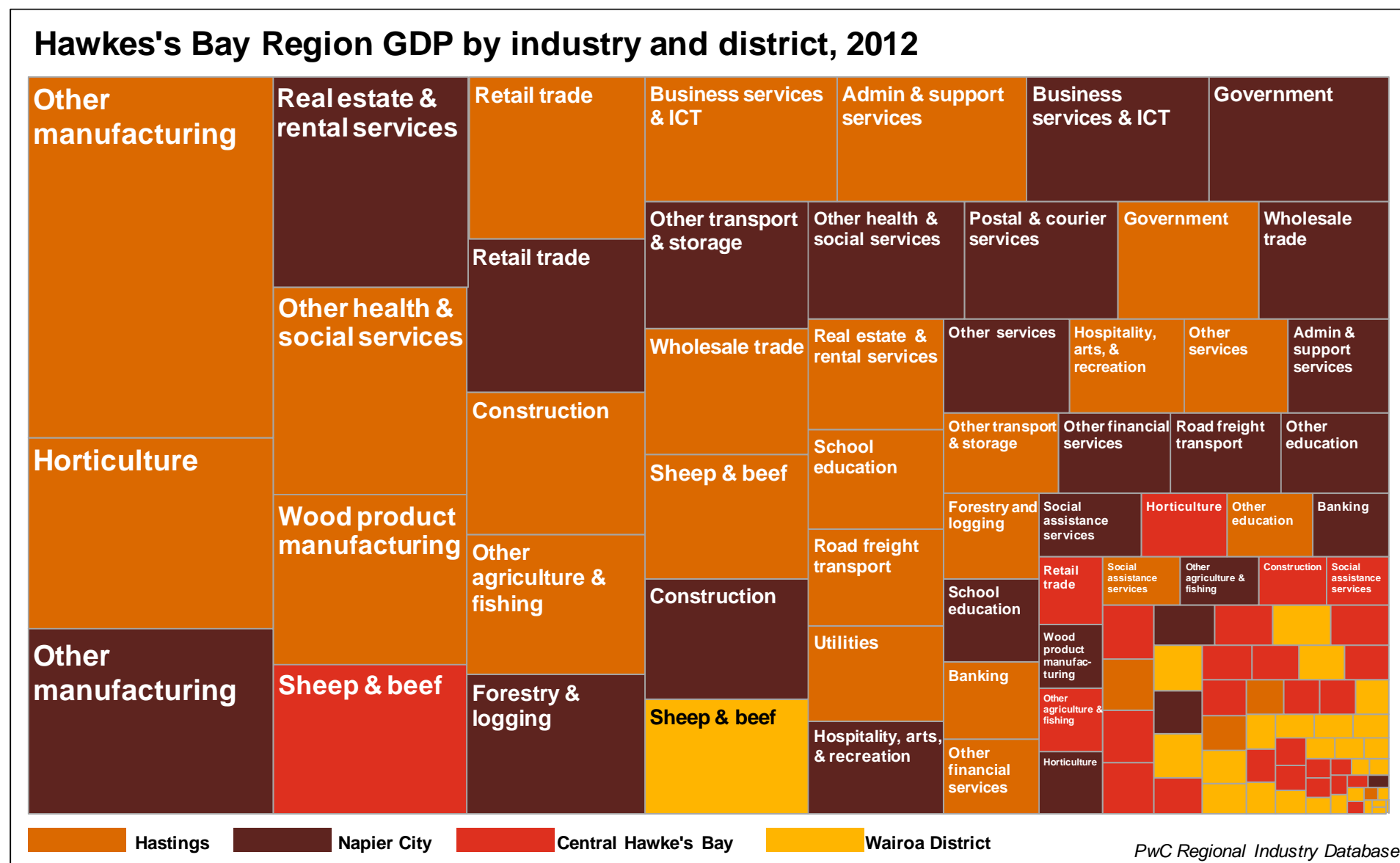
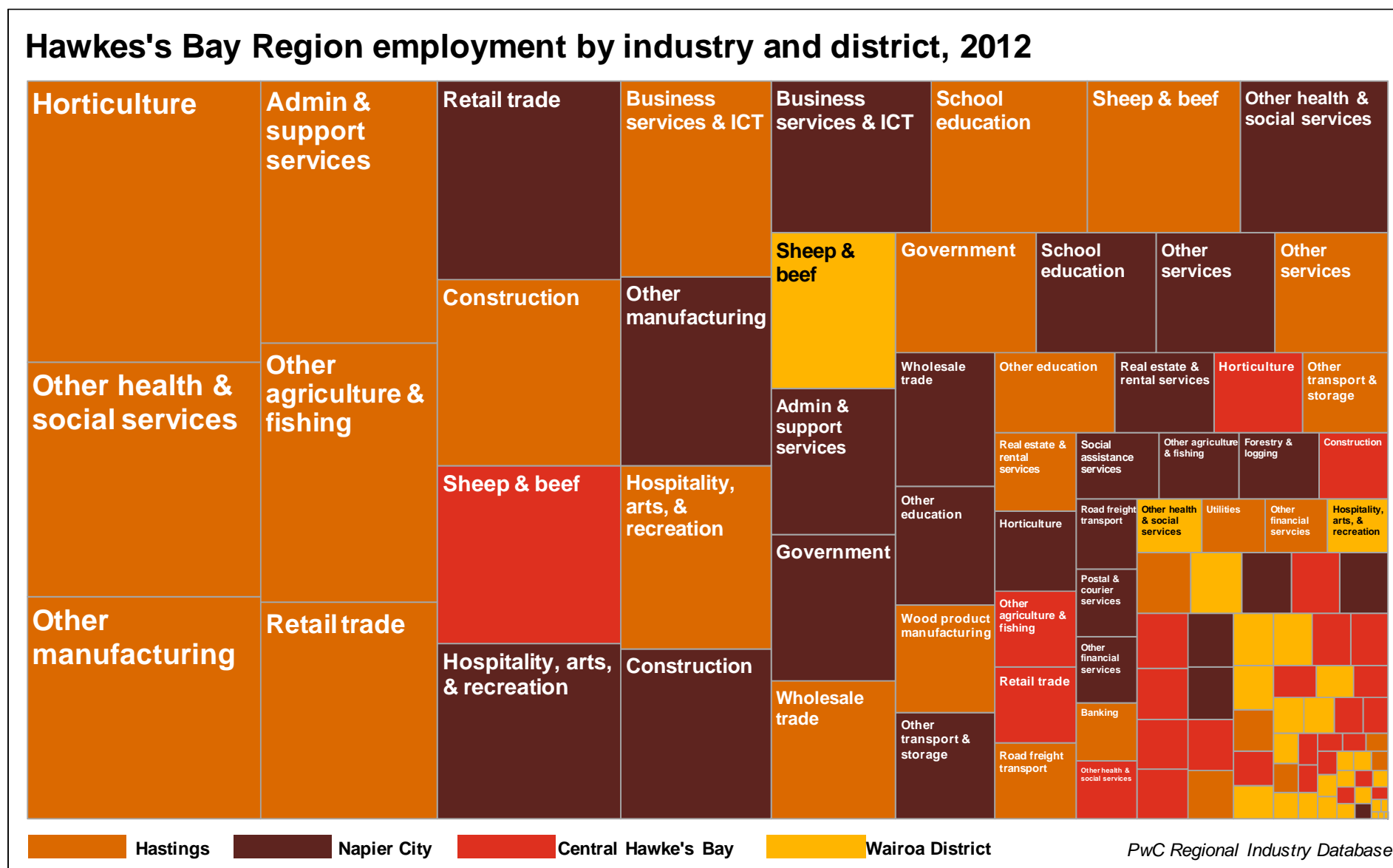


Figure 5 - Employment highest in Hastings and Napier City



An economy built on primary industries

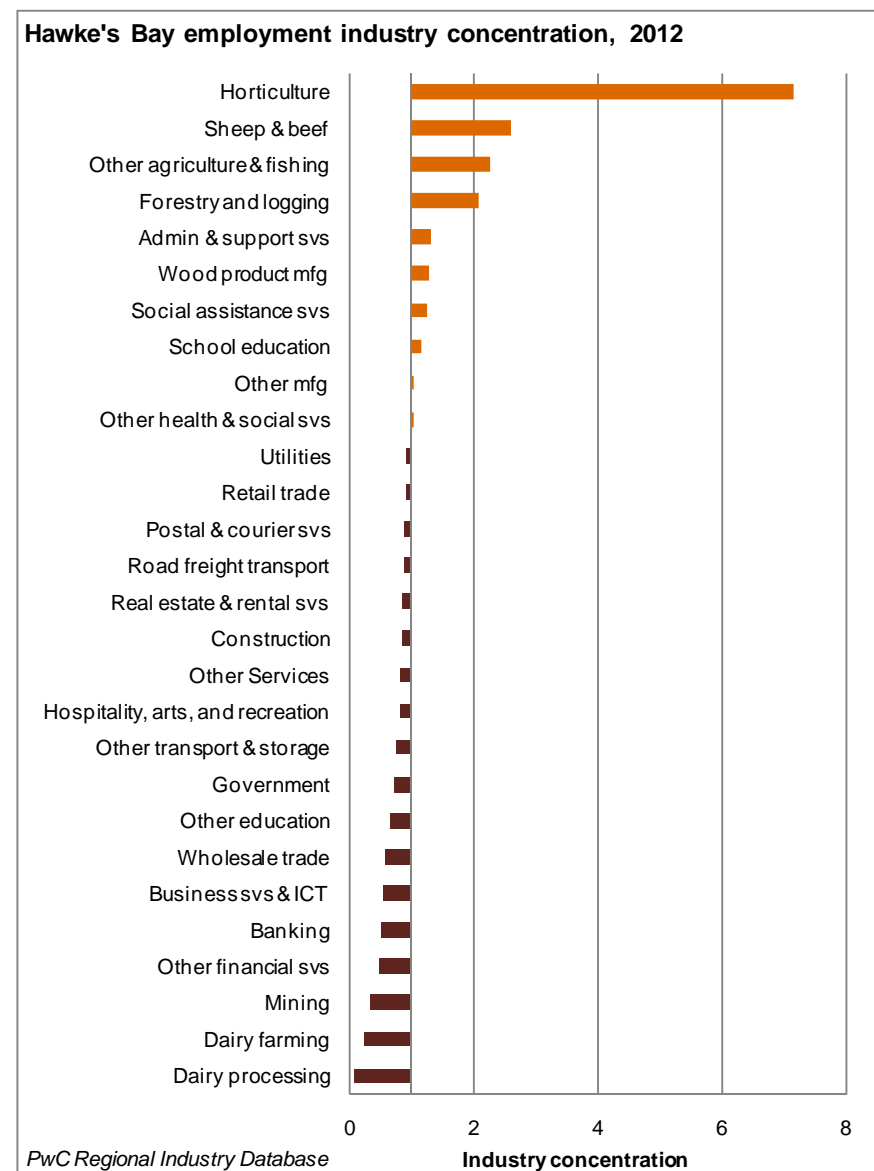
Figure 6 shows the employment industry concentration for the Hawke's Bay Region in 2012. Employment industry concentration shows the likelihood that an individual will be employed in any given industry relative to the probability for New Zealand. For example, the very high industry concentration for horticulture in the Hawke's Bay Region of 7.2 means that a worker is 7.2 times **more likely** to be employed in the horticulture industry in Hawke's Bay relative to the national average – a sign of the strength of employment in the industry.

In contrast, a concentration of 0.23 for dairy farming means workers in the Hawke's Bay are four times **less likely** to work in dairy farming than New Zealanders overall.

The industries with the highest concentrations are all primary industries, which shows that the Hawke's Bay Region is focussed on producing primary outputs, with less of a focus on services and other commercial areas relative to the rest of New Zealand.

For much of New Zealand, strength in the primary industries lies in dairy farming and manufacturing; however for Hawke's Bay the source of the strength is primarily horticulture and sheep farming, with almost no dairy industry to speak of.

Figure 6 - Strength in primary production



For an economy with such a high concentration in primary production, an important implication is how these goods are transported across the Region to the Port or to other parts of New Zealand.

either through the Port in Napier, or by land to other Regions of New Zealand, meaning that the strength of the economy depends on the transport infrastructure in place.

For an economy with such a high concentration in primary production, an important implication is how these goods are transported and consumed across the Region. A large portion of this production will need to be transported throughout the Region,

Trends since 2002

While the previous section discussed the Hawke's Bay economy today, it is important to understand how the economy has changed over the last 10 years, and to consider the implications for infrastructure and local government. In 2002, the total population in the Hawke's Bay Region was 155,000, while today it is over 160,000, a growth of only 0.3% per year.

In addition to population changes over the last decade, the changing structure of the Hawke's Bay economy is important as it can provide insights into trends that may influence future growth in the Region, and the performance of the Region relative to the rest of New Zealand.

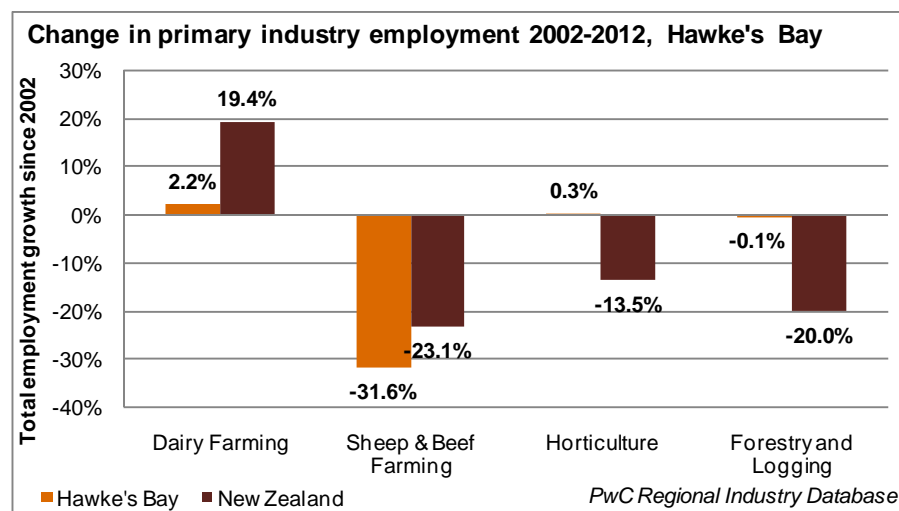
Primary industry changes

As discussed in the previous sections, the Hawke's Bay economy is dependent on primary industries. Figure 7 shows the total employment growth (or decline) for the Hawke's Bay over the last 10 years relative to growth in these industries across New Zealand.

