



Annual in-depth regional report

WELLINGTON REGION



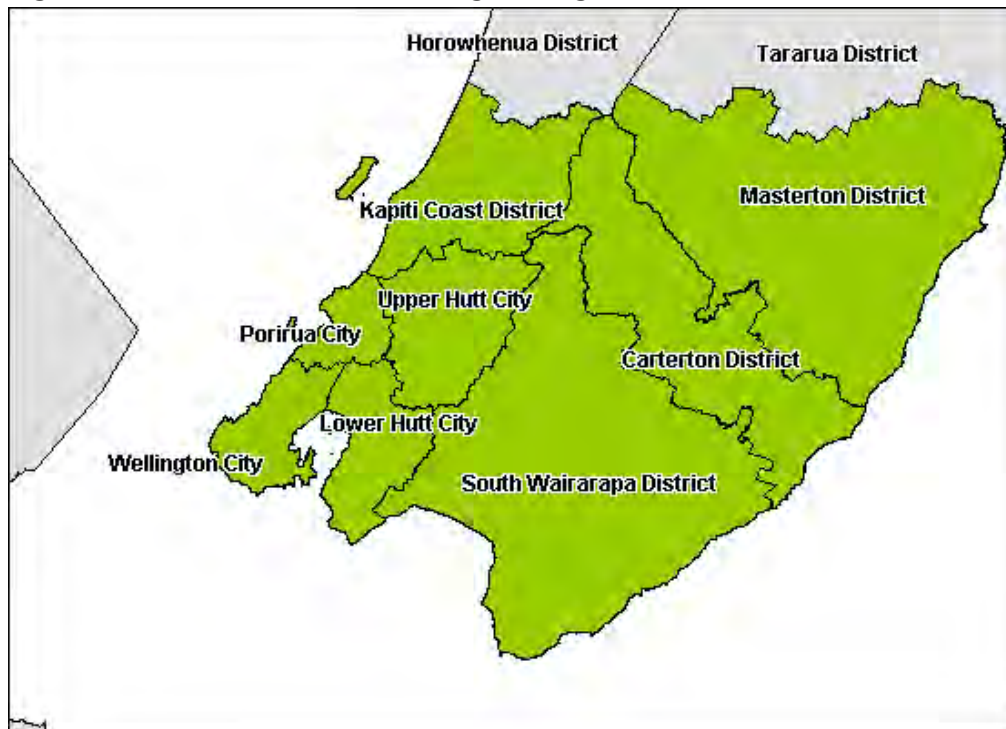
INTRODUCTION

This report describes in detail the characteristics of the Wellington regional labour market, the changes it has undergone and some key outcomes of these changes. The aim is to improve knowledge of the regional labour market among strategy and policy makers, labour market participants and others who have an interest or a stake in the region's labour market. The content of this report links into the processes outlined in the joint Economic Development Agency of New Zealand (EDANZ)/Department of Labour (DoL) Best Practice Guidelines¹.

The Wellington Region has a new Wellington Regional Labour Market Strategy, developed with input from at least 80 regional stakeholders. There are significant initiatives planned to implement that strategy, which will alter the nature of the regional labour market in the near future

This report brings together a wide range of labour market information released in the past year, much of which is drawn from the 2006 Census. Labour market changes are observed over different timeframes appropriate to the analysis and depending on data availability. Information is based on the Wellington Regional Council boundaries and, where available, the constituent Territorial Authority (TA) boundaries. For the purposes of this report, the TAs are Kapiti District, Porirua City, Upper Hutt City, Lower Hutt City, Wellington City, Masterton District, Carterton District and South Wairarapa District.

Figure 1: Boundaries of the Wellington Region



¹ Copies of the EDANZ/DoL Regional Labour Market Development Best Practice Guideline are available from the Department of Labour on request.

The analysis is also informed by contextual knowledge of the region itself. This has been provided by the Department of Labour's regionally based Labour Market Knowledge Managers. Input from their regional colleagues is acknowledged with appreciation.

Role of the Labour Market Knowledge Managers

The Department of Labour's Labour Market Knowledge Managers (LMKMs) work with regional partners (economic development agencies, industry and business groups, other central government agencies, educational institutions, local government, iwi and others) to develop and implement regional labour market strategies.

LMKMs contribute:

- specialist labour market information
- strategic skills for labour market development
- knowledge of what works and what doesn't
- 'whole of DoL' engagement (workforce policy, immigration, workplace best practice etc)
- wider government connections.

How to contact our Labour Market Knowledge Managers

We have 15 Labour Market Knowledge Managers located around New Zealand. If you have any queries regarding this document, or if you wish to discuss regional labour market issues, constraints or opportunities please contact:

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A contact list of all LMKMs can be viewed in Appendix 2.

