



economics

Report to:

Wairarapa EDA

**ECONOMIC PROFILE AND PROJECTIONS FOR THE
WAIRARAPA REGION**

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November 2008

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1 Executive Summary

This report provides an economic profile of the Wairarapa Region¹ in 2007 and its performance over the last 10 years. It also provides a detailed analysis of key industries, and projections of employment and GDP to 2026.

Profile and performance

The Wairarapa Region has a population of around 38,600. Between 1996 and 2006 (census periods), the population in the Wairarapa Region has remained stable.

In 2007, the Wairarapa Region employed 14,600 Full-Time-Equivalents (FTEs) in 5,670 businesses and generated \$1.13 billion in GDP.

Agriculture-based industries drive the Wairarapa Region economy. These industries mainly consist of sheep, beef and dairy cattle farming, grape growing in the South Wairarapa district, and forestry. The primary sector accounts for 20.6 percent of employment and 18.9 percent of GDP in the Wairarapa Region. Manufacturing, largely food and wood processing, accounts for 14.6 percent of GDP in the Wairarapa Region. These industries are the key drivers in the region and could be considered the backbone of the Wairarapa economy.

Economic growth in the Wairarapa Region has been mainly positive. Over the last 10 years employment and GDP have grown, but at lower rates than the national average. In the latest period there has been a noticeable increase in both employment and business units.²

There has been a decline over the last decade in both the primary and manufacturing sectors. The impact of this decline has been arrested by growth in other areas such as accommodation, cafes & restaurants, construction, and business services.

¹ The Wairarapa Region includes the districts of Masterton, Carterton and South Wairarapa.

² Year to March 2007.

Industry analysis

Based on the industry profile and performance discussed in this report and through discussions with the client, we have identified and analysed six industries that we consider are key drivers in the Wairarapa Region, in more detail. These industries are livestock rearing & services to agriculture, food processing, wood processing, horticulture, dairy farming, and health & community services.

The importance of the primary and manufacturing industries to the Wairarapa Region is very apparent in this analysis. The inter-industry linkages and contributions to exports are significant, particularly where five of the six industries analysed are related to the primary sector.

Understanding the inter-relationships of industries in the region will assist in the development of regionally targeted economic development strategies. In particular, we would focus on intermediate inputs and outputs, which would identify where more local production could go into the industry and more value could be added before the goods produced are exported out of the region.

As the key industries in the region are based around primary/food products, there is huge potential within the current environment to growing and processing food products locally.

There are also tie-ins with other industries in the region, for example tourism, where the lifestyle, climate and atmosphere are supported by quality, locally produced food and wine. This is a growing global trend, and one which the Wairarapa region is well placed to take advantage of.

Projections

The report provides two scenario projections. The first is a neutral scenario, where industries in the region grow at the same rate as nationally. The second is a historical scenario, where industries in the region grow relative to how they have grown over the last 10 years. The first scenario provides a possible outcome; the second provides a likely outcome.

Under a neutral scenario, the Wairarapa Region can expect FTEs to increase by 4,257 between 2007 and 2026. This is a growth rate of 1.3 percent per annum over the 19 year period. The scenario suggests that employment growth can be spread across all industries, with the majority of this growth occurring in the manufacturing, retail trade, health & community services, property & business services, and accommodation, cafes & restaurants industries.

Under a historical scenario, the Wairarapa Region can expect FTEs to increase by 2,519 between 2007 and 2026. This is a growth rate of 0.8 percent per annum over the 19 year period. However, employment growth will not be spread across all industries. The vast majority of this growth is projected to be in the accommodation, cafes & restaurants, property & business services, health & community services, and construction sectors. Under this scenario there will be declines in employment in the two main industries – primary and manufacturing.

Next steps

It is important to emphasise that this report does not provide a strategy for the region. The projections suggest possible outcomes based on two scenarios. The constraint on the scenarios is national growth by industry, which is also based on a scenario. There are obviously a number of other constraints (such as population growth) or factors (such as food prices or EDA interventions), which have not been considered in these scenarios.

What the report does do is provide a base understanding of the industries in the regional economy and two possible growth outcomes.

The industry analysis and projections are at the regional level. Industry operations cut across TAs. Inputs come into each business from within and outside the TA where it is located; and outputs are consumed both within and outside the TA where it is located. The surrounding regions – Wellington, Manawatu also have significant influence on the performance of the Wairarapa Region. Therefore, when addressing issues identified in this report it is important that decisions and strategies are agreed and implemented at a regional level.

2 BERL interpretation and commentary

Providing regions with economic projections is fraught with obstacles, of which the most prominent is interpretation.

2.1 Projections are not forecasts

The most important point to note when interpreting the information we put in front of you is the word 'projections'. We use that word advisedly. In particular, we do not use the word 'forecasts'. This report does not provide the region with a forecast for the Wairarapa economy. It provides a set of projections that indicate what the Wairarapa economy might look like (in 2026) *if* certain things occur.

In particular, we provide two projections providing two scenarios for the Wairarapa economy.

- One pursues the option: what if individual industries in the Wairarapa economy grow (or contract) at the same rate as that industry in the national economy is expected to? We label this the neutral scenario.
- A second option addresses: what if individual industries in the Wairarapa economy grow at a faster (or slower) rate than that industry does across the nation as a whole? The relative difference between the Wairarapa and the nation is set similar to that achieved over the most recent 10-year period.

These scenarios provide a picture of the Wairarapa Region adding between 130 to 225 FTE jobs per year. The lower end of this range is consistent with recent experience, where the region has added approximately 150 FTE jobs per annum over the past 10 years.

In contrast, the upper-end of this range would clearly indicate a departure from recent experience. Again clearly, this can be interpreted as the challenge for the Wairarapa. In particular, how can the performance and composition of the Wairarapa economy be shifted more towards the neutral, and away from the historical, scenarios?

2.2 The challenge

What this report does is provides a number of challenges for the region if it wants to maximise economic growth (in its broadest sense).

2.2.1 Agriculture

The challenge is most vividly seen in the contrast between the composition of projected growth. Employment growth in the primary sector is relatively minimal as it has been across the country for several years. At a national level this does not have a noticeable impact, as it accounts

for only 8 percent of all New Zealand jobs. In addition, productivity growth in this sector has been eye-catching and ensures this sector contributes well to GDP growth, both directly and through related processing activities.

... the Wairarapa is not alone in the task of leveraging job-rich service sector growth to underpin income-rich GDP growth. This is the fundamental challenge that faces the New Zealand economy.

However, this story is not as applicable to non-metropolitan areas like Wairarapa – where the primary sector accounts for more than 20 percent of the region's employment. And in regions with limited primary processing activities, the challenge is to find additional sources of employment growth.

2.2.2 Manufacturing and processing

The story within the manufacturing sector compounds the picture for the Wairarapa. The neutral scenario suggests modestly positive employment and GDP growth in this sector reflecting the national experience over the past few years. However, a proportion of this growth is concentrated in primary product processing. The growth experience of the Wairarapa in primary processing sector has not been positive. Building this factor into the historical scenario results in a picture of little job or GDP growth in the Wairarapa manufacturing sector.

For the Wairarapa economy the future of wood processing activities in the region is clearly important. The neutral scenario has robust job growth here, while the historical scenario has employment decline. While wood availability is not an issue, the timing of any harvesting and subsequent processing will be largely driven by external market conditions. Where global log prices and exchange rate conditions are favourable, the chances of a job growth scenario in this sector are improved. Further, were more of the wood to be processed in the Wairarapa, as opposed to being transported from the region as logs, then there is also an improved GDP outcome for the region.

2.2.3 Service sector

In contrast, job growth is most prominent in the service sector – with retail trade, accommodation, transport and other tourism-related activities particularly prominent.

Again, this more or less reflects the nation's experience of the past decade. While undoubtedly positive for job growth, this group of sectors possess relatively low actual levels of productivity (i.e. GDP per FTE). This means overall productivity growth is held back if expansion in job numbers is overly concentrated in these sectors. Consequently, the challenge here is to find additional drivers of GDP growth.

Without wanting to devalue the importance of the challenge, it should be noted that the

... construction sector activities add to the potential capacity of a region's economy and so provide a foundation for longer-term sustainable growth.

Wairarapa is not alone in the task of leveraging job-rich service sector growth to underpin income-rich GDP growth. Indeed, we would argue this is the core or fundamental challenge that faces the New Zealand economy.

2.3 Pointers looking ahead

On the positive side is the construction sector. Employment growth has been strong, both nationwide and in the Wairarapa, and is projected to be strong in both scenarios. This sector also records relatively high GDP per FTE (i.e. productivity). Furthermore, construction sector activities add to the potential capacity of a region's economy and so provide a foundation for longer-term sustainable growth.

Another sector that scores well in both scenarios is the wider property & business services sector. This sector includes a range of activities including real estate agencies; engineering, computer and information consultancies; more general business consultancies; legal and accountancy practices; and contract staff and employment placement agencies.

Due to this range of activities, the quantum of growth in GDP arising from job growth in the sector varies. At the national level, historical and projected growth is across all components of this sector and this helps translate into a useful contribution to GDP. For the Wairarapa, the historical and projected

growth in this sector is tilted towards the real estate and contract staff components, which results in a relatively smaller contribution to GDP.

... the presence of the relatively higher GDP per FTE contributors like engineering consultancies – and associated architectural and surveying practices – provide a robust foundation for the business services sector in the Wairarapa.

However, the presence of the relatively higher GDP per FTE contributors in terms of engineering consultancies – and associated architectural and surveying practices –

provide a robust foundation for this sector in the Wairarapa. In addition, the presence of core business services like legal, accountancy and business administration services provide robust support from within the region to other enterprises in the Wairarapa economy.

These considerations reinforce the need for our projections not to be used to 'pick target sectors'. Rather, an economy needs to be viewed as an integrated whole. Our projections enable the region's strengths and weaknesses to be interpreted within such a view. And decisions and actions to ensure the ongoing development of the Wairarapa economy will be better informed given the context of our projections.

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3 Introduction

This report provides

- an economic profile of the Wairarapa Region in 2007 and its performance over the last 10 years
- industry analysis
- two projections of employment and GDP to 2026.

The economic profile and performance are derived from BERL's regional database, which covers a range of regional industry indicators back to 1994.

The economic profile covers seven regional indicators including population, employment, GDP, and business units. Employment, GDP and number of business units are broken down by industry at the ANZSIC 1-digit level.³

The economic performance section measures the growth in the three Wairarapa Region districts for seven economic indicators, and compares these with the Wairarapa Region as a whole, and New Zealand. Performance is measured over the latest year (to March 2007) and over the last 10 years (1997 to 2007).

Industry analysis provides a more in-depth look at six key driver industries in the Wairarapa Region. The section starts by identifying the 10 largest industries (by employment) and the top 10 industries by location quotient⁴ at the ANZSIC 2-digit level. It then identifies six industries and provides an analysis that:

- defines and describes the industry in terms of employment, GDP and business units, determines the multiplier effects
- uses input output analysis to identify regional linkages, imports and exports
- provides employment and GDP projections for that industry.

The regional projections are based on a national projection determined using a Computable General Equilibrium (CGE) model for New Zealand. The projections provide

³ ANZSIC is the Australian and New Zealand Standard Industry Classification. BERL uses the 1996 ANZSIC definitions.

⁴ A location quotient is a measure of employment in an industry relative to national employment in that industry. A location quotient higher than one suggests that that industry employs more in the region than it does nationally.

estimates of employment and GDP broken down by industry at the ANZSIC 1-digit level. There are two regional projections – a neutral scenario and a historical scenario.

- The neutral scenario assumes that industries in this region grow at the same rate as the industry nationally. This sets a benchmark of how an industry could perform in the region.
- The historical scenario assumes that the industries in the region grow relative to how they have performed over the last 10 years. This scenario provides the most likely outcome of how industry employment will change over the forecast period as it is based on actual performance.

We stress that these regional projections are based on scenarios of how industries in the Wairarapa Region might change over time based on certain assumptions. By comparing and contrasting the two scenarios, and reviewing and considering the base assumptions, the region can look at how it might approach labour market issues in the context of industry and economic development.

This approach should be considered in light of the current profile of the Wairarapa Region, its recent performance and competitive advantages, its resources, and its approach to regional development.

Chapter 4 provides an economic profile of the Wairarapa Region and an analysis of its performance over the last 10 years.

Chapter 5 identifies and analyses six key industries in the Wairarapa Region. Industries were identified through a mix of interpreting the industry structure, reviewing existing regional strategies, and discussions with the client. The analysis is based on BERL's regional database and uses regional input-output tables supplied by Butcher and Partners.

Chapter 6 provides the Wairarapa Region projections to 2026. Two scenarios are provided – a neutral scenario, where employment in the region grows at the same rate as nationally and a historical scenario, where industry employment in the region grows relative to national growth over the last 10 years.

Profiles and projections for the individual TAs that make up the Wairarapa Region are included in the appendices, along with an explanation of the CGE model and national projections.

4 Economic Profile and Performance of the Wairarapa Region

In 2007, the Wairarapa Region employed 14,600 Full-Time-Equivalents (FTEs) in 5,670 businesses and generated \$1.13 billion in GDP. In this study, the Wairarapa Region includes Masterton District, Carterton District and the South Wairarapa District.

In terms of driver industries, the Wairarapa economy is based around agriculture and manufacturing (particularly food and beverage manufacturing and solid wood processing). There is also an increasing tourism focus, which is impacting on accommodation, hospitality, and retail trade industries.

Growth in the regional economy over the last 10 years has been positive but below the national average across most indicators. In the latest period,⁵ there has been a noticeable increase in employment numbers and business units in this region.

In 2007, the top three industries in terms of employment in the Wairarapa Region were primary, retail trade, and manufacturing. In 2007, these three industries employed 5,982 FTEs or 41 percent of total employment in the Wairarapa Region.

The primary sector in particular accounts for 21 percent of employment, 19 percent of GDP and 34 percent of business units in the Wairarapa region. Primary sector activity is more than twice the proportion nationally.

Other major employers in the region were the construction industry with 1,404 FTEs, the health & community services industry with 1,301 FTEs, and the business services industry with 1,062 FTEs.

Table 4.1 presents employment, contribution to GDP, and business units in the Wairarapa Region in 2007 broken down by industry at the ANZSIC one-digit level.

⁵ Year to March 2007.

Table 4.1. Economic summary, Wairarapa Region, 2007

Sectors (2007)	FTEs	%	GDP		Business	
			(\$2007m)	%	units	%
Primary	3,017	20.6%	214	18.9%	1,912	33.8%
Manufacturing	1,664	11.4%	166	14.6%	228	4.0%
Electricity, Gas and Water Supply	19	0.1%	5	0.4%	5	0.1%
Construction	1,404	9.6%	73	6.4%	483	8.5%
Wholesale Trade	517	3.5%	53	4.7%	155	2.7%
Retail Trade	1,903	13.0%	97	8.5%	447	7.9%
Accommodation, Cafes and Restaurants	932	6.4%	29	2.5%	173	3.1%
Transport and Storage	335	2.3%	27	2.4%	86	1.5%
Communication Services	67	0.5%	26	2.3%	39	0.7%
Finance and Insurance	234	1.6%	45	4.0%	149	2.6%
Property Services	267	1.8%	148	13.0%	1,061	18.7%
Business Services	1,062	7.3%	66	5.8%	345	6.1%
Cultural and Recreational Services	198	1.4%	13	1.1%	137	2.4%
Personal Services	446	3.1%	17	1.5%	181	3.2%
Government Administration and Defence	352	2.4%	42	3.7%	22	0.4%
Education	909	6.2%	43	3.8%	90	1.6%
Health and Community Services	1,301	8.9%	69	6.1%	152	2.7%
Totals	14,627	100.0%	1,134	100.0%	5,665	100.0%

source:BERL Regional Database, Statistics NZ

The importance of the primary and manufacturing industries is clear from the high proportions of GDP they contribute to the region. The largest contributor to regional GDP was the primary industry with \$214 million or 18.9 percent, followed by the manufacturing industry with \$166 million or 14.6 percent, in 2007.

The property services industry was a close third with \$148 million or 13 percent of regional GDP. Together, these three industries contributed \$528 million to the regional economy or 47 percent.

Although a significant employer, retail trade made a smaller contribution to regional GDP with \$97 million or 8.5 percent in 2007, while construction contributed \$73 million or 6.4 percent.

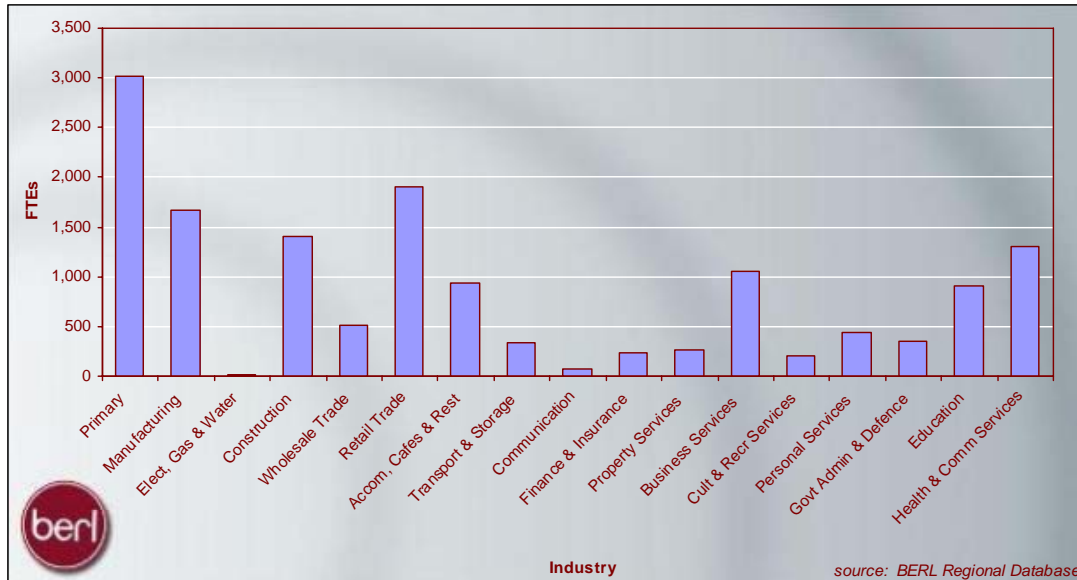
The following graphs are derived from Table 4.1 and show the employment, GDP and business unit contributions of each industry.

4.1 Employment

In 2007, 14,627 FTEs were employed in the Wairarapa Region, an increase from 2006 where employment stood at 14,432 FTEs. Compared to the national picture, employment in New Zealand grew 2.0 percent between 2006 and 2007 while employment in the Wairarapa Region grew 1.4 percent.

The figure below illustrates the dominance of the primary, manufacturing and retail trade industries in employment in the Wairarapa Region in 2007.

Figure 4.1. Employment (FTEs), Wairarapa Region, 2007



With 3,107 FTEs, the primary industry in the Wairarapa Region was the largest employer in 2007. This industry can be further broken down into the sectors of agriculture, forestry, fishing, and mining.

In the Wairarapa Region, employment in the agriculture industry includes horticulture & fruit growing; grain, sheep & beef cattle farming; dairy cattle farming; other livestock farming; and other crop growing. Agriculture is the dominant sector within the primary industry, with smaller numbers employed in forestry and fishing in this region.

Within each district, employment numbers in agriculture vary (see individual TA analysis), illustrating the various land uses in the Wairarapa Region.

Interestingly, retail is the second largest employer in the Wairarapa region, with 1,903 FTEs in 2007. Nationally, retail trade is the third largest area of employment. It is unusual for a rural primary sector based economy to have a retail sector larger than the national average. This suggests that there is additional retail spending in the region, and it is likely to be due to visitor expenditure.

The manufacturing industry employed 1,164 FTEs in 2007, making it the third largest area of employment in the Wairarapa Region. Manufacturing in the Wairarapa Region is concentrated in food & beverage manufacturing, solid wood processing (particularly log sawmilling), plywood & veneer manufacturing, and clothing manufacturing.

Other important industries in terms of employment include construction, accommodation, cafes & restaurants, health & community services, and business services.

The table below illustrates employment changes in the Wairarapa Region between 1997 and 2007. During this period, employment growth in the Wairarapa Region was 1.1 percent per annum, below employment growth of 2.4 percent per annum for New Zealand as a whole.

Those industries that experienced a marked increase in employment numbers during this period include accommodation, cafes & restaurants with an additional 501 FTEs or 8.0 percent growth per annum, business services with an additional 506 FTEs or 6.7 percent growth per annum, construction with an additional 648 FTEs or 6.4 percent per annum, and property services with an additional 104 FTEs or 5.1 percent growth per annum.

Table 4.2. Employment (FTEs), Wairarapa Region, 1997 to 2007

Sectors	Employment Number FTEs				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	3,407	3,274	3,327	3,017	1.6	-9.3	-1.2
Manufacturing	2,055	1,946	1,739	1,664	-10.6	-4.3	-2.1
Electricity, Gas and Water Supply	86	46	18	19	-59.8	6.2	-13.8
Construction	756	1,163	1,328	1,404	14.2	5.7	6.4
Wholesale Trade	455	466	534	517	14.7	-3.2	1.3
Retail Trade	1,749	1,823	1,870	1,903	2.6	1.8	0.8
Accommodation, Cafes and Restaurants	431	692	818	932	18.2	14.0	8.0
Transport and Storage	438	338	308	335	-8.8	8.6	-2.6
Communication Services	157	76	81	67	5.8	-16.9	-8.1
Finance and Insurance	236	204	200	234	-1.6	16.9	-0.1
Property Services	163	281	275	267	-2.0	-3.1	5.1
Business Services	556	960	954	1,062	-0.6	11.3	6.7
Cultural and Recreational Services	136	216	187	198	-13.3	5.5	3.8
Personal Services	361	419	439	446	4.7	1.6	2.1
Government Administration and Defence	376	345	362	352	5.1	-2.8	-0.7
Education	920	714	759	909	6.3	19.7	-0.1
Health and Community Services	880	1,222	1,230	1,301	0.7	5.7	4.0
Wairarapa Region	13,162	14,186	14,432	14,627	1.7	1.4	1.1
New Zealand	1,450,586	1,751,280	1,808,605	1,845,434	3.3	2.0	2.4

source:BERL Regional Database, Statistics NZ

Within accommodation, cafes & restaurants, most employment growth has been within the cafes & restaurants sector illustrating an increase in the popularity of eating out and disposable incomes, and the popularity of the Wairarapa Region as a short-break destination from Wellington and the Hawke's Bay.

Within the business services and property services industries there has been an increase in the number of lawyers, accountants, property developers and real estate agents employed in the Wairarapa Region. This increase in property development and real

estate agents can also be seen in the increase in the number of people employed in the house construction component of the construction sector with an additional 180 FTEs employed in this component between 1997 and 2007. Road and bridge construction has also been a growth area of employment, with investment in infrastructure.

Those industries that have seen a decline in employment numbers include the infrastructure industries of electricity, gas & water supply⁶, communication services, as well as transport and storage. In the case of the first two industries, this decline is a national occurrence.

The mixed fortunes of the manufacturing and primary industries can also be seen during this period. Manufacturing has experienced a 2.1 percent per annum decrease in employment, while a 1.2 percent per annum decrease in employment has occurred in the primary industry. Employment in both these sectors have been static at the national level as well, averaging 0.2 percent and 0.1 percent per annum respectively.

Declines have occurred in each of the agriculture sectors, with employment numbers fluctuating due to weather conditions, commodity prices, and the cyclic nature of these sectors. Decreases in manufacturing employment have occurred in food manufacturing, log sawmilling, and plywood & veneer manufacturing during this period.⁷

4.2 GDP

In 2007, the largest contributors to regional GDP were the primary, manufacturing and property services⁸ industries. However, retail trade, construction and business services

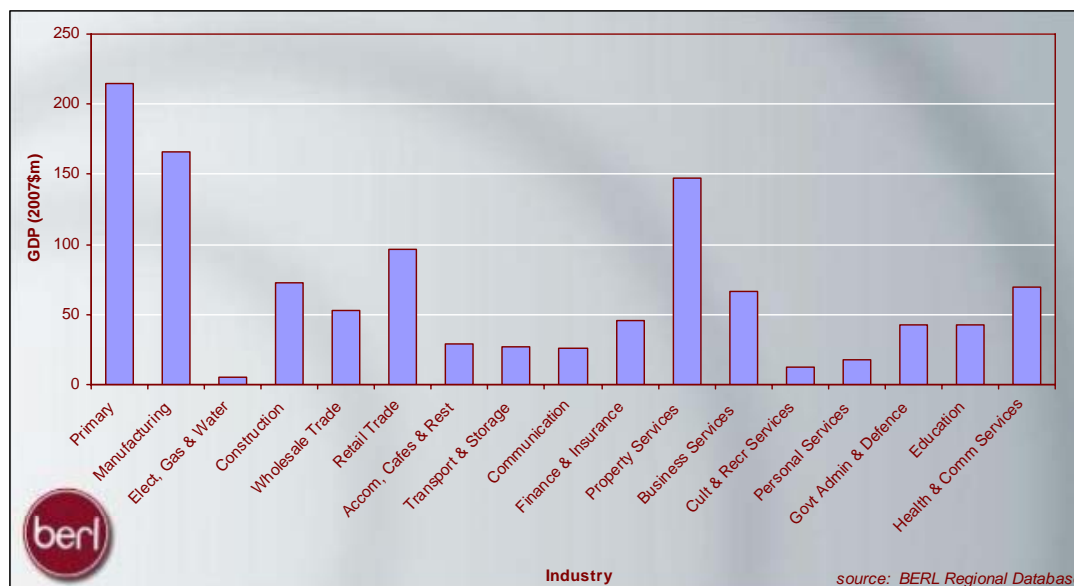
⁶ Wairarapa Electricity, a retail electricity business based in the Wairarapa, was sold to Genesis in the 1999. And Hau Nui wind farm located near Martinborough is now also owned by Genesis. Other electricity distribution network companies such as Powerco operate in the region, but the business functions of many of these electricity retail, supply and distribution companies are based outside of the Wairarapa. This has resulted in a decrease in employment in this industry.

⁷ It is important to note that two large manufacturing businesses in the Carterton District rely on temporary contract staff for a significant proportion of their workforce. These employees are classified under business services. For the projections we have assumed that these contract staff were employed in the manufacturing industry.

⁸ While property services shows up as the third largest contributor to GDP, its numbers are inflated due to the inclusion of owner occupied dwellings sub-industry. By definition, this sub-industry is included in the GDP figures to reflect the rental value of owner-occupied property – but it does not employ people. Ownership of owner-occupied dwellings accounts for around 55 percent of the GDP of the property services industry.

were also major contributors. As mentioned in an earlier section, the Wairarapa Region generated \$1.13 billion in GDP in 2007.

Figure 4.2. GDP, Wairarapa Region, 2007



Between 1997 and 2007, GDP in the Wairarapa Region grew 1.1 percent per annum compared to 3.0 percent per annum growth for New Zealand as a whole. In the table below, the contribution (over time) of each industry to regional GDP is shown.