Dairy farming nationally has experienced a boom in employment over the last 10 years, with the rapid rise in commodity prices resulting in a number of other farming operations being converted to dairy. However, this boom has not taken hold in the Hawke's Bay, as the dairy industry is much smaller in the Hawke's Bay relative to New Zealand, as shown by the employment concentration of 0.2 in Figure 6.

Sheep and beef farming has been in steady decline since 2002 across the country, although the Hawke's Bay has fared worse than the rest of New Zealand. This decline was hastened by a drought over the summer of 2011/2012, which resulted in a significant decrease in sheep and beef production.¹ For instance, sheep and beef farming employment in the Hawke's Bay fell 9.6% in the year to February 2012.

Figure 7 - Employment in primary industries has fallen



The horticulture industry tells a more positive story for the Hawke's Bay Region, with a marginally positive gain in employment over the last 10 years to contrast the decline seen in the rest of New Zealand.

Across all primary industries in New Zealand, employment has fallen by 5.9% in the Hawke's Bay Region, while it has grown by 7.4% for New Zealand overall, indicating a movement in employment away from the dominant primary industries to other industries.

¹ <http://beeflambnz.com/news-events/media-releases/2013/september/drought-responsible-for-2-million-fewer-lambs-this-spring/>

Areas of growth and decline

Over the last 10 years, the shape of the Hawke's Bay economy has changed, with a movement away from primary production towards more service industries. Figure 8 considers the industries that have changed most rapidly, thus having the largest impact on the Region. Only industries that had at least 2% of total employment in 2012 have been included in the analysis to avoid focusing on large fluctuations in small industries.

Overall employment in the Region has risen by 6.5%, or 0.6% per year since 2002. Yet the changes in employment have been sharply away from the primary sector and into services.

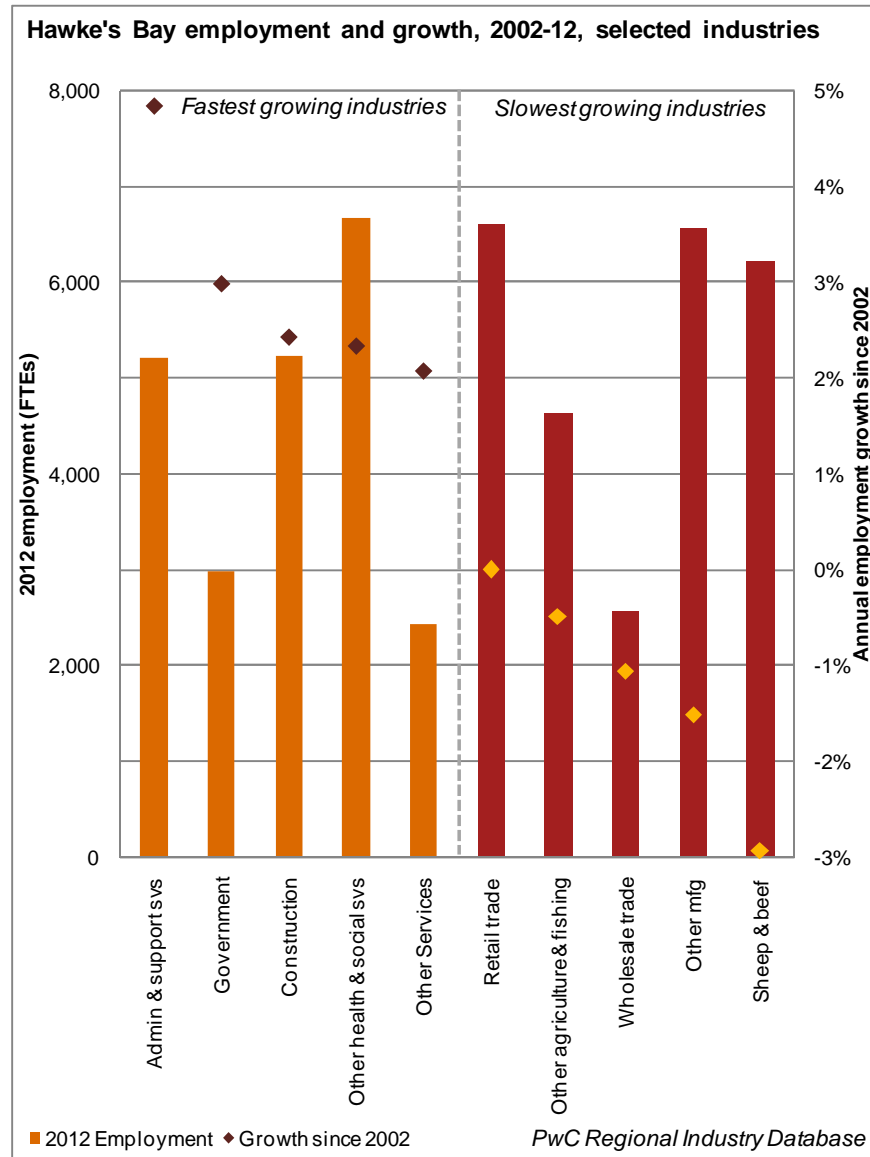
This change in industry structure may have implications for infrastructure requirements. For instance, there is likely already a growing number of larger logging trucks in lieu of livestock transport with the conversion of land to forestry. Intensification through the Ruataniwha irrigation scheme is also likely to see livestock transport displaced by milk tankers. Both trends will place more pressure on the roading network.

Changes in employment since 2002 have been sharply away from the primary sector and into services.

Growth in services and government

Overall, services industries experienced the highest rates of growth over the last 10 years in the Hawke's Bay District, indicating that these industries are becoming more significant contributors to the Hawke's Bay economy. In particular, other healthcare services, and administrative services have experienced strong growth, of 2.3% and 4.8% per year respectively.

Figure 8 - Employment is slowing in the agriculture sector



Declines in primary production and manufacturing

The major decline in Figure 8 is in sheep and beef farming, with an annual fall of 3% per year for 10 years resulting in a net decrease of more than 2,000 FTEs (or around 2.5% of all Regional employment) over the period. Given that the overall population and employment within the Region has increased over the period, these workers are likely relocating to other industries within the Region or to other Regions, offset by an inflow of workers in service industries. Despite the decline in sheep and beef farming, it remains a large part of the Hawke's Bay economy, accounting for 7.8% of workers in 2012.

Looking forward

Understanding how the population and industries within the Hawke's Bay Region are projected to change will help to answer important questions relating to any transitions likely to occur in the economy. The charts in this section use population projections from 2011 and 2031 to help understand the likely changes in the Hawke's Bay economy over this period, and the implications of this change for infrastructure and governance.

The discussion then considers the implications of possible industry changes on infrastructure and governance.

Population changes

The total population of the Hawke's Bay Region is projected to increase by approximately 6,000 people over the next 20 years, as shown in Figure 9.

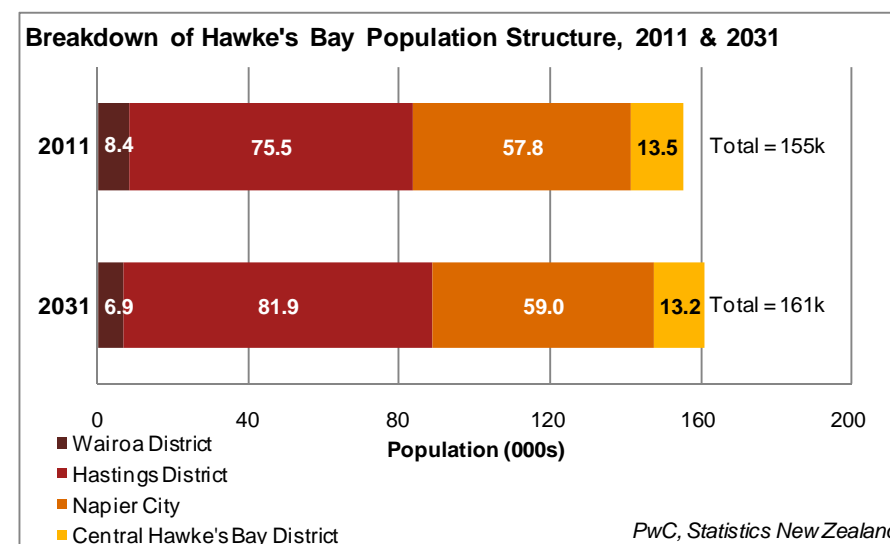
All of this growth will occur in Hastings District and Napier City, with small declines in Wairoa and Central Hawke's Bay.

A decreasing population over a large land area makes for expensive, hard-to-fund infrastructure requirements.

The declining population in Wairoa and Central Hawke's Bay poses several complications for infrastructure and governance; a decreasing population over a large land area makes for expensive, hard-to-fund infrastructure requirements.

The overall population growth is low compared to New Zealand, with the total New Zealand population projected to increase by 17% over the same period.

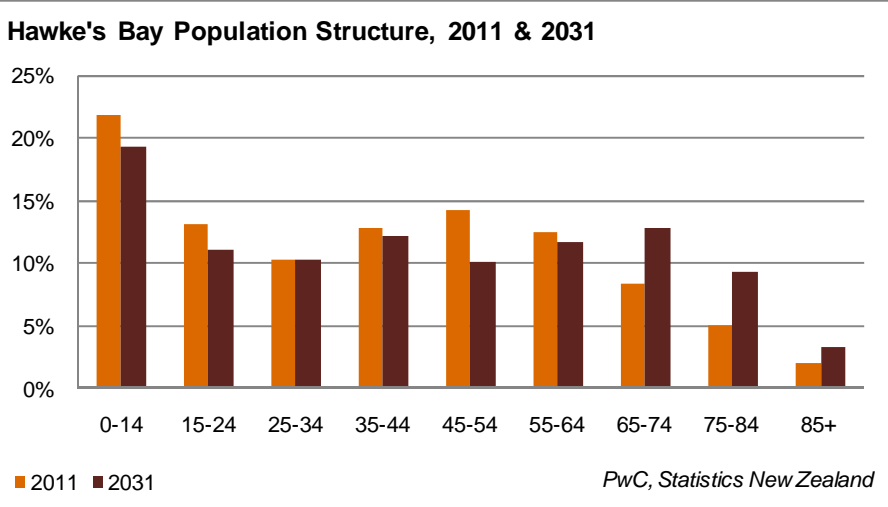
Figure 9 – Population growth will be centred in urban areas



With the projected population declines in Wairoa and Central Hawke's Bay and the ageing population, there is a risk that if migration was to continue out of these areas the respective District Councils may find it harder to collect the rates needed for providing adequate infrastructure. Further, both of these Districts are heavily reliant on mainly sheep farming. If the forecast wool and meat exports changes were to materialise, this could place a lot of financial pressure on the remaining residents of the area, again affecting the rates burden.

Figure 10 shows the ageing population structure of the Hawke's Bay Region, by comparing the age structure of the population in 2011 to the projected population in 2031.

Figure 10 – An ageing population structure

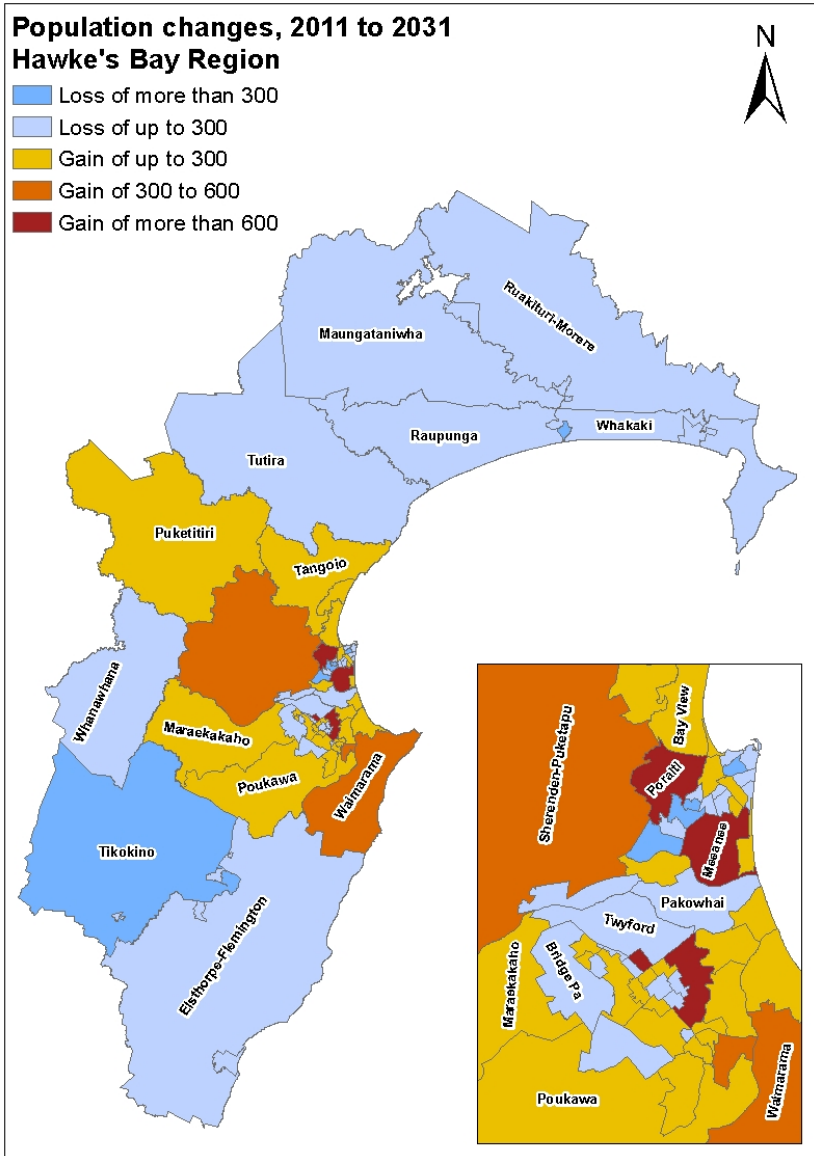


The population is expected to age much as it is in the rest of the country. This will mean a far higher proportion of people aged over 65 than today (26% compared with 13% today).