CONTENTS

| | |
|---|-----------|
| INTRODUCTION..... | 1 |
| EXECUTIVE SUMMARY | 4 |
| 1. HOW REGIONAL LABOUR MARKETS WORK | 6 |
| 2. LABOUR OFFERED BY THE LABOUR FORCE..... | 8 |
| 2.1 Population trends..... | 8 |
| 2.2 Skills..... | 14 |
| 2.3 Labour force participation..... | 16 |
| 2.4 Commuting..... | 24 |
| 3. EMPLOYERS' LABOUR REQUIREMENTS | 26 |
| 3.1 Firm size | 26 |
| 3.2 New labour requirements | 28 |
| 3.3 Replacement labour requirements | 37 |
| 3.4 Retirements | 38 |
| 4. LABOUR MARKET OUTCOMES..... | 40 |
| 4.1 Employment and unemployment | 40 |
| 4.2 Skill shortages..... | 45 |
| 4.3 Wages..... | 47 |
| GLOSSARY OF TERMS | 50 |
| DATA DICTIONARY..... | 53 |
| APPENDIX 1 – REGIONAL LABOUR MARKET DYNAMICS | 56 |
| APPENDIX 2 – REGIONAL LABOUR MARKET KNOWLEDGE MANAGERS CONTACT DETAILS | 57 |

EXECUTIVE SUMMARY

Growth in total employment in Wellington was slower than the national average between 2001 and 2006. This was mainly due to the region's industries not growing as fast as the national averages in those industries. Most of the new jobs in Wellington were created in Government Administration and Defence, Property and Business Services and Retail Trade.

Looking forward, it is likely that the labour force of Wellington will continue growing for the next two decades. This assumes that population projections prove accurate, and that recent rises in participation rates are consolidated. The main engine for growth in the labour force is probably the regional population. The regional population of Wellington is projected to continue growing for the next two decades. As the current participation rate is at a historical high, there might be a limit to future growth in participation. However, participation rates of people with low qualifications tend to be lower than those with high qualifications, so future up-skilling there may provide some participation increase.

On average, the qualification level of the working-age population in Wellington was higher than that of New Zealand as a whole. Compared to the national average in 2006, a greater proportion of the working-age population in Wellington Region have a Bachelor degree or higher, and a smaller proportion of people have no qualifications. The qualification level in Wellington as a whole rose between 2001 and 2006. The number of the working-age population with no qualification or low qualifications dropped further, and the number of people with Bachelor degrees or higher grew slower than the national average.

A large part of the employment growth in the Wellington Region has been in highly skilled and skilled occupation groups such as Legislators, Administrators and Managers, Professionals and Technicians and Associate Professionals. This was partly driven by the growth in industries such as Government Administration and Defence, and Property and Business Services, where many skilled and highly skilled people are employed. Employment growth was also driven by an increase in the prevalence of these highly skilled and skilled professions in a number of industries.

Employment growth in Wellington has outstripped growth in the labour force. As a result, unemployment rates have fallen. According to the 2006 Census, the unemployment rate in Wellington fell to 5.2% in 2006 from 7.5% in 1996. About 67% of the working-age population was in employment in 2006. Employment has grown most significantly among people with higher level qualifications such as a Level 4 certificate gained post-school, Level 5 diploma and Bachelor degree or higher.

Skill shortages are most likely to exist in higher skill occupations such as Professionals and Technicians and Associate Professionals. This is based on information about employment growth in the region and national evidence of

skill shortages from the Survey of Employers who have Recently Advertised (SERA).

If Wellington employers' skill requirements continue to focus on people with higher qualifications, the requirements must be met mainly by improvements in the productivity of the existing labour force, increases in the working-age population or by up-skilling people with relatively low qualifications. The population in Wellington is projected to age in the next two decades. The potential for further rises in the already high participation rates or falls in the already low unemployment rates are also limited.

The labour force grew in all TAs in Wellington Region, most notably in Kapiti Coast District. In nearly all TAs, the growth in the labour force was mostly driven by rises in the working-age population, coupled with a rise in participation rates.

Looking forward, the labour force is likely to continue growing in most TAs in Wellington Region, especially in Kapiti Coast District and Wellington City.

Qualification levels of working-age people in all of Wellington's TAs have improved recently. There has been strong growth in the number of people with vocational qualifications and Bachelor degrees or higher. In all TAs, the proportion of people with no qualifications has contracted in relation to the change in working-age population.

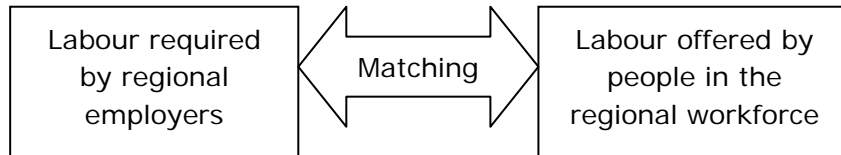
Employment rates have increased throughout Wellington's TAs as they have nationally between 1996 and 2006. In 2006, employment rates were in excess of 65% for most TAs. The employment rate was highest in Wellington City, at 71.7%. Growth in employment rates between 1996 and 2006 has been particularly strong in Carterton District and South Wairarapa District.