Table 4.3. GDP, Wairarapa Region, 1997 to 2007

Sectors	Value Added or GDP ('07, \$m)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	223	250	246	214	-1.4	-12.8	-0.4
Manufacturing	182	191	173	166	-9.2	-4.0	-0.9
Electricity, Gas and Water Supply	23	21	5	5	-77.7	4.5	-14.3
Construction	43	66	74	73	12.5	-1.3	5.4
Wholesale Trade	44	49	55	53	13.7	-4.6	1.8
Retail Trade	72	91	93	97	2.4	3.9	3.0
Accommodation, Cafes and Restaurants	15	23	26	29	14.3	11.8	6.8
Transport and Storage	34	28	26	27	-8.3	5.6	-2.2
Communication Services	27	25	28	26	10.9	-6.0	-0.2
Finance and Insurance	35	41	38	45	-7.6	18.3	2.5
Property Services	122	151	151	148	-0.4	-1.9	1.9
Business Services	42	60	60	66	0.1	10.6	4.7
Cultural and Recreational Services	9	14	12	13	-15.3	8.0	3.8
Personal Services	12	17	17	17	0.2	4.9	3.7
Government Administration and Defence	42	43	43	42	-0.2	-1.1	0.2
Education	44	36	39	43	7.7	9.9	-0.2
Health and Community Services	47	61	65	69	6.1	7.0	3.9
Wairarapa Region	1,016	1,166	1,149	1,134	-1.4	-1.3	1.1
New Zealand	122,615	158,567	162,826	165,379	2.7	1.6	3.0

source: BERL Regional Database, Statistics NZ

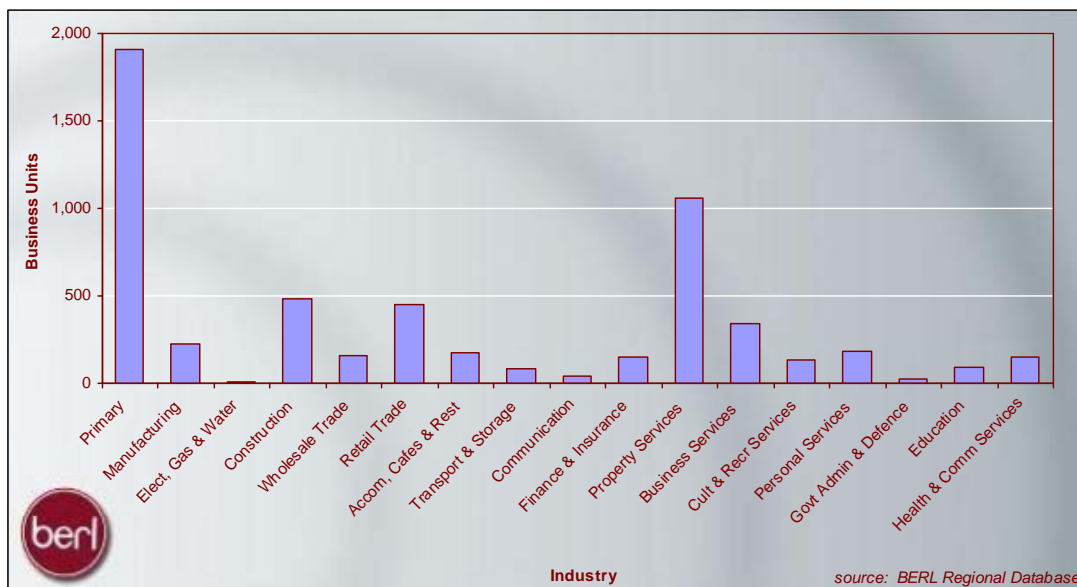
Between 1997 and 2007, the accommodation, cafes & restaurants industry increased its contribution to regional GDP by 6.8 percent per annum; the construction industry increased its share by 5.4 percent per annum; while business services grew 4.7 percent per annum.

The primary and manufacturing industries had negative GDP growth between 1997 and 2007, which is in contrast to the 1.0 percent per annum (primary) and the 1.4 percent per annum (manufacturing) achieved nationally.

4.3 Business units

In 2007, there were 5,665 business units in the Wairarapa Region, a 2.6 percent increase from 2006. In this region, a large number of businesses are concentrated in the primary and property services industries.

Figure 4.3. Wairarapa Region, business units by industry, 2007



In 2007, there were 1,912 business units in the primary industry. Most of these businesses were located in sheep farming followed by dairy cattle farming. Between 2006 and 2007, the number of businesses in this industry decreased 2.1 percent. However, the industry still accounts for a disproportionate number of business units in the region.

In the property services industry, 1,061 businesses were in this industry in 2007, a 10.9 percent increase from 2006. A large number of businesses in this industry are concentrated in the computer consultancy services sector and the business management services sector. These businesses support other businesses in the region.

In 2007, there were 447 businesses in the retail trade industry and 483 businesses in the construction industry.

There are a large number of businesses in the house construction sector, electrical services sector, painting & decorating sector, and site preparation services sectors in the construction industry in the Wairarapa Region. This reflects the nature of the construction industry, where many people are self-employed and/or own a small to medium-sized business that employs other trades people.

Table 4.4. Business units, Wairarapa Region, 1997 to 2007

Sectors	Business Units (number)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	1,890	1,967	1,953	1,912	-0.7	-2.1	0.1
Manufacturing	208	231	231	228	0.0	-1.3	0.9
Electricity, Gas and Water Supply	10	7	5	5	-28.6	0.0	-6.7
Construction	253	419	459	483	9.5	5.2	6.7
Wholesale Trade	105	144	152	155	5.6	2.0	4.0
Retail Trade	404	420	435	447	3.6	2.8	1.0
Accommodation, Cafes and Restaurants	96	163	181	173	11.0	-4.4	6.1
Transport and Storage	85	81	83	86	2.5	3.6	0.1
Communication Services	32	42	38	39	-9.5	2.6	2.0
Finance and Insurance	73	103	131	149	27.2	13.7	7.4
Property Services	404	914	957	1,061	4.7	10.9	10.1
Business Services	155	315	343	345	8.9	0.6	8.3
Cultural and Recreational Services	78	120	125	137	4.2	9.6	5.8
Personal Services	119	156	169	181	8.3	7.1	4.3
Government Administration and Defence	34	22	23	22	4.5	-4.3	-4.3
Education	97	84	88	90	4.8	2.3	-0.7
Health and Community Services	131	140	149	152	6.4	2.0	1.5
Wairarapa Region	4,174	5,328	5,522	5,665	3.6	2.6	3.1
New Zealand	354,106	474,007	490,474	499,940	3.5	1.9	3.5

source:BERL Regional Database, Statistics NZ

Between 1997 and 2007, the number of businesses in the Wairarapa Region increased 3.1 percent per annum, compared to the national picture where the number of businesses increased by 3.5 percent per annum. However, in 2007 business units in the Wairarapa Region grew faster than nationally, with 2.6 percent growth between 2006 and 2007 compared to 1.9 percent growth nationally.

The largest increase in business numbers between 1997 and 2007 were in the property services, business services, and finance & insurance industries. The number of businesses in these service industries has increased markedly. In 2007, there were 1,061 businesses in the property services industry compared to 404 businesses in 1997. The number of commercial property operators and developers as well as real estate businesses has increased, along with a large increase in computer consultancy services

and business management services. The number of businesses in the financial asset investors sector and the services to finance & investment sector has also risen.

4.4 Labour productivity⁹

Labour productivity is determined by dividing GDP in an industry by the number of FTEs that are employed in that industry.

Labour productivity in the Wairarapa Region was \$72,235 per FTE, lower than the \$83,475 nationally. Labour productivity by industry is shown in Table 4.5 below.

Table 4.5. Labour productivity, Wairarapa Region, 1997 to 2007

Sectors	Productivity (07\$s per FTE)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	65,573	76,236	73,940	71,059	-3.0	-3.9	0.8
Manufacturing	88,435	97,934	99,543	99,838	1.6	0.3	1.2
Electricity, Gas and Water Supply	269,875	466,400	258,865	254,679	-44.5	-1.6	-0.6
Construction	57,059	56,404	55,554	51,872	-1.5	-6.6	-0.9
Wholesale Trade	97,058	104,781	103,867	102,388	-0.9	-1.4	0.5
Retail Trade	40,959	49,768	49,684	50,753	-0.2	2.2	2.2
Accommodation, Cafes and Restaurants	34,565	32,630	31,576	30,981	-3.2	-1.9	-1.1
Transport and Storage	78,365	83,706	84,162	81,799	0.5	-2.8	0.4
Communication Services	170,226	329,679	345,838	391,112	4.9	13.1	8.7
Finance and Insurance	150,288	203,020	190,699	193,076	-6.1	1.2	2.5
Property Services	217,534	250,784	260,446	262,610	3.9	0.8	1.9
Business Services	74,740	62,125	62,561	62,166	0.7	-0.6	-1.8
Cultural and Recreational Services	64,840	64,445	62,938	64,433	-2.3	2.4	-0.1
Personal Services	33,681	39,645	37,936	39,169	-4.3	3.2	1.5
Government Administration and Defence	111,233	124,853	118,566	120,664	-5.0	1.8	0.8
Education	47,719	50,662	51,357	47,143	1.4	-8.2	-0.1
Health and Community Services	53,508	49,986	52,689	53,329	5.4	1.2	0.0
Wairarapa Region	70,620	76,486	74,183	72,235	-3.0	-2.6	0.2
New Zealand	77,312	84,270	83,851	83,475	-0.5	-0.4	0.8

excl owner-occupied dwellings sector

source:BERL Regional Database, Statistics NZ

Labour productivity in the Wairarapa Region has been declining over the last three years. Capital intensive industries tend to have significantly higher labour productivity rates as they employ less FTEs.

Manufacturing has a relatively high labour productivity rate and has been growing at 1.2 percent per annum. Aside from those industries with extremely high labour productivity levels (communication services, electricity, gas & water supply, and property services) there have also been solid improvements in productivity in the financial services, retail trade, personal services, and primary industries.

⁹ Higher labour productivity does not necessarily suggest higher incomes, although there is a positive correlation between higher skills and higher incomes. Labour productivity should be considered in the context of the wider input from factors of production, such as capital investment and innovation.

While we would argue that returns to regional investment would be higher if targeted at industries with higher labour productivity (and therefore contribution to GDP), there are a number of factors to consider when selecting focus areas. These include areas where there is a competitive advantage, likelihood of the intervention being successful, the wider contribution and/or inter-relationships with other industries in the region.

4.5 Business size

Between 1997 and 2007, business size in the Wairarapa Region decreased 2.0 percent per annum. Nationally, business sizes decreased 1.0 percent over the same period. Decreases occurred across many industries in the Wairarapa Region, reflecting a decrease in the number of businesses in an industry or restructuring.

The largest decrease in business sizes occurred in the infrastructure industries of communication services, electricity, gas & water supply, and transport & storage. However, decreases also occurred in the service industries of finance & insurance, property services and business services. Manufacturing also saw job losses and restructuring with business sizes decreasing from 9.9 FTEs per business in 1997 to 7.3 FTEs per business in 2007.

Table 4.6. Business size, Wairarapa Region, 1997 to 2007

Sectors	Business Size (FTEs per unit)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	1.8	1.7	1.7	1.6	2.3	-7.4	-1.3
Manufacturing	9.9	8.4	7.5	7.3	-10.6	-3.1	-3.0
Electricity, Gas and Water Supply	8.6	6.5	3.7	3.9	-43.7	6.2	-7.6
Construction	3.0	2.8	2.9	2.9	4.3	0.4	-0.3
Wholesale Trade	4.3	3.2	3.5	3.3	8.7	-5.1	-2.6
Retail Trade	4.3	4.3	4.3	4.3	-1.0	-1.0	-0.2
Accommodation, Cafes and Restaurants	4.5	4.2	4.5	5.4	6.4	19.2	1.8
Transport and Storage	5.2	4.2	3.7	3.9	-11.0	4.9	-2.8
Communication Services	4.9	1.8	2.1	1.7	16.9	-19.0	-9.9
Finance and Insurance	3.2	2.0	1.5	1.6	-22.6	2.8	-7.0
Property Services	0.4	0.3	0.3	0.3	-6.4	-12.6	-4.6
Business Services	3.6	3.0	2.8	3.1	-8.7	10.7	-1.5
Cultural and Recreational Services	1.7	1.8	1.5	1.4	-16.8	-3.7	-1.9
Personal Services	3.0	2.7	2.6	2.5	-3.4	-5.1	-2.1
Government Administration and Defence	11.1	15.7	15.8	16.0	0.5	1.6	3.8
Education	9.5	8.5	8.6	10.1	1.4	17.1	0.6
Health and Community Services	6.7	8.7	8.3	8.6	-5.4	3.6	2.5
Wairarapa Region	3.2	2.7	2.6	2.6	-1.8	-1.2	-2.0
New Zealand	4.1	3.7	3.7	3.7	-0.2	0.1	-1.0

source:BERL Regional Database, Statistics NZ

Those industries that increased business size include the government administration & defence industry with an increase of 3.8 percent per annum between 1997 and 2007; the health & community services industry with an increase of 2.5 percent per annum; and the

education industry with a 0.6 percent per annum increase. This growth in employment, particularly in government administration & defence may be due to more people working for local government, and in roles that serve the needs of the regional population, such as health & community services.

4.6 Performance

The Wairarapa Region's economic performance is measured across seven key performance indicators (KPIs) related to economic growth. The region's performance is measured against itself and New Zealand. This performance is measured over the latest year and a 10-year period.

Table 4.7 shows the KPIs for the 2007 year, while Table 4.8 shows the KPIs for the 1997 to 2007 period.

Table 4.7. KPI performance, 2007

	%pa for 2007 year	
	Wairarapa Region	New Zealand
Resident population growth	-0.1	1.0
Real Value Added (GDP) growth	-1.3	1.6
GDP per capita growth	-1.2	0.5
Employment growth	1.4	2.0
Productivity growth	-2.6	-0.4
Business units growth	2.6	1.9
Business size growth	-1.2	0.1

source: BERL Regional Database, Statistics NZ

In 2007, six of the seven KPIs for the Wairarapa Region were lower than national figure. Population, GDP and GDP per capita growth, productivity growth, and business size growth were all negative.

Employment growth was positive but slower than nationally. Business units' growth for the Wairarapa Region was the only indicator that was higher than the New Zealand indicator.

Table 4.8. KPI performance 1997 to 2007

	%pa for 1997-2007	
	Wairarapa Region	New Zealand
Resident population growth	0.2	1.2
Real Value Added (GDP) growth	1.1	3.0
GDP per capita growth	0.9	1.8
Employment growth	1.1	2.4
Productivity growth	0.2	0.8
Business units growth	3.1	3.5
Business size growth	-2.0	-1.0

source: BERL Regional Database, Statistics NZ

Over the last 10 years, the performance of the Wairarapa Region has been well below that of New Zealand as a whole. However, all indicators are positive except for business size. In particular, business unit growth has been growing strongly relative to national business unit growth.

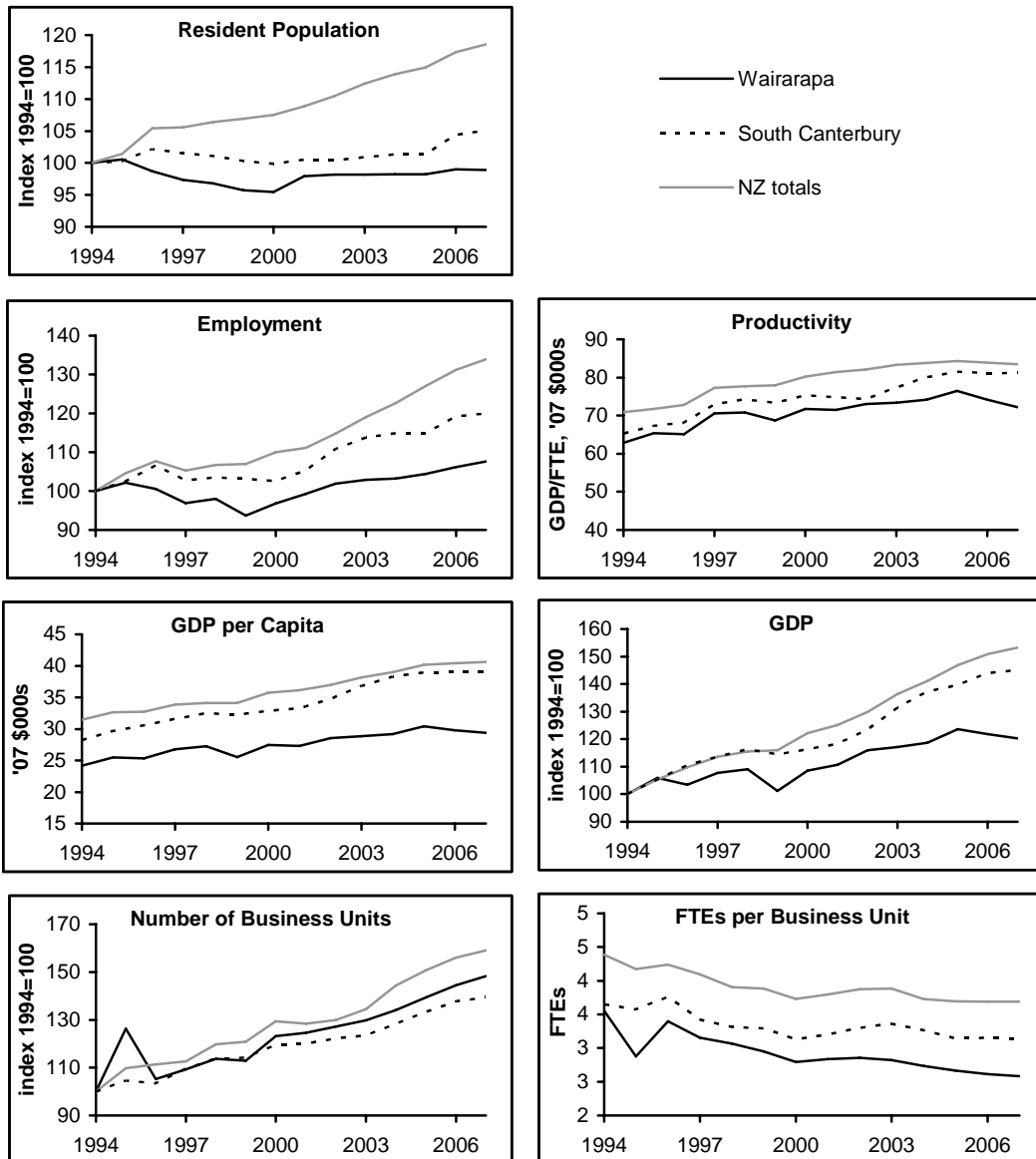
Figure 4.4 shows the change in each KPI compared to South Canterbury¹⁰ and New Zealand since 1994. It shows the annual change over that period, which provides a better picture of trend performance than the above table.

All of these show that the Wairarapa Region has been growing at a slower rate than both South Canterbury and nationally. However, over the last five years, population and employment growth has recovered, while GDP has declined. With employment going up and GDP declining this has affected productivity in the region.

This longer-term performance is important to note as it is what we use for the historical scenario projection.

¹⁰ We have included South Canterbury as a comparable region in terms of industry composition and geographical similarities (close to a main centre, agriculture land, etc.) It more accurately reflects the relative performance of the Wairarapa region.

Figure 4.4. Summary graphs



4.7 Population projections

Statistics New Zealand provides projections of population change in the Wairarapa Region out to 2026. They look at a range of scenarios based on different birth and death rates and immigration. These are presented below in Table 4.9.

Table 4.9. Population projections to 2026

	Series	Population at 30 June					Population change	
		2006	2011	2016	2021	2026	Number	Average annual
Wairarapa Region	High		40,800	41,700	42,300	42,700	3,100	0.4%
	Medium	39,600	40,000	40,100	40,000	39,600	0	-0.1%
	Low		39,200	38,500	37,700	36,500	-3,100	-0.6%

source: Statistics New Zealand Subnational Population Projections

The projections range from an additional 3,100 people in their high scenario to a decline in population of 3,100 in their low scenario. Their medium scenario sees no change in population.

This outcome (static population) is in stark contrast to our labour market projections (FTE increases). However, we would suggest that the Statistics New Zealand projections are overly conservative. Our own view is that population growth in the Wairarapa region could well be much higher.

5 Industry Analysis

This section provides an in-depth analysis of six key driver industries in the Wairarapa Region.

The discussion of each industry describes the:

- industry's contribution to regional employment, GDP and business units
- projections to 2026 for the industry
- increase in total regional employment brought about by an increase of one FTE in each key industry (the key industry's employment multiplier)
- sources of the key industry's inputs, such as from industries in the region, imports, and wages and other household income
- allocation of the key industry's outputs, such as to industries in the region, exports and consumption
- industries that provide the most input into each key industry
- industries most reliant on each key industry to absorb their outputs.

Each key industry's contribution to employment, GDP and business units was determined using the BERL regional database.

The key driver industries were decided in discussion with the client. These key driver industries in the Wairarapa region are:

- sheep & beef farming and services to agriculture
- horticulture & viticulture
- dairy farming
- food processing
- wood processing
- health & community services.

Multiplier analysis was used to calculate the economic impact of increasing employment by one FTE in each key driver industry.¹¹ This analysis allowed us to estimate that, for example, an increase in employment of one FTE in the agriculture industry (livestock rearing & services to agriculture) in the Wairarapa Region will create an *additional* 0.79 FTEs in the Wairarapa Region (i.e. one FTE creates 1.79 FTEs in total).

Input-output tables were used to determine the sources and allocation of the key driver industries' inputs and outputs respectively.

5.1 Key industries

An initial analysis of industries in the Wairarapa Region is useful to help identify the key driver industries in the region. The analysis in this section looks at the 10 largest industries by employment and the 10 industries with the highest location quotients (LQ).¹²

Table 5.1 and Table 5.2 show the top 10 industries by employment and LQ in the Wairarapa Region. This analysis is at the ANZSIC-53 industry level¹³ and for the 2007 year.

5.1.1 Top 10 industries by employment

Table 5.1. Top 10 industries by employment, 2007

Rank by FTE size	Industry	Employment (FTEs)	
		2007	% of total
1	Agriculture	2,303	15.7
2	Business Services	1,062	7.3
3	Accommodation, Cafes and Restaurants	932	6.4
4	Education	909	6.2
5	Health Services	753	5.1
6	Personal and Household Good Retailing	727	5.0
7	General Construction	723	4.9
8	Construction Trade Services	680	4.7
9	Food Retailing	668	4.6
10	Community Services	548	3.7

source: BERL Regional Database, Statistics NZ

¹¹ Multiplier analysis is explained in the Appendices.

¹² A location quotient (LQ) of one suggests that employment in an industry in the region is similar to employment in that industry nationally. A higher LQ suggests that the industry is relatively more intensive.

¹³ The ANZSIC-53 industry analysis provides more detail of the industries that contribute to the Wairarapa regional economy. For example, within the primary industry are the agriculture, mining, seafood, and forestry and logging sectors. And in the Wairarapa region, the two key sectors within the primary industry are agriculture, and forestry and logging.

As mentioned in an earlier section, large industries in the Wairarapa Region in terms of employment in 2007 were agriculture, business services, and accommodation, cafes & restaurants. The largest area of employment in the agriculture industry was sheep farming. In 2007, cafes & restaurants employed 418 FTEs while pubs, taverns & bars employed 182 FTEs.

Education in the Wairarapa region centres on early childhood and secondary education. In 2007, 344 of the 909 FTEs in the education industry were employed in the secondary education sector while 182 FTEs were employed in early childhood education.

In 2007, the health services industry employed 5.1 percent of the total FTEs in the Wairarapa Region. The majority of people within the health services industry worked in the hospitals sector, followed by general practice medical services. This reflects the provision of health services in the region, with Masterton hospital being the primary provider of health care.

Personal and household good retailing includes sectors such as clothing & soft good retailing, furniture, and houseware & appliance retailing. In 2007, 5.0 percent of the total FTEs in the Wairarapa Region or 727 FTEs worked in this industry. This industry and the food retailing industry are part of the wider retail trade industry, which is one of the top three industries in terms of employment in this region.

The reason why retail trade is such a large employer is due to the size of the personal and household good retailing and the food retailing industries in the Wairarapa Region. And opportunities within these industries are largely driven by population, the state of the regional economy, disposable incomes but also purchases by visitors to the region. These industries together employed 9.6 percent of the total FTEs in the Wairarapa Region in 2007.

The general construction industry employed 723 FTEs in 2007 or 4.9 percent of the total FTEs in this region. The construction trade services industry employed 680 FTEs or 4.7 percent of the total FTEs. Together these industries make up the wider construction industry, which was the fourth largest industry in the Wairarapa Region in 2007. The general construction industry includes house construction, non-residential construction, and road & bridge construction. In turn, the construction trade services industry includes trades such as concreting, plumbing, electrical, carpentry, painting & decorating, glazing, and air-conditioning.

Community services are a significant employer in the Wairarapa Region. In 2007, 548 FTEs were employed in this industry, or 3.7 percent of the total FTEs in the region. This industry includes childcare, residential care, and accommodation for the aged.

5.1.2 Top 10 industries by location quotient (LQ)

LQs provide some idea of the relative importance of an industry in a region compared to national figures. An LQ of one suggests that employment in the region in an industry is similar to employment in that industry nationally. A higher LQ suggests that the industry is relatively more intensive.

Table 5.2. Wairarapa Region, top 10 industries by location quotient, 2007

Rank by FTE LQ	Industry	LQ
1	Services to Agriculture; Hunting and Trapping	2.704
2	Agriculture	2.560
3	Commercial Fishing	2.489
4	Wood and Paper Product Manufacturing	2.343
5	Forestry and Logging	2.207
6	Community Services	1.501
7	General Construction	1.375
8	Accommodation, Cafes and Restaurants	1.358
9	Motor Vehicle Retailing and Services	1.319
10	Food Retailing	1.234

source:BERL Regional Database, Statistics NZ

The importance of the primary sector to the Wairarapa Region is explained by the LQs. In 2007, services to agriculture; hunting & trapping, agriculture, commercial fishing, wood & paper product manufacturing, and forestry & logging all had LQs greater than two indicating the intensity of employment in these industries in the Wairarapa Region was at least twice the national average.

In 2007, the services to agriculture; hunting & trapping industry had an LQ of 2.70. This industry supports the larger agriculture industry in the Wairarapa Region and includes areas of employment such as shearing, aerial agricultural services, harvesting, irrigation, artificial insemination, dairy herd testing, and hunting & trapping. One example of the importance of this industry to the region is the large number of people employed in shearing. In 2007, 314 FTEs were employed in shearing in the Wairarapa Region.

The agriculture industry in the Wairarapa Region in 2007 had an LQ of 2.56. This number reflects the large number of people employed in sheep farming, dairy cattle farming, and grape growing in this region.