However, as Figure 11 highlights, the changes in population will vary dramatically, with no growth in the north and the south, and all the growth centred in the Hastings and Napier local authority areas.

These projections from Statistics New Zealand do not take into account the potential for projects like the Ruataniwha irrigation scheme in arresting population decline. The scheme will be based in areas of Central Hawke's Bay that would otherwise (as the projections show) see significant population declines.

Figure 11 - Population changes across the Region are dramatic



Source: PwC, Statistics New Zealand

Industries to watch

The Hawke's Bay Region is reliant on the primary industry as a whole. This has the potential to expose the Region's economy to shifts in consumer demand (mainly through exports) and to climatic changes.

As part of the PwC Upper North Island Ports Study, forecasts for New Zealand exports to 2041 were produced. The forecasts were externally verified with major exporters to ensure that the data was in line with expectations of each of the parties.

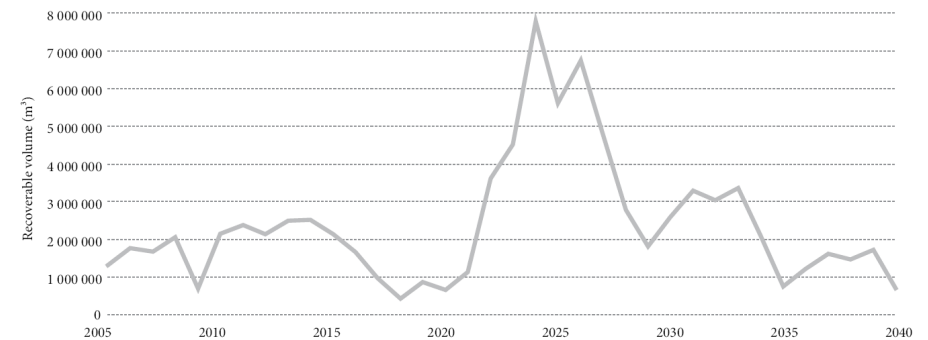
The data collected as part of this project indicates that meat exports are expected to stay fairly flat over the next 30 years. This may inhibit economic growth for the Region if continued reliance is placed on sheep and beef.

The study also indicates that wool exports could decline by approximately 14% over the same period. This could once again significantly impact the Region's economy due to the large concentration of sheep farming.

However, there are some areas that could provide some positive opportunities for the Hawke's Bay Region. The forecasts indicate that there is the potential for increased exports of wood, leather, dairy products and processed seafood. This could help capitalise on the other primary production strengths the Region has.

Figure 12 sets out Ministry for Primary Industries (MPI) forecasts of wood production in the Hawke's Bay.

Figure 12 - MPI forecasts of harvestable wood in Hawke's Bay

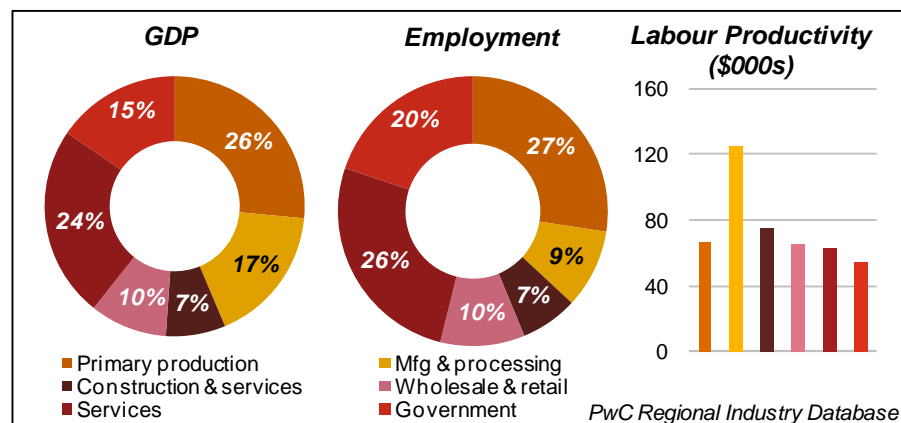


The figure indicates that if all the wood in the Region was to be harvested at the typical age of 30 years, there would be a substantial increase (up to four times) in annual wood harvest compared to the current picture. A scenario as dramatic as this is unlikely as forest owners can make decisions on when to harvest that can soften the increase. Nevertheless, this significant increase in wood supply will need to be harvested at some point in the next 10 to 20 years, creating significant demand for port infrastructure and for roading and rail to transport wood products.

3.1 Hastings District

The Hastings District is the largest local authority in the Hawke's Bay Region, both in terms of land coverage and population. In 2012, the total population was around 75,000 people, spread across the District's 5,200km².

Figure 13 – A balanced economy



The profile of the Hastings District economy is similar to that of the Hawke's Bay Region overall, with a high concentration of employment in primary production, services and government.

Of particular importance in the Hastings District is the strong horticulture industry, built on the growing production of apples and pears, and grapes for wine production. Around 60% of New Zealand's total planted area in pip fruit is in the Hawke's Bay Region, most of it in the Hastings District.²

Another significant contributor to employment in the Hastings District is the government sector, with 20% of total employment. However, with only a 15% share of GDP, this is relatively low productivity sector.

Despite only accounting for 9% of employment in the Hastings District, the manufacturing and processing sector contributes 17% to the overall GDP of the Region; meaning this highly productivity sector is about twice as productive per worker as other sectors in the District.

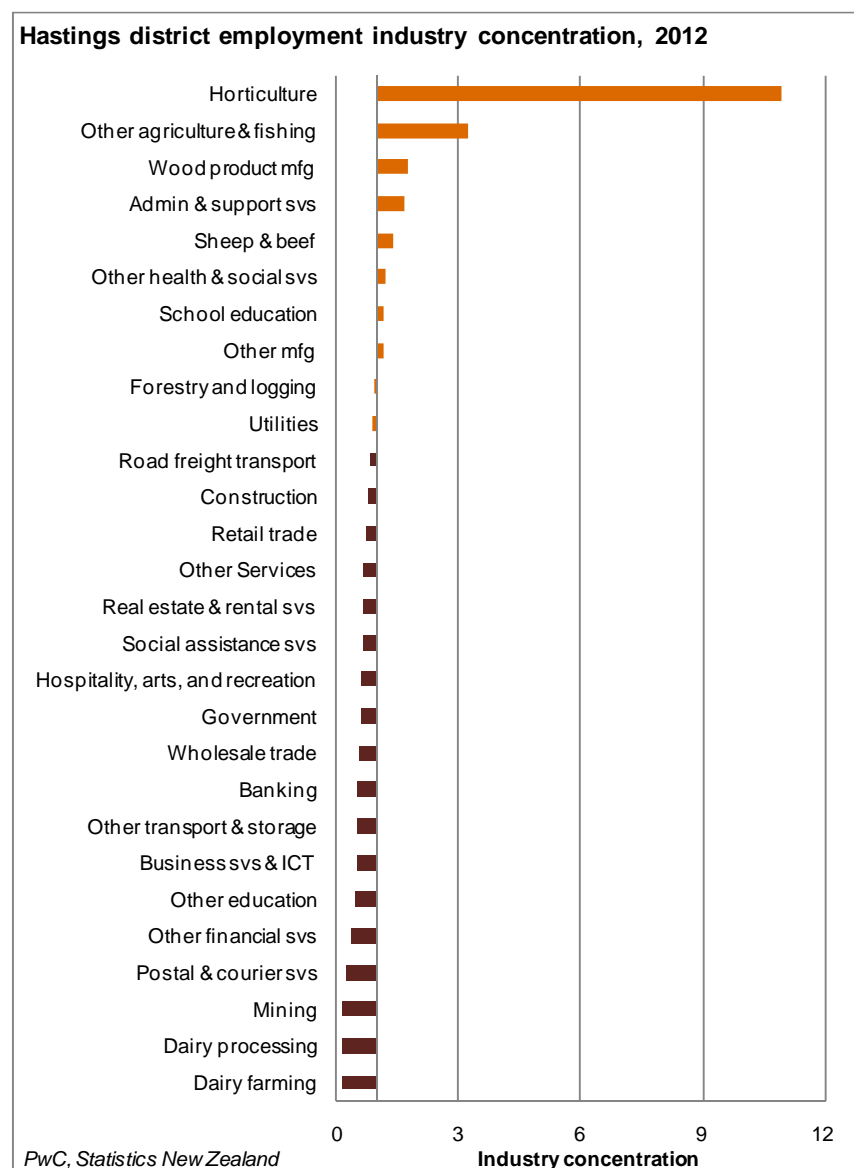
Employment dominated by horticulture

The employment industry concentrations shown in Figure 14 highlight a very clear message: high employment concentration in horticulture and other primary industries. Given that the Hawke's Bay is the largest producer of pip fruit in New Zealand, and also among the largest producers of wine in the country, it is not surprising that employment is so heavily concentrated in the primary sector.

Workers in Hastings are nearly 11 times as likely to work in horticulture as they are in the rest of New Zealand, and more than three times as likely to work in other agriculture and fishing.

² <http://www.mpi.govt.nz/agriculture/horticulture/fruits>

Figure 14 – Relative strength in primary production



At the other end of the spectrum, workers are far less likely to work in dairy, or any one of several high end business services including financial services, ICT, and banking.

This is an interesting finding.

Despite the fact that Hastings has a large population, and even a large urban population, it is relatively poorly served by service industries, which tend to be located in Napier.

Despite a large urban population, Hastings is relatively poorly served by service industries, which tend to be located in Napier.

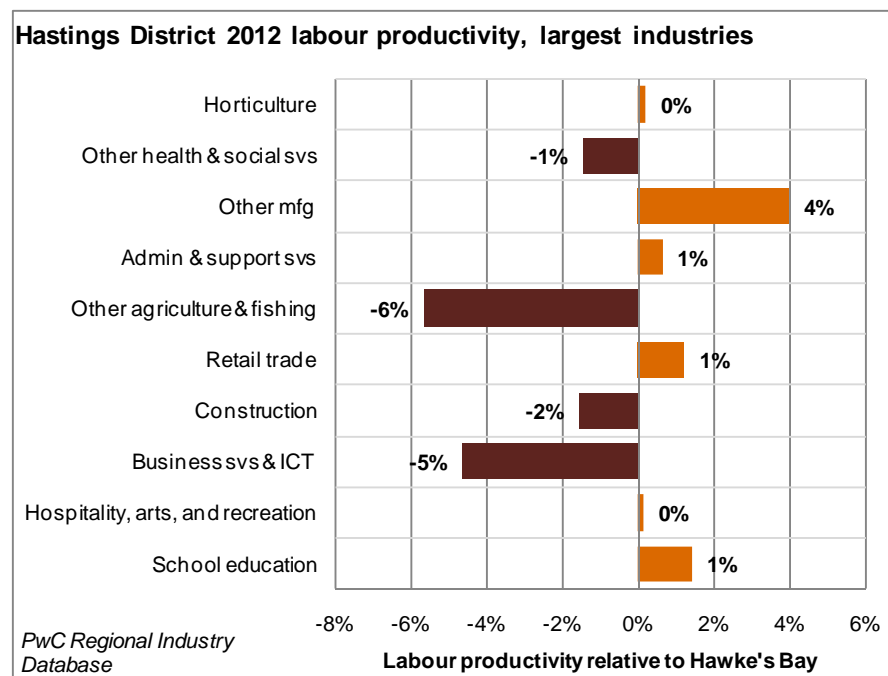
Relative labour productivity

To show the comparative advantage that Districts within Hawke's Bay have in certain industries, the productivity of workers for each District is compared to the productivity of that industry in the wider Hawke's Bay.

Figure 15 shows the relative productivity for the Hastings District for the 10 largest industries in terms of overall employment. For example, the relative productivity of 4% for other manufacturing in Figure 15 indicates that labour in the other manufacturing industry is 4% more productive than the average for the industry in Hawke's Bay.

As mentioned previously, the Hastings District has a similar profile to the Hawke's Bay economy overall, and as a result average labour productivities for its largest industries do not differ markedly from the regional average. This is reflected in Figure 15 where many of the large industries have a relative labour productivity that is similar to the Region as a whole.

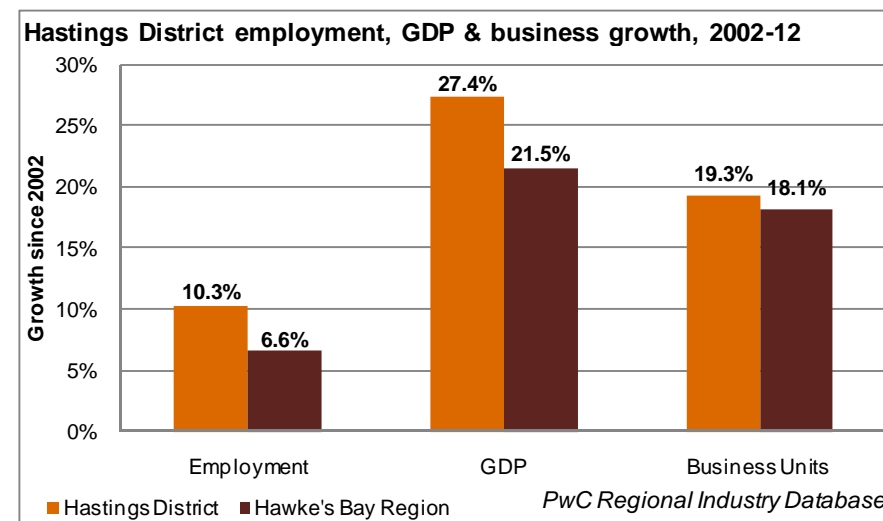
Figure 15 - Relative strength in manufacturing, weakness in business services



Trends since 2002

At a headline level, the Hastings District has been growing at a faster rate than the rest of the Hawke's Bay Region, as shown in Figure 16, which shows the total growth in GDP, employment, and the number of business units in the Hastings District and the Hawke's Bay Region.