Across Wellington's constituent TAs, unemployment rates were much lower in 2006 than they were in 1996. The falls have mostly occurred since 2001. South Wairarapa District and Porirua City experienced the most marked falls in their unemployment rates, followed by Masterton District and Carterton District. Across all the TAs in 2006, Porirua City had the highest unemployment rate at about 7%, and the rest of the TAs had unemployment rates of between 3% and 5.7%.

Across the whole Wellington Region, the reduction in unemployment was the result of employers' increasing demand for labour outstripping growth in the size of the labour force. In all TAs, the growth in employment was faster than the growth in the labour force. This means that the labour available to employers has expanded, but employers' labour requirements have expanded by more. Therefore the pool of labour that is excess to employers' requirements has declined.

1. HOW REGIONAL LABOUR MARKETS WORK

The structure of this report is encapsulated in the following diagram, an expanded version of which is displayed in Appendix 1.



The diagram in Appendix 1 reflects the Human Capability Framework developed by the Department of Labour and presented on the Department of Labour website – <http://www.dol.govt.nz/initiatives/strategy/hcf/>.

Labour markets are the environment and process by which employers' labour² needs are matched to the labour offered by people in the workforce. When employers advertise their job vacancies, job seekers apply for jobs, and employers select the most appropriate candidate. This is all part of the labour market matching process. As the diagram in Appendix 1 shows, this is affected by the wider regional, national and global environments within which labour markets operate.

Employers' labour requirements

Employers' labour requirements are the number of people they want to employ, the number of hours they want them to work and the skills and attributes they need them to have to perform their jobs. The expanded diagram in Appendix 1 shows that labour requirements depend primarily on the goods and services that businesses produce. For instance, a dairy farmer needs different types of skills to a Surveyor. The way that businesses are organised is also important. One dairy farm might employ more farm managers or farm labourers than another. Business organisation depends on many things, but the size of the business, the technology used and the productivity of the operation are three of the most important.

Labour offered by the labour force

The labour offered by the workforce is the number of people who are willing and able to work, the number of hours they want or are able to work and the skills and attributes they bring to the workplace. All this depends on people's attributes, preferences and personal circumstances. For example, some people are trained to work with computers, while others might have a preference for customer service. People also participate in the labour market to differing degrees. Some people may choose to work full-time, part-time, or not to work at all. Others may be constrained in this choice by personal circumstances.

² In this context, labour refers to the amount of time worked, and the skills and other personal attributes applied in that work.

The changing labour market

The diagram in Appendix 1 also shows that labour markets are constantly changing. Shifts in the extent and nature of labour that employers need occur as businesses start up in the region or cease to operate, and move to and from the region. The goods and services that businesses produce evolve in response to customer demand, and businesses change how they are organised – perhaps because they are growing or adopting new technology. Changes in the extent and nature of labour on offer occur as workers in the region develop their skills, change the hours they work, begin working or stop working. People also move into and out of the region. This ‘migration’ of labour between regions can be particularly significant in explaining the balancing of labour market demand and supply to reach a labour market outcome³.

Labour market outcomes

The extent to which people, their skills and their other attributes are matched to the job opportunities on offer is a key outcome of the labour market. It has implications for the economy. For example, if employers are unable to find the skills they need, this can constrain business expansion. It also has implications for individuals, families and communities. People’s ability to find work and the work they do impacts on their standard of living and their broader well-being.

Understanding the Wellington regional labour market

Although all regional labour markets are expected to basically work in the way outlined above, every region is unique. Some of the unique characteristics of labour on offer to employers in the Wellington workforce are covered in section 2. Section 3 outlines some of the characteristics of Wellington employers’ labour requirements. Section 4 looks at some key labour market outcomes to better understand how well labour requirements are being matched to the labour on offer in Wellington.

This In-depth Regional Labour Market profile brings together a wide range of labour market information (LMI) produced on quarterly, annual and five-yearly basis to provide a complete and in-depth a picture of the regional and sub-regional labour markets.

Throughout this report, a series of questions are included in grey boxes. The inclusion of these questions reflects the role of these reports as a prompt for regional discussion of local labour market issues, and as a tool to support strategic decision making.

A Data Dictionary is included in the appendices. This dictionary gives an introduction to the different labour market information that has been used in the production of these reports.

³ Maré, David C. and Timmins, J. 2004. *Internal Migration and Regional Labour Markets In New Zealand*. Motu Economic and Public Policy Research Working Paper June 2004.

2. LABOUR OFFERED BY THE LABOUR FORCE

The workforce is the labour pool available to employers. Strictly speaking, it is made up of people who are working, and people who are not in work but who are available for work and actively seeking work (the unemployed)⁴. The rest of the population is either too young to work, or are not in the labour force (in other words, not working and either not available for work or not actively seeking work). People might not be in the labour force for a number of reasons including retirement, looking after children or studying full-time.