Wood & paper product manufacturing includes employment in areas such as log sawmilling, timber resawing & dressing, and wood product manufacturing. In 2007, the LQ for this industry in the Wairarapa Region was 2.34. Forestry is a large area of employment in this region and logs are further processed in the region before being

exported domestically and internationally. The presence of a LVL and plywood mill in the Carterton District is also reflected in this number.

Also important in the region are the community services, construction, and food retailing industries, which reflect population growth and affluence, while accommodation, cafes & restaurants reflect the role of tourism in the region.

5.2 Sheep & beef farming and services to agriculture

The sheep & beef farming and services to agriculture industry is concerned with the raising of animals and the services mentioned above such as shearing, irrigation, harvesting, and spraying.

This industry consists of a large number of small businesses. In 2007, 1,650 FTEs were employed in 1,080 businesses in the Wairarapa Region, which suggests an average of 1.5 FTEs per business.

Sheep & beef farming and services to agriculture is a key driver industry employing 11.3 percent of all FTEs in this region. Nationally, 2.94 percent of those employed in the sheep & beef farming and services to agriculture industry work in the Wairarapa Region.

Table 5.3. Sheep & beef farming and services to agriculture industry in the Wairarapa Region, 2007

Wairarapa Region livestock; services to agriculture	Total	% of regional	% of national livestock; services to agriculture
Employment (FTEs)	1,654	11.31	2.94
GDP (\$mn)	94	8.32	3.15
Business units	1,078	19.03	2.85

source: BERL regional database, Statistics NZ

Looking at the contribution of the Wairarapa sheep & beef farming, and services to agriculture industry to GDP, this industry accounted for 8.32 percent of GDP and 19.0 percent of businesses in the Wairarapa Region. In 2007, sheep & beef farming and services to agriculture contributed \$94 million to the Wairarapa Region's GDP.

Multipliers

Table 5.4 illustrates the indirect and induced effects of the sheep & beef farming and services to agriculture industry on the Wairarapa regional economy.

Table 5.4. Sheep & beef farming, and services to agriculture multipliers in the Wairarapa Region, 2007

Wairarapa Region livestock; services to agriculture	Direct	Total
Output (\$mn)	252	444
GDP (\$mn)	94	182
Employment (FTEs)	1,654	2,968

source: BERL regional database, Statistics NZ

The sheep & beef farming and services to agriculture industry directly generated \$252 million in output, resulting in the employment of 1,650 FTEs and contributing \$94 million to the Wairarapa Region's GDP. Taking into account upstream and downstream effects,

the sheep & beef farming and services to agriculture industry had a total output of \$444 million, generated \$182 million in regional GDP, and resulted in the employment of 2,970 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.5 below, industry activity has been broken down into input and output components. This table show the proportion of each component of the sheep & beef farming and services to agriculture industry and the regional total.

Table 5.5. Total inputs and outputs of the Wairarapa sheep & beef farming and services to agriculture industry, 2007

Wairarapa Region livestock; services to agriculture	% of sector	% of regional
Inputs		
Intermediate inputs	37.57	5.09
Imports	24.17	5.62
Wages and other household income	26.98	16.70
Other inputs	11.28	5.67
Outputs		
Intermediate outputs	30.30	4.11
Exports	68.69	19.42
Household and government consumption	0.29	0.10
Other outputs	0.73	0.54

source: BERL regional database, Statistics NZ

In 2007, the sheep & beef farming and services to agriculture industry sourced 37.6 percent of its inputs from within the Wairarapa Region, while 68.7 percent of its outputs were exported outside of the region. The proportions of output exported rather than further processed within the region is relatively high. Regional development strategy could encourage further processing of local products.

Looking first at inputs into the industry, 37.6 percent of intermediate inputs or goods and services used in the sheep & beef farming and services to agriculture industry came from other industries in the Wairarapa Region. A further 24.2 percent of goods and services were imported from outside of the Wairarapa Region. Labour (wages and other household income) accounted for 27.0 percent of the inputs in the Wairarapa sheep & beef farming and services to agriculture industry, with the remaining 11.3 percent of inputs made up of taxes and profits.

Looking at outputs, 30.3 percent of production from the sheep & beef farming and services to agriculture industry went into other industries in the Wairarapa Region (largely other primary industries) while 68.7 percent was exported from the region.

Very small amounts went into household and government consumption, and other outputs (which includes reinvestment in capital and stock).

The top 10 industries providing inputs into the Wairarapa sheep & beef farming and services to agriculture industry are presented in Table 5.6.

Table 5.6. Major input industries to the sheep & beef farming and services to agriculture industry in Wairarapa, 2007

Wairarapa Region livestock; services to agriculture	% of intermediate inputs
Livestock and cropping farming	32.17
Services to agriculture, hunting and trapping	15.35
Wholesale and retail trade	14.44
Other business services	4.84
Other farming	3.82
Road freight transport	2.97
Finance and insurance	2.88
Dairy and cattle farming	2.64
Horticulture and fruit growing	2.63
Petroleum refining, product manufacturing	2.32
Other industries	15.94

source: BERL regional database, Statistics NZ

The three main industries providing inputs were livestock & cropping farming, services to agriculture, hunting & trapping, and wholesale & retail trade.

Five of the top 10 industries providing inputs into the Wairarapa sheep & beef farming and services to agriculture industry in 2007 were part of the agriculture industry.

Together, primary industries accounted for 56 percent of intermediate inputs into the Wairarapa sheep & beef farming and services to agriculture industry in 2007.

The others were more general industries providing goods and services to the industry, namely wholesale & retail trade, other business services, and finance & insurance.

Being such a significant industry, most industries provide goods and services to it. Some industries in the Wairarapa that were particularly reliant on the sheep & beef farming and services to agriculture industry in 2007 are shown in the table below.

Table 5.7. Wairarapa industries reliant on sheep & beef farming and services to agriculture, 2007

Wairarapa Region livestock; services to agriculture	% of contributor industry output
Fertiliser and other industrial chemical man.	57.20
Services to agriculture, hunting and trapping	46.89
Other farming	19.08
Livestock and cropping farming	18.25
Rubber, plastic and other chemical product man.	13.22
Road freight transport	8.86
Horticulture and fruit growing	7.70
Other business services	7.57
Rail transport	7.25
Finance and insurance	7.24

source: BERL regional database, Statistics NZ

The top five industries all had significant levels of input into the Wairarapa sheep & beef farming and services to agriculture industry.

Over 57 percent of the outputs from the fertiliser & other industrial chemical manufacturing industry went into the sheep & beef farming and services to agriculture industry.

The services to agriculture, hunting & trapping industry was also heavily reliant on the Wairarapa sheep & beef farming and services to agriculture industry in 2007, with 46.9 percent of its output going into the industry. The services to agriculture, hunting & trapping industry includes activities such as crop harvesting, irrigation, land clearing, fruit picking, as well as shearing and aerial agricultural services.

Other farming, livestock & cropping farming and rubber, plastic & other chemical product manufacturing contributed between 13 and 19 percent of their outputs to the sheep & beef farming and services to agriculture industry.

Other industries reliant on the industry include transportation of livestock within and from the region, and service industries such as finance & insurance.

Projection

The neutral scenario projection for the sheep & beef farming and services to agriculture industry in the Wairarapa Region provides a more positive forecast for employment and GDP growth in this industry.

Under the neutral scenario, employment in the sheep & beef farming and services to agriculture industry is forecast to grow by an additional 110 FTEs to 1,765 FTEs in 2026.

Under the historical scenario, employment in the sheep & beef farming and services to agriculture industry is forecast to decline to 1,335 FTEs in 2026.

In terms of GDP, the contribution of the sheep & beef farming and services to agriculture industry to regional GDP is expected to increase under the historical and the neutral scenarios.

However, under the neutral scenario this increase will be larger, with an increase in GDP of over 40 percent in 2026 compared to 2007 figures. The GDP contribution of the sheep & beef farming and services to agriculture industry to the Wairarapa regional economy is expected to rise to \$166 million in 2026, compared to \$125 million under the historical scenario.

5.3 Horticulture & viticulture

The horticulture & viticulture industry in the Wairarapa Region includes grape growing, vegetable growing, plant nurseries stone fruit growing, and other fruit growing.

In 2007, the horticulture & viticulture industry directly employed 470 FTEs in the Wairarapa region. Around 70 percent of these were employed in the wine growing sector, 17 percent in vegetable growing, seven percent in plant nurseries, and a further four percent in stone fruit growing.

Employment growth over the last 10 years has been in vegetable and grape growing. Employment in vegetable growing has increased by 193 percent to 81 FTEs, while employment in grape growing has increased by 74 percent to 332 FTEs.

There are only 22 FTEs employed in stone and other fruit growing in 2007, which is well down from the over 200 FTEs recorded in 2002.

The number of grape growers in the Wairarapa Region has fallen to 25 in 2007, from 39 the previous year. However, the area in grapes has been increasing. In 2007, the Wairarapa region had 827 hectares in grapes, up from 777 hectares in 2006 and 327 hectares in 2000. By 2010, the Wairarapa region is forecast to have 853 hectares in grapes. In 2007 there were 57 wineries in the Wairarapa Region, up from 31 in 1997.¹⁴ There were around 55 FTEs employed in wine manufacturing in 2007. Note that there is often overlap across the two sub-sectors as the wine makers often are grape growers as well.

The employment generated by this sector is likely to be under-reported. The horticulture & viticulture industry is made up of a number of relatively small businesses. Many orchards or vineyards have a small number of core staff and rely on seasonal workers to complete tasks such as pruning and harvesting. ***It is unlikely that these seasonal workers*** are captured in the analysis as they are not employed when the survey is undertaken.

Horticulture & viticulture employs 3.22 percent of all FTEs in the region. Nationally, 1.26 percent of those employed in the horticulture & viticulture industry work in the Wairarapa Region.

¹⁴ New Zealand Winegrowers Statistical Annual 2007.

Table 5.8. The horticulture & viticulture industry in the Wairarapa Region, 2007

Wairarapa Region horticulture	Total	% of regional	% of national horticulture
Employment (FTEs)	471	3.22	1.26
GDP (\$mn)	32	2.79	1.26
Business units	197	3.48	1.74

source: BERL regional database, Statistics NZ

Looking at the contribution of the Wairarapa horticulture & viticulture industry to GDP relative to the regional economy and the national horticulture & viticulture industry, the horticulture & viticulture industry accounted for 2.79 percent of GDP and 3.48 percent of business in the Wairarapa Region. In 2007, horticulture & viticulture contributed \$32 million to the Wairarapa Region's GDP.

Multipliers

Table 5.9 illustrates the indirect and induced effects of the horticulture & viticulture industry on the Wairarapa regional economy.

Table 5.9. Horticulture & viticulture industry multipliers in Wairarapa, 2007

Wairarapa Region horticulture	Direct	Total
Output (\$mn)	72	114
GDP (\$mn)	32	52
Employment (FTEs)	471	697

source: BERL regional database, Statistics NZ

The horticulture & viticulture industry generated \$72 million in output, employing 471 FTEs and contributing \$32 million to the Wairarapa Region economy.

Including upstream and downstream effects, the horticulture & viticulture industry had a total output of \$114 million, generated \$52 million in regional GDP, and resulted in the employment of 697 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.10 below horticulture & viticulture industry activity has been broken down into input and output components. This table show the proportion of each component of the horticulture & viticulture industry and the regional total.

Table 5.10. Total inputs and outputs of the Wairarapa horticulture & viticulture industry, 2007

Wairarapa Region horticulture	% of sector	% of regional
Inputs		
Intermediate inputs	28.69	0.50
Imports	26.84	0.80
Wages and other household income	28.23	2.24
Other inputs	16.24	1.05
Outputs		
Intermediate outputs	20.90	0.36
Exports	73.28	2.66
Household and government consumption	5.78	0.25
Other outputs	0.04	0.00

source: BERL regional database, Statistics NZ

In 2007, the horticulture & viticulture industry sourced 28.7 percent of its inputs from within the Wairarapa Region, while 73.2 percent of its outputs were exported outside of the region.

Looking first at inputs into the horticulture & viticulture industry, 28.7 percent of goods and services used in the horticulture & viticulture industry came from other industries in the Wairarapa Region. These are defined as intermediate inputs. A further 26.8 percent of goods and services were imported from outside of the Wairarapa Region. Labour (wages and other household income) accounted for 28.2 percent of the inputs in the Wairarapa horticulture & viticulture industry, with the remaining 16.24 percent of inputs made up of taxes and profits.

Looking at outputs, 20.9 percent of production from the horticulture & viticulture industry went into other industries in the Wairarapa Region, while 73.3 percent was exported primarily as produce. The remaining 5.8 percent went into household and government consumption, and other outputs (which includes reinvestment in capital and stock).

These intermediate outputs appear low, especially as the majority of grape growing output is likely to be processed in the region. In any effect, we would suggest that there is ample opportunity to increase the value added of horticulture within the region.

The top 10 industries providing inputs into the Wairarapa horticulture & viticulture industry are presented in Table 5.11.

Table 5.11. Major input industries to horticulture & viticulture in the Wairarapa Region, 2007

Wairarapa Region horticulture	% of intermediate inputs
Services to agriculture, hunting and trapping	26.77
Wholesale and retail trade	14.13
Other business services	8.77
Finance and insurance	7.43
Road freight transport	6.24
Livestock and cropping farming	5.99
Other farming	4.56
Real estate	3.31
Horticulture and fruit growing	2.95
Construction	2.04
Other industries	17.82

source: BERL regional database, Statistics NZ

Four of the top 10 industries providing inputs into the Wairarapa horticulture & viticulture industry in 2007 were horticulture-based. The others were general industries providing goods and services to the industry, namely wholesale & retail trade, other business services, and finance & insurance.

Services to agriculture, hunting & trapping provided almost 27 percent of the intermediate inputs into the horticulture & viticulture industry in the Wairarapa Region in 2007. The services to agriculture, hunting & trapping industry includes crop harvesting, irrigation, and spraying as well as fruit picking and horticultural services. These industries all provide goods and services needed by horticulture & viticulture. The top 10 industries accounted for around 82 percent of all intermediate inputs into the horticulture & viticulture industry.

Some industries in the Wairarapa that were particularly reliant on the horticulture & viticulture industry to use their outputs in 2007 are shown in the table below.

Table 5.12. Industries reliant on the horticulture & viticulture industry in the Wairarapa Region

Wairarapa Region horticulture	% of contributor industry output
Services to agriculture, hunting and trapping	8.01
Fertiliser and other industrial chemical man.	4.62
Rubber, plastic and other chemical product man.	2.81
Electricity generation	2.59
Other farming	2.23
Equipment hire and investors in other property	1.91
Finance and insurance	1.83
Road freight transport	1.82
Other business services	1.34
Rail transport	1.22

source: BERL regional database, Statistics NZ

The horticulture & viticulture industry purchases around eight percent of the services to agriculture, hunting & trapping industry outputs. It also takes 4.6 percent of fertiliser & other industrial chemical manufacturing outputs. Otherwise other industries do not tend to supply too much of their total output to the horticulture & viticulture industry.

Projections

Under the neutral scenario, employment in the horticulture & viticulture industry is forecast to grow by an additional 70 FTEs to 540 FTEs in 2026. Under the historical scenario, employment in the horticulture & viticulture industry is forecast to decline by 40 FTEs to 430 FTEs in 2026.

In terms of GDP, the contribution of the horticulture & viticulture industry to regional GDP is expected to increase under the historical and the neutral scenarios. However, under the neutral scenario this increase will be larger. The GDP contribution of horticulture & viticulture to the Wairarapa regional economy is expected to rise to \$58 million in 2026, compared to \$44 million under the historical scenario.

5.4 Dairy farming

In 2007, the dairy farming industry employed 474 FTEs in the Wairarapa Region. Dairy farming is a major industry employing 3.24 percent of all FTEs in the region. Nationally, 1.37 percent of those employed in the dairy farming industry work in the Wairarapa Region.

Table 5.13. The Wairarapa Region dairy farming industry, 2007

Wairarapa Region dairy farming	Total	% of regional	% of national dairy farming
Employment (FTEs)	474	3.24	1.37
GDP (\$mn)	32	2.81	1.37
Business units	244	4.31	1.34

source: BERL regional database, Statistics NZ

Looking at the contribution of the Wairarapa dairy farming industry to GDP relative to the regional economy and the national dairy farming industry, dairy farming accounted for 2.81 percent of GDP and 4.31 percent of businesses in the Wairarapa Region. In 2007, dairy farming contributed \$32 million to the Wairarapa Region's GDP.

Multipliers

Table 5.14 illustrates the indirect and induced effects of the dairy farming industry on the Wairarapa regional economy.

Table 5.14. Wairarapa Region dairy farming multipliers, 2007

Wairarapa Region dairy farming	Direct	Total
Output (\$mn)	74	117
GDP (\$mn)	32	51
Employment (FTEs)	474	788

source: BERL regional database, Statistics NZ

The dairy farming industry directly generated \$74 million in output, employing 474 FTEs and contributing \$32 million to the Wairarapa Region GDP.

Taking into account upstream and downstream effects, the dairy farming industry had a total output of \$117 million, contributed \$51 million in regional GDP, and resulted in the employment of 788 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.15 below dairy farming activity has been broken down into input and output components. This table show the proportion of each component of the dairy farming industry and the regional total.

Table 5.15. Wairarapa Region dairy farming industry, total inputs and outputs

Wairarapa Region dairy farming	% of sector	% of regional
Inputs		
Intermediate inputs	29.09	0.85
Imports	27.51	1.37
Wages and other household income	23.79	3.16
Other inputs	19.60	2.11
Outputs		
Intermediate outputs	7.79	0.23
Exports	91.93	5.58
Household and government consumption	0.20	0.01
Other outputs	0.08	0.01

source: BERL regional database, Statistics NZ

In 2007, the dairy farming industry imported 27.5 percent of its inputs from outside the Wairarapa Region, while 91.9 percent of its outputs were exported outside of the Wairarapa Region.

Looking first at inputs into the dairy farming industry, 29.1 percent of goods and services used in the dairy farming industry came from other industries in the Wairarapa Region. A further 27.5 percent of goods and services were imported from outside of the Wairarapa Region. Labour (wages and other household income) accounted for 23.8 percent of the inputs, with the remaining 19.6 percent of inputs made up of taxes and profits.

Looking at outputs, 7.79 percent of production from the dairy farming industry went into other industries in the Wairarapa Region (largely industries that provide support services such as livestock, equipment and labour) while 91.9 percent of production from the dairy farming industry was exported to be processed in another region. This is expected as there is no major dairy processing plant within the region's boundaries.

The remaining 0.28 percent went into household and government consumption, and other outputs (which includes reinvestment in capital and stock).

The top 10 industries providing inputs into the Wairarapa dairy farming industry are presented in Table 5.16.

Table 5.16. Major input industries into Wairarapa Region dairy farming, 2007

Wairarapa Region dairy farming	% of intermediate inputs
Wholesale and retail trade	22.14
Livestock and cropping farming	18.19
Services to agriculture, hunting and trapping	11.87
Horticulture and fruit growing	6.25
Other business services	3.87
Other food manufacturing	3.72
Real estate	3.57
Other farming	3.48
Construction	2.92
Dairy and cattle farming	2.83
Other industries	21.15

source: BERL regional database, Statistics NZ

The main industries providing inputs into the dairy farming industry are wholesale & retail trade, livestock & cropping farming, and services to agriculture, hunting & trapping. These three accounted for over 50 percent of intermediate inputs into the industry.

Some industries in Wairarapa that were particularly reliant on the dairy farming industry in 2007 are shown in the table below.

Table 5.17. Industries reliant on dairy farming in the Wairarapa Region, 2007

Wairarapa Region dairy farming	% of contributor industry output
Fertiliser and other industrial chemical man.	15.93
Services to agriculture, hunting and trapping	6.03
Rubber, plastic and other chemical product man.	3.99
Horticulture and fruit growing	3.04
Other farming	2.89
Electricity generation	2.44
Livestock and cropping farming	1.72
Wholesale and retail trade	1.63
Other Mining and quarrying	1.43
Other food manufacturing	1.22

source: BERL regional database, Statistics NZ

The main industry reliant on dairy farming was fertiliser & other industrial chemical manufacturing. Just over 15 percent of the outputs from the fertiliser & other industrial chemical manufacturing sector in the Wairarapa Region were used by the dairy farming industry.

The relatively small size of the dairy farming industry meant that apart from fertiliser & other industrial chemical manufacturing, and services to agriculture, hunting & trapping, no industry relied on the dairy farming industry for more than four percent of their output.

Projections

Under the neutral scenario projection for the dairy farming industry in the Wairarapa Region, employment will remain stable between 2007 and 2026, while, under the historical scenario, employment is expected to decrease.

In terms of GDP, the contribution of the dairy farming industry to regional GDP is expected to increase under the historical and the neutral scenarios.

However, under the neutral scenario this increase will be larger, with an increase in GDP of \$22 million during this period compared to \$8.9 million under the historical scenario. The GDP contribution of the dairy farming industry to the Wairarapa regional economy is expected to rise to \$53.9 million in 2026, compared to \$40.8 million under the historical scenario.

5.5 Wood processing

The wood processing industry in the Wairarapa Region is made up of log sawmilling, timber resawing & dressing, other wood product manufacturing, and wooden structural component manufacturing.

Just over 50 percent of employment is in plywood and veneer manufacturing, with a further 30 percent employed in log sawmilling. The remaining 20 percent of employment is in wooden structural component manufacturing and timber resawing & dressing.

A key business in the region is JNL, the plywood and LVL mill operated by Juken New Zealand in the Carterton District.

In 2007, the wood processing industry employed 604 FTEs in the Wairarapa Region, 4.13 percent of all FTEs in the region. Nationally, 2.37 percent of those employed in the wood processing industry work in the Wairarapa Region.

Table 5.18. The Wairarapa Region wood processing industry, 2007

Wairarapa Region wood processing	Total	% of regional	% of national wood processing
Employment (FTEs)	604	4.13	2.37
GDP (\$mn)	61	5.39	2.14
Business units	122	2.15	5.00

source: BERL regional database, Statistics NZ

Looking at the contribution of the Wairarapa wood processing industry to GDP, this industry accounted for 5.39 percent of regional GDP and 2.15 percent of businesses in the region. In 2007, wood processing contributed \$61 million to the Wairarapa Region's GDP.

Multipliers

Table 5.19 illustrates the indirect and induced effects of the wood processing industry on the Wairarapa regional economy.

Table 5.19. Wairarapa Region wood processing multipliers, 2007

Wairarapa Region wood processing	Direct	Total
Output (\$mn)	186	342
GDP (\$mn)	61	126
Employment (FTEs)	604	1,047

source: BERL regional database, Statistics NZ

The wood processing industry directly generated \$186 million in output, employed 604 FTEs and contributed \$61 million to the Wairarapa regional economy.

Taking into account upstream and downstream effects, the wood processing industry had a total output of \$342 million, generated \$126 million in regional GDP, and resulted in the employment of 1,050 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.20 below, the wood processing industry activity has been broken down into input and output components. This table shows the proportion of each component of the wood processing industry and the regional total.

Table 5.20. Total inputs and outputs of the wood processing industry in the Wairarapa Region, 2007

Wairarapa Region wood processing	% of sector	% of regional
Inputs		
Intermediate inputs	34.20	3.04
Imports	24.83	3.79
Wages and other household income	24.32	9.89
Other inputs	16.66	5.49
Outputs		
Intermediate outputs	45.46	4.05
Exports	49.56	9.20
Household and government consumption	1.96	0.43
Other outputs	3.03	1.46

source: BERL regional database, Statistics NZ

In 2007, the wood processing industry sourced 24.8 percent of its inputs from outside the Wairarapa Region, while almost 50 percent of its outputs were exported outside of the region. More importantly, 45.5 percent of its intermediate outputs were inputs into other industries in the region.

Looking first at inputs into the wood processing industry, 34.2 percent of goods and services used in the wood processing industry came from other industries in the Wairarapa Region. These are defined as intermediate inputs. A further 24.8 percent of goods and services were imported from outside of the Wairarapa Region. Labour (wages and other household income) accounted for 24.3 percent of the inputs in the Wairarapa wood processing industry, with the remaining 16.7 percent of inputs made up of taxes and profits.

Looking at outputs, 45.5 percent of production from the wood processing industry went into other industries in the Wairarapa Region while 49.6 percent of production from the wood processing industry was exported from the region. The remaining five percent went into household and government consumption, and other outputs (which includes reinvestment in capital and stock).

The top 10 industries providing inputs into the Wairarapa wood processing industry in 2007 are presented in Table 5.21.

Table 5.21. Major input industries to the Wairarapa Region wood processing industry, 2007

Wairarapa Region wood processing	% of intermediate inputs
Forestry and logging	35.05
Wood product manufacturing	15.50
Other business services	11.53
Wholesale and retail trade	6.97
Road freight transport	5.23
Printing, publishing and recorded media	3.65
Finance and insurance	3.19
Cultural and recreational services	2.94
Real estate	2.09
Scientific research and computer services	1.75
Other industries	12.11

source: BERL regional database, Statistics NZ

Forest-related industries provided just over 50 percent of the intermediate inputs into the Wairarapa wood processing industry in 2007. Together with other business services, these were the major provider industries into the wood processing industry.

Other industries that provided goods and services to the wood processing industry in 2007 included wholesale & retail trade, road freight transport, and printing, publishing & recorded media. These support services provided just over 15 percent of the intermediate inputs into the wood processing industry and primarily involved the packaging, transportation, and sale of the wood products.

Services to this industry were provided by the finance & insurance industry, real estate industry, and scientific research & computer services.

Some industries in the Wairarapa that were particularly reliant on the wood processing industry in 2007 are shown in the table below.

Table 5.22. Wairarapa Region industries reliant on the wood processing industry

Wairarapa Region wood processing	% of contributor industry output
Forestry and logging	29.14
Sewerage, drainage and waste disposal services	14.67
Fertiliser and other industrial chemical man.	11.06
Other business services	10.77
Electricity generation	10.41
Wood product manufacturing	9.61
Road freight transport	9.32
Rail transport	8.86
Scientific research and computer services	7.24
Printing, publishing and recorded media	6.94

source: BERL regional database, Statistics NZ

Seven industries rely on wood processing for at least nine percent of their outputs. Forestry & logging is heavily reliant on the wood processing industry in the Wairarapa Region, with 29.2 percent of its outputs going into this industry.

Several other industries rely on wood processing for a significant proportion of their business. These include infrastructure industries such as sewerage, drainage & waste disposal services, and electricity generation, as well as transport industries – road freight and rail transport.

Projection

Under the neutral scenario, employment in the wood processing industry is forecast to grow by an additional 346 FTEs to 1,230 FTEs in 2026. Under the historical scenario, employment in the wood processing industry is forecast to decline by 65 FTEs between 2007 and 2026 to 820 FTEs.

According to MAF wood availability forecasts for the period 2008 to 2040, the amount of wood harvested from the Southern North Island, which includes the Wairarapa Region, could significantly increase from 2015. This increase would be largely due to small forest owners harvesting forests that were established during the 1990s, as well as large forest owners harvesting according to set harvesting programmes. However, the timing of any harvesting in this region will be largely driven by market conditions.