Figure 16 - A leader of growth in the Region



The biggest sources for this growth in GDP, employment and business activity are in the services industries, implying that the structure of the Hastings economy has changed over the last 10 years.

This change reflects the urbanisation of the Hastings District; a trend with important implications for governance if it continues. Increased urbanisation of the population allows the development of more efficient infrastructure, and means a tightly co-located pool of ratepayers.

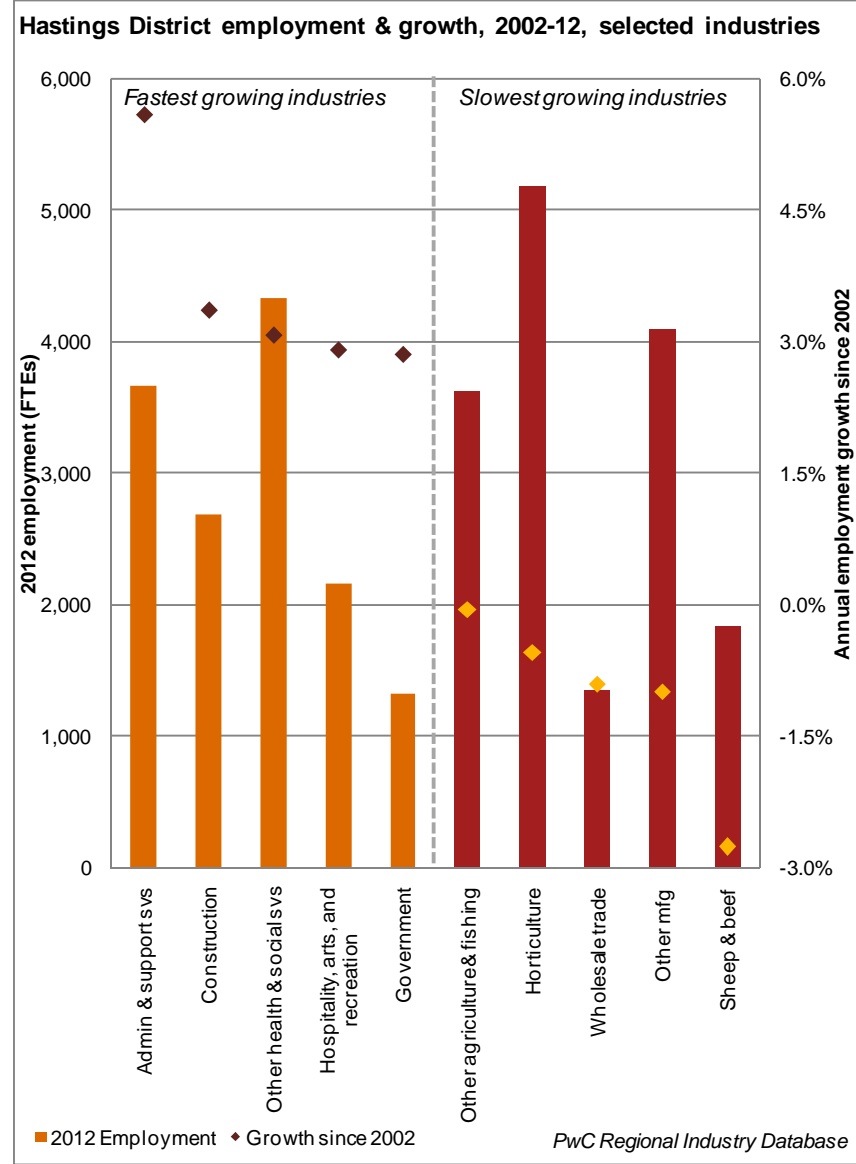
GDP has grown at a much faster rate than the number of business units and employment in the District, meaning that business size is falling as employment rises, and labour productivity surges.

Sources of growth and decline

Over the last 10 years, all of the fastest growing industries in the Hastings District have been non-primary industries, a significant change for an economy that has a high concentration of primary related industries. This places more reliance upon Hastings District’s infrastructure as there will be more vehicles on the road leading to increased congestion. However, with the shift to non-primary industries a reduction in heavy vehicle traffic could occur as a direct result, reducing the frequency for road surface repairs which can be a result of high heavy vehicle traffic.

Horticulture has remained stable over the last 10 years despite other areas experiencing much faster growth. As shown in Figure 7, the horticulture industry has experienced significant declines over the last 10 years all around New Zealand, so a marginal decline for the Hastings District is a positive sign for the industry.

Figure 17 - Declining employment in primary industries



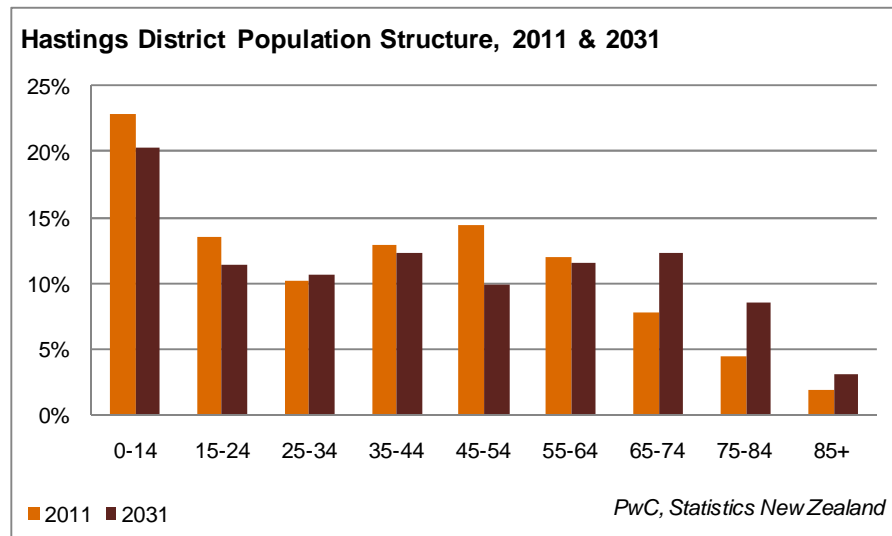
Looking forward

In 2012, the population of the District was just over 75,000, and in 2031 this population is projected to be nearly 82,000.

As with the rest of the Region, and in line with the overall national trend, the age structure of the Hastings District is projected to shift significantly over the next 20 years as the population ages.

An ageing population supports a shift in employment away from primary production towards a service based, urbanised economy. As mentioned earlier, this has positive implications for infrastructure as the population is easier to reach and can be supported by efficient infrastructure systems.

Figure 18 - Ageing population over the next 20 years



Hastings District has a primary production focused economy. The population in the Region has been projected to increase over the next 20 years and coupled with this is the ageing population issue.

As already noted, the ageing population supports a shift away from primary production to a service based urban economy.

Industry implications

Hastings District needs to assess the impact of industry changes within the horticulture, agriculture and wood product industries. Forecasts to 2031 show these industries are likely to be high growth areas. These forecasts are predicting that Hastings District could see export growth of around 27% to 54% in these industries based on current export levels. This could generate significant impacts on Hastings GDP if the District positions itself to benefit from growing international demand for these products.

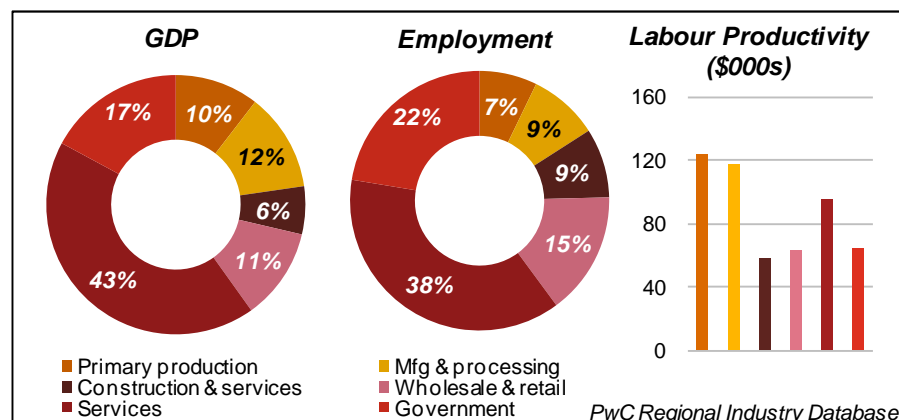
This continued role of the primary production and manufacturing sectors would reinforce the need for strong transport links and easy access to the port at Napier.

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3.2 Napier City

Napier is the main urban centre in the Hawke's Bay Region, with a population of over 57,000 spread over 106 km². Napier plays a unique role in the Hawke's Bay Region as it provides a link to the rest of New Zealand and the world through its seaport and airport.

Figure 19 – Napier economy dominated by services and government



Compared to the other Districts in the Hawke's Bay Region, Napier has a different profile. The largest industry by far is the services industry, which accounts for over 40% of GDP and employment in the District. Government, and wholesale & retail are also large industries for the District.

As the main service centre for the Region, Napier is home to many of the higher end services that are typically highly productivity.

Employment high in forestry and business services

Figure 20 shows the employment industry concentration for Napier City. The high concentration of employment in the forestry and logging sector in Napier City is surprising given the urban nature of the area. This is explained by the fact that several large forestry companies (such as PF Olsen and Forestry Management NZ) have headquarters in Napier, contributing heavily to employment in the forestry and logging industry.

Aside from forestry and logging, there is a strong concentration in a number of service related industries. The low concentration in banking and other business and financial services is expected given the heavy concentration of employment in these industries in major city centres across New Zealand.

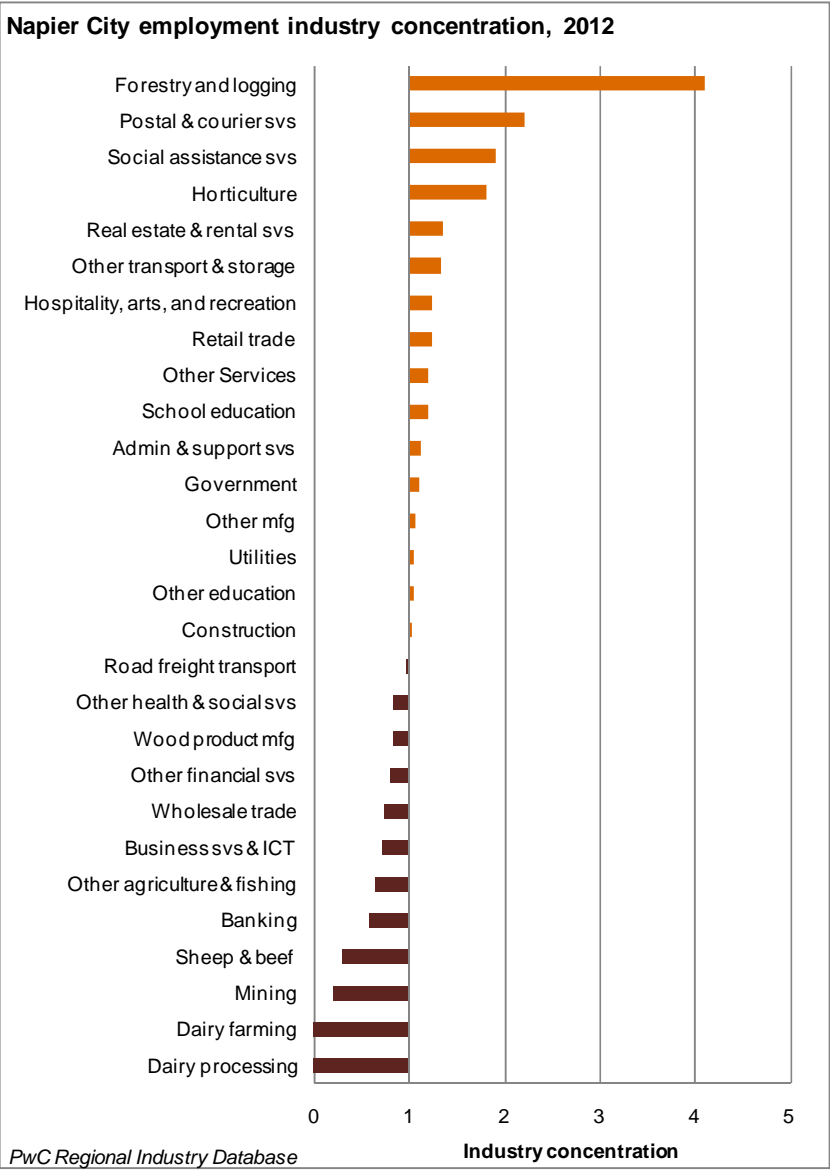
The high concentration in services compared to a concentration in primary industries for other Districts in Hawke's Bay indicates that the other Districts within the Region rely on

Other Districts within the Region rely on Napier city for the provision of higher end business services.

Napier city for the provision of these services. In particular, real estate, hospitality, and transport all have high concentrations in Napier, but are lower elsewhere.

This difference in labour concentrations between Napier and the rest of Hawke's Bay means that the population living outside of Napier will be relying on the transport infrastructure network to access services, and this demand is likely to increase as the population grows over time.