On average in New Zealand, over two-thirds of the working-age population (people aged 15 years and above) are in the labour force. The characteristics of the labour force therefore strongly reflect the characteristics of the population. Moreover, projected changes in the population are likely to impact on the future labour force. The first part of this section looks at the size and make-up of the regional population, and how it is changing. Information is provided about people's sex, age, ethnicity and migrant status. These are all characteristics that can have a bearing on people's labour force participation.

The second part of this section looks specifically at the skills of the regional working-age population. Skills are a difficult thing to measure. Information about formal qualifications is provided in this section because this is a key aspect of skills and the data are readily available. Availability of other information about skills such as on-job training, work experience and personal attitude is limited and is not available in this report.

The third part of this section looks specifically at the workforce and asks the question: to what extent do different types of people participate in the labour force? It is useful to understand how participation varies across people of different skills, sex, age, ethnicity and migrant status because it increases understanding of the labour offered by the labour force, and the types of people who are under-represented in the labour market.

The fourth part of this section looks at where people commute from to work in the regional labour market. Some people might commute in from other regions. This analysis helps to geographically define the regional labour market in terms of the places people travel from to work there.

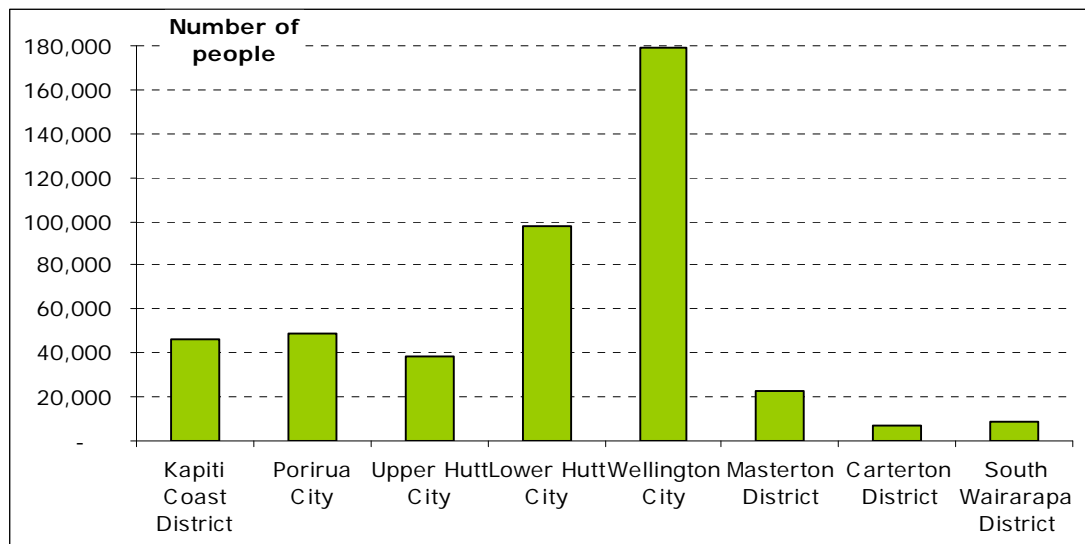
2.1 Population trends

At the time of the 2006 Population Census, 448,953 people were listed as usually resident within the Wellington Region. Wellington City was the largest Territorial Authority, with 179,469 residents, 40% of the regional population – an increase 10% from 2001. The next largest area was Lower Hutt City, (97,704 residents,

⁴ In reality, some people classed as not in the labour force are part of the labour pool. For example, some might have become discouraged from looking for work but would accept a job if the right one came along.

up 2%) followed by Porirua City (48,549 residents, up 2%), Kapiti Coast District (46,200 residents, up 9%), Upper Hutt City (38,415 residents, up 6%), Masterton District (22,626 residents, up 0.1%), South Wairarapa District (8,892 residents, up 2%) and Carterton District (7,098 residents, up 4%).

Chart 1: Population in Wellington Territorial Authorities in 2006



Source: Census 2006, Statistics New Zealand

As a whole, the Wellington regional population grew by over 25,000 people or 6% between 2001 and 2006. This was slightly slower than the 8% growth rate across the country as a whole, but national growth is driven by fast-growing Auckland. When Auckland Region's growth is removed, Wellington's regional population growth was similar to that of the rest of the country.

Within Wellington Region, the concentration of population in Wellington City and Kapiti Coast District is increasing. These two areas were the fastest growing between 2001 and 2006 and are projected to continue to grow strongly in the period to 2026.

In contrast, the population of Lower Hutt City, Porirua District and South Wairarapa District experienced marginal growth between 2001 and 2006, and the Masterton District population remained fairly similar over the same period.

The populations of Carterton and Upper Hutt are both projected to grow between 2001 and 2026, but are projected to have a reduced share of the region's population by 2026.