As such the neutral scenario of employment growing by an additional 346 FTEs in the wood processing industry is more likely to occur if these wood availability forecasts are correct, international log prices are high, labour is available to work in the forest, and the wood that is harvested in the Southern North Island is processed in the Wairarapa Region as opposed to being transported from the region as logs.

In terms of GDP, the contribution of the wood processing industry to regional GDP is expected to increase under the historical and the neutral scenarios. However, under the neutral scenario this increase will be larger, with an increase in GDP of \$58 million during this period compared to \$18 million under the historical scenario. Again, this scenario is more likely to occur with an increase in harvesting in the region towards 2020. The GDP contribution of the wood processing industry to the Wairarapa regional economy is expected to rise to \$119 million in 2026, compared to \$79 million under the historical scenario.

5.6 Food processing

In 2007, the food processing industry employed 406 FTEs in the Wairarapa region. Within the manufacturing industry, food processing is a key driver industry employing 2.77 percent of all FTEs in the region. Nationally, only a small number, 0.62 percent, of those employed in the food processing industry work in the Wairarapa Region.

Table 5.23. The Wairarapa Region food processing industry, 2007

Wairarapa Region food processing	Total	% of regional	% of national food processing
Employment (FTEs)	406	2.77	0.62
GDP (\$mn)	53	4.65	0.62
Business units	35	0.62	1.59

source: BERL regional database, Statistics NZ

Looking at the contribution of the Wairarapa Region food processing industry to GDP, this industry accounted for 4.65 percent of GDP and 0.62 percent of businesses in the region. In 2007, food processing contributed \$53 million to the Wairarapa Region's GDP.

Multipliers

Table 5.24 illustrates the indirect and induced effects of the food processing industry on the Wairarapa regional economy.

Table 5.24. Wairarapa Region, food processing industry multipliers, 2007

Wairarapa Region food processing	Direct	Total
Output (\$mn)	147	235
GDP (\$mn)	53	90
Employment (FTEs)	406	933

source: BERL regional database, Statistics NZ

Adding upstream and downstream effects, the food processing industry had a total output of \$235 million, generated \$90 million in regional GDP, and resulted in the employment of 933 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.25 below, food processing industry activity has been broken down into input and output components. This table show the proportion of each component of the food processing industry and the regional total.

Table 5.25. Wairarapa Region food processing industry, total inputs and outputs

Wairarapa Region food processing	% of sector	% of regional
Inputs		
Intermediate inputs	30.59	2.27
Imports	29.44	3.75
Wages and other household income	12.38	4.20
Other inputs	27.59	7.58
Outputs		
Intermediate outputs	11.30	0.84
Exports	71.39	11.05
Household and government consumption	17.18	3.12
Other outputs	0.13	0.05

source: BERL regional database, Statistics NZ

The food processing industry imported 29.4 percent of its inputs, while 71.4 percent of its outputs were exported outside of the region. Industries within the region accounted for 30.6 percent of intermediate inputs into the food processing industry.

Looking first at inputs into the food processing industry, 30.6 percent of goods and services used in the food processing industry came from other industries in the Wairarapa Region. These are defined as intermediate inputs, and in the table below it can be seen that many of these inputs are raw materials from the agriculture industry. A further 29.4 percent of goods and services were imported from outside of the Wairarapa Region. Labour (wages and other household income) accounted for 12.4 percent of the inputs in the Wairarapa food processing industry, with the remaining 27.6 percent of inputs made up of taxes and profits.

Looking at outputs, 11.3 percent of production from the food processing industry went into other industries in the Wairarapa Region (such as retail trade, and cafes & restaurants) while the majority of output, 71.4 percent, was exported. The remaining 17.3 percent went into household and government consumption, and other outputs (which includes reinvestment in capital and stock).

The top 10 industries providing inputs into the Wairarapa food processing industry are presented in Table 5.11.

Table 5.26. Major input industries to the Wairarapa Region food processing industry

Wairarapa Region food processing	% of intermediate inputs
Livestock and cropping farming	27.12
Wholesale and retail trade	11.87
Other food manufacturing	9.48
Other business services	7.30
Road freight transport	6.00
Horticulture and fruit growing	5.37
Beverage, malt and tobacco manufacturing	3.83
Other farming	3.60
Structural, sheet & fabricated metal product man.	2.99
Dairy and cattle farming	2.92
Other industries	19.52

source: BERL regional database, Statistics NZ

Two of the top 10 industries providing inputs into the Wairarapa food processing industry in 2007 were food or beverage manufacturing industries, while three of the top 10 industries were primary industries providing raw materials.

The others were general industries providing goods and services to the industry, namely wholesale & retail trade, other business services, and finance & insurance.

The industries in Wairarapa most reliant on the food processing industry for purchasing their outputs in 2007 are shown in the table below.

Table 5.27. Wairarapa Region industries reliant on the food processing industry

Wairarapa Region food processing	% of contributor industry output
Fishing	12.51
Rail transport	10.60
Structural, sheet & fabricated metal product man.	8.47
Other food manufacturing	8.35
Rubber, plastic and other chemical product man.	8.28
Other farming	8.02
Road freight transport	7.97
Horticulture and fruit growing	7.01
Livestock and cropping farming	6.86
Water supply	6.72

source: BERL regional database, Statistics NZ

Industries such as fishing, other farming, horticulture & fruit growing, and livestock cropping & farming were reliant on the Wairarapa food processing industry for at least seven percent of their output. Again, this emphasises the need for the food processing industry in the Wairarapa Region to process produce and livestock harvested in the region.

Other industries reliant on the food processing industry include those involved in manufacturing equipment used by food processing factories such as fabricated steel products, and transportation of the produce within and from the region.

Projections

Under the neutral scenario, employment in the food processing industry is forecast to grow by an additional 65 FTEs to 470 FTEs in 2026. Under the historical scenario, employment in the food processing industry is forecast to decline by 90 FTEs between 2007 and 2026 to 315 FTEs.

In terms of GDP, the contribution of the food processing industry to regional GDP is expected to increase under the historical and the neutral scenarios. However, under the neutral scenario this increase will be larger, with an increase in GDP of \$40 million during this period compared to \$10 million under the historical scenario. The GDP contribution of the food processing industry to the Wairarapa regional economy is expected to rise to \$94 million in 2026, compared to \$62 million under the historical scenario.

5.7 Health & community services

The health & community services industry is a key driver industry in the Wairarapa Region. However, this industry differs from the previous industries discussed as it is largely driven by population demographics.

The health & community services industry employed 1,301 FTEs in the Wairarapa region in 2007. While there has been a decline in employment in hospitals, there have been increases in childcare services, aged accommodation and residential care services.

Table 5.28. The Wairarapa Region health & community services industry, 2007

Wairarapa Region health & community service: Total	% of regional	% of national health & community services
Employment (FTEs)	1,301	8.89
GDP (\$mn)	69	6.12
Business units	152	2.75

source: BERL regional database, Statistics NZ

Health & community services employed 8.89 percent of all FTEs in the Wairarapa Region in 2007. Looking at the contribution of the Wairarapa health & community services industry to GDP, this industry accounted for 6.12 percent of regional GDP and 2.75 percent of businesses in the region.

In 2007, health & community services contributed \$69 million to the Wairarapa Region's GDP through 152 businesses.

Multipliers

Table 5.29 illustrates the indirect and induced effects of the health & community services industry on the Wairarapa regional economy.

Table 5.29. Wairarapa Region, health & community services multipliers, 2007

Wairarapa Region health & community services	Direct	Total
Output (\$mn)	104	156
GDP (\$mn)	69	98
Employment (FTEs)	1,301	1,769

source: BERL regional database, Statistics NZ

The health & community services industry directly employed 1,301 FTEs, generating \$104 million in output and contributing \$69 million to the Wairarapa Region GDP.

Adding upstream and downstream effects, the health & community services industry had a total output of \$156 million, generated \$98 million in regional GDP, and resulted in the employment of 1,769 FTEs in the Wairarapa Region in 2007.

Input-Output analysis

In Table 5.30 below health & community service industry activity has been broken down into input and output components. This table show the proportion of each component of the health & community services industry and the regional total.

Table 5.30. Wairarapa Region health & community services industry, total inputs and outputs

Wairarapa Region health & community services	% of sector	% of regional
Inputs		
Intermediate inputs	17.74	0.85
Imports	18.44	1.51
Wages and other household income	50.14	10.97
Other inputs	13.67	2.43
Outputs		
Intermediate outputs	6.76	0.32
Exports	53.15	5.31
Household and government consumption	39.79	4.66
Other outputs	0.30	0.08

source: BERL regional database, Statistics NZ

The health & community services industry sourced 18.4 percent of its inputs from outside the Wairarapa Region. Interestingly, over 50 percent of its outputs were exported outside of the region.

Looking first at inputs into the health & community services industry, 17.7 percent of goods and services used in the health & community services industry came from other industries in the Wairarapa Region. These are defined as intermediate inputs. A further 18.4 percent of goods and services were imported from outside of the Wairarapa Region. Being a service based industry, labour (wages and other household income) accounted for 50.1 percent of the inputs in the Wairarapa health & community services industry, with the remaining 13.67 percent of inputs made up of taxes and profits.

Looking at outputs, 6.76 percent of production from the health & community services industry went into other industries in the Wairarapa Region while 53.2 percent of production from the health & community services industry was exported from the region. The remaining 40 percent went into household and government consumption, and the residual went into other outputs (which includes reinvestment in capital and stock).

These numbers reflect the difference between an industry that is producing goods and one that is providing community services. Most inputs and outputs from this industry are labour and consumption as opposed to importing or exporting a good.

The top 10 industries providing inputs into the Wairarapa health & community services industry are presented in Table 5.31.

Table 5.31. Wairarapa Region health & community services industry, major input industries

Wairarapa Region health & community services	% of intermediate inputs
Other health and community services	24.47
Other business services	16.41
Wholesale and retail trade	13.65
Finance and insurance	5.93
Real estate	5.56
Construction	4.94
Accommodation, restaurants and bars	3.80
Personal and other community services	2.81
Printing, publishing and recorded media	2.25
Scientific research and computer services	2.11
Other industries	18.07

source: BERL regional database, Statistics NZ

The main industries providing inputs into the health and community services industry are other health & community services, other business services, and wholesale & retail trade.

The other health & community services industry provided just over 24 percent of the intermediate inputs into the Wairarapa health & community services industry.

Other industries that provided goods and services to the health & community services industry included industries that provided services such as scientific research & computer services, and personal & other community services. Goods were provided to this industry by industries such as construction, printing, publishing & recorded media, and wholesale & retail trade.

Some industries in the Wairarapa that were particularly reliant on the health & community services industry in 2007 are shown in the table below.

Table 5.32. Industries reliant on health & community services in the Wairarapa Region

Wairarapa Region health & community services	% of contributor industry output
Other health and community services	8.84
Sewerage, drainage and waste disposal services	8.48
Other business services	4.28
Equipment hire and investors in other property	2.99
Rubber, plastic and other chemical product man.	2.88
Finance and insurance	2.49
Scientific research and computer services	2.44
Personal and other community services	2.28
Communication services	2.08
Local government administration	2.01

source: BERL regional database, Statistics NZ

Two industries relatively reliant on health & community services are other health & community services, and sewerage, drainage & waste disposal services. Health & community services takes 8.84 percent and 8.48 percent of their output respectively.

Projection

Under both scenario projections for the health & community services industry in the Wairarapa Region there are similar, positive forecasts for employment and GDP growth.

Under the neutral scenario, employment in the health & community services industry is forecast to grow by an additional 560 FTEs to 1,860 FTEs in 2026. Under the historical scenario, employment in the health & community services industry is forecast to grow to 1,890 FTEs by 2026.

In terms of GDP, the contribution of the health & community services industry to regional GDP is expected to increase under the historical and neutral scenarios. Again, the numbers will be very similar in each of the scenarios. In the neutral scenario, GDP is expected to increase to \$118 million during this period compared to \$119 million under the historical scenario.

6 Projections

This section compares and contrasts the scenario projections in the Wairarapa Region in terms of employment and GDP between 2007 and 2026. The analysis breaks the projections into two periods – from 2007 to 2016, and from 2016 to 2026.

The projections for the Wairarapa Region are based on two scenarios. The national growth projections remain the same across both scenarios.

- The first is the neutral scenario, where industries in the Wairarapa Region grow at the same rate as nationally. This provides a neutral growth rate based on national projections using BERL's Computable General Equilibrium (CGE) model.
- The second scenario is a historical performance scenario, where industry growth is based on relative growth rates between the region and nationally over the last 10 years.¹⁵

By comparing and contrasting the results from the two scenarios you can:

- see the potential growth in employment and GDP by industry if the region operated at the national level
- estimate the growth in employment and GDP by industry if the region continues to perform at the level it has historically
- understand the growth dynamics particular to the region.

This section begins with an overview of the national projections before looking in detail at employment and GDP projections for the Wairarapa Region. Projections for the individual TAs are included in the appendices.¹⁶

¹⁵ Both scenarios take into account labour force availability and labour productivity at the national level. There are no constraints on the movement of labour at a regional level.

¹⁶ Regional projections are derived from the national projections based on the industry composition.

In the historical projections, the larger the region, the larger the industries and the less stochastic the change. Hence the projection is more accurate the higher the level of aggregation or where industries are large. We would therefore suggest that the Wairarapa Region projection is more accurate than each of the individual TA projections.

Using historical performance, individual TA projections in some industries do not sum to the regional projection for that industry. This generally occurs where the industry in the TA is small and there has been a significant

The base assumptions on which we developed our national projections are included in the appendices. As well, the appendix includes a table showing growth in employment by industry at a national level.

Tourism is included after the total in the projections table as it is not an industry in itself. Tourism projections are a composite of a portion of the growth in other industries based on the Statistics New Zealand Tourism Satellite Account.

6.1 Employment projections

Table 6.1 shows the projected changes in employment in the Wairarapa Region by industry under the two scenarios.

change. In these cases we have worked off the assumption that the larger the region or industry numbers the more accurate the result.

Thus, where individual TA projections do not sum to the regional industry projections we have manually overridden the projection in the TA which contributes the smallest proportion to the industry total and or the TA where the change in growth appears unrealistic.

Table 6.1. Projected change in employment, Wairarapa Region, 2007 to 2026

Employment Growth (FTEs) Wairarapa Region Neutral Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	2,991	0.6	3,161	0.3	3,271
Mining	26	2.7	33	1.9	40
Manufacturing	1,795	2.0	2,141	1.5	2,482
Electricity, Gas and Water Supply	19	0.9	21	1.1	24
Construction	1,404	1.0	1,536	1.1	1,720
Wholesale Trade	517	1.4	585	1.5	683
Retail Trade	1,903	1.3	2,133	1.5	2,477
Accommodation, Cafes and Restaurants	932	2.5	1,166	1.8	1,388
Transport and Storage	335	1.5	382	1.6	449
Communication Services	67	0.8	72	1.1	81
Finance and Insurance	234	1.2	260	1.5	302
Property and Business Services	1,197	2.3	1,474	1.8	1,754
Government Administration and Defence	352	1.3	396	1.6	466
Education	909	0.5	950	1.4	1,088
Health and Community Services	1,301	1.8	1,526	2.0	1,859
Cultural and Recreational Services	198	1.5	225	1.2	254
Personal and Other Services	446	0.8	478	1.4	548
TOTAL	14,627	1.4	16,539	1.3	18,884
<i>Tourism</i>	<i>931</i>	<i>1.9</i>	<i>1,104</i>	<i>1.6</i>	<i>1,292</i>

Employment Growth (FTEs) Wairarapa Region 10 year case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	2,991	-0.9	2,766	-1.1	2,475
Mining	26	2.7	33	2.1	40
Manufacturing	1,795	-1.1	1,623	-0.7	1,516
Electricity, Gas and Water Supply	19	0.9	21	1.2	24
Construction	1,404	1.3	1,579	1.5	1,842
Wholesale Trade	517	0.8	556	0.9	608
Retail Trade	1,903	0.6	2,004	0.7	2,145
Accommodation, Cafes and Restaurants	932	5.4	1,501	4.1	2,241
Transport and Storage	335	-2.8	259	-2.7	197
Communication Services	67	0.8	72	1.1	81
Finance and Insurance	234	-0.6	222	-0.2	218
Property and Business Services	1,197	3.9	1,683	2.0	2,087
Government Administration and Defence	352	-0.9	326	-0.6	309
Education	909	-1.6	784	-0.8	729
Health and Community Services	1,301	1.8	1,528	2.0	1,889
Cultural and Recreational Services	198	1.2	220	1.0	245
Personal and Other Services	446	0.4	463	0.8	501
TOTAL	14,627	0.7	15,641	0.9	17,146
<i>Tourism</i>	<i>931</i>	<i>2.5</i>	<i>1,163</i>	<i>2.2</i>	<i>1,444</i>

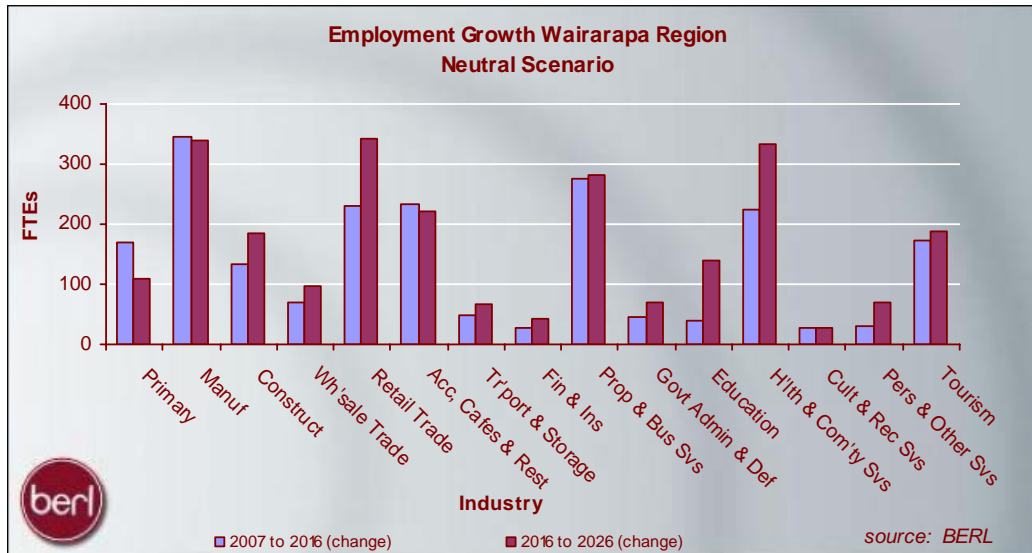
source: BERL

The neutral scenario sees FTE employment in the Wairarapa Region increasing by 1,912 between 2007 and 2016 to 16,539 FTEs, and by a further 2,345 FTEs between 2016 and 2026 to 18,884 FTEs. This is growth rates of 1.4 percent per annum and 1.3 percent per annum respectively.

The historical scenario sees slightly slower growth of 0.7 percent per annum between 2007 and 2016 to 15,641 FTEs; and 0.9 percent per annum between 2016 and 2026 to 17,146 FTEs. That is, 900 fewer FTEs between 2007 and 2016, and 840 fewer FTEs between 2016 and 2026 than the neutral scenario.

Aside from the slower growth historically, the interesting story is in the change in employment by industry for the two scenarios. These are shown graphically in Figure 6.1 and Figure 6.2.

Figure 6.1. Projected change in employment, Wairarapa Region, 2007 to 2026 - neutral scenario



The neutral scenario shows growth across all industries.¹⁷ The majority of new employment is in the retail trade, property & business services, health & community services, manufacturing, and accommodation, cafes & restaurant industries. There are little absolute employment increases in finance & insurance, and cultural & recreational services.

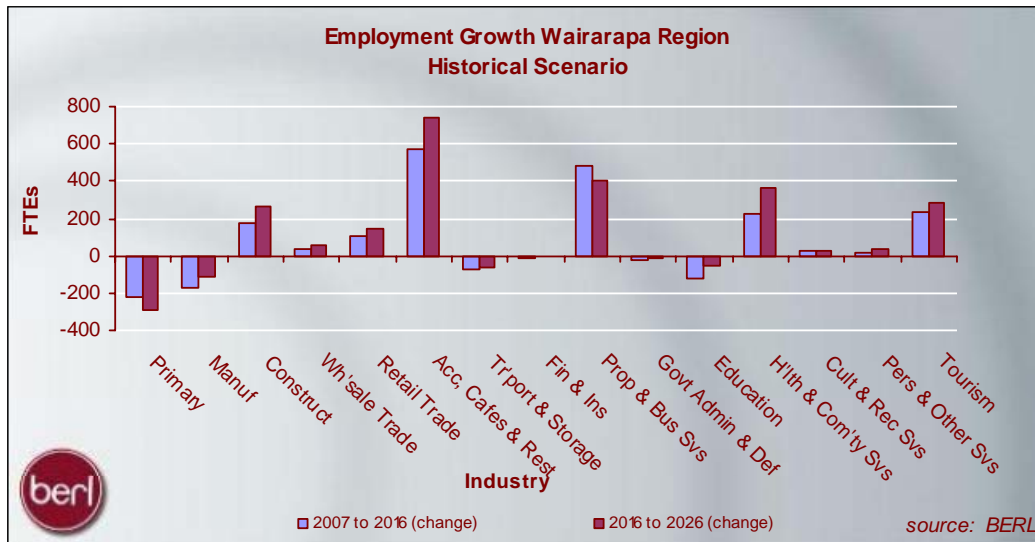
Tourism makes a significant contribution to employment growth, which is reflected in the high growth rates in the retail trade, and accommodation, cafes & restaurants sectors.

This is a balanced scenario of growth, where services and tourism related industries tend to grow at a faster rate than primary and manufacturing industries. In this scenario, the fastest rates of growth in the Wairarapa Region are in accommodation, cafes & restaurants, property & business services, and health & community services.

Growth becomes a lot more specific to the Wairarapa Region when we look at the historical scenario in Figure 6.2.

¹⁷ We have excluded mining and utilities from this analysis because of their small size.

Figure 6.2. Projected change in employment, Wairarapa Region, 2007 to 2026 - historical scenario



The historical growth scenario sees absolute employment growth concentrated in accommodation, cafes & restaurants, property & business services, health & community services, construction, and retail & wholesale trade.

There is actually a decline in employment in a number of industries over the forecast period, especially in the primary, education¹⁸, manufacturing, and transport & storage sectors.

The accommodation, cafes & restaurants sector is expected to grow at 5.4 percent per annum to 2016, slowing to 3.8 percent per annum out to 2026. Property and business services, health & community services, cultural services, and construction are also expected to grow significantly faster than the regional average.

The biggest contrasts between the two scenarios are in the primary and manufacturing sectors. The primary sector goes from employment growth of 280 FTEs in the neutral scenario, to a decline in employment of 517 FTEs under the historical scenario, a net difference of close to 800 FTEs. Similarly, the manufacturing sector goes from employment growth of 611 to a decline in employment of 149, a net difference of 760 FTEs.

¹⁸ We believe the projection for education in the historical scenario is skewed by historical data anomalies related to the earlier closure of the polytechnic, and the later establishment of UCOL campuses in the region. For this reason we suggest the neutral scenario provides a more valid projection for the education sector.

6.2 GDP projections

The projected changes in FTEs can be converted to identify the impact on regional GDP. These are presented in Table 6.2.

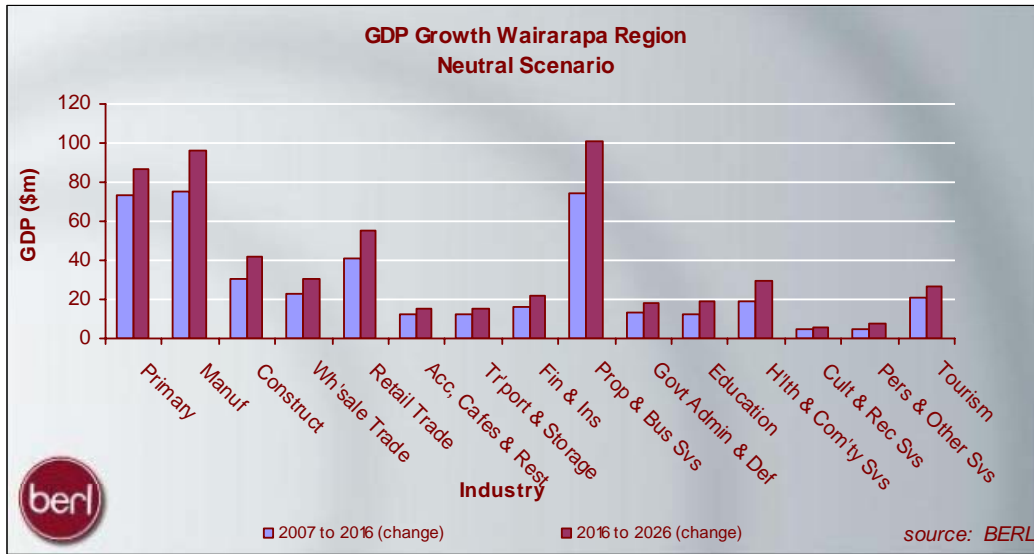
Table 6.2. GDP (\$2007m) projections, Wairarapa Region, 2007 to 2026

GDP Growth Wairarapa Region Neutral Case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	209.9	3.4	283.2	2.7	370.2
Mining	4.5	3.8	6.3	3.2	8.7
Manufacturing	166.2	4.2	241.4	3.4	337.6
Electricity, Gas and Water Supply	5.0	3.5	6.7	3.2	9.3
Construction	72.8	4.0	103.7	3.5	145.9
Wholesale Trade	52.9	4.1	76.2	3.4	106.5
Retail Trade	96.6	4.0	137.1	3.4	192.4
Accommodation, Cafes and Restaurants	28.9	4.1	41.5	3.2	56.8
Transport and Storage	27.4	4.2	39.5	3.3	54.7
Communication Services	26.3	4.1	37.8	3.5	53.1
Finance and Insurance	45.2	3.5	61.7	3.0	83.2
Property and Business Services	213.8	3.4	288.2	3.1	389.2
Government Administration and Defence	42.5	3.0	55.4	2.8	73.3
Education	42.9	2.9	55.3	3.0	74.0
Health and Community Services	69.4	2.8	88.6	2.9	118.0
Cultural and Recreational Services	12.7	3.4	17.2	3.0	23.1
Personal and Other Services	17.5	2.9	22.6	2.9	30.0
TOTAL	1,134.3	3.6	1,562.4	3.1	2,125.8
<i>Tourism</i>	<i>51.3</i>	<i>3.9</i>	<i>72.4</i>	<i>3.2</i>	<i>99.5</i>
GDP Growth Wairarapa Region 10 year Case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	209.9	1.9	247.8	1.2	280.1
Mining	4.5	3.8	6.3	3.4	8.8
Manufacturing	166.2	1.1	183.0	1.2	206.3
Electricity, Gas and Water Supply	5.0	3.5	6.7	3.3	9.3
Construction	72.8	4.3	106.7	3.9	156.2
Wholesale Trade	52.9	3.5	72.3	2.7	94.8
Retail Trade	96.6	3.3	128.8	2.6	166.7
Accommodation, Cafes and Restaurants	28.9	7.1	53.4	5.6	91.7
Transport and Storage	27.4	-0.3	26.8	-1.1	24.0
Communication Services	26.3	4.1	37.8	3.4	53.0
Finance and Insurance	45.2	1.7	52.7	1.3	59.9
Property and Business Services	213.8	4.9	329.1	3.5	463.0
Government Administration and Defence	42.5	0.8	45.5	0.6	48.6
Education	42.9	0.7	45.6	0.8	49.6
Health and Community Services	69.4	2.8	88.8	3.0	119.9
Cultural and Recreational Services	12.7	3.1	16.8	2.8	22.3
Personal and Other Services	17.5	2.6	21.9	2.2	27.4
TOTAL	1,134.3	2.9	1,470.0	2.5	1,881.5
<i>Tourism</i>	<i>51.3</i>	<i>4.5</i>	<i>76.3</i>	<i>3.8</i>	<i>111.2</i>

source: BERL

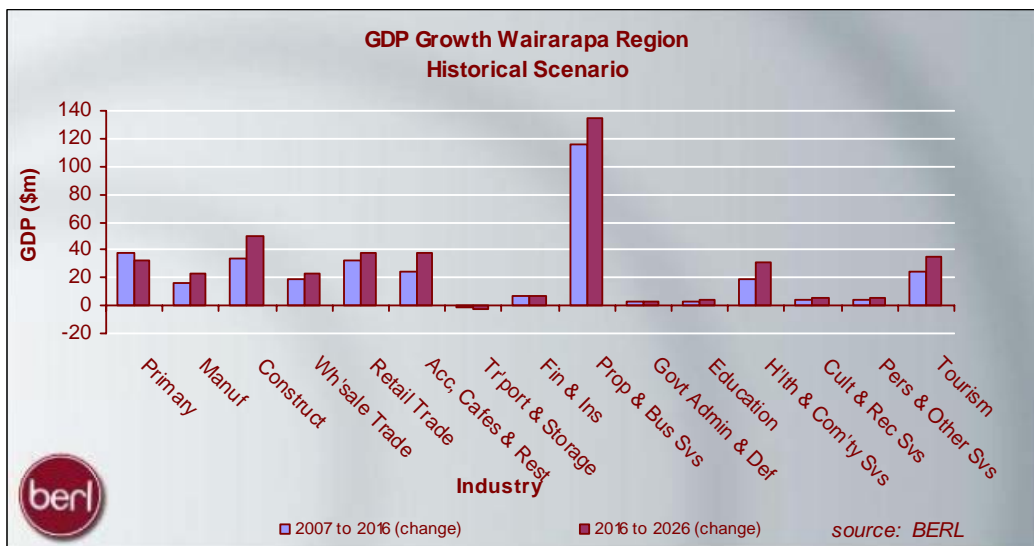
The neutral scenario suggests that, between 2007 and 2016, GDP in the Wairarapa Region is expected to grow by 3.6 percent per annum. This figure is higher than national projections where we are projecting GDP will grow by 3.5 percent during the same period. National projections of real GDP are expected to slow slightly between 2016 and 2026, to around 3.1 percent, similar to GDP projections for the Wairarapa Region.