Figure 20 – Relative strength in forestry and services

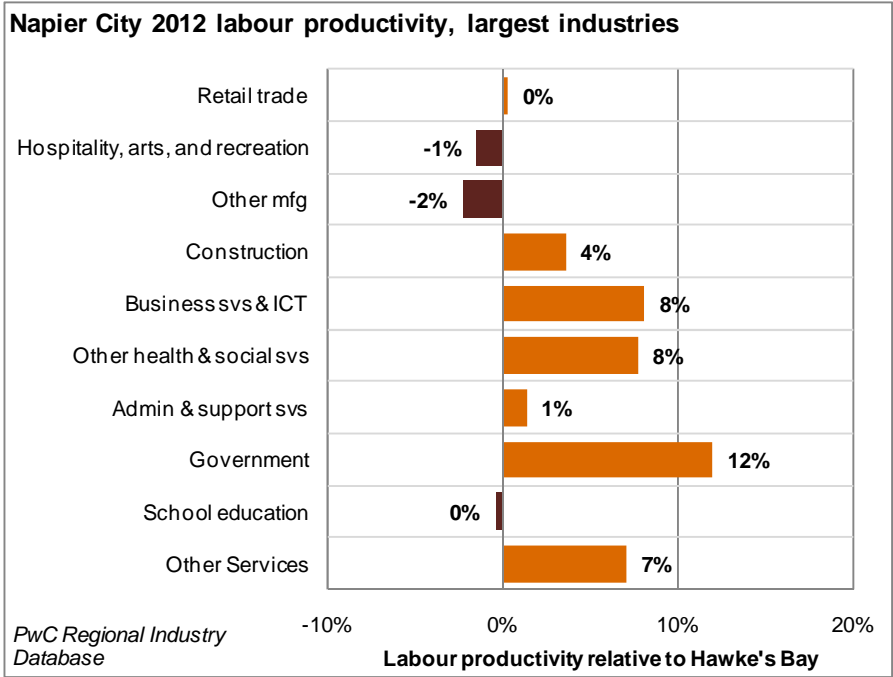


Relative labour productivity

Figure 21 shows a clear comparative advantage for Napier in the business and services industries relative to the rest of the Hawke’s Bay, with positive relative productivities across the range of large services industries in the city.

The Education industry is 12 % more productive in terms of GDP per worker than the productivity for the rest of the Hawke's Bay Region. Given the higher population density in Napier, schools are likely to be larger in size and will be able to operate more efficiently than in rural areas where roll numbers are likely to be much smaller.

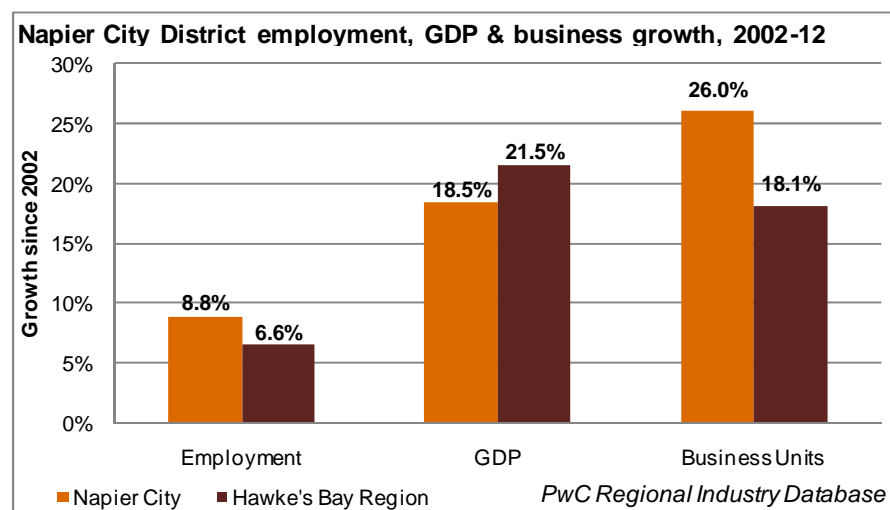
Figure 21 - Advantages in government and business services



Trends since 2002

Figure 22 presents the headline changes in the Napier economy since 2002.

Figure 22 – Slower relative growth in GDP



Over the last 10 years, employment and the number of business units in Napier have grown faster than in the rest of the Hawke's Bay Region, while GDP has grown at a slower rate. This means that at an aggregate level, businesses in Napier are shrinking in size (which is common across the Region and indeed the country), but workers are becoming more productive. At the same time, however, the productivity of workers is not growing at quite the same pace as across the rest of the Hawke's Bay.

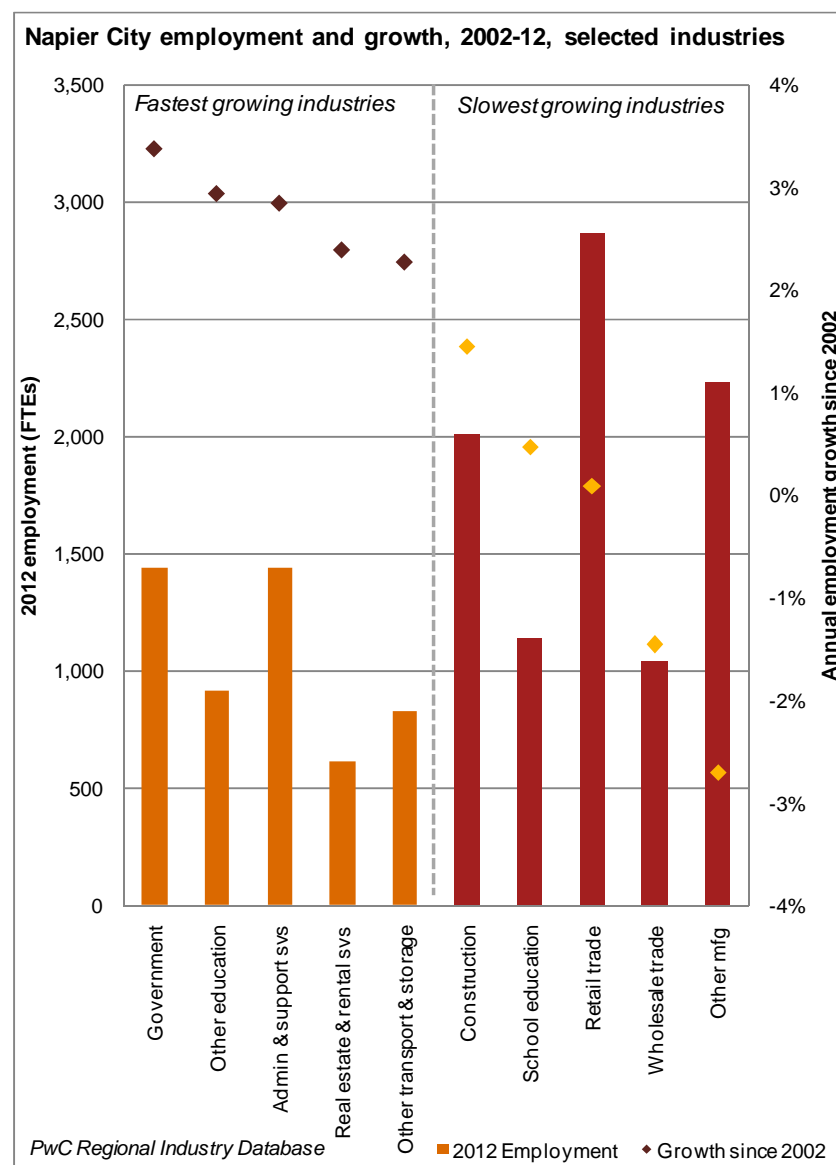
Sources of growth and decline in the last decade

Over the last 10 years, retail and other manufacturing have experienced slow growth and in fact manufacturing has experienced a slight decline, but both are still big industries in Napier City, as Figure 23 points out.

Almost all the growth in the local economy in the last decade has been in the service industries, even as employment in manufacturing has fallen.

A potential concern is that none of the largest industries in the Napier economy (Hospitality, Retail trade, Other manufacturing, and Business services and ICT) have experienced significant growth over the last 10 years, with three of the five largest industries in 2012 experiencing declines.

Figure 23 – Service industries dominate growth



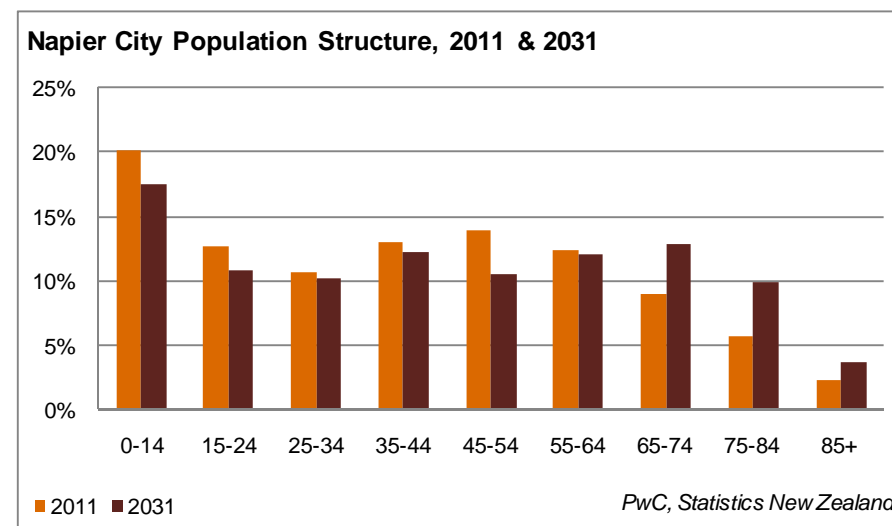
Looking forward

Assuming the current trend of growth in the services industries in Napier and across Hawke's Bay continues, the growing population of Napier will likely fill the demand for these new jobs. Napier will continue to be the main urban centre providing higher end services in the Region.

However, as younger people move out of the other Districts into Napier and Hastings, it is possible that competition for jobs in Napier will intensify as people relocate there.

Figure 24 highlights the changes expected in the local population.

Figure 24 – An ageing population



Industries to watch

Napier has several tertiary service industries by virtue of its role as the main centre in the Region although as headquarters for several forestry businesses, there are opportunities for growth as the forestry sector is likely to face export growth of approximately 25% to 30% over the next 20 years. Napier is well positioned to benefit from this growth with the infrastructure in place. As more wood is harvested, there will be more throughput at the Port and on the rail and roading network.

There are also other industries that employ a large proportion of workers in Napier and that are dependent on infrastructure provided by local Councils including postal and courier services, which again will place demands on roading.

However, the key role for Napier will remain (and grow) as a service centre for the Region, and as home to the Port through which so much of the Region's exports flow. Given the major role played by the port, the following section considers its role in greater detail.

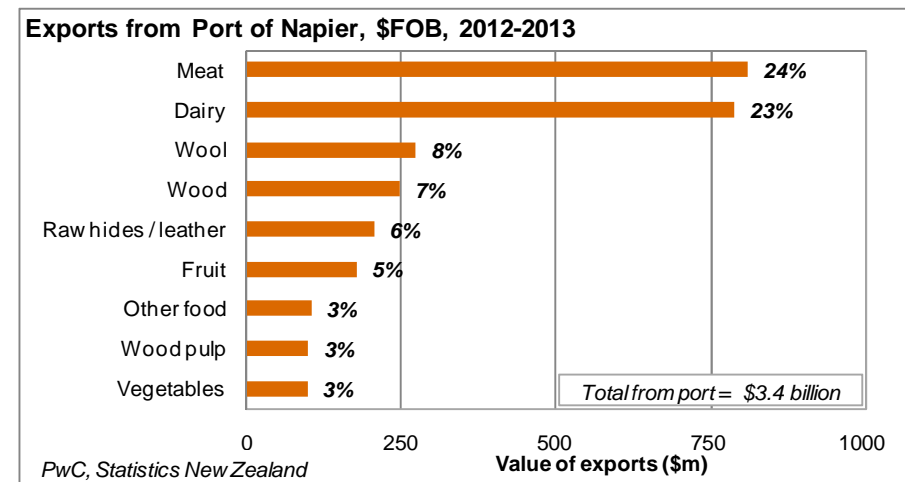
The role of the Port

The Port of Napier is regarded as a leading port in central New Zealand, and plays a very important role in the Hawke's Bay economy.

Because the Hawke's Bay is the leading producer of pip fruit in New Zealand, and also a significant producer of sheep meat and wine, the Port plays a key role in helping get products produced across the Region to export markets.

Figure 25 shows the major exports from the Port of Napier over the 12 month period to February 2013. Given the large concentration of sheep farming within the Region, it is unsurprising that meat exports account for the greatest share of export values.

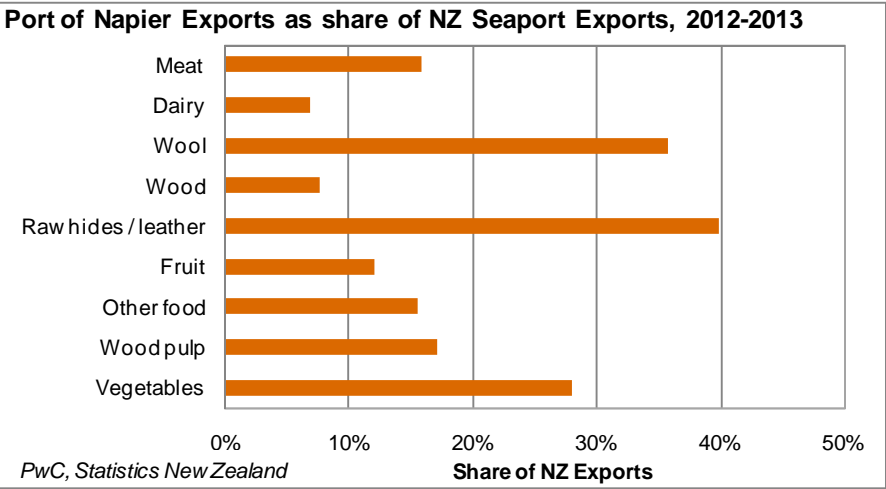
Figure 25 – Primary exports are meat and dairy



However, dairy exports are also very high, which indicates that other Regions are also relying on the Port of Napier to export to world markets. One such example is Taranaki, which produces large amounts of dairy products that are transported by train to Napier for export.