Table 1: Population trends 1991 to 2026

| | Growth rates | | | | Share of population ⁵ | |
|--------------------------|--------------|---------|---------|---------|----------------------------------|------|
| | 1991–96 | 1996–01 | 2001–06 | 2001–26 | 2006 | 2026 |
| New Zealand | 7% | 3% | 8% | 27% | | |
| Wellington Region | 3% | 2% | 6% | 15% | 11% | 10% |
| Kapiti Coast District | 10% | 10% | 9% | 37% | 10% | 12% |
| Porirua City | 0% | 2% | 2% | 9% | 11% | 11% |
| Upper Hutt City | 0% | -1% | 6% | -4% | 9% | 7% |
| Lower Hutt City | 1% | 0% | 2% | 6% | 22% | 21% |
| Wellington City | 6% | 4% | 10% | 25% | 40% | 42% |
| Masterton District | 1% | -1% | 0% | -3% | 5% | 5% |
| Carterton District | -1% | 0% | 4% | 6% | 2% | 1% |
| South Wairarapa District | -2% | -2% | 2% | -4% | 2% | 2% |

Source: Census 1991, 1996, 2001 and 2006 and population estimates and projections

Note: Statistics New Zealand releases three population projection series (low, medium and high) incorporating different fertility, mortality and migration assumptions. Table 1 uses the medium population projection assumption. At present, Statistics New Zealand considers the medium projection series the most suitable for assessing future population changes. Revised projections including 2006 Census results will be released later in 2007.

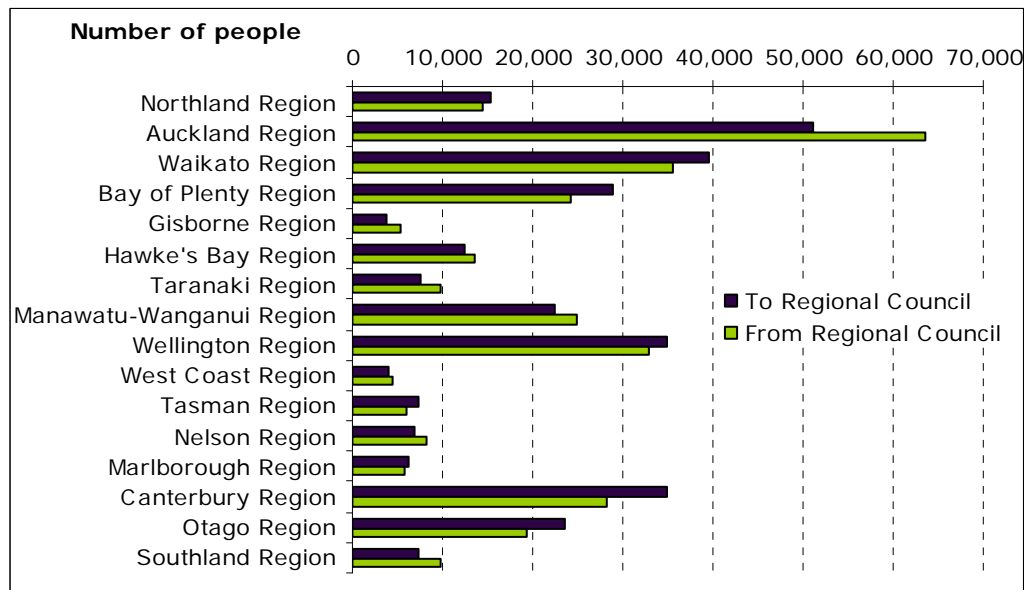
Inter-regional migration

Migration of people between regions can significantly change the size and make-up of regional populations. Between 2001 and 2006, Wellington experienced a net gain of just over 1,900 people from other regions.

On average, a region gains and loses around 8% of the regional population between Censuses. As measured by the 2006 Census, the number of people moving to Wellington was 8% of the population, while the number leaving the region was equivalent to approximately 7% of the population, making the region overall marginally more stable than the national average.

⁵ The Share of Population columns show the region's share of the national population, and the TA's share of the region population

Chart 2: Inter-regional migration from 2001 to 2006

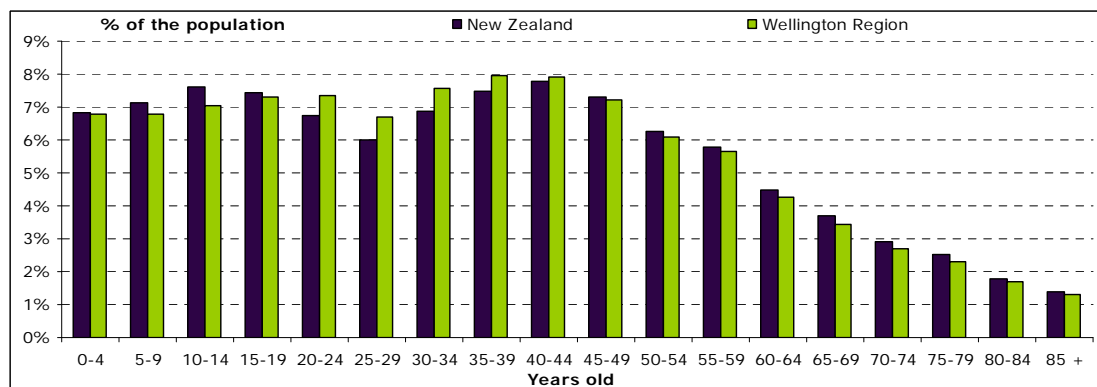


Source: Census 2006, Statistics New Zealand

The age profile of the population

Age is an important factor in the ability of people to work. Compared to the national average in 2006, there were a higher proportion of people between the ages of 20 to 44 years, and a lower proportion of people aged 45 years and above in Wellington Region as a whole. This has an impact on the workforce, as people in their 20s, 30s and 40s are highly likely to be in work. Compared to the national average, there was also a lower proportion of people younger than 15 years of age. This may result in a contracting labour pool as a smaller number of people reach prime working age and move into the workforce. However, this trend may change if inward migration of younger people takes place.