Figure 6.3. Projected change in GDP, Wairarapa Region, 2007 to 2026 - neutral scenario



Based on the neutral scenario, GDP in the Wairarapa Region will grow to \$1.56 billion by 2016 and then to \$2.13 billion by 2026. GDP growth is concentrated around the population and tourism related industries of construction, wholesale & retail trade, accommodation, cafes & restaurants, and transport & storage. Manufacturing and communication services also have relatively high GDP growth rates.

Figure 6.4. Projected change in GDP, Wairarapa Region, 2007 to 2026 - historical scenario



GDP growth under the historical scenario is much slower. Between 2007 and 2016, the growth rate is 2.8 percent per annum, easing to 2.5 percent per annum between 2016 and 2026. This relates to GDP of \$1.45 billion in 2016, and \$1.85 billion in 2026.

Under the historical scenario, growth is driven by tourism. Tourism related GDP growth is faster by 0.7 percent per annum across both periods for the historical scenario compared to the neutral scenario. In particular, GDP in the accommodation, cafes & restaurants sector grows by 7.1 percent per annum in the first period, easing to 5.6 percent per annum in the second period. That is 3.0 percent per annum faster in the first period and 2.4 percent per annum faster in the second period than for the neutral scenario.

Other industries that perform better under the historical scenario are construction, property & business services and health & community services.

7 Conclusions

In 2007, the Wairarapa Region employed 14,600 FTEs in 5,760 businesses and generated \$1.13 billion in regional GDP.

The key driver industries are based around primary production and processing. However, population and tourism industries are becoming more important.

The primary sector accounts for around a fifth of all employment, a third of all businesses and 20 percent of the Region's GDP, more than twice the proportions at a national level. Manufacturing, largely related to the primary sector, is the other main industry in the region.

The region, as a whole, has not performed as well as nationally across most economic indicators. However, over the last five years its performance has begun to pick up, particularly in tourism and population-related industries.

Looking forward, if industries in the region performed at the level expected nationally, employment could increase by 4,260 FTEs by 2026.

Under the neutral scenario, all sectors would see growth in employment. The major increases would be in the property & business services (633 FTEs), manufacturing (611 FTEs), retail trade (574 FTEs), health & community services (559 FTEs), and accommodation, cafes & restaurants (456 FTEs).

However, if the region performed at the level it has historically (last 10 years), then employment is expected to increase by 2,519 FTEs by 2026, which is 1,741 FTEs fewer than under the neutral scenario.

Under the historical scenario, the greatest growth would be in accommodation, cafes & restaurants (1,309 FTEs), property & business services (890 FTEs), health & community services (588 FTEs) and construction (438 FTEs).

At the same time, several industries would see employment levels fall. These include agriculture, forestry & fishing (517 FTEs), manufacturing (279 FTEs), education (180 FTEs) and transport & storage (138 FTEs).

We consider that the historical scenario is the more likely outcome in terms of employment growth as it reflects the changes that have been and will continue to occur in the Wairarapa Region. The neutral scenario provides an upper bound (in cases where

industries in the historical scenario is lower) of what the region could possibly achieve if operating effectively.

It is important to note that these are only scenarios and they assume that the region does nothing to influence outcomes in terms of economic development direction or assistance. The scenarios provide two possible outcomes, which if unpalatable to the region, will require intervention to redirect.¹⁹

There are also a number of other issues or scenarios that sit alongside this one. For example, statistics New Zealand population projections (the medium scenario) suggest that population in the region is unlikely to change over the next 20 years. This outcome (static population) is in stark contrast to our labour market projections (FTE increases). This suggests that, for the region to continue to grow it will have to:

- increase productivity
- change industry composition to higher value added
- attract more people to the region to either live or work.

Therefore, rather than planning around the outcomes from the scenarios, the next steps should focus on what areas (or industries) the region wants and needs to influence to achieve the desired outcomes. And this needs to be considered in the wider context of what else is happening in the region and nationally.

¹⁹ For example, the decline projected for the primary and manufacturing industries may not be in the best interest of the region. It could look for ways to arrest the decline, or look at ways to transition the economy through a major structural change.

8 Appendix A – Masterton District

Masterton District is the largest of the three TAs that make up the Wairarapa Region. It has a population of 25,500.²⁰ Masterton is the largest town in the Wairarapa Region. The District covers an area of 2,300 square kilometres.

8.1 Profile and performance

In 2007, the Masterton District employed 9,218 FTEs in 2,944 businesses and generated \$713 million in GDP.

Table 8.1. Economic summary, Masterton District, 2007

Sectors (2007)	FTEs	%	GDP		Business	
			(\$2007m)	%	units	%
Primary	1,325	14.4%	103	14.5%	861	29.2%
Manufacturing	839	9.1%	81	11.3%	125	4.2%
Electricity, Gas and Water Supply	5	0.1%	1	0.1%	3	0.1%
Construction	896	9.7%	47	6.6%	245	8.3%
Wholesale Trade	369	4.0%	38	5.3%	89	3.0%
Retail Trade	1,354	14.7%	69	9.7%	264	9.0%
Accommodation, Cafes and Restaurants	496	5.4%	15	2.2%	83	2.8%
Transport and Storage	221	2.4%	19	2.6%	54	1.8%
Communication Services	40	0.4%	16	2.2%	21	0.7%
Finance and Insurance	205	2.2%	39	5.4%	95	3.2%
Property Services	154	1.7%	89	12.5%	582	19.8%
Business Services	696	7.6%	43	6.1%	164	5.6%
Cultural and Recreational Services	162	1.8%	10	1.5%	70	2.4%
Personal Services	362	3.9%	14	2.0%	107	3.6%
Government Administration and Defence	293	3.2%	35	5.0%	13	0.4%
Education	711	7.7%	33	4.7%	60	2.0%
Health and Community Services	1,089	11.8%	60	8.3%	108	3.7%
Totals	9,218	100.0%	713	100.00%	2,944	100.0%

source: BERL Regional Database, Statistics NZ

In terms of driver industries, the economy in this district is based around retail trade, the primary industry, and health & community services. These driver industries reflect the presence of the town of Masterton in this district, which is the main retail and service centre for the Wairarapa Region.

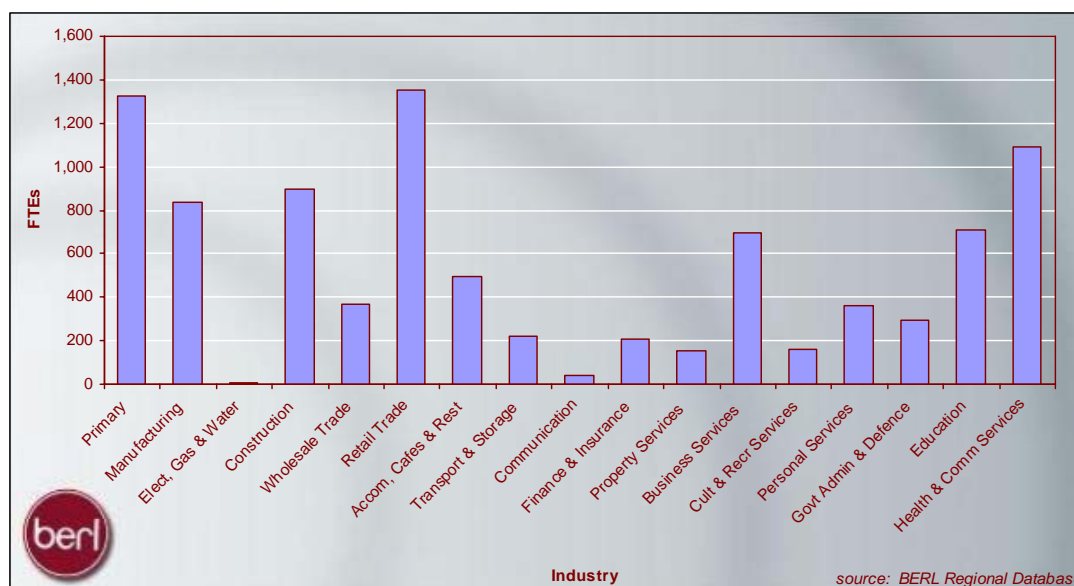
²⁰ As at June 2007. Derived from SNZ subnational population estimates by BERL.

8.1.1 Employment

In 2007, the top five industries in terms of employment in the Masterton District were retail trade, primary, health & community services, construction, and manufacturing.

The two largest industries were retail trade employing 1,354 FTEs or 14.7 percent of total employment and the primary industry employing 1,325 FTEs or 14.4 percent of total employment.

Figure 8.1. Employment, FTEs, Masterton District, 2007



The retail trade industry in the Masterton District is centred on the town of Masterton. Masterton has several large chain stores, such as the Warehouse, Farmers and Mitre 10, and a number of supermarkets. In 2007, 319 FTEs were employed in supermarkets in the Masterton District, making it the largest employer within the retail trade industry.

The primary industry in the Masterton District consists predominantly of people employed in agriculture, services to agriculture, and the forestry industry. In 2007, 516 FTEs were employed in sheep farming in the Masterton District, while smaller numbers were employed in dairy farming and sheep-beef cattle farming.

The large number of sheep farmers in the Masterton District is also reflected in the number of people employed in shearing & services to agriculture. In 2007, 202 FTEs were employed in shearing services in the Masterton District.

Approximately 100 FTEs were employed in forestry & logging in the Masterton District in 2007, with most of these FTEs in the logging sector.

Health & community services employed 1,089 FTEs or 11.8 percent of the total FTEs in the Masterton District in 2007. The Wairarapa District Health Board and Wairarapa hospital is in Masterton. Other community-based medical services such as public health services, mental health services, midwifery care, physiotherapy, and marae-based clinics are also based in Masterton. As well, a large number of rest homes are in Masterton.

Table 8.2. Employment (FTEs), Masterton District, 1997 to 2007

Sectors (2007)	Employment Number FTEs				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	1,634	1,490	1,485	1,325	-0.3	-10.7	-2.1
Manufacturing	1,074	911	817	839	-10.3	2.7	-2.4
Electricity, Gas and Water Supply	71	38	6	5	-83.9	-10.6	-22.6
Construction	493	727	839	896	15.3	6.9	6.2
Wholesale Trade	336	330	393	369	18.9	-6.0	0.9
Retail Trade	1,314	1,301	1,325	1,354	1.9	2.2	0.3
Accommodation, Cafes and Restaurants	310	361	442	496	22.4	12.4	4.8
Transport and Storage	309	249	206	221	-17.1	6.9	-3.3
Communication Services	125	51	53	40	3.7	-25.3	-10.8
Finance and Insurance	202	180	178	205	-0.9	15.2	0.2
Property Services	122	164	151	154	-7.9	1.9	2.4
Business Services	444	666	655	696	-1.6	6.3	4.6
Cultural and Recreational Services	100	170	143	162	-15.9	13.0	4.9
Personal Services	301	357	363	362	1.5	-0.3	1.9
Government Administration and Defence	328	293	305	293	4.0	-4.1	-1.1
Education	680	529	573	711	8.3	23.9	0.4
Health and Community Services	693	1,010	1,026	1,089	1.7	6.1	4.6
Masterton District	8,536	8,828	8,961	9,218	1.5	2.9	0.8
New Zealand	1,450,586	1,751,280	1,808,605	1,845,434	3.3	2.0	2.4

source:BERL Regional Database, Statistics NZ

Between 1997 and 2007, employment in the Masterton District grew by 0.8 percent per annum, lower than the national average of 2.4 percent per annum. However, between 2006 and 2007 employment in the Masterton District grew by 2.9 percent, faster than the national average of 2.0 percent.

The largest areas of employment growth between 1997 and 2007 in the Masterton District were in construction, with a 6.2 percent per annum increase; cultural & recreation services with a 4.9 percent per annum increase; and accommodation, cafes & restaurants with a 4.8 percent per annum increase.

The construction industry in the Masterton District employed 896 FTEs in 2007, an increase of 6.9 percent from 2006. The major areas of employment within this industry are house construction and road & bridge construction. Employment growth in this industry has been rapid over the last 10 years as new houses have been built in the district and existing houses renovated. Investment in infrastructure has also positively influenced employment in road & bridge construction.

The cultural & recreational services industry employed 162 FTEs in 2007 compared to 100 FTEs in 1997. There are a large number of museums and recreation facilities in the Masterton District, including the Wairarapa Museum of Art and History, the Mount Bruce Pioneer Museum, and the Mount Bruce bird and wetland area.

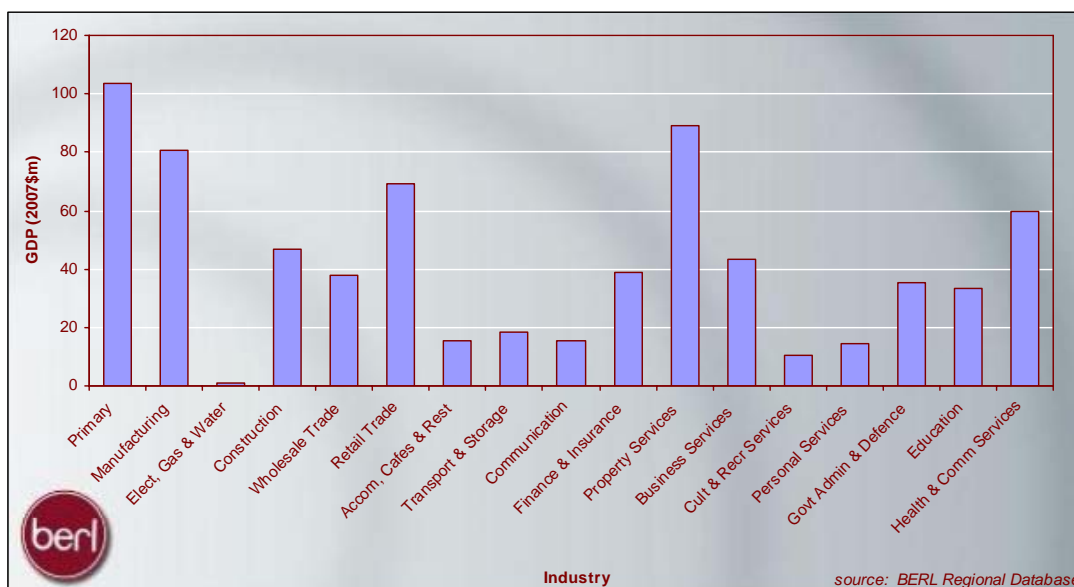
Employment in the accommodation, cafes & restaurants industry increased from 310 FTEs in 1997 to 496 FTEs in 2007. This employment growth has occurred mainly in the cafes & restaurants sector, with a large increase in the number opening and operating in the district.

The largest areas of employment growth in the Masterton District between 2006 and 2007 were in the education, finance & insurance, and cultural & recreational services industries.

8.1.2 GDP

In 2007, the top five industries in terms of GDP in the Masterton District were the primary, manufacturing, property services, retail trade, and health & community services industries. The two largest contributors to regional GDP in the Masterton District in 2007 were the primary industry generating \$103 million and the manufacturing industry generating \$81 million.

Figure 8.2. GDP, Masterton District, 2007



Between 1997 and 2007, GDP in the Masterton District grew by 0.6 percent per annum compared to the national average of 3.0 percent per annum. The industries that substantially increased their share of regional GDP included the construction industry

with 5.2 percent per annum growth, the cultural & recreational services industry with 4.5 percent per annum growth, and the accommodation, cafes & restaurants industry with 3.7 percent per annum growth.

Table 8.3. GDP, Masterton District, 1997 to 2007

Sectors (2007)	Value Added or GDP ('07, \$m)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	119	122	120	103	-2.0	-13.8	-1.4
Manufacturing	90	86	79	81	-8.5	2.1	-1.1
Electricity, Gas and Water Supply	20	18	1	1	-94.0	-3.5	-25.4
Construction	28	41	47	47	14.1	0.0	5.2
Wholesale Trade	33	35	41	38	17.8	-7.8	1.4
Retail Trade	54	65	66	69	1.7	4.6	2.5
Accommodation, Cafes and Restaurants	11	12	14	15	18.5	10.3	3.7
Transport and Storage	24	21	17	19	-17.6	7.1	-2.6
Communication Services	21	17	18	16	8.8	-15.5	-3.1
Finance and Insurance	30	36	33	39	-6.8	16.2	2.7
Property Services	84	91	88	89	-3.8	1.4	0.6
Business Services	33	41	41	43	-0.9	5.7	2.7
Cultural and Recreational Services	7	11	9	10	-18.6	14.8	4.5
Personal Services	10	14	14	14	-3.1	5.9	3.4
Government Administration and Defence	36	37	36	35	-1.2	-2.4	-0.3
Education	32	27	29	33	9.8	13.8	0.3
Health and Community Services	38	51	55	60	7.3	8.0	4.6
Masterton District	671	726	709	713	-2.3	0.5	0.6
New Zealand	122,615	158,567	162,826	165,379	2.7	1.6	3.0

source:BERL Regional Database, Statistics NZ

In 2007, the construction industry contributed \$47 million to regional GDP compared to \$28 million in 1997; the cultural & recreation services industry contributed \$10 million to regional GDP in 2007 compared to \$7 million in 1997; and the accommodation, cafes & restaurants industry contributed \$15 million to regional GDP in 2007 compared with \$11 million in 1997.

Between 1997 and 2007, the primary and manufacturing industries decreased their share of regional GDP by 1.4 percent and 1.1 percent per annum respectively.

The retail trade industry added 2.5 percent per annum to its share of regional GDP while property services only increased its share by 0.6 percent per annum, the same as the percentage change in GDP for the Masterton District as a whole.

In contrast, health & community services increased its contribution to regional GDP by 4.6 percent per annum from \$38 million in 1997 to \$60 million in 2007.

8.2 Projections

Under the neutral scenario, the Masterton District is projected to employ 10,481 FTEs and contribute \$979 million to regional GDP in 2016. Between 2016 and 2026, employment is forecast to rise to 12,102 FTEs and the District is projected to generate \$1.33 billion in GDP.

Under the historical scenario, the Masterton District is projected to employ 9,543 FTEs and generate \$885,000 in GDP in 2016, rising to 10,151 FTEs and \$1.09 billion in GDP by 2026.

8.2.1 Employment projections

Table 8.4 shows the change in employment in the Masterton District under the neutral and historical scenarios.

Table 8.4. Employment projections, Masterton District, 2007 to 2026²¹

Employment Growth (FTEs) Masterton District Neutral Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	1,313	0.7	1,402	0.5	1,466
Mining	12	2.7	16	1.9	19
Manufacturing	839	2.2	1,018	1.6	1,191
Electricity, Gas and Water Supply	5	-0.2	5	0.4	6
Construction	896	1.0	983	1.2	1,104
Wholesale Trade	369	1.4	419	1.6	490
Retail Trade	1,354	1.3	1,518	1.5	1,763
Accommodation, Cafes and Restaurants	496	2.5	621	1.8	739
Transport and Storage	221	1.5	253	1.7	299
Communication Services	40	0.8	43	1.1	48
Finance and Insurance	205	1.2	228	1.5	265
Property and Business Services	850	2.4	1,054	1.8	1,262
Government Administration and Defence	293	1.3	329	1.6	387
Education	711	0.5	743	1.4	851
Health and Community Services	1,089	1.8	1,278	2.0	1,559
Cultural and Recreational Services	162	1.5	184	1.2	208
Personal and Other Services	362	0.8	388	1.4	446
TOTAL	9,218	1.4	10,481	1.4	12,102
<i>Tourism</i>	578	1.8	681	1.6	795
Employment Growth (FTEs) Masterton District 10 year Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	1,313	-1.6	1,132	-1.9	937
Mining	12	2.7	16	2.1	19
Manufacturing	839	-1.1	759	-0.7	709
Electricity, Gas and Water Supply	5	-0.2	5	0.4	6
Construction	896	1.3	1,008	1.5	1,172
Wholesale Trade	369	0.6	390	0.7	417
Retail Trade	1,354	0.2	1,379	0.2	1,414
Accommodation, Cafes and Restaurants	496	5.4	799	4.1	1,193
Transport and Storage	221	-2.8	171	-2.7	130
Communication Services	40	0.8	43	1.1	48
Finance and Insurance	205	-0.7	194	-0.3	187
Property and Business Services	850	3.6	1,164	2.0	1,420
Government Administration and Defence	293	-1.4	259	-1.0	234
Education	711	-1.6	613	-0.8	567
Health and Community Services	1,089	2.1	1,313	2.5	1,680
Cultural and Recreational Services	162	1.6	186	1.4	213
Personal and Other Services	362	0.4	374	0.7	400
TOTAL	9,218	0.7	9,804	0.9	10,746
<i>Tourism</i>	578	1.0	630	0.7	673

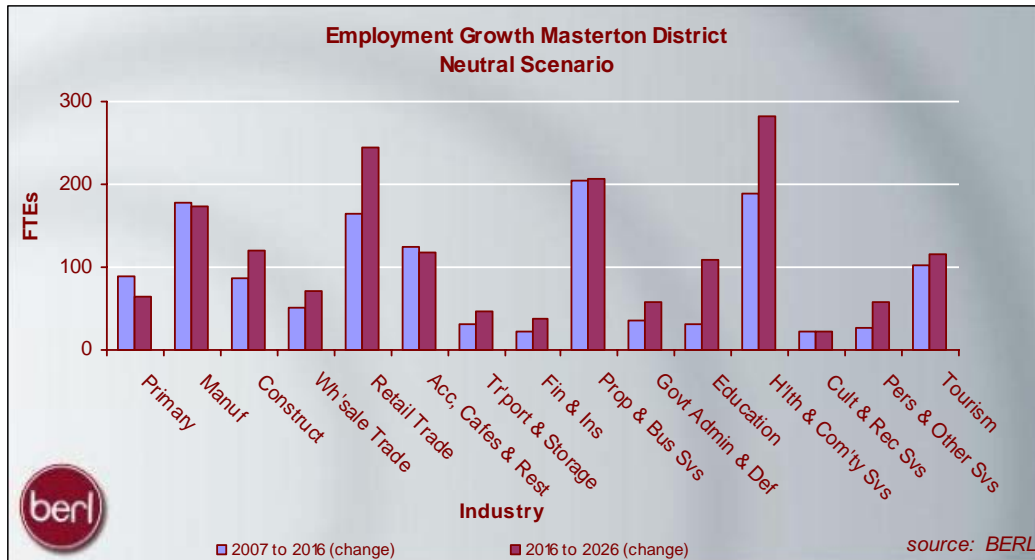
source: BERL

Employment growth under the neutral scenario is expected to run at 1.4 percent per annum over the forecast period. This is significantly higher than the historical scenario, where employment is expected to increase by 0.7 percent per annum to 2016 and then by 0.9 percent per annum to 2026.

²¹ We have excluded mining, electricity, gas & water supply, and communication services from the analysis as their contribution to employment is minimal. However, their numbers are included in the totals.

Figure 8.3 shows the growth in employment for each industry over the projection period.