While the total value of exports from the Port of Napier shows the importance of the Port to the Region, it is also useful to show the exports from the Port as a percentage of total exports from seaports to highlight the value of the Port to the country. Figure 26 summarises this analysis.

Figure 26 - Napier is a major export Port city



The Port of Napier is responsible for a significant proportion of New Zealand exports of primary produce, with over 25% of New Zealand’s exported wool, leather and vegetables leaving from the port, and more than 10% of fruit and wood pulp products.

The analysis in Figures 25 and 26 suggests that transport infrastructure systems within the Hawke’s Bay Region and throughout the central North Island are crucial to facilitate the flow of primary outputs from the farm gate through to export markets.

Any governance structure in the Hawke’s Bay must ensure that the Port and its feeder transport networks are maintained, strengthened, and operated in a coherent, consistent matter to support the primary sector that drives the regional economy.

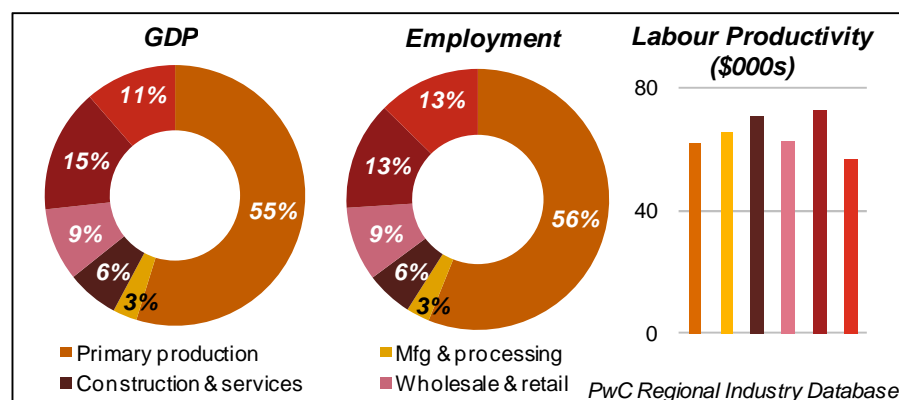
The governance structure must ensure that the Port and its feeder transport networks are maintained, strengthened, and operated in a coherent, consistent matter to support the primary sector that drives the regional economy.

3.4 Central Hawke's Bay

The Central Hawke's Bay District covers a land area of 3,327 km², and as of 2012 had a population of just over 13,000 people, or less than 10% of the population of the Hawke's Bay.

As Figure 27 shows, the Central Hawke's Bay is one of the most primary sector-oriented Districts in New Zealand.

Figure 27 - Central Hawke's Bay dominated by primary production



More than half of all GDP and employment in the Central Hawke's Bay District is in primary production, significantly higher than the 25% share for the Hawke's Bay Region, or the 11% share that the industry makes up for New Zealand overall.

This focus on primary production means that the Region is heavily dependent on transport infrastructure to move its products around New Zealand for consumption or for export.

Overall, the Central Hawke's Bay District shows relatively little variation in labour productivity across sectors. This is quite different from the situation in Napier and Hastings, where manufacturing is particularly highly productive.

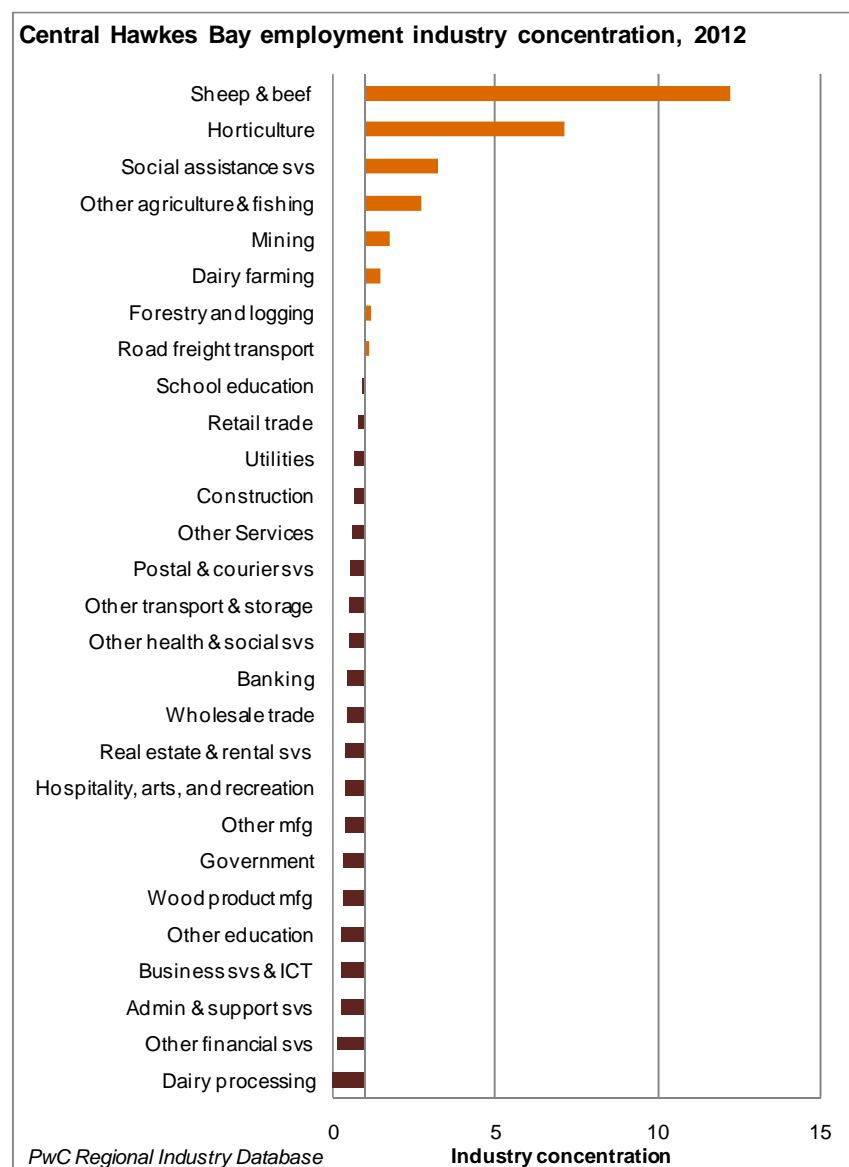
Employment high in sheep and horticulture

As shown in Figure 28, sheep farming has an employment concentration of 12.2 in the Central Hawke's Bay, which means that workers in Central Hawke's Bay are more than 12 times more likely to work in the sheep and beef industry than they are elsewhere in New Zealand. Primary production industries make up five of the eight most highly concentrated industries.

The PwC Diversification Index, another measure of how Districts and Cities specialise in a particular industry or diversify across multiple industries, suggests that the Central Hawke's Bay is one of the least diversified Districts in New Zealand. This is because it has a strong sheep farming industry, but also means it is highly exposed to the strength or otherwise of one industry.

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Figure 28 – Relative strength in primary production



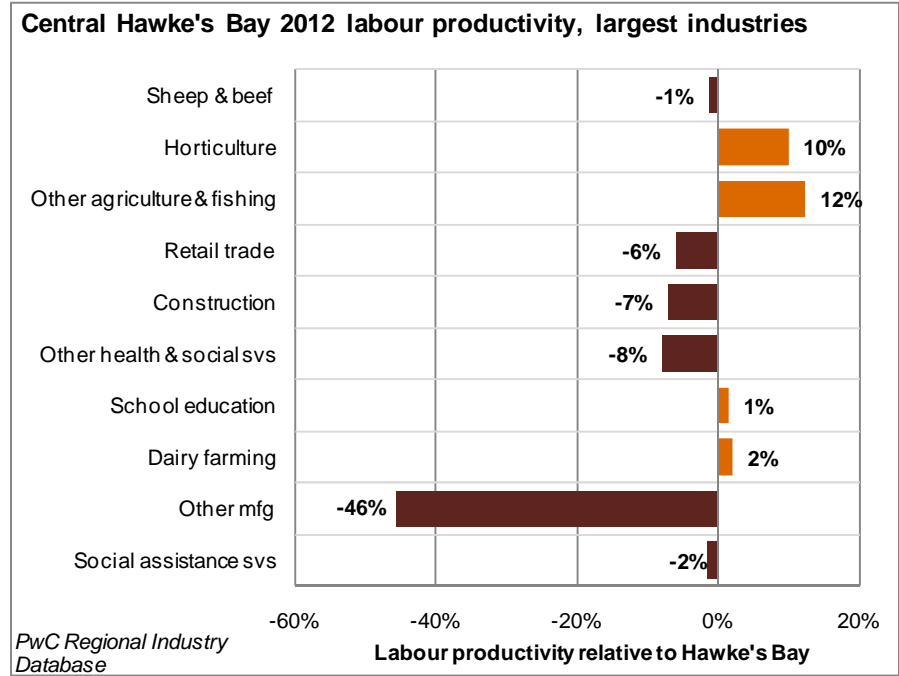
Relative labour productivity

Despite the heavy concentration in sheep farming, the labour productivity in the industry is around the Regional average, as Figure 29 highlights. One explanation for this may be that specialisation of labour in this industry may be offset by a geographic separation of producers with poor access to support services.

Horticulture and other agriculture are slightly more productive than the Hawke's Bay average, which is a positive indicator given that they are among the industries with the highest employment concentrations in Central Hawke's Bay. Overall employment in the Central Hawke's Bay appears to be specialised in areas where the labour productivity is highest relative to the rest of the Region.

Given the large land area available in the Central Hawke's Bay, there may be an opportunity to move more resources into horticulture, particularly as the Hastings District (which is strong in Horticulture) moves towards service oriented industries.

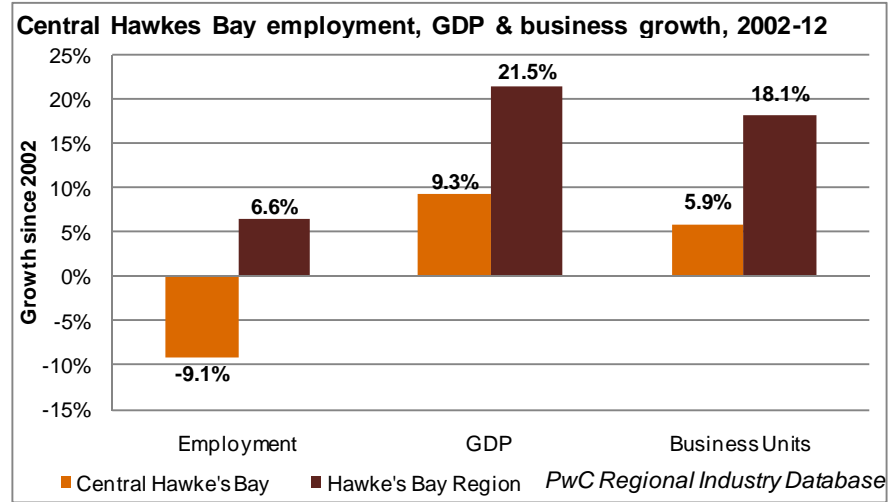
Figure 29 - High productivity in areas of specialisation



Trends since 2002

Figure 30 highlights the key trend in the Central Hawke's Bay economy over the last 10 years.

Figure 30 – Declining employment amid productivity growth



Over the last 10 years employment has fallen in the Central Hawke's Bay. This goes against both the national trend, and trends in the Region overall. The downturn in the sheep farming industry has had a marked effect on the overall employment picture, given its dominance in the District.

Unsurprisingly, given the fall in employment, GDP and the number of businesses are both growing at a much slower rate compared to the rest of the Region. Growth in the number of businesses combined with decreasing employment indicates a transition to much smaller businesses in the District, while the strong increase in labour productivity (GDP per worker) is an indication that marginal employment has suffered as businesses become more efficient to survive in an environment of drought and a strong NZ dollar.

Sharp decline in a dominant sheep and beef industry

The dominant sheep industry in Central Hawke's Bay has experienced the largest fall in employment over the last 10 years, declining at an annual rate of 4% over the period. It is likely that this decline is partly related to a conversion of land used for sheep to horticulture, as employment in horticulture has increased by more than 7% per year over the same period.

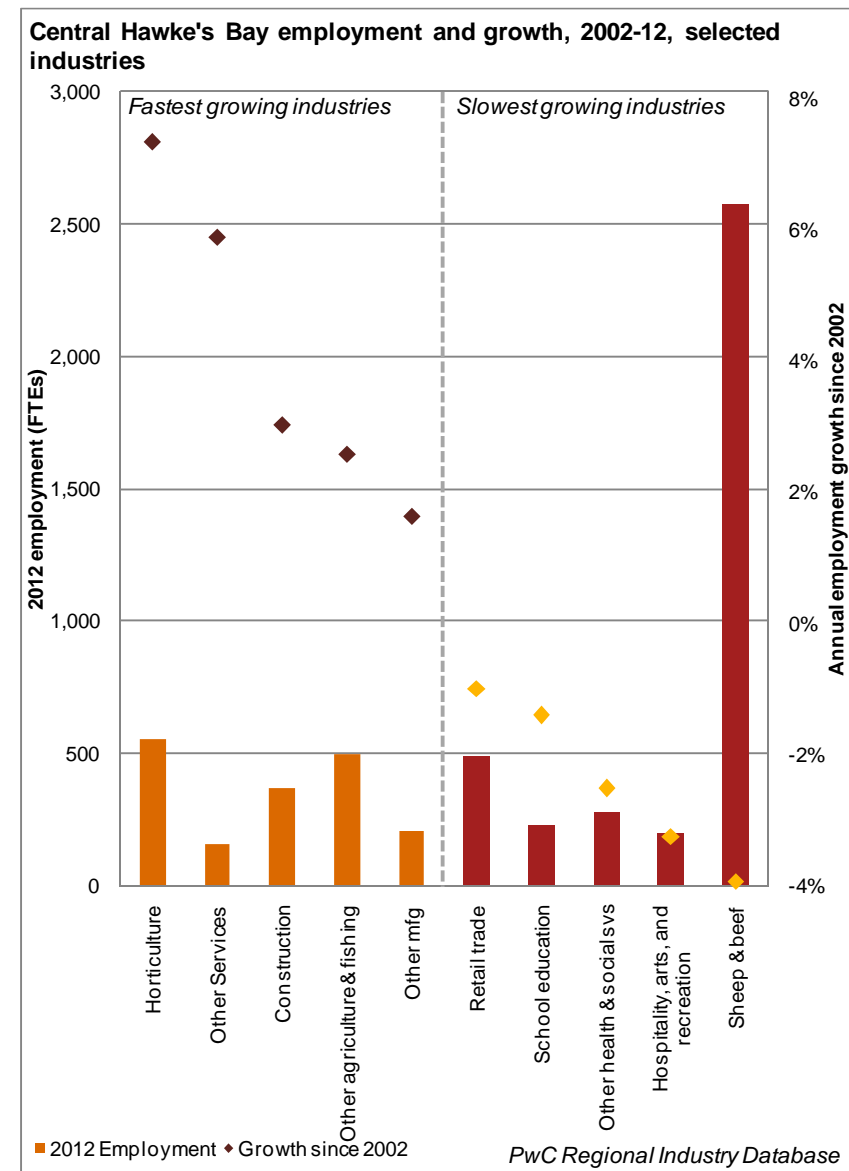
Strong growth in horticulture activity will mean ongoing roading infrastructure requirements.