Chart 3: Population by age in 2006



Source: Census 2006, Statistics New Zealand

Across Wellington Region, there is a younger age profile in Wellington City, Lower Hutt City, Upper Hutt City and Porirua City. People between the ages of 15–39 accounted for a large proportion of the total population in these TAs. As these people are highly likely to be in work, this suggests that there is a currently a large pool of labour in these areas.

Nearly one-third of the population in Porirua City was below 15 years old in 2006. This suggests the workforce may be boosted when these people reach prime working age.

The aging of the population changes the mix of products and services consumed in a region, but there are also risks for the workforce, for example, business opportunities are created for providers of aged care, and for aged care workers. However, retirees from the workforce need to be replaced by younger people or the workforce will decline. Regions that already have a relatively old demographic profile, that tend to attract older people for lifestyle reasons or that lose younger people to other regions, face a greater risk of seeing their workforce contract.

Compared to the national average in 2006, there is a larger proportion of people aged 65+ years in Kapiti Coast District, Masterton District, Carterton District and South Wairarapa District. The population is projected to age across all TAs in the Wellington Region. The proportion of those aged 65 years and above is projected to rise in all TAs, and the proportion of those likely to be in work (aged 15 to 64) is projected to fall in most TAs.

Kapiti Coast, Masterton, Carterton and South Wairarapa districts are projected to retain the highest concentration of older residents, increasing their share of the population to nearly one-third of all residents.

Table 2: Population by age in 2006 and 2026

| | Population composition (%) in 2006 | | | | Population composition (%) in 2026 | | | |
|--------------------------|------------------------------------|-------|-------|-----|------------------------------------|-------|-----|-----|
| | 0–14 | 15–39 | 40–64 | 65+ | 0–14 | 15–39 | 40– | 65+ |
| New Zealand | 22% | 35% | 32% | 12% | 17% | 31% | 32% | 20% |
| Wellington Region | 21% | 37% | 31% | 11% | 16% | 32% | 33% | 19% |
| Kapiti Coast District | 19% | 24% | 33% | 23% | 16% | 23% | 33% | 29% |
| Porirua City | 26% | 35% | 30% | 8% | 20% | 32% | 32% | 16% |
| Upper Hutt City | 22% | 33% | 32% | 13% | 17% | 28% | 30% | 24% |
| Lower Hutt City | 23% | 35% | 31% | 11% | 18% | 31% | 32% | 19% |
| Wellington City | 18% | 44% | 29% | 8% | 14% | 38% | 34% | 14% |
| Masterton District | 21% | 28% | 34% | 17% | 16% | 23% | 31% | 30% |
| Carterton District | 21% | 27% | 37% | 15% | 18% | 22% | 32% | 29% |
| South Wairarapa District | 21% | 25% | 38% | 16% | 15% | 21% | 32% | 31% |

Source: Census 1996, 2001 and 2006 and Statistics New Zealand population estimates and projections

Note: Statistics New Zealand releases three population projection series (low, medium and high) incorporating different fertility, mortality and migration assumptions. Table 2 uses the medium population projection assumption. At present, Statistics New Zealand considers the medium projection series the most suitable for assessing future population changes.

The ethnic profile of the population

Across Wellington Region in 2006, the ethnic composition varied widely. In terms of absolute numbers, most Maori reside in Wellington City and Lower Hutt City. However, compared to the national average, Maori make up a larger proportion of

the population in Porirua City, Lower Hutt City and Masterton District. Pacific Peoples account for 25% of residents in Porirua City. The Asian population was concentrated in Wellington City, where it accounted for 13% of the total population, above the national average of 9% of the population.

As part of the 2006 Census, the ethnicity of 'New Zealander' appeared first as a standard output. In 2006, 11.1% of respondents listed New Zealander as one of their ethnicities. In previous censuses, responses identifying New Zealander as the only ethnicity were coded within New Zealand European category.

Statistics New Zealand are currently analysing the characteristics of respondents who classify themselves as a New Zealander. Initial analysis suggests that people who list their ethnicity as New Zealander are more likely to be aged between 30 and 59, and more likely to be male than female.