Figure 8.3. Employment projections, Masterton District, 2007 to 2026 – neutral scenario

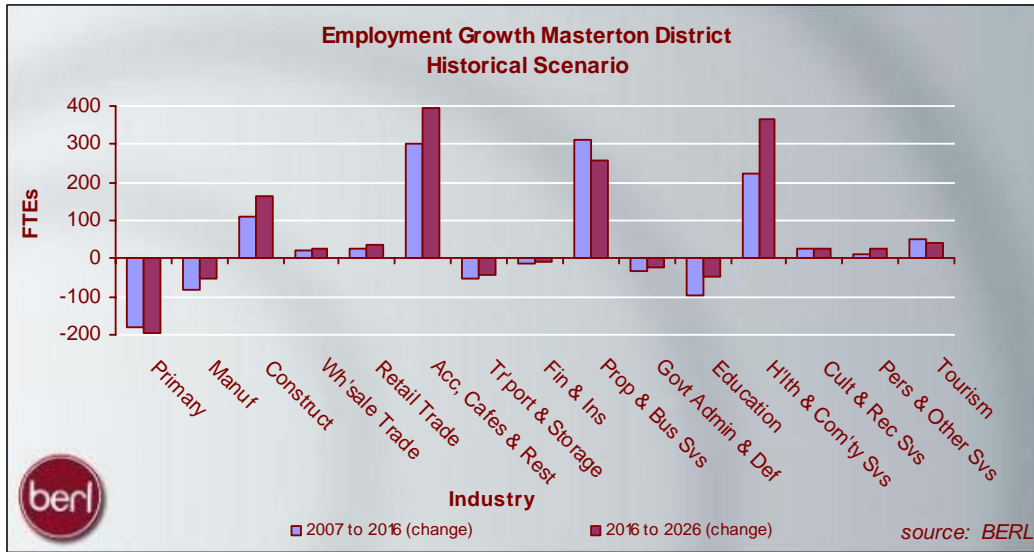


Under the neutral scenario, employment growth will occur across all industries, with the largest absolute increases occurring in the health & community services, retail trade, property & business services, and manufacturing industries.

From a relative perspective, in the period 2007 to 2016 the greatest increases are expected in the accommodation, cafes & restaurants, property & business services, and manufacturing industries, while in the 2016 to 2026 period, the greatest increases are expected in the health & community services, accommodation, cafes & restaurants, and property & business services industries.

The pattern of employment changes significantly when we look at the historical scenario as shown in Figure 8.4.

Figure 8.4. Employment projections, Masterton District, 2007 to 2026 – historical scenario



Here the largest absolute increases are in health & community services, accommodation, cafes & restaurants, construction, and property & business services. And there are declines in employment in the primary, manufacturing, transport & storage, and government administration & defence industries.

In terms of relative increases, the greatest increases between 2007 and 2016 are again in the accommodation, cafes & restaurants, health & community services, and property & business services industries, while between 2016 and 2026, the greatest increases are in accommodation, cafes & restaurants, health & community services, and construction.

The neutral scenario sees the employment of an extra 1,758 FTEs compared to the historical scenario, with the largest differences being in the primary (529 FTEs), manufacturing (448 FTEs), and retail trade (349 FTEs) industries.

8.2.2 GDP projections

GDP projections are derived from the employment projections. These are presented in Table 8.5.

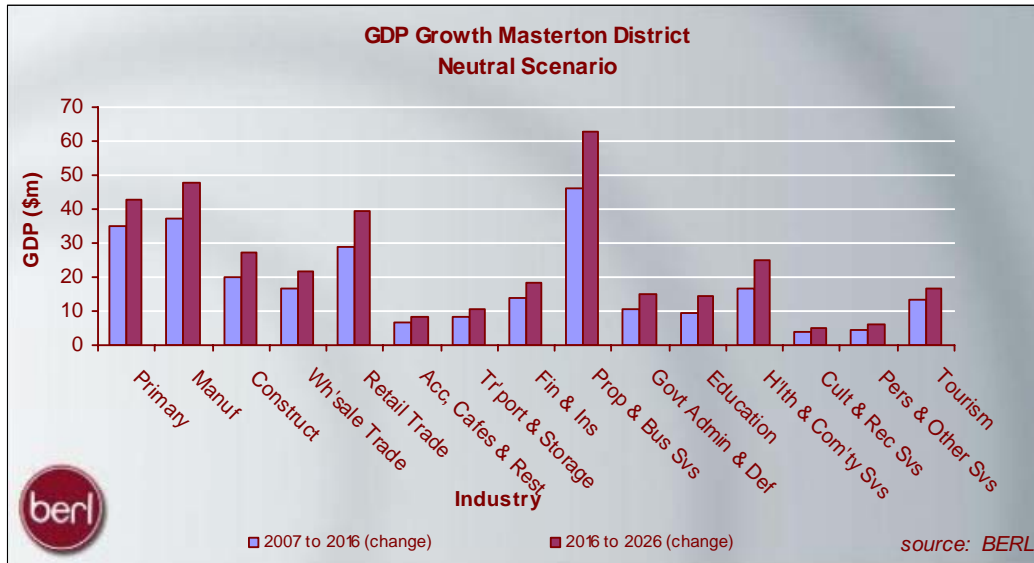
Table 8.5. GDP Projections, Masterton District, 2007 to 2026

GDP Growth Masterton District Neutral Case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	101.3	3.4	136.5	2.8	179.1
Mining	2.1	3.8	3.0	3.2	4.1
Manufacturing	80.8	4.3	118.2	3.4	165.9
Electricity, Gas and Water Supply	1.1	2.5	1.3	2.7	1.7
Construction	46.8	4.0	66.8	3.5	94.0
Wholesale Trade	37.7	4.2	54.4	3.4	76.2
Retail Trade	69.0	4.0	97.9	3.4	137.4
Accommodation, Cafes and Restaurants	15.4	4.1	22.1	3.2	30.2
Transport and Storage	18.6	4.2	26.8	3.4	37.3
Communication Services	15.6	4.1	22.4	3.5	31.5
Finance and Insurance	38.7	3.5	52.9	3.0	71.3
Property and Business Services	132.6	3.4	178.8	3.1	241.8
Government Administration and Defence	35.3	3.0	46.0	2.8	60.9
Education	33.5	2.9	43.2	3.0	57.8
Health and Community Services	59.5	2.8	76.0	2.9	101.3
Cultural and Recreational Services	10.4	3.4	14.1	3.0	18.9
Personal and Other Services	14.3	2.9	18.5	2.9	24.6
TOTAL	712.7	3.6	979.1	3.1	1,334.1
<i>Tourism</i>	32.8	3.8	46.0	3.2	63.0
GDP Growth Masterton District 10 year case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	101.3	0.9	110.2	0.4	114.4
Mining	2.1	3.8	3.0	3.4	4.2
Manufacturing	80.8	1.0	88.2	1.1	98.7
Electricity, Gas and Water Supply	1.1	2.5	1.3	2.7	1.7
Construction	46.8	4.3	68.4	3.8	99.8
Wholesale Trade	37.7	3.3	50.6	2.5	64.8
Retail Trade	69.0	2.9	89.0	2.2	110.2
Accommodation, Cafes and Restaurants	15.4	7.1	28.4	5.6	48.8
Transport and Storage	18.6	-0.3	18.1	-1.1	16.2
Communication Services	15.6	4.1	22.4	3.4	31.4
Finance and Insurance	38.7	1.6	44.9	1.2	50.4
Property and Business Services	132.6	4.5	197.4	3.3	272.0
Government Administration and Defence	35.3	0.3	36.2	0.2	36.9
Education	33.5	0.7	35.7	0.8	38.6
Health and Community Services	59.5	3.1	78.1	3.4	109.1
Cultural and Recreational Services	10.4	3.5	14.2	3.2	19.4
Personal and Other Services	14.3	2.5	17.9	2.1	22.1
TOTAL	712.7	2.7	904.1	2.3	1,138.8
<i>Tourism</i>	32.8	2.6	41.5	2.0	50.4

source: BERL

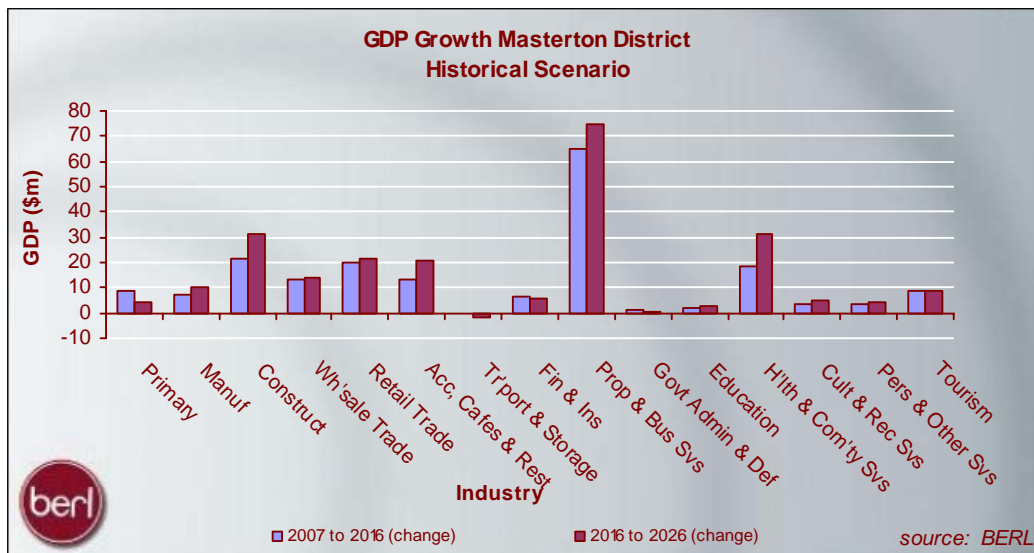
Under the neutral scenario GDP is expected to grow by 3.6 percent per annum to \$979 million in 2016, and then by 3.1 percent per annum to \$1.33 billion in 2026. The greatest growth will be in the property & business services, manufacturing, primary, construction, and health & community services industries (see Figure 8.5).

Figure 8.5. Masterton District, projected change in GDP, 2007 to 2026 – neutral scenario



However, the historical projections suggest GDP growth of 2.3 percent per annum to 2016 and 2.1 percent per annum to 2026. Under this scenario, regional GDP reaches \$1.08 billion in 2026. The GDP change by industry is shown in Figure 8.6.

Figure 8.6. Projected change in GDP, Masterton District, 2007 to 2026 - historical scenario



The greatest growth will be in property services, health & community services, construction, and retail trade. Accommodation, cafes & restaurants will grow at a faster rate than under the neutral scenario.

9 Appendix B – Carterton District

The Carterton District had a population of 7,140 in June 2007. It is a rural district with the majority of activity being in primary and manufacturing. Its main town is Carterton, which had a population of 4,120 at the 2006 census, with a further 2,980 living in the surrounding rural district. Carterton covers an area of 1,180 square kilometres.

9.1 Profile and performance

In 2007, the Carterton District employed 2,390 FTEs in 1,120 businesses and generated \$203 million in GDP. In terms of driver industries, the economy in this district is based around the primary and manufacturing industries. These driver industries reflect the local processing of many of the primary products grown in this district.

Table 9.1. Economic summary, Carterton District, 2007

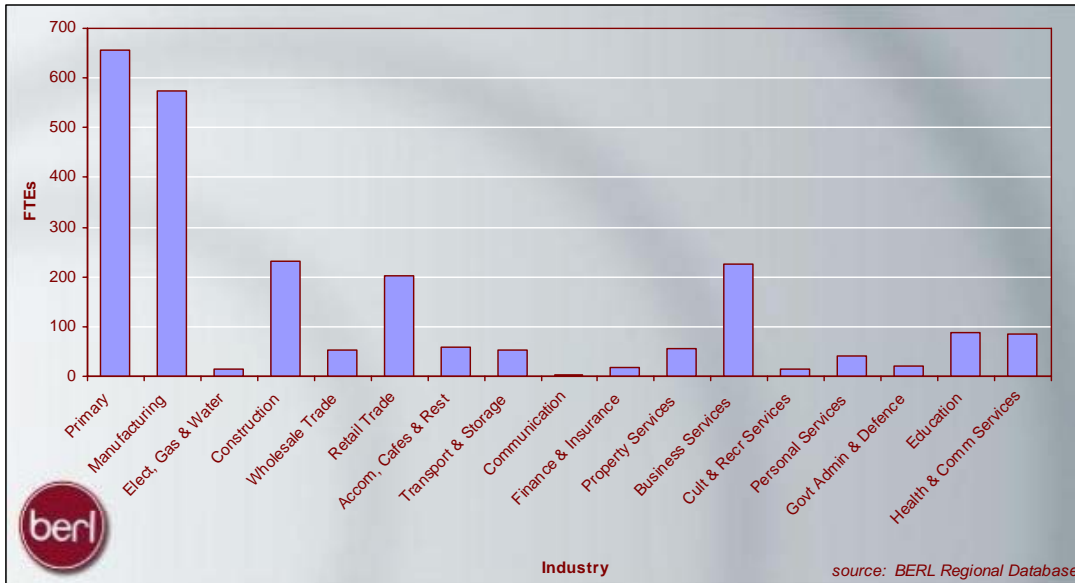
Sectors (2007)	FTEs		GDP (\$2007m)		Business units	
		%		%		%
Primary	655	27.4%	44	21.7%	448	40.0%
Manufacturing	574	24.0%	61	30.2%	50	4.5%
Electricity, Gas and Water Supply	14	0.6%	4	1.9%	1	0.1%
Construction	233	9.7%	12	5.8%	108	9.6%
Wholesale Trade	52	2.2%	5	2.6%	27	2.4%
Retail Trade	202	8.5%	10	5.0%	73	6.5%
Accommodation, Cafes and Restaurants	59	2.5%	2	0.9%	23	2.1%
Transport and Storage	52	2.2%	4	1.8%	14	1.3%
Communication Services	3	0.1%	1	0.5%	6	0.5%
Finance and Insurance	16	0.7%	4	1.8%	20	1.8%
Property Services	56	2.3%	29	14.1%	193	17.2%
Business Services	225	9.4%	14	6.9%	63	5.6%
Cultural and Recreational Services	16	0.7%	1	0.5%	29	2.6%
Personal Services	40	1.7%	1	0.7%	30	2.7%
Government Administration and Defence	21	0.9%	3	1.3%	6	0.5%
Education	87	3.6%	4	2.0%	12	1.1%
Health and Community Services	86	3.6%	5	2.4%	17	1.5%
Totals	2,392	100.0%	203	100.00%	1,120	100.0%

source:BERL Regional Database, Statistics NZ

9.1.1 Employment

In 2007, the top five industries in terms of employment in the Carterton District were primary, manufacturing, construction, business services, and retail trade. The two largest industries were primary employing 655 FTEs or 27.4 percent of total employment, and the manufacturing industry employing 574 FTEs or 24.0 percent of total employment.

Figure 9.1. Employment (FTEs), Carterton District, 2007



The primary industry in the Carterton District consists predominantly of people employed in the agriculture and services to agriculture sectors. In 2007, 171 FTEs were employed in sheep farming in the Carterton District while 141 FTEs were employed in dairy cattle farming. Smaller numbers of people were employed in pig farming, and grape and vegetable growing. People employed in the services to agriculture industry were predominantly employed in crop harvesting, farm irrigation services, and hay baling.

In section 5.1, key industries in the Wairarapa Region were discussed and five out of 10 of these industries related to the primary industry. One of these industries, the wood & paper product manufacturing industry is a key industry in the Wairarapa Region due to the 235 FTEs that are employed in plywood & veneer manufacturing at a mill in the Carterton District. This mill is one of the key reasons why manufacturing is such a large employer in the Carterton District. A smaller number of people were employed in other areas of manufacturing in 2007, such as 72 FTEs in bacon, ham & small good manufacturing, and 62 FTEs in log sawmilling.

A large number of FTEs noted as being employed in the business services sector (131 FTEs) are actually temporary contract staff employed in the manufacturing sector (at JNL and Premier Foods). These numbers have been transferred to the manufacturing sector for the projection analysis.

Table 9.2. Employment (FTEs), Carterton District, 1997 to 2007

Sectors	Employment Number FTEs				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	662	708	735	655	3.8	-10.8	-0.1
Manufacturing	719	730	647	574	-11.4	-11.2	-2.2
Electricity, Gas and Water Supply	3	7	12	14	65.2	14.7	16.6
Construction	93	149	186	233	25.1	25.2	9.6
Wholesale Trade	62	52	53	52	1.8	-1.9	-1.7
Retail Trade	214	220	217	202	-1.3	-6.8	-0.6
Accommodation, Cafes and Restaurants	30	47	59	59	25.0	0.9	7.0
Transport and Storage	54	43	58	52	34.6	-10.8	-0.4
Communication Services	6	8	5	3	-32.4	-52.9	-8.1
Finance and Insurance	9	18	16	16	-10.4	2.6	6.2
Property Services	15	57	65	56	13.5	-13.4	14.1
Business Services	61	178	181	225	1.7	24.4	13.9
Cultural and Recreational Services	15	21	21	16	-0.8	-24.4	0.6
Personal Services	30	20	26	40	32.1	54.9	3.0
Government Administration and Defence	23	18	21	21	20.5	-0.2	-0.9
Education	91	71	75	87	6.8	15.0	-0.5
Health and Community Services	78	88	87	86	-1.2	-0.7	1.0
Carterton District	2,165	2,435	2,465	2,392	1.2	-2.9	1.0
New Zealand	1,450,586	1,751,280	1,808,605	1,845,434	3.3	2.0	2.4

source:BERL Regional Database, Statistics NZ

Between 1997 and 2007, employment in the Carterton District grew by 1.0 percent per annum, lower than the national average of 2.4 percent per annum but higher than employment growth in the Masterton District. Between 2006 and 2007, employment in the Carterton District declined by 2.9 percent due to decreases in employment across several industries including large industries such as the primary and manufacturing industries.

The largest areas of employment growth between 1997 and 2007 in the Carterton District were in the electricity, gas & water supply, property services, business services, construction, and accommodation, cafes & restaurants industries.

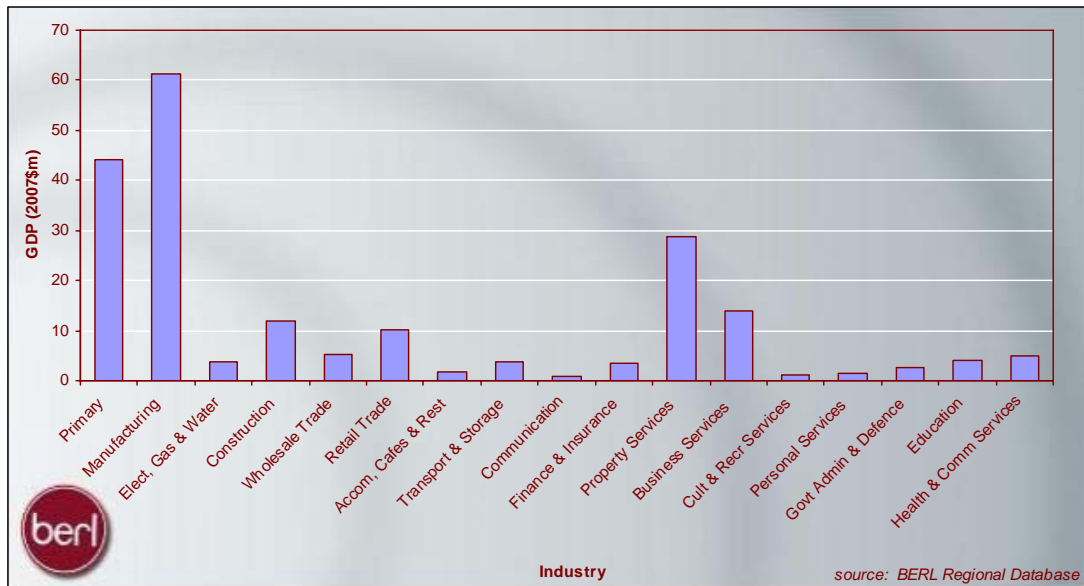
In 1997, 93 FTEs were employed in the construction industry in the Carterton District and this number grew to 233 by 2007. It is also interesting to note that employment in this industry has increased rapidly over the last two years, from 149 FTEs employed in 2005, to 233 FTEs in 2007. Most of this increase in employment has been in the house construction industry, but notable increases in employment have also occurred in the construction trades such as electrical services and concreting services.

The accommodation, cafes & restaurants industry is also a rapidly growing industry in the Carterton District, almost doubling in size between 1997 and 2007. While the business services industry tripled in size during the same period, from 61 FTEs employed in 1997 to 225 FTEs in 2007.

9.1.2 GDP

In 2007, the top five industries in terms of GDP in the Carterton District were the manufacturing, primary, property services, retail trade, and construction industries. The largest contributors to regional GDP in the Carterton District were the manufacturing industry generating \$61 million in 2007 and the primary industry generating \$44 million.

Figure 9.2. GDP, Carterton District, 2007



Between 1997 and 2007, GDP in the Carterton District grew by 1.5 percent per annum compared to the national average of 3.0 percent per annum. The industries that substantially increased their share of regional GDP included the electricity, gas & water supply industry with 27.6 percent per annum growth, the business services industry with 11.9 percent per annum growth, and the construction industry with 8.5 percent per annum growth.

Table 9.3. GDP, Carterton District, 1997 to 2007

Sectors	Value Added or GDP ('07, \$m)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	39.3	52.2	53.8	44.0	3.0	-18.2	1.1
Manufacturing	71.3	75.2	68.2	61.3	-9.3	-10.1	-1.5
Electricity, Gas and Water Supply	0.3	3.0	3.6	3.9	22.1	6.9	27.6
Construction	5.2	8.2	9.9	11.8	21.1	18.6	8.5
Wholesale Trade	5.9	5.4	5.4	5.2	0.2	-3.5	-1.2
Retail Trade	8.8	10.9	10.8	10.2	-1.2	-5.1	1.5
Accommodation, Cafes and Restaurants	1.0	1.5	1.9	1.8	21.0	-1.0	5.9
Transport and Storage	4.3	3.6	5.0	3.7	39.3	-25.8	-1.4
Communication Services	1.0	2.7	1.9	1.0	-29.1	-46.8	-0.1
Finance and Insurance	1.5	4.1	3.4	3.6	-16.9	4.1	8.8
Property Services	18.1	29.6	32.0	28.6	8.3	-10.6	4.7
Business Services	4.6	11.1	11.3	14.0	2.4	23.6	11.9
Cultural and Recreational Services	0.8	1.4	1.4	1.1	2.5	-23.8	2.6
Personal Services	1.0	0.9	1.1	1.4	24.9	33.2	3.8
Government Administration and Defence	2.6	2.2	2.5	2.5	14.4	1.6	-0.1
Education	4.3	3.6	3.9	4.1	8.3	5.5	-0.6
Health and Community Services	4.1	4.8	4.9	4.9	2.7	-0.8	1.6
Carterton District	174	220	221	203	0.4	-8.1	1.5
New Zealand	122,615	158,567	162,826	165,379	2.7	1.6	3.0

source:BERL Regional Database, Statistics NZ

In 2007, the business services industry contributed \$14 million to regional GDP compared to \$4.6 million in 1997; and the construction industry contributed \$11.8 million to regional GDP in 2007 compared to \$5.2 million in 1997.

While the manufacturing and primary industries are major contributors to regional GDP, these industries have experienced mixed fortunes over the last 10 years. Manufacturing for example, decreased its contribution to regional GDP while the primary industry remained fairly stable compared to other industries such as property services which doubled its contribution from \$18.1 million in 1997 to \$29.6 million in 2007. Retail trade has also remained fairly stable, generating \$8.8 million in 1997 compared to \$10.2 million in 2007.

9.2 Projections

The projections take into account the number of people who work in the JNL and Premier Foods plants that are temporary contract workers placed through recruitment agencies. As such, these people are counted in the profile as employed in business services.

For these projections (and for the main regional projection) we have assumed that these people are employed in the manufacturing sector.

9.2.1 Employment projections

Table 9.4. Employment projections, Carterton District, 2007 to 2026

Employment Growth (FTEs) Carterton District Neutral Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	655	0.5	688	0.2	705
Mining	0	0.0	0	0.0	0
Manufacturing	706	1.7	822	1.3	940
Electricity, Gas and Water Supply	14	1.3	16	1.4	18
Construction	233	0.8	251	1.0	278
Wholesale Trade	52	1.5	60	1.6	70
Retail Trade	202	1.3	227	1.5	263
Accommodation, Cafes and Restaurants	59	2.5	74	1.8	88
Transport and Storage	52	1.4	59	1.4	68
Communication Services	3	0.8	3	1.1	3
Finance and Insurance	16	1.2	18	1.5	21
Property and Business Services	150	2.1	180	1.6	210
Government Administration and Defence	21	1.4	24	1.6	28
Education	87	0.5	91	1.4	104
Health and Community Services	86	1.8	102	2.1	125
Cultural and Recreational Services	16	1.5	18	1.2	20
Personal and Other Services	40	0.7	43	1.2	48
TOTAL	2,392	1.2	2,674	1.1	2,990
<i>Tourism</i>	94	1.3	105	1.2	119

Employment Growth (FTEs) Carterton District 10 year Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	655	0.0	655	-0.4	627
Mining	0	0.0	0	0.0	0
Manufacturing	706	-1.1	638	-0.7	596
Electricity, Gas and Water Supply	14	1.3	16	1.4	18
Construction	233	1.7	270	2.0	329
Wholesale Trade	52	1.5	60	1.4	69
Retail Trade	202	-2.1	168	-7.8	74
Accommodation, Cafes and Restaurants	59	5.4	95	4.1	142
Transport and Storage	52	-2.8	40	-2.7	31
Communication Services	3	0.8	3	1.1	3
Finance and Insurance	16	1.2	18	-0.3	21
Property and Business Services	150	3.3	201	3.1	273
Government Administration and Defence	21	1.0	23	0.1	23
Education	87	-1.6	75	-0.8	69
Health and Community Services	86	-0.6	82	-2.2	66
Cultural and Recreational Services	16	-3.6	11	-6.7	6
Personal and Other Services	40	0.5	42	0.9	46
TOTAL	2,392	0.0	2,397	0.0	2,392
<i>Tourism</i>	94	0.9	102	0.7	108

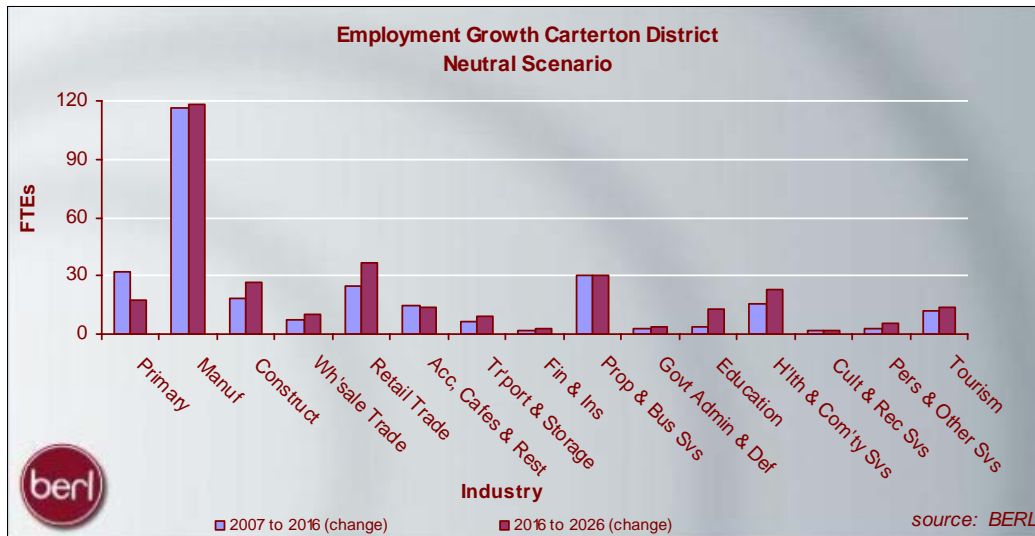
source: BERL

Under the historical projections, employment in the Carterton District is projected to grow by 1.2 percent to 2016. In 2007, approximately 2,392 FTEs were employed in this district and this number is projected to grow to 2,674 FTEs by 2016.