The rapid growth in the horticulture industry indicates that it has potential to become a much larger part of the Central Hawke's Bay economy, and add to the strong horticulture industry in Hastings. With the infrastructure and support networks for the horticulture

industry in place in Hastings, and access to export channels through Napier, this appears to be a promising move in the Central Hawke's Bay economy.

A potential downside to the rapid decline in sheep farming is that the skills required in the industry are not likely to translate well to service industries which are experiencing growth. This means that there may be some significant investment in education and training programmes required to facilitate the transition of these employees to the growing services industry, both within Central Hawke's Bay and throughout the Hawke's Bay Region.

Figure 31 – Mixed results in primary industries

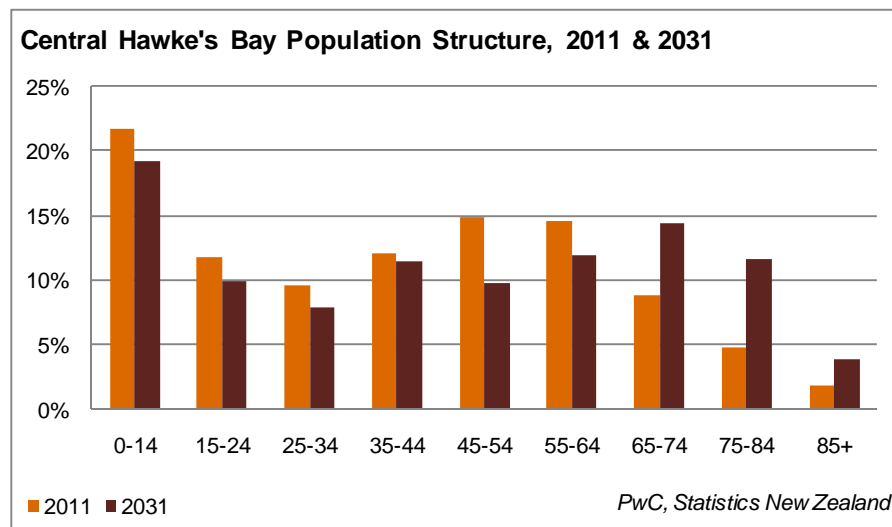


Looking forward

Much like the rest of New Zealand, the structure of the Central Hawke's Bay population will change over time. For an economy that is heavily reliant on primary production, this is a shift with worrying implications for the sustainability of the District.

With more than 55% of employment in primary production in the District, the question of who will manage these operations becomes very important. An ageing population is likely to transition to a more service based type of employment, and the Central Hawke's Bay economy will likely need to change to support this ageing population.

Figure 32 - Ageing population over the next 20 years



Industries to watch

There is a low concentration of Dairy farming in Central Hawke's Bay compared to New Zealand as a whole. This leads to the conclusion this low concentration is a result of the land not lending itself well to Dairy farming due to the climatic conditions of the Hawke's Bay.

The Ruataniwha irrigation scheme is aiming to change land use by irrigating 40,000 hectares of land in the Ruataniwha plains. This provides an opportunity to change from dry stock farming to dairy or crop farming.

This would create higher demands on road and transportation in Central Hawke's Bay with the potential milk production. However, Central Hawke's Bay is well placed to deal with this given the infrastructure and support systems in Hastings and the export channels available through Napier.

Water management issues may arise from a switch to dairy, which will require the requisite skills and capability at Council.

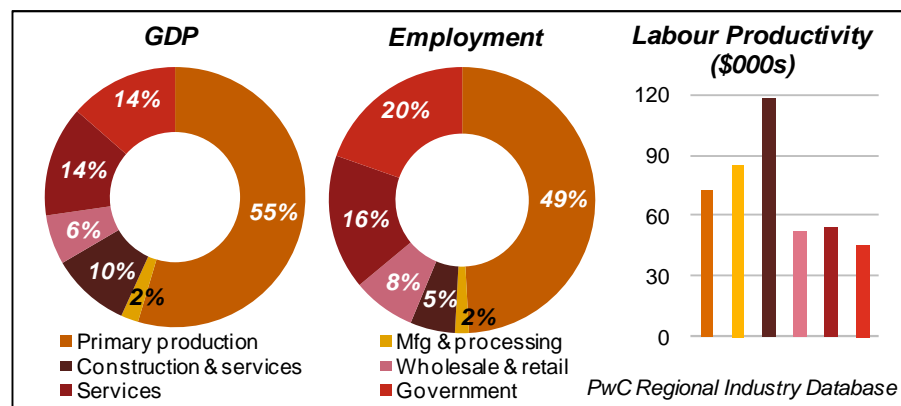
The Ruataniwha irrigation scheme provides an opportunity to change from dry stock farming to dairy or crop farming. This would create huge demands on road transportation in Central Hawke's Bay but would transform the Central Hawke's Bay economy.

3.5 Wairoa District

The Wairoa District is the most northerly part of the Hawke's Bay Region. It had a population in 2012 of around 8,500, making it by far the smallest District within the Hawke's Bay Region and also the most sparsely populated of the Districts.

Figure 33 summarises the composition of the Wairoa economy.

Figure 33 – Wairoa economy dominated by primary production



The Wairoa District has a similar structure to that of Central Hawke's Bay, built on sheep farming, with primary production comprising around half of GDP and employment for the Region.

Around 20% of employment is in Government, but labour productivity in this sector is generally low in the Wairoa District. This is partly the result of a number of small schools operating within the District to serve the widely dispersed population.

Despite being small, the construction industry is highly productive in the Wairoa District, suggesting that there may be a large amount of commercial or farm related construction relative to residential construction.

Employment high in forestry and business services

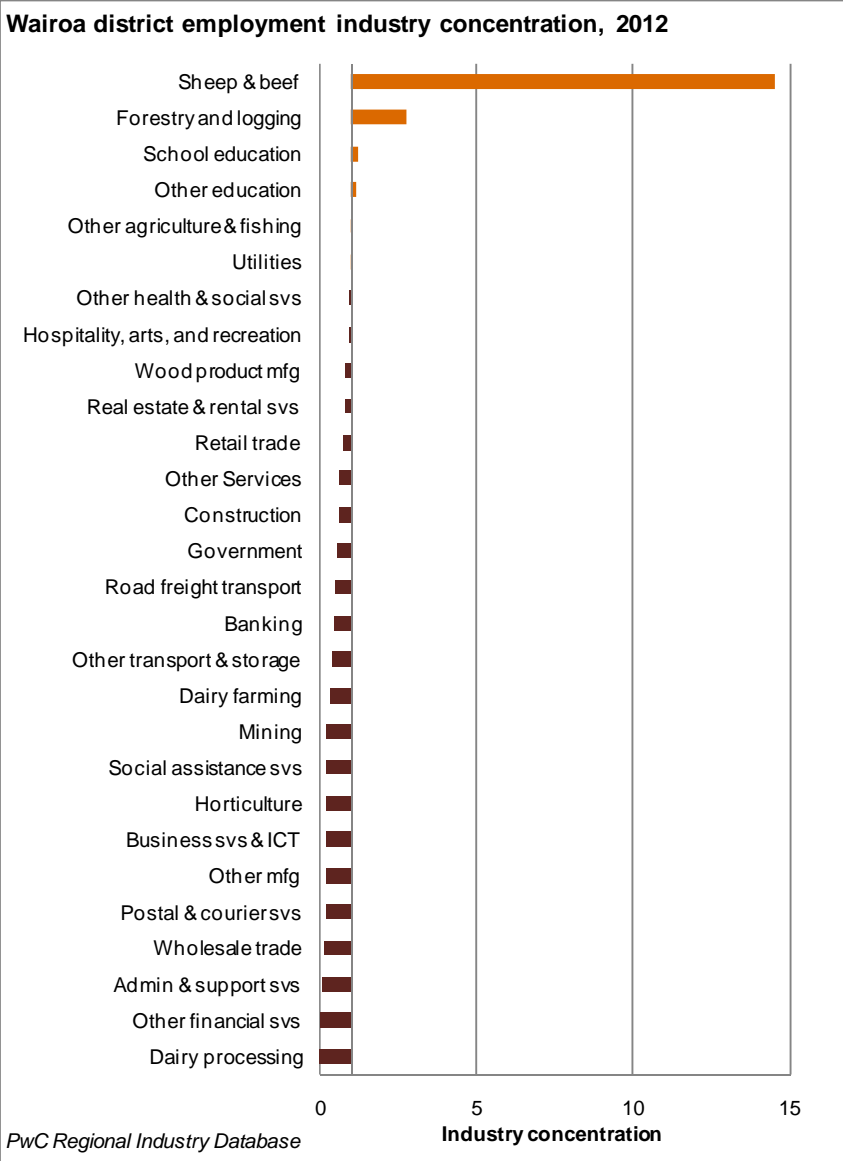
Figure 34 highlights the reliance of the Wairoa economy on a dominant primary sector.

With an industry concentration of nearly 15, it is clear that the sheep and beef industry is the primary driving force behind the Wairoa economy. With the exception of forestry and logging, which also has a high employment concentration, 24 of the 28 industries presented in Figure 34 have industry concentrations of less than 1, meaning that workers are less likely to be employed in these industries than they are elsewhere in New Zealand.

Such a low concentration in many important industries shows the dependence that a rural District like Wairoa has on more urban centres such as Napier and Hastings to provide core services.

PwC's Diversification Index suggests that the Wairoa District is the 6th least diverse economy of the nearly 70 local authorities in New Zealand.

Figure 34 – Employment dominated by sheep farming

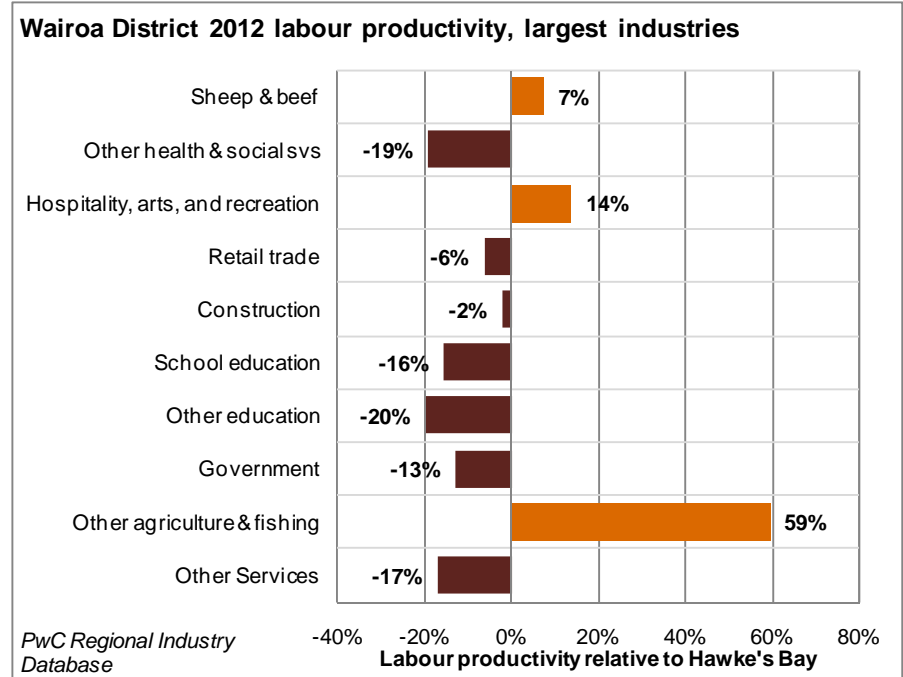


Relative labour productivity

Figure 35 highlights how labour productivity compares in the District’s 10 largest industries relative to Regional averages.

Considering that the most significant industry in the Region is the sheep and beef industry, it is a strong positive that this industry has a relative productivity advantage. Government, education and other services are all less productive than the Regional average; this may be due to poor economies of scale relating to the significant costs involved with reaching the population who are accessing these services.