Table 3: Population by ethnicity in 2006

| | Population composition (%) in 2006 | | | | | |
|--------------------------|------------------------------------|--------------------------|------------------|---------------------------|--|---------------------------|
| | European Ethnic Groups | Maori Ethnic Group | New Zealander | Asian Ethnic Groups | Pacific Peoples Ethnic Groups | Other Ethnic Groups |
| New Zealand | 65% | 14% | 11% | 9% | 7% | 5% |
| Wellington Region | 67% | 12% | 11% | 8% | 8% | 5% |
| Kapiti Coast District | 77% | 12% | 13% | 2% | 2% | 4% |
| Porirua City | 54% | 20% | 8% | 4% | 25% | 6% |
| Upper Hutt City | 74% | 14% | 12% | 4% | 4% | 3% |
| Lower Hutt City | 63% | 17% | 10% | 9% | 10% | 3% |
| Wellington City | 68% | 7% | 10% | 13% | 5% | 6% |
| Masterton District | 76% | 16% | 12% | 2% | 3% | 3% |
| Carterton District | 80% | 10% | 12% | 1% | 2% | 4% |
| South Wairarapa District | 78% | 12% | 12% | 2% | 2% | 4% |

Source: Census 2006, Statistics New Zealand

Note: This profile is based on people's own perceptions of their ethnicity. A number of people identify themselves as having multiple ethnicities, therefore the percentages sum to more than 100%.

The migrant profile of the population

In the Wellington Region in 2006, 22% of the total population was born overseas – the same share as the national average. Results are driven by the high population, high migrant region of Auckland, where 35% of the regional population was born overseas. Within Wellington Region, the migrant population is concentrated in Wellington City, where nearly half of all regionally based migrants live. Migrants to New Zealand make up 27% of the Wellington City population. A large number of migrants also live in Lower Hutt City, where they accounted for 21% of the total population. Compared to the national average, there were a larger proportion of migrants in Wellington Region who have been in the country for 10 years or more.

Discussion point 1:

- Do the trends outlined here fit with what you have heard in the region?
- How do you expect the regional population to grow or decline (i.e. numbers, types of people)?
- Does your region have difficulty retaining certain types of people (e.g. youth)? Why is this?
- What kinds of people does your region want to attract (e.g. families, skilled migrants)?

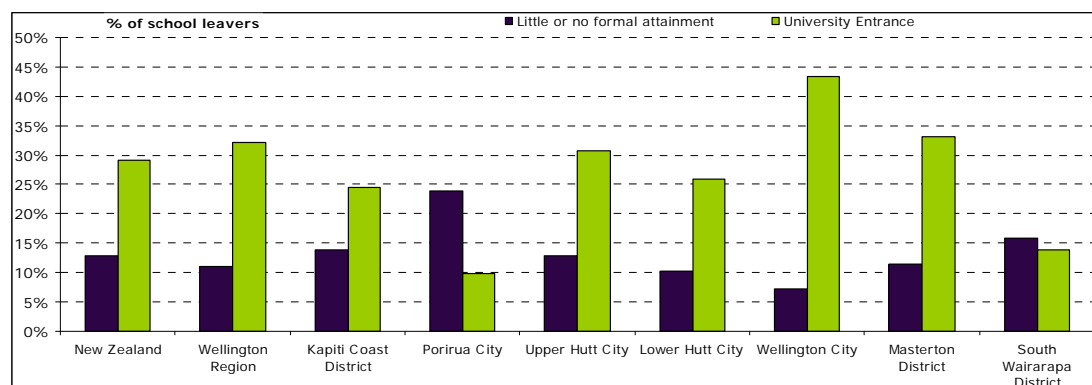
2.2 Skills

School leaver attainment

Young people's attainment at school has a pronounced impact on their future labour market outcomes. Results for school leavers in the Wellington Region in 2005 were slightly better than the national average. Fewer school leavers had little or no attainment, and more had university entrance. The regional average is driven by Wellington City where the majority of school leavers lived.

Across Wellington Region's constituent TAs, the school leaver qualification level varies. The proportion of school leavers from Wellington City, Masterton District and Upper Hutt City with university entrance qualifications was slightly higher than the national average, while there were less school leavers with little or no qualifications. In contrast, in Porirua City, Lower Hutt City, Kapiti Coast District and South Wairarapa District, there was a greater share of school leavers with no qualifications and a smaller share of people with university entrance qualifications. This is most notable for Porirua City, where 24% of school leavers had no qualifications compared to 13% for New Zealand as a whole. Only 10% of school leavers in Porirua City had university entrance qualification compared to 29% for the national average. While school leavers with no qualifications and school leavers with university entrance qualifications are both shown in Chart 4, the remaining category is students who left school having obtained partial Level 1 to 3 qualifications.