Looking further ahead, employment in the Carterton District between 2016 and 2026 is projected to grow by 1.1 percent, with some industries projected to increase their

employment share while others will taper. By 2026, the number of FTEs in this district is projected to grow from 2,674 to 2,990 FTEs.

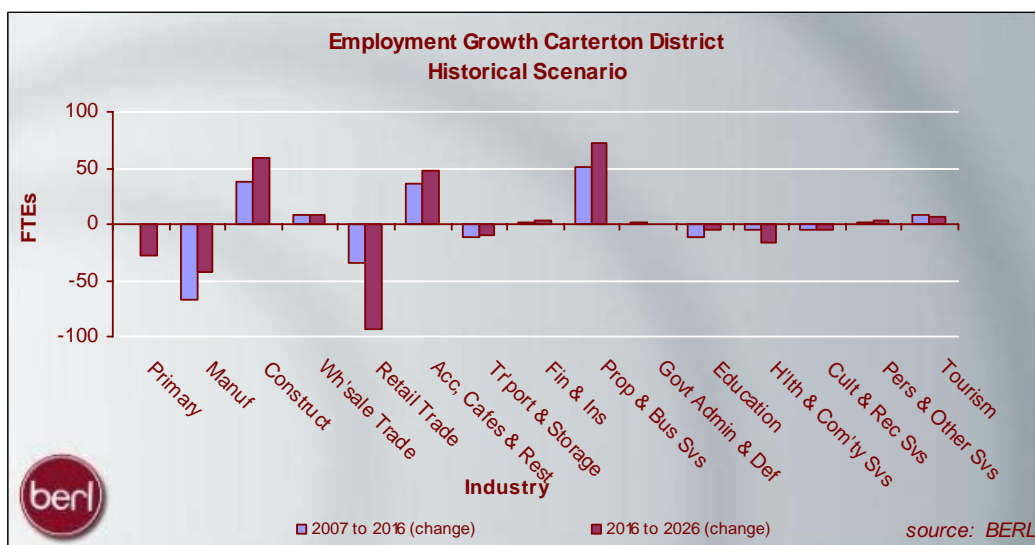
Figure 9.3. Employment change, Carterton District, 2007 to 2026 – neutral scenario



The greatest growth can be expected in the manufacturing, and property & business services industries. Other areas with solid employment growth include retail trade, primary, construction, and health & community services.

However, the picture for employment in the Carterton District changes dramatically under the historical scenario as shown in Figure 9.4.

Figure 9.4. Employment change, Carterton District, 2007 to 2026 – historical scenario



Under the historical scenario, the only industries that are forecast to grow are property & business services, construction, accommodation, cafes & restaurants, wholesale trade, and recreation & other services.

9.2.2 GDP projections

Table 9.5 shows the related changes in GDP from the employment projections.

Table 9.5. GDP projections, Carterton District, 2007 to 2026

GDP Growth Carterton District Neutral Case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	44.0	3.4	59.4	2.7	77.4
Mining	0.0	0.0	0.0	0.0	0.0
Manufacturing	61.3	4.0	87.6	3.3	121.5
Electricity, Gas and Water Supply	3.9	3.9	5.5	3.5	7.7
Construction	11.8	3.9	16.7	3.4	23.3
Wholesale Trade	5.2	4.3	7.6	3.5	10.7
Retail Trade	10.2	4.0	14.5	3.4	20.3
Accommodation, Cafes and Restaurants	1.8	4.1	2.6	3.2	3.6
Transport and Storage	3.7	4.1	5.4	3.2	7.4
Communication Services	1.0	4.1	1.5	3.5	2.0
Finance and Insurance	3.6	3.5	4.9	3.1	6.6
Property and Business Services	42.6	3.4	57.6	3.1	77.9
Government Administration and Defence	2.5	3.0	3.3	2.8	4.4
Education	4.1	2.9	5.3	3.0	7.1
Health and Community Services	4.9	2.8	6.2	2.9	8.3
Cultural and Recreational Services	1.1	3.4	1.5	3.0	2.0
Personal and Other Services	1.4	2.9	1.8	2.8	2.4
TOTAL	203.2	3.7	281.4	3.1	382.6
<i>Tourism</i>	6.9	4.2	10.0	3.4	14.0

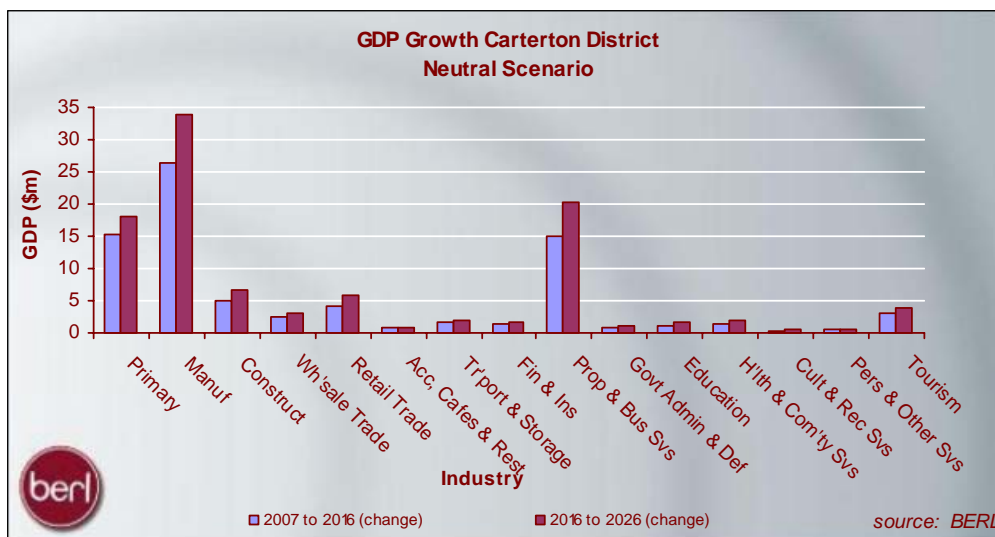
GDP Growth Carterton District 10 year case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	44.0	2.8	56.6	2.0	68.8
Mining	0.0	0.0	0.0	0.0	0.0
Manufacturing	61.3	1.2	68.0	1.3	77.0
Electricity, Gas and Water Supply	3.9	3.9	5.5	3.5	7.8
Construction	11.8	4.8	17.9	4.4	27.6
Wholesale Trade	5.2	4.3	7.6	3.2	10.5
Retail Trade	10.2	0.5	10.7	-6.1	5.7
Accommodation, Cafes and Restaurants	1.8	7.1	3.4	5.6	5.8
Transport and Storage	3.7	-0.2	3.7	-1.0	3.3
Communication Services	1.0	4.1	1.5	3.4	2.0
Finance and Insurance	3.6	3.5	4.9	3.1	6.6
Property and Business Services	42.6	4.7	64.4	4.6	101.1
Government Administration and Defence	2.5	2.7	3.2	1.3	3.7
Education	4.1	0.7	4.3	0.8	4.7
Health and Community Services	4.9	0.3	5.0	-1.4	4.4
Cultural and Recreational Services	1.1	-1.7	0.9	-5.1	0.6
Personal and Other Services	1.4	2.7	1.8	2.5	2.3
TOTAL	203.2	2.8	259.4	2.5	331.9
<i>Tourism</i>	6.9	3.4	9.3	2.5	11.9

source: BERL

Under the neutral scenario, GDP is expected to grow by 3.7 percent per annum to 2016 and then by 3.1 percent per annum to 2026. GDP is forecast to rise to \$383 million by 2026. Growth in the neutral scenario is across all industries but lead by the manufacturing, property & business services, and primary industries.

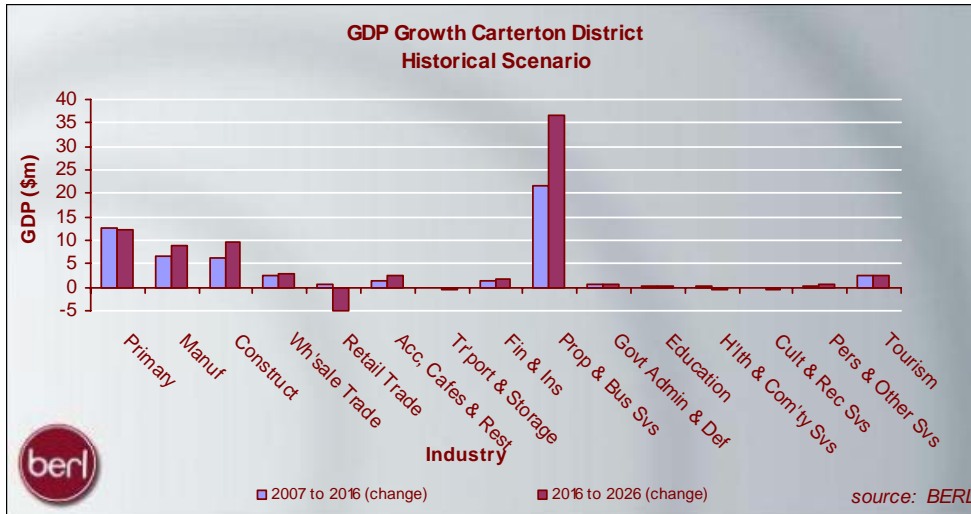
Under the historical scenario GDP is expected to grow at a slower rate of 2.5 percent per annum to 2016, and then by 2.5 percent per annum to 2026. Growth in the historical scenario is fastest in the accommodation, cafes & restaurants, property & business services, and construction industries.

Figure 9.5. Projected change in GDP, Carterton District, 2007 to 2026 - neutral scenario



GDP growth is greatest in the manufacturing, primary, and property & business services industries. However, there is growth across all industries.

Figure 9.6. Projected change in GDP, Carterton District, 2007 to 2026 - historical scenario



Under the historical scenario, the actual growth is mainly in property & business services along with the primary, manufacturing, construction, and wholesale trade industries. There is also some growth in accommodation, cafes & restaurants, and finance & insurance.

10 Appendix C – South Wairarapa District

The South Wairarapa District had a population of 8,910 in June 2007. It has three towns - Martinborough, Greytown and Featherston. It covers an area of 2,484 square kilometres.

10.1 Profile and performance

In 2007, the South Wairarapa District employed 3,017 FTEs, in 1,601 businesses and generated \$218 million in GDP.

In terms of driver industries, the economy in this district is based around the primary industry (dairy cattle, grapes and sheep farming) and the accommodation, cafes & restaurants, and retail trade industries. These driver industries reflect the presence of Martinborough and Greytown in this district, and how these towns provide hospitality to the local community as well as visitors from the Wellington and Hawke's Bay regions in particular.

Table 10.1. Economic summary, South Wairarapa District, 2007

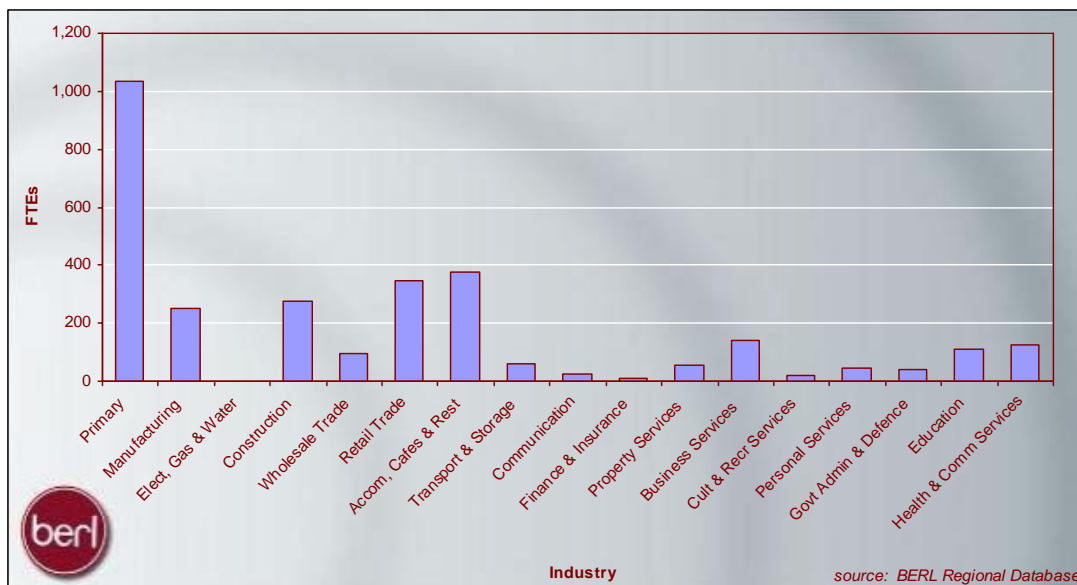
Sectors (2007)	FTEs	%	GDP (\$2007m)		Business units	
				%		%
Primary	1,036	34.4%	67	30.6%	603	37.7%
Manufacturing	250	8.3%	24	11.0%	53	3.3%
Electricity, Gas and Water Supply	0	0.0%	0	0.0%	1	0.1%
Construction	275	9.1%	14	6.5%	130	8.1%
Wholesale Trade	96	3.2%	10	4.6%	39	2.4%
Retail Trade	346	11.5%	17	8.0%	110	6.9%
Accommodation, Cafes and Restaurants	377	12.5%	12	5.3%	67	4.2%
Transport and Storage	62	2.1%	5	2.3%	18	1.1%
Communication Services	25	0.8%	10	4.4%	12	0.7%
Finance and Insurance	12	0.4%	3	1.3%	34	2.1%
Property Services	57	1.9%	30	13.7%	286	17.9%
Business Services	140	4.6%	9	4.0%	118	7.4%
Cultural and Recreational Services	20	0.7%	1	0.6%	38	2.4%
Personal Services	44	1.5%	2	0.8%	44	2.7%
Government Administration and Defence	38	1.3%	5	2.1%	3	0.2%
Education	112	3.7%	5	2.4%	18	1.1%
Health and Community Services	126	4.2%	5	2.3%	27	1.7%
Totals	3,017	100.0%	218	100.00%	1,601	100.0%

source:BERL Regional Database, Statistics NZ

10.1.1 Employment

In 2007, the top five industries in terms of employment in the South Wairarapa District were the primary, accommodation, cafes & restaurants, retail trade, construction, and manufacturing industries. The two largest industries were the primary industry employing 1,036 FTEs or 34.4 percent of total employment, and the accommodation, cafes & restaurants industry employing 377 FTEs or 12.5 percent of total employment.

Figure 10.1. Employment (FTEs), South Wairarapa District, 2007



This district is characterised by the high contribution of the primary sector to the economy. The primary sector accounts for around a third of employment, GDP and business units. This is significantly higher than in the other two districts, which we would also classify as primary driven.

The primary industry in the South Wairarapa District is dominated by employment in dairy cattle farming, sheep farming, and grape growing. In 2007, 244 FTEs were employed in dairy cattle farming in this district, while 193 FTEs were employed in sheep farming. Grape growing employed 212 FTEs in the South Wairarapa District in 2007.

There is a positive relationship between the primary, particularly grape growing, and tourism sectors. In 2007, 377 FTEs were employed in the accommodation, cafes & restaurants industry in the South Wairarapa District. Of this number, 175 FTEs were employed in cafes and restaurants, and 91 FTEs were employed in pubs, taverns and bars.

Hospitality is a large area of employment in the Wairarapa Region, and its importance to the regional economy is reflected in employment numbers in this district. Greytown and Martinborough are weekend destinations for visitors from the Wellington and Hawke's Bay regions, and the district also attracts international visitors through various wine trails and festivals.

The importance of hospitality to the South Wairarapa District is also reflected in employment in the retail trade industry, with people employed across a wide range of retail areas as well as the more traditional major employers of supermarkets, and fruit & vegetable retailing.

Table 10.2. Employment (FTEs), South Wairarapa District, 1997 to 2007

Sectors	Employment Number FTEs				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	1,112	1,076	1,107	1,036	2.9	-6.4	-0.7
Manufacturing	262	305	275	250	-9.7	-9.1	-0.4
Construction	170	287	304	275	5.8	-9.6	4.9
Wholesale Trade	57	83	88	96	6.0	8.6	5.3
Retail Trade	221	302	328	346	8.4	5.6	4.6
Accommodation, Cafes and Restaurants	91	285	318	377	11.6	18.6	15.3
Transport and Storage	75	46	44	62	-4.7	42.6	-1.9
Communication Services	26	17	22	25	30.5	12.3	-0.5
Finance and Insurance	25	6	6	12	5.7	106.0	-6.9
Property Services	26	60	60	57	-0.7	-4.5	8.1
Business Services	51	116	118	140	1.5	18.7	10.6
Cultural and Recreational Services	21	25	23	20	-6.4	-13.6	-0.4
Personal Services	30	42	50	44	18.8	-11.9	4.0
Government Administration and Defence	25	34	36	38	6.0	6.2	4.3
Education	149	115	110	112	-3.7	1.2	-2.8
Health and Community Services	109	125	117	126	-6.0	7.5	1.4
South Wairarapa District	2,462	2,923	3,006	3,017	2.8	0.3	2.1
New Zealand	1,450,586	1,751,280	1,808,605	1,845,434	3.3	2.0	2.4

source:BERL Regional Database, Statistics NZ

Between 1997 and 2007, employment in the South Wairarapa District grew by 2.1 percent per annum, lower than the national average of 2.4 percent per annum but higher than employment growth in the Masterton and Carterton Districts.

The largest areas of employment growth between 1997 and 2007 in the South Wairarapa District were in accommodation, cafes & restaurants, with a 15.3 percent per annum increase; business services with a 10.6 percent per annum increase; and property services with an 8.1 percent per annum increase.

The accommodation, cafes & restaurants industry employed 91 FTEs in the South Wairarapa District in 1997; by 2007 this number had grown to 377. As mentioned earlier, the majority of people in this industry are employed in cafes and restaurants and this

increase in employment reflects growth in the number of food outlets in this district as well as the cultivation of this area as a wine and food destination.

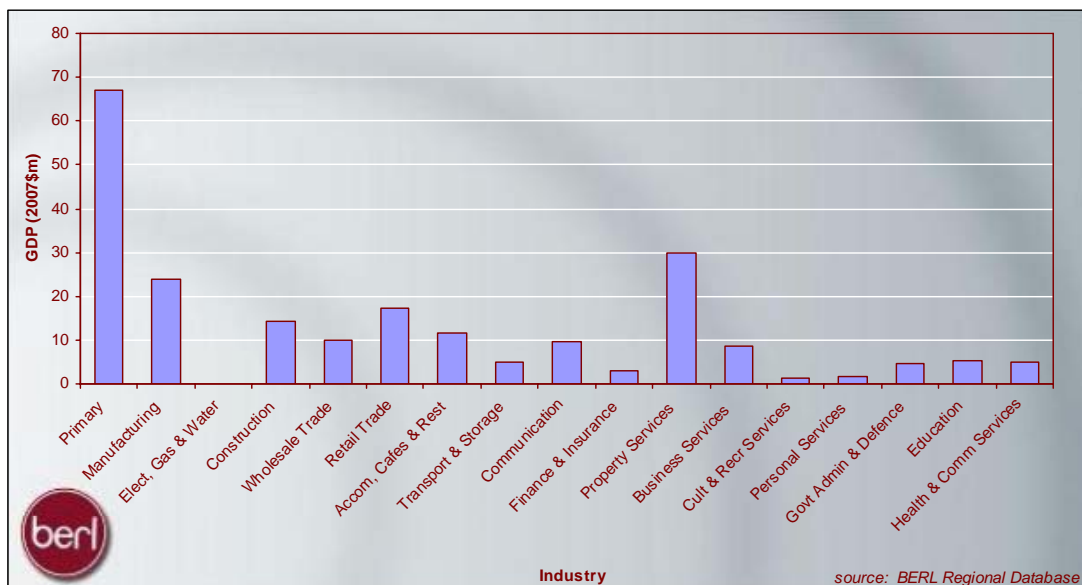
Employment in the business services industry has grown in the South Wairarapa District in line with demand for business support. In 1997, 51 FTEs were employed in the business services industry in the South Wairarapa District and in 2007 this number had grown by 89 FTEs to 140. Employment numbers in accounting services, business management services, and computer consultancy services have all grown during this period.

With more people visiting the South Wairarapa District for leisure or to visit friends and family, the popularity of this area as a place to live has also grown, increasing employment opportunities in the property services industry.

10.1.2 GDP

In 2007, the top five industries in terms of GDP in the South Wairarapa District were the primary, property services, manufacturing, retail trade, and construction industries. The two largest contributors to regional GDP in the South Wairarapa District were the primary industry generating \$67 million in 2007, and the property services industry generating \$30 million.

Figure 10.2. GDP, South Wairarapa District, 2007



Between 1997 and 2007, GDP in the South Wairarapa District grew by 2.5 percent per annum compared to the national average of 3.0 percent per annum. The industries that substantially increased their share of regional GDP included the accommodation, cafes

and restaurants industry with 14.0 percent per annum growth; the retail trade industry with 6.8 percent per annum growth; and the property services industry with 4.0 percent per annum growth.

Table 10.3. GDP, South Wairarapa District, 1997 to 2007

Sectors	Value Added or GDP ('07, \$m)				%pa change		
	1997	2005	2006	2007	2006	2007	1997 to 2007
Primary	64.7	74.9	72.1	66.9	-3.7	-7.2	0.3
Manufacturing	20.0	29.0	25.8	24.0	-10.8	-7.0	1.9
Construction	9.8	16.4	17.0	14.2	4.1	-16.5	3.8
Wholesale Trade	5.6	8.7	9.2	10.0	5.8	8.7	6.0
Retail Trade	9.1	15.0	16.2	17.4	8.1	7.3	6.8
Accommodation, Cafes and Restaurants	3.1	9.3	10.0	11.7	8.0	16.3	14.0
Transport and Storage	5.7	3.6	3.6	5.1	-1.6	42.2	-1.2
Communication Services	4.4	5.6	7.6	9.7	36.9	27.0	8.1
Finance and Insurance	4.3	1.4	1.4	2.9	-0.6	103.1	-3.8
Property Services	20.2	30.3	30.6	29.9	0.9	-2.1	4.0
Business Services	3.8	7.2	7.4	8.7	2.2	18.0	8.6
Cultural and Recreational Services	1.3	1.4	1.3	1.2	-7.0	-4.4	-0.3
Personal Services	1.0	1.8	2.1	1.7	13.9	-15.9	6.0
Government Administration and Defence	2.8	4.2	4.3	4.6	0.7	8.1	5.1
Education	7.1	5.8	5.7	5.3	-2.4	-7.1	-2.9
Health and Community Services	5.0	5.0	4.8	5.0	-2.8	3.1	0.0
South Wairarapa District	170.9	219.6	219.1	218.4	-0.2	-0.3	2.5
New Zealand	122,615	158,567	162,826	165,379	2.7	1.6	3.0

source:BERL Regional Database, Statistics NZ

In 2007, the accommodation, cafes & restaurant industry contributed \$11.7 million to regional GDP compared to \$3.1 million in 1997; the retail trade industry contributed \$17.4 million to regional GDP compared to \$9.1 million in 1997; and the property services industry contributed \$29.9 million to regional GDP in 2007 compared to \$20.2 million in 1997.

Between 1997 and 2007, the primary and manufacturing industries increased their share of regional GDP by only small amounts, reflecting employment losses and productivity increases in these industries.

10.2 Projections

10.2.1 Employment projections

Table 10.4 presents the employment projections for the South Wairarapa District under the neutral and historical scenarios.

Table 10.4. Employment projections, South Wairarapa District, 2007 to 2026

Employment Growth (FTEs) South Wairarapa District Neutral Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	1,023	0.5	1,072	0.3	1,099
Mining	13	2.7	17	1.9	21
Manufacturing	250	2.1	302	1.5	350
Electricity, Gas and Water Supply	0	0.0	0	0.0	0
Construction	275	1.0	302	1.2	339
Wholesale Trade	96	1.2	106	1.4	123
Retail Trade	346	1.3	388	1.5	451
Accommodation, Cafes and Restaurants	377	2.5	471	1.8	561
Transport and Storage	62	1.4	70	1.5	82
Communication Services	25	0.8	27	1.1	30
Finance and Insurance	12	1.3	14	1.5	16
Property and Business Services	197	2.2	239	1.7	282
Government Administration and Defence	38	1.5	44	1.5	51
Education	112	0.4	116	1.3	133
Health and Community Services	126	1.7	146	1.9	176
Cultural and Recreational Services	20	1.5	23	1.2	26
Personal and Other Services	44	0.8	47	1.4	54
TOTAL	3,017	1.3	3,384	1.1	3,792
<i>Tourism</i>	259	2.3	318	1.7	378

Employment Growth (FTEs) South Wairarapa District 10 year Case	2007	2007 to 2016 %pa	2016	2016 to 2026 %pa	2026
Agriculture Forestry and Fishing	1,023	-0.5	979	-0.7	911
Mining	13	2.7	17	2.1	21
Manufacturing	250	-1.1	226	-0.7	211
Electricity, Gas and Water Supply	0	0.0	0	0.0	0
Construction	275	1.1	302	1.2	341
Wholesale Trade	96	1.2	106	1.4	122
Retail Trade	346	3.1	457	3.7	657
Accommodation, Cafes and Restaurants	377	5.4	607	4.1	906
Transport and Storage	62	-2.8	48	-2.7	37
Communication Services	25	0.8	27	1.1	30
Finance and Insurance	12	-2.0	10	-1.0	9
Property and Business Services	197	2.8	317	2.2	395
Government Administration and Defence	38	1.5	44	1.6	51
Education	112	-1.6	96	-0.8	89
Health and Community Services	126	0.6	133	0.7	143
Cultural and Recreational Services	20	1.5	23	1.3	26
Personal and Other Services	44	0.8	47	1.4	55
TOTAL	3,017	1.5	3,440	1.5	4,004
<i>Tourism</i>	259	5.8	431	4.4	663

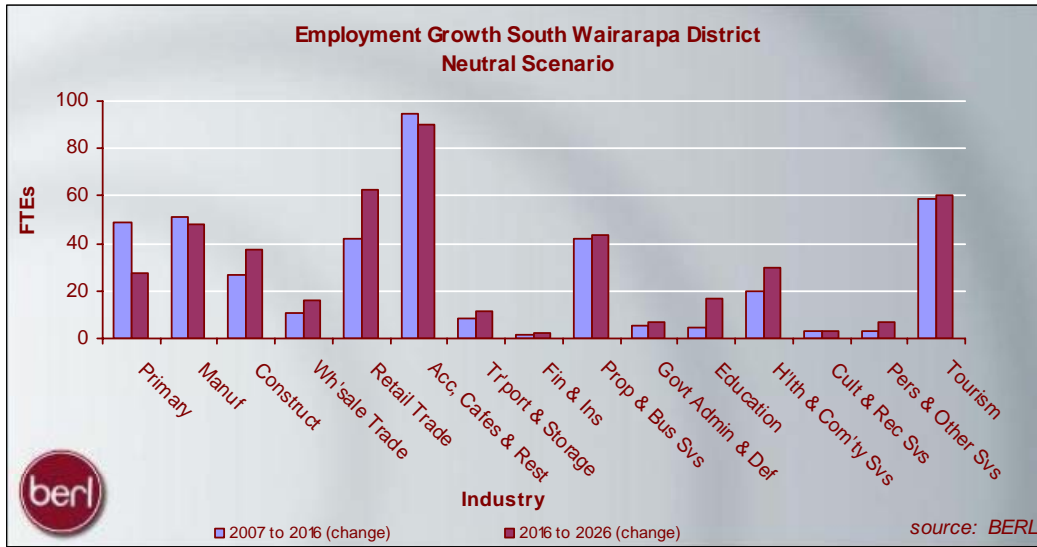
source: BERL

Under a neutral scenario, employment in the South Wairarapa District is forecast to grow by 1.3 percent per annum to 2016, and then by 1.1 percent per annum to 2026.