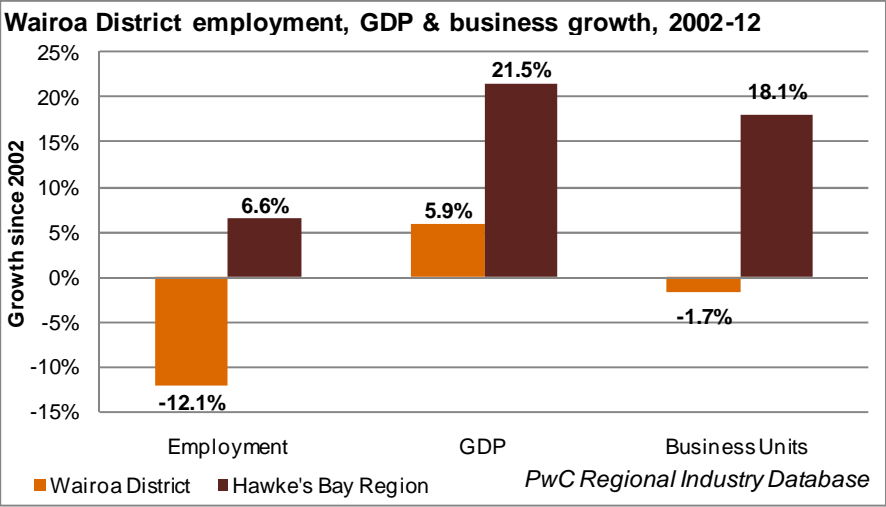
Figure 35- Advantages in primary production and hospitality



Trends since 2002

Figure 36 sets out the headline performance of the economy over the last decade.

Figure 36 – Declining employment and growing productivity



At a headline level, employment in the Wairoa District has fallen by more than 12% in the last 10 years. This is by far the largest drop in the Region and is in contrast to the gains experienced in the larger Napier and Hastings Districts.

The number of businesses in the Wairoa District has fallen marginally since 2002, while the total GDP produced by these businesses has increased, suggesting that these businesses are operating more efficiently, and with fewer employees.

Sources of growth and decline in the last decade

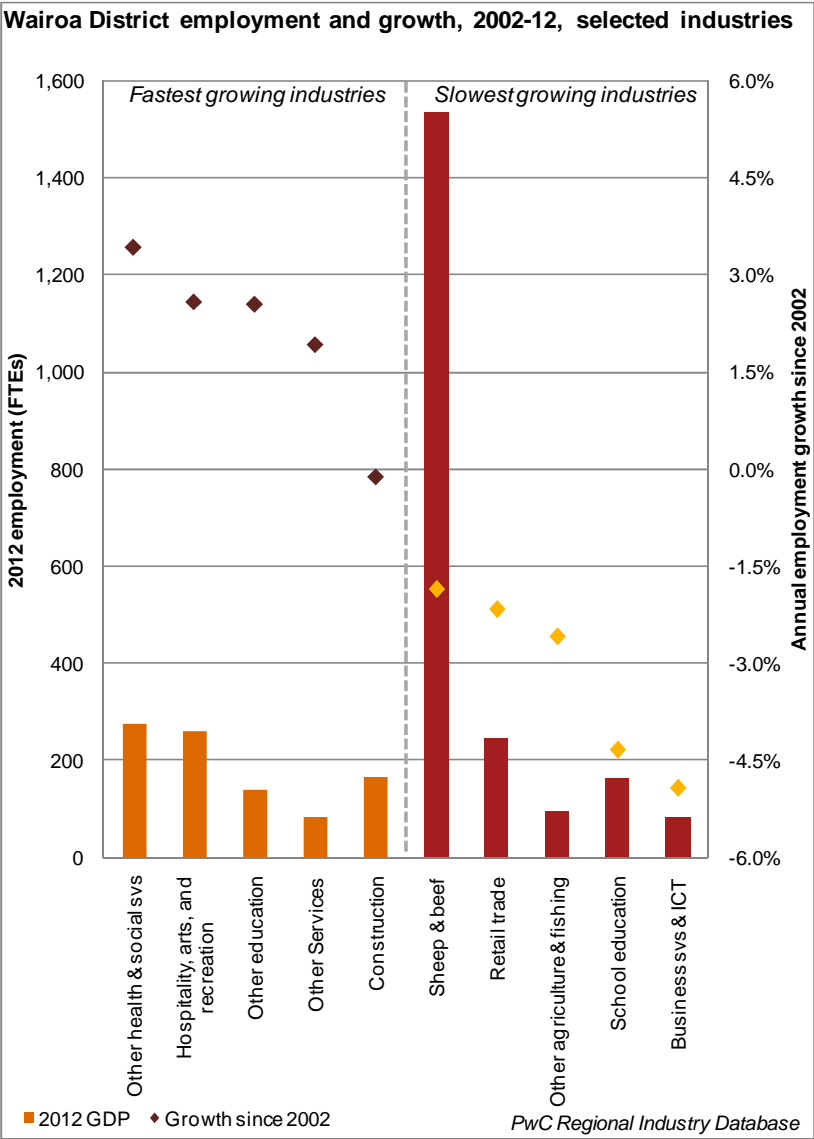
Figure 37 shows how some of the fastest-changing industries in the District have performed since 2002.

The decline in employment in the sheep industry over the last 10 years in the Wairoa District is of great concern. If this trend continues a dramatic change in the nature of the economy will be necessary. Without a strong sheep industry, it is unlikely that the Wairoa District will be able to generate the rates revenues required to provide the infrastructure that may be needed in the District.

Significant growth in health and social services, and hospitality industries indicate potential areas for growth in the Region, although these industries remain very small contributors to the Wairoa economy despite the potential for growth.

The decline in employment in the sheep industry may lead to an inability to generate the rates revenues required to provide the infrastructure needed in the District.

Figure 37 - Declining employment in sheep farming

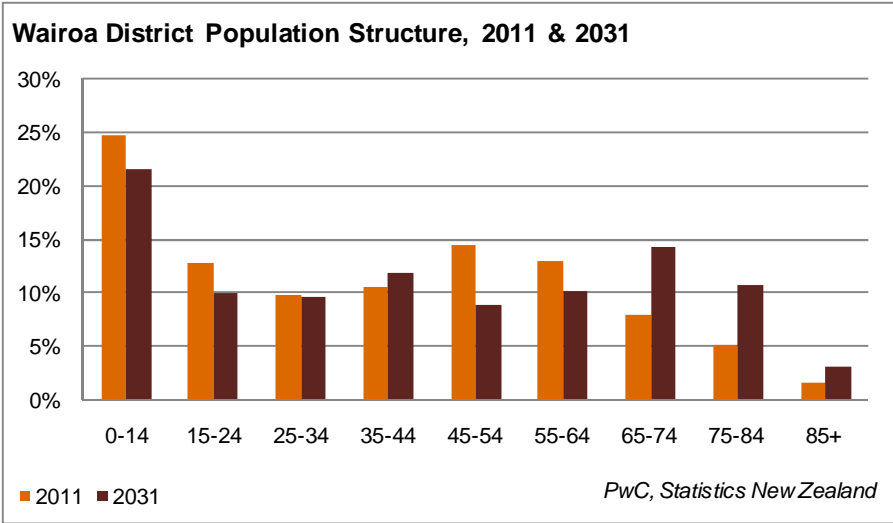


Looking forward

As with the Central Hawke's Bay District, the Wairoa economy will face significant change as the population ages over the next 20 years, as highlighted in Figure 38. Not only will the population age, but the overall population is expected to fall by 18% in 20 years in the absence of a transformational event in the District economy.³

Many farmers across New Zealand have noted the challenges they face in finding someone to take over their farms. With such a reliance on primary production, questions remain about who will manage the sheep farms to meet the demands of the rest of Hawke's Bay and New Zealand.

Figure 38 – The Wairoa population will age sharply



³ Statistics New Zealand Sub-national population projections.

Industries to watch

There are some signs that Wairoa may experience some growth in the next 20 years. There are a number of forests where wood harvesting is expected to double within the next 10 years. This could create more employment in the primary industries. In addition, this could create increased pressure on existing infrastructure but further throughput for the Port of Napier.

The growth in wood supply wood may generate huge additional demand for roading infrastructure in Wairoa over the next 10 to 20 years.

Wairoa also has natural gas stores which are yet to be fully exploited. These stores could be utilised to provide infrastructure to assist with the harvesting or processing of the wood that will be harvested.

As noted already, forecast exports of meat and wool are expected to decline nationally over the next 20 years and wood exports are forecast to increase. This will mean that despite potential for growth in the forestry and natural gas industries, Wairoa could be left in a tenuous position. With employment and population numbers declining, and an ageing population, it is going to become difficult for Wairoa to remain financially independent as more reliance will be put on services provided by the Napier and Hastings Districts.

3.6 Road and rail

All major roads and railway lines in the Region lead to Napier. The main arterial route is State Highway 2 which runs through the Region. State Highway 5 also provides access from Taupo to the Region just north of Napier.

The railway lines link into the Manawatu/Taranaki and Wairapapa to the south and Gisborne to the north although the East Coast line to Wairoa and up to Gisborne is not currently operational after being damaged by bad weather and is being reviewed.

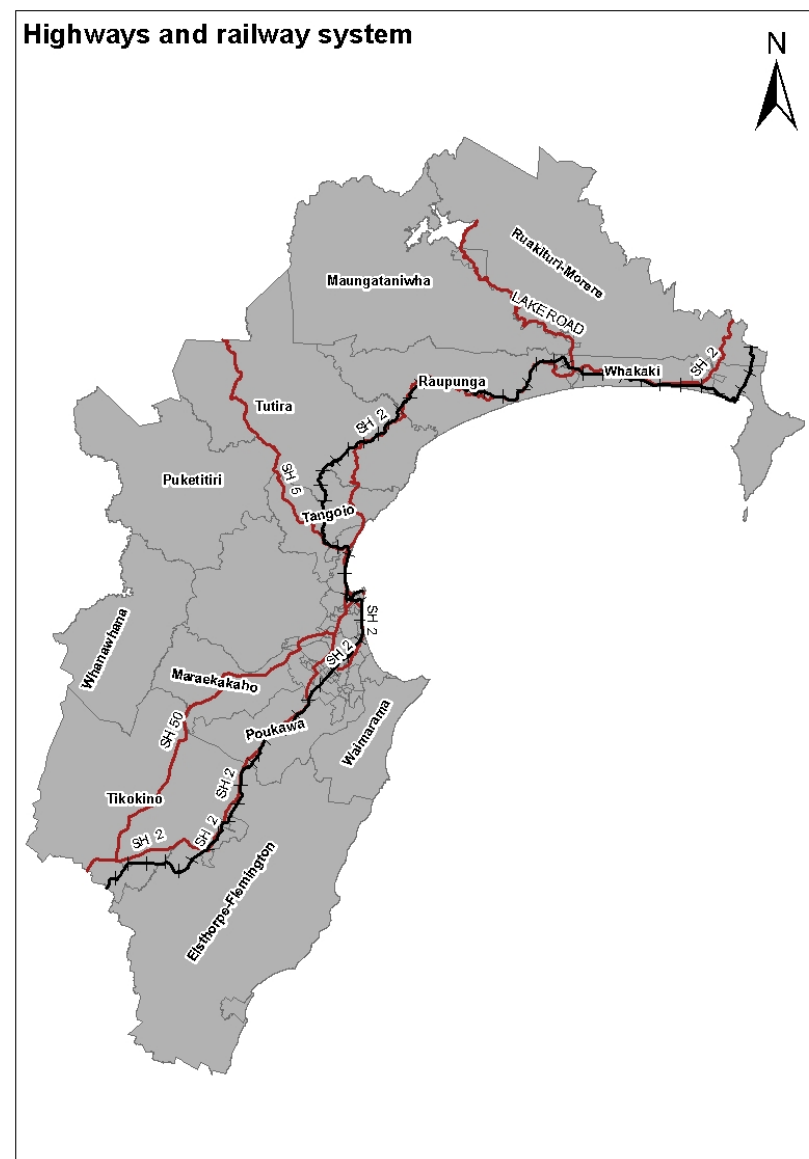
Each District has a network of roads which all have a link to State Highway 2. Maintenance and construction of these links are the responsibility of each District Council.

Recent pressure on infrastructure has resulted in a shift from rail to road. This has required improvements to the network, greater maintenance of road surfaces and dealing with the impacts on sensitive environments.

There is a heavy reliance on road and rail freight to shift primary industry goods around. Usually this requires them to be transported by rail or truck to the Port if they are being shipped. Some goods are also trucked to Auckland for transportation by air to their respective markets.

As already mentioned, the southern rail link in particular is used to transport dairy to the Port of Napier from other parts of New Zealand.

Figure 39 – The Hawke's Bay road and rail network



Source: PwC, Land Information New Zealand

With the focus on primary production there is significant reliance on physical

With the focus on primary production there is a great reliance on physical infrastructure. With increased heavy vehicle traffic, more maintenance will need to be carried out on roads. Smaller Districts are unlikely to have the resources to undertake this work alone.

infrastructure. With increased heavy vehicle traffic, more maintenance will need to be carried out on roads.

It would also leave the Hawke's Bay Region vulnerable to delays, such as the challenges of the closure of the Napier to Wairoa line, or slips like that in the Manawatu Gorge.

With the shift in Napier to a more urbanised population, signs of congestion have started to be seen at

peak times. With an ageing population there is the expectation that more pressure is going to be placed on urban areas increasing congestion.

Appendix A: Restrictions

This report has been prepared solely for the purposes stated herein and should not be relied upon for any other purpose. We accept no liability to any party should it be used for any purpose other than that for which it was prepared.

This report is strictly confidential and (save to the extent required by applicable law and/or regulation) must not be released to any third party without our express written consent which is at our sole discretion.

To the fullest extent permitted by law, PwC accepts no duty of care to any third party in connection with the provision of this Report and/or any related information or explanation (together, the “Information”). Accordingly, regardless of the form of action, whether in contract, tort (including without limitation, negligence) or otherwise, and to the extent permitted by applicable law, PwC accepts no liability of any kind to any third party and disclaims all responsibility for the consequences of any third party acting or refraining to act in reliance on the Information.

We have not independently verified the accuracy of information provided to us, and have not conducted any form of audit in respect of the organisation for which work is completed. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied.

The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise.

The statements and opinions expressed in this report are based on information available as at the date of the report.

We reserve the right, but will be under no obligation, to review or amend our Report, if any additional information, which was in existence on the date of this report, was not brought to our attention, or subsequently comes to light.

This report is issued pursuant to the terms and conditions set out in our contract for services dated 18 September 2013.