Employment in this district under the neutral scenario is forecast to reach 3,792 FTEs in 2026.

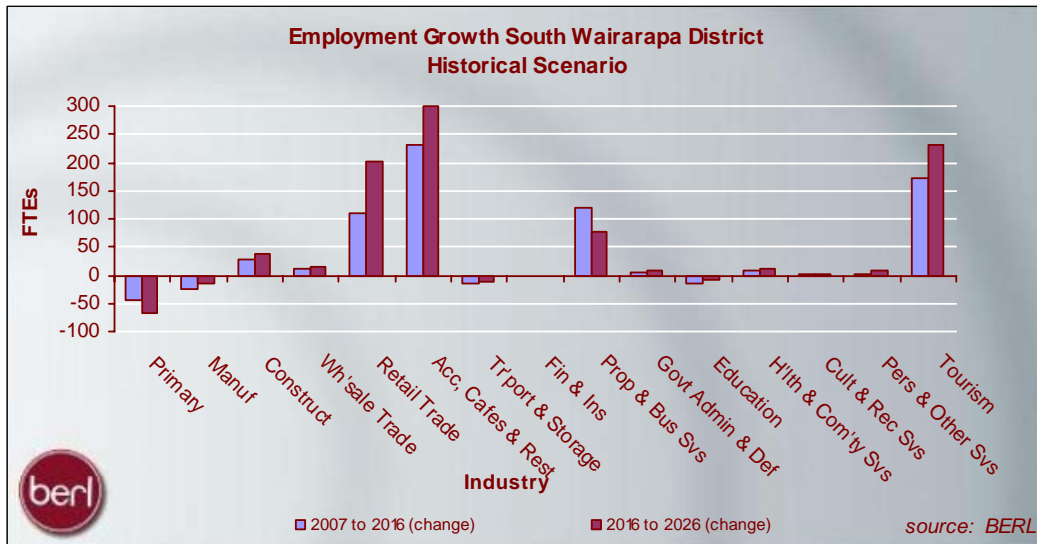
Under a historical scenario, employment in the South Wairarapa District is forecast to grow faster; at 1.5 percent per annum to 2026. South Wairarapa is the only TA in the region where the historical scenario provides better employment outcomes than the neutral scenario.

Figure 10.3. Employment projections, South Wairarapa District, 2007 to 2026 – neutral scenario



Under the neutral scenario there will be employment growth across all industries, but particularly in the accommodation, cafes & restaurants industry. The retail trade, manufacturing, and primary industries also see relatively large increases in employment.

Figure 10.4. Employment projections, South Wairarapa District, 2007 to 2026 – historical scenario



However, under the historical scenario employment growth is concentrated in the accommodation, cafes & restaurants and retail trade industries. There is minimal growth in most other industries and falls in some, such as primary, manufacturing, transport & storage, and education.

10.2.2 GDP projections

Table 10.5 shows the projections for GDP in the South Wairarapa District under the two projections.

Table 10.5. GDP projections, South Wairarapa District, 2007 to 2026

GDP Growth South Wairarapa District Neutral Case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	64.6	3.4	87.2	2.7	113.7
Mining	2.4	3.8	3.3	3.2	4.5
Manufacturing	24.0	4.3	35.2	3.6	50.3
Electricity, Gas and Water Supply	0.0	0.0	0.0	0.0	0.0
Construction	14.2	4.0	20.3	3.5	28.6
Wholesale Trade	10.0	3.9	14.2	3.3	19.6
Retail Trade	17.4	4.0	24.7	3.4	34.7
Accommodation, Cafes and Restaurants	11.7	4.1	16.8	3.2	23.0
Transport and Storage	5.1	4.1	7.3	3.2	10.1
Communication Services	9.7	4.1	13.9	3.5	19.6
Finance and Insurance	2.9	3.5	3.9	3.0	5.3
Property and Business Services	38.6	3.3	51.7	3.0	69.5
Government Administration and Defence	4.6	3.1	6.1	2.8	8.0
Education	5.3	2.9	6.8	3.0	9.1
Health and Community Services	5.0	2.8	6.4	2.9	8.5
Cultural and Recreational Services	1.2	3.4	1.6	3.0	2.2
Personal and Other Services	1.7	2.9	2.3	2.9	3.0
TOTAL	218.4	3.7	301.7	3.1	409.4
<i>Tourism</i>	<i>11.6</i>	<i>3.9</i>	<i>16.4</i>	<i>3.3</i>	<i>22.6</i>

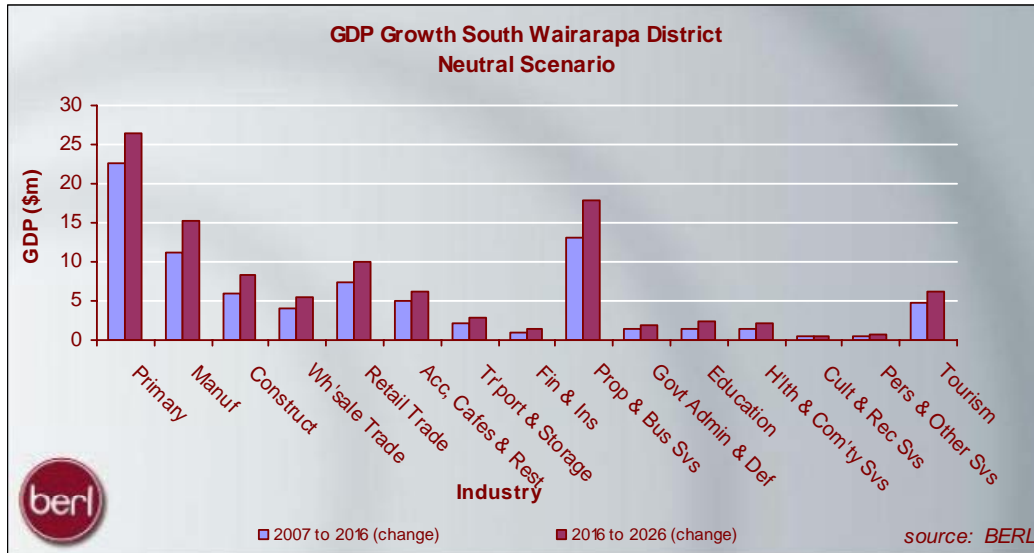
GDP Growth South Wairarapa District 10 year case	2007 (\$m)	2007 to 2016 %pa	2016 (\$m)	2016 to 2026 %pa	2026 (\$m)
Agriculture Forestry and Fishing	64.6	2.4	79.7	1.7	94.2
Mining	2.4	3.8	3.3	3.4	4.6
Manufacturing	24.0	1.0	26.4	1.4	30.4
Electricity, Gas and Water Supply	0.0	0.0	0.0	0.0	0.0
Construction	14.2	4.0	20.3	3.5	28.7
Wholesale Trade	10.0	3.9	14.2	3.3	19.6
Retail Trade	17.4	5.9	29.1	5.7	50.6
Accommodation, Cafes and Restaurants	11.7	7.1	21.6	5.6	37.1
Transport and Storage	5.1	-0.2	5.0	-1.0	4.5
Communication Services	9.7	4.1	13.9	3.4	19.5
Finance and Insurance	2.9	0.0	2.9	0.5	3.0
Property and Business Services	38.6	6.6	68.8	3.5	97.2
Government Administration and Defence	4.6	3.1	6.1	2.8	8.0
Education	5.3	0.7	5.6	0.8	6.1
Health and Community Services	5.0	1.7	5.8	1.7	6.9
Cultural and Recreational Services	1.2	3.4	1.6	3.1	2.2
Personal and Other Services	1.7	2.9	2.3	2.9	3.0
TOTAL	218.4	3.8	306.5	3.1	415.6
<i>Tourism</i>	<i>11.6</i>	<i>9.1</i>	<i>25.5</i>	<i>6.7</i>	<i>49.0</i>

source: BERL

The neutral scenario sees GDP growing by 3.7 percent per annum to 2016 and then by 3.1 percent per annum to 2026. The historical scenario sees GDP growing by 3.8 percent per annum to 2016 and then by 3.1 percent per annum to 2026. This contrasts

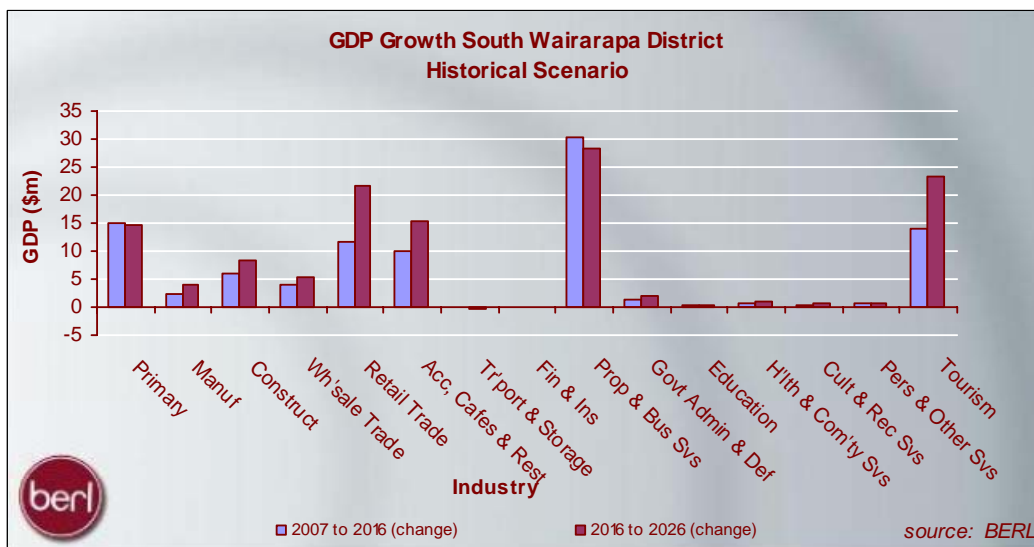
with the forecast for employment, where growth was higher under the historical case. The reason is in where the growth occurs.

Figure 10.5. Projected change in GDP, South Wairarapa District, 2007 to 2026 - neutral scenario



In the neutral scenario growth is across all industries but with particularly strong growth in the primary, manufacturing, and property & business services industries. These all have relatively high GDP per FTE ratios.

Figure 10.6. Projected change in GDP, South Wairarapa District, 2007 to 2026 - historical scenario



However, under the historical scenario, the majority of growth is in the accommodation, cafes & restaurants and retail trade industries, which have relatively lower GDP per FTE ratios. This results in a poorer GDP growth performance than under the neutral scenario.

11 Appendix D – Wairarapa Region employment

53 Industry

Employment for Wairarapa Region	1997	2005	2006	2007	change 2006-07		Change 1997-	
					FTEs	%	FTEs	%pa
Agriculture	2,517	2,348	2,512	2,303	-209	-8.3	-214	-0.9
Services to Agriculture; Hunting and Trapping	475	532	515	497	-18	-3.6	22	0.4
Forestry and Logging	299	272	185	114	-71	-38.2	-185	-9.2
Commercial Fishing	101	81	71	77	6	8.6	-24	-2.6
Coal Mining	0	0	0	0	0	na	0	0.0
Oil and Gas Exploration	0	0	0	0	0	na	0	0.0
Metal Ore Mining	0	0	0	0	0	na	0	0.0
Other Mining	15	42	43	26	-18	-40.6	11	5.5
Services to Mining	0	0	0	0	0	na	0	0.0
<i>Primary</i>	3,407	3,274	3,327	3,017	-310	-9.3	-390	-1.2
Food, Beverage and Tobacco	344	461	413	406	-7	-1.7	62	1.7
Textile, Clothing, Footwear & Leather Mfg	223	154	150	129	-20	-13.6	-94	-5.3
Wood and Paper Product Manufacturing	651	542	482	472	-10	-2.0	-179	-3.2
Printing, Publishing and Recorded Media	219	235	151	164	13	8.6	-55	-2.8
Petroleum, Coal, Chemical & Assoc Prod Mfg	83	59	28	34	6	21.3	-49	-8.4
Non-Metallic Mineral Product Manufacturing	33	32	32	23	-9	-27.5	-10	-3.5
Metal Product Manufacturing	73	124	139	122	-17	-12.2	49	5.3
Machinery and Equipment Manufacturing	314	223	242	206	-36	-14.8	-108	-4.1
Other Manufacturing	115	116	102	106	5	4.6	-9	-0.8
General Construction	394	524	649	723	74	11.4	329	6.3
Construction Trade Services	362	639	679	680	2	0.2	318	6.5
<i>Manufacturing and Building</i>	2,811	3,109	3,068	3,068	1	0.0	257	0.9
Basic Material Wholesaling	233	234	290	280	-10	-3.4	47	1.9
Machinery and Motor Vehicle Wholesaling	100	121	131	132	2	1.3	32	2.8
Personal and Household Good Wholesaling	122	111	113	104	-9	-8.1	-18	-1.6
Food Retailing	638	633	646	668	22	3.3	30	0.5
Personal and Household Good Retailing	600	683	733	727	-5	-0.7	127	1.9
Motor Vehicle Retailing and Services	511	507	491	508	17	3.4	-3	-0.1
Accommodation, Cafes and Restaurants	431	692	818	932	114	14.0	501	8.0
Road Transport	376	302	280	294	13	4.8	-82	-2.4
Rail Transport	26	3	3	3	0	-1.6	-23	-20.1
Water Transport	0	0	0	0	0	na	0	0.0
Air and Space Transport	9	11	3	3	0	0.3	-6	-11.0
Other Transport	0	0	0	7	7	na	7	0.0
Services to Transport	27	22	20	20	1	3.0	-7	-2.8
Storage	0	0	3	8	6	204.8	8	0.0
<i>Retail and Distribution</i>	3,073	3,319	3,530	3,687	156	4.4	614	1.8
Electricity and Gas Supply	74	37	5	5	0	0.2	-69	-23.1
Water Supply, Sewerage and Drainage Services	12	8	13	14	1	8.7	2	1.6
Communication Services	157	76	81	67	-14	-16.9	-90	-8.1
Finance	162	132	127	146	19	15.2	-16	-1.1
Insurance	31	8	9	15	6	75.9	-16	-7.0
Services to Finance and Insurance	43	64	65	73	8	12.4	30	5.5
Property Services	163	281	275	267	-9	-3.1	104	5.1
Business Services	556	960	954	1,062	108	11.3	506	6.7
<i>Business Services</i>	1,198	1,566	1,529	1,649	121	7.9	451	3.2
Motion Picture, Radio and Television Services	15	31	35	32	-3	-7.8	17	7.9
Libraries, Museums and the Arts	33	78	72	73	1	1.2	40	8.2
Sport and Recreation	88	108	81	93	12	15.1	5	0.6
Personal Services	167	234	236	225	-11	-4.7	58	3.0
Other Services	194	185	203	221	18	9.0	27	1.3
Private Households Employing Staff	0	0	0	0	0	na	0	0.0
<i>Recreation Services</i>	497	636	626	644	18	2.8	147	2.6
Government Administration	373	345	362	352	-10	-2.8	-21	-0.6
Defence	3	0	0	0	0	na	-3	-100.0
Education	920	714	759	909	150	19.7	-11	-0.1
Health Services	585	671	719	753	34	4.7	168	2.6
Community Services	295	551	511	548	37	7.2	253	6.4
<i>Social Services</i>	2,176	2,282	2,352	2,562	210	8.9	386	1.6
TOTAL ALL INDUSTRIES	13,162	14,186	14,432	14,627	195	1.4	1,465	1.1

source: BERL Database

12 Appendix E – National Projection Scenario

Table 12.1 presents the expected changes across various areas of the New Zealand economy for the periods 2007 to 2016, and 2021 to 2026, which have been derived from BERL's CGE model.

Table 12.1 National projections, 2007 to 2026

New Zealand	2007 to 2016	2016 to 2026
Real GDP %pa	3.5	3.1
Consumption %pa	2.7	3.0
Investment %pa	4.5	3.7
Exports %pa	4.7	3.2
Employment %pa	1.6	1.5
Employment (000s)	282.8	348.7
Employment (000s pa)	28.3	34.9

Source: BERL CGE model

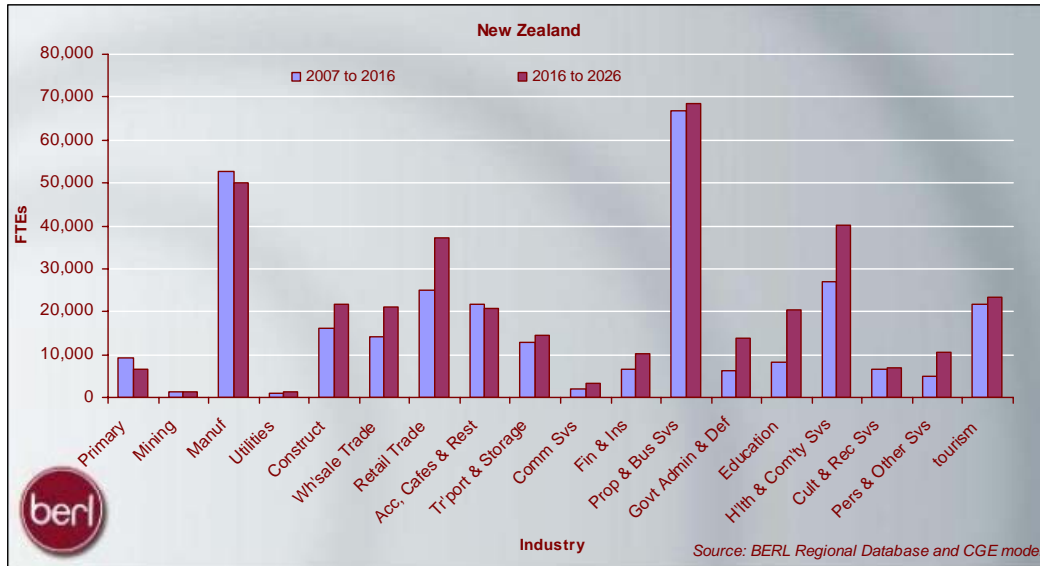
Real GDP is expected to grow strongly, at around 3.5 percent per annum through to 2016, and to slow slightly to around 3.1 percent between 2016 and 2026.

The 2016 and 2026 projections are driven by growth in the investment and export components of output. This reflects continued investment by the Government in transport infrastructure and construction, as well as private investment to negate a relatively tight labour market.

Export volume and price growth are expected to combine to drive up export receipts by 4.5 percent per annum to 2016 and at a slower pace of 3.2 percent per annum between 2016 and 2026. The higher growth rate out to 2016 reflects New Zealand's increasing global competitiveness as the skilled labour force and capital base expand, and as exchange rates come off historic highs.

Growth in export volumes for particular industries varies. Dairy will continue to do well, while other primary industries may battle. Tourism, education, and machinery and equipment manufacturing are expected to see export demand grow strongly.

Figure 12.1. National projection of employment growth, 2007 to 2026



Employment is projected to expand by approximately 165,000 over the nine-year period between 2007 and 2016, which equates to an average annual rate of 28,300 or 1.6 percent per annum. Growth in construction, agriculture, forestry and fishing, and communication services is expected to be low to 2016. A weakening New Zealand dollar is expected to boost employment in tourism-related industries such as accommodation, cafés and restaurants. There will also be strong rises in business services, manufacturing (which will also benefit from a weaker dollar), and health & community services.

Between 2016 and 2026, total New Zealand employment is expected to increase by 181,000 FTEs a year, an average of 34,900, or 1.5 percent per year. The strongest gains are expected to be in the same industries as over the period from 2007 to 2016.

Table 12.2. New Zealand employment projections to 2026

New Zealand employment growth	2007 to 2016		2016 to 2026	
	change	%pa chge	change	%pa chge
Agriculture Forestry & Fishing	9,326	0.7	6,426	0.4
Mining	1,454	3.2	1,421	2.2
Manufacturing	52,832	2.2	50,155	1.6
Electricity, Gas & Water Supply	1,067	1.6	1,202	1.4
Construction	16,072	1.1	21,885	1.2
Wholesale Trade	14,026	1.2	21,196	1.4
Retail Trade	24,949	1.3	37,297	1.5
Accommodation, Cafes & Restaurants	21,729	2.5	20,658	1.8
Transport and Storage	12,879	1.8	14,505	1.6
Communication Services	1,963	0.8	3,235	1.1
Finance & Insurance	6,589	1.2	10,256	1.5
Property and Business Services	66,901	2.5	68,457	1.9
Government Administration & Defence	6,379	1.0	13,804	1.8
Education	8,154	0.7	20,552	1.5
Health & Community Services	26,962	1.8	40,112	2.0
Cultural and Recreational Services	6,601	1.5	6,808	1.2
Personal & Other Services	4,899	0.8	10,682	1.4
<i>including tourism</i>	<i>21,680</i>	<i>2.0</i>	<i>23,398</i>	<i>1.6</i>

Source: BERL Regional Database and CGE model projections

World economy

The world economy is expected to grow at around three to four percent over the forecast period. Developed countries are expected to grow at two to three percent, while developing countries are expected to grow at around five to eight percent.

We are not forecasting any significant global events that will change global activity or trade dramatically. Bilateral trade agreements between New Zealand and our major trade partners continue, whereas international trade agreements remain stalled. Globalisation continues with increasing interaction and movement of resources, labour, goods, services and investments.

Oil prices and the demand for commodities and food items (notably dairy, sheep and beef, aquaculture, but also forestry products) remain high. There is a move toward sustainability, particularly around energy use and consumption.

New Zealand economy

New Zealand's population continues to grow at a modest rate. The natural rate is expected to rise as births increase and net migration is above the long-term average at around 25,000 to 30,000 inwards per annum.

The labour market remains tight resulting in higher labour force participation – both in terms of the number of working age population but also older people delaying retirement and taking on part-time options.

Taxes are lowered resulting in increased household consumption. Further reduction in government debt is not pursued and so taxes are more likely to be spent domestically. On the other side, savings, driven by Kiwisaver, continue to rise, increasing the amount available for investment.

Overall, investment activity is expected to increase. There is expected to be significant investment in core infrastructure, led by government but also an increasing use of Public-Private Partnerships. Tight labour market will continue to see investment remain high.

Labour productivity skims along at the higher end of the long term average of 1.0 percent per annum. Productivity eases off slightly in the latter half of the projections.

Exchange rates return to the long term average of around \$US0.60 and interest rates remain relatively low and stable.

New Zealand industries

Service based industries are expected to continue to grow faster than manufacturing and primary industries. However, growth in primary industries has been boosted slightly to take into account increasing global demand for commodities and food.

Table 12.3. National employment growth, 2007 to 2026

New Zealand forecast to 2026	2007 to		2016 to		2026
	2007	2016 %pa	2016	2026 %pa	
Agriculture	113,484	0.5	118,306	0.2	120,160
<i>Horticulture and fruit growing</i>	37,461	0.9	40,732	0.5	42,958
<i>Livestock and cropping farming</i>	33,852	0.2	34,538	-0.1	34,260
<i>Dairy and cattle farming</i>	34,588	0.1	34,923	-0.1	34,468
<i>Other farming</i>	7,582	0.8	8,113	0.4	8,472
Other primary	38,038	1.6	43,996	1.3	49,989
Manufacturing	245,931	2.2	298,763	1.6	348,918
Electricity, Gas and Water Supply	7,075	1.6	8,142	1.4	9,344
Construction	154,140	1.1	170,212	1.2	192,097
Wholesale Trade	123,062	1.2	137,087	1.4	158,283
Retail Trade	206,401	1.3	231,350	1.5	268,647
Accommodation, Cafes and Restaurants	86,615	2.5	108,344	1.8	129,003
Transport and Storage	72,566	1.8	85,446	1.6	99,950
Communication Services	25,472	0.8	27,434	1.1	30,669
Finance and Insurance	55,950	1.2	62,539	1.5	72,795
Property and Business Services	263,645	2.5	330,546	1.9	399,003
Government Administration and Defence	65,260	1.0	71,639	1.8	85,443
Education	121,008	0.7	129,163	1.5	149,715
Health and Community Services	153,118	1.8	180,080	2.0	220,191
Cultural and Recreational Services	47,298	1.5	53,899	1.2	60,707
Personal and Other Services	66,372	0.8	71,271	1.4	81,953
TOTAL	1,845,434	1.6	2,128,215	1.5	2,476,867

Table 12.4. National GDP growth, 2007 to 2026

New Zealand forecast to 2026	2007 to		2016 to		2026
	2007	2016 %pa	2016	2026 %pa	
GDP forecast (2007 \$m)					
Agriculture Forestry and Fishing	10,569	3.4	14,280	2.6	18,544
Mining	3,403	3.4	4,597	2.6	5,970
Manufacturing	24,233	4.5	35,999	3.5	50,938
Electricity, Gas and Water Supply	3,112	4.0	4,418	3.5	6,235
Construction	7,870	4.1	11,254	3.5	15,868
Wholesale Trade	13,034	3.9	18,461	3.3	25,567
Retail Trade	10,432	4.0	14,814	3.4	20,788
Accommodation, Cafes and Restaurants	2,683	4.1	3,855	3.2	5,279
Transport and Storage	7,872	4.7	11,873	3.4	16,615
Communication Services	9,962	4.1	14,338	3.5	20,144
Finance and Insurance	10,894	3.5	14,818	3.0	19,961
Property and Business Services	35,485	2.5	44,147	2.6	57,151
Government Administration and Defence	7,461	2.9	9,635	2.9	12,848
Education	5,705	2.9	7,355	3.0	9,843
Health and Community Services	8,937	2.8	11,418	2.9	15,214
Cultural and Recreational Services	3,310	3.4	4,468	3.0	5,993
Personal and Other Services	2,444	2.9	3,170	2.9	4,212
TOTAL	167,407	3.5	228,899	3.1	311,172

All work is done, and services rendered at the request of, and for the purposes of the client only. Neither BERL nor any of its employees accepts any responsibility on any grounds whatsoever, including negligence, to any other person.

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