Chart 4: School leaver attainment in 2005



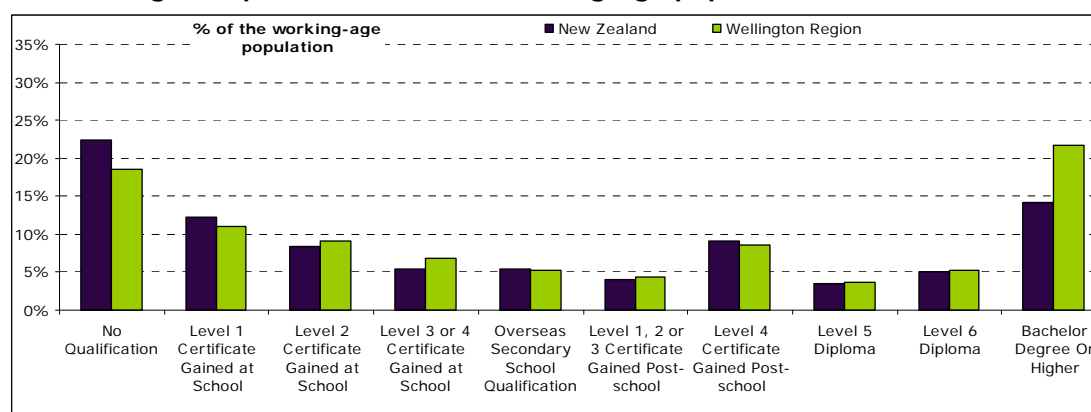
Source: Ministry of Education

Note: School leaver data is not available for Carterton District due to data suppression by the Ministry of Education. Little or no formal attainment refers to school leavers with fewer than 14 credits at NCEA level 1, 2, or 3.

Skills of the working-age population

On average, the qualification level of the working-age population in Wellington Region was higher than the national average. There was a smaller proportion of working-age population in the Wellington Region with no qualifications, and a significantly larger proportion of the working-age population with a Bachelor degree or higher. There was also a larger proportion of the working-age population in the Wellington Region with Level 5 and 6 diplomas.

Chart 5: Highest qualification of the working-age population 1996 and 2006



Source: Census 2006, Statistics New Zealand

Among Wellington Region's constituent TAs, the qualification level of the working-age population was highest in Wellington City. Over a quarter of the working-age population had a Bachelor degree or higher, and there was a larger proportion of people with advanced vocational qualifications (Level 4 certificate, Level 5 and 6 Diplomas). Only 12% of the working-age population in Wellington City had no qualification. Among Wellington Region's TAs, the qualification level of the working-age population was lower in Masterton District, Carterton District and South Wairarapa District. Over one quarter of the working-age population of these districts had no formal qualification, and around 10% of the working-age population had a Bachelor degree or higher.

In South Wairarapa, approximately 90% of all tertiary education provision is at Level 4 Certificate or below. Nationally, the proportion is 38%⁶.

Amongst industry trainees across the Wairarapa area in 2006, the industry training organisations (ITOs) with the largest volume of trainees were the Forestry ITO, with 19% of all trainees and the Agriculture ITO, with 15% of all trainees⁷. Modern Apprenticeships in 2006 were focused around Horticulture, Agriculture and Forest Industries.

⁶ 2007 Regional Statement for Tertiary Education for the Manawatu – Wanganui and Wairarapa Regions, May 2007. p36.

⁷ Ibid, p50.

These largest categories mirror many of the largest industries in the area.

On average in Wellington Region, the qualification level of the working-age population is rising. The proportion of the working-age population with no or low qualifications (up to Level 3 or 4 Certificate gained at school) decreased between 2001 and 2006, while the proportion of the working-age population with higher qualifications has increased across the region.

For many of the TAs within the region, the largest increase is for the working-age population with Level 4 to 6 qualifications. These qualifications are frequently linked to industry specific training, an area of strong growth since 2001. The growth in shares of the population with each qualification type is frequently linked to both the availability of the courses and the demand from both students and employers. In particular, Wellington City has an above average increase in the share of the working-age population with Bachelor degrees and higher, reflecting both the demand from employers and students, and the tertiary providers based there.

Table 4: Change in the share of highest qualification of the working-age population 2001 to 2006

| | Change in Share of Highest Qualification 2001 to 2006 | | | | |
|--------------------------|---|-----------------------------|--|--|---------------------------|
| | No Qualification | School Based Qualifications | Level 1, 2 or 3 Certificate Gained Post-school | Level 4 Certificate Gained Post-school or Level 5 or 6 Diploma | Bachelor degree or higher |
| New Zealand | -1% | -3% | 0% | 4% | 4% |
| Wellington Region | -1% | -3% | 0% | 3% | 5% |
| Kapiti Coast District | -1% | -4% | 1% | 5% | 3% |
| Porirua City | -2% | -4% | 1% | 3% | 4% |
| Upper Hutt City | -1% | -4% | 0% | 4% | 3% |
| Lower Hutt City | -1% | -3% | 1% | 3% | 4% |
| Wellington City | -1% | -4% | 0% | 1% | 6% |
| Masterton District | 0% | -3% | 1% | 4% | 3% |
| Carterton District | -1% | -2% | 0% | 5% | 3% |
| South Wairarapa District | -3% | -2% | 0% | 4% | 4% |

Source: Census 1996 and 2006, Statistics New Zealand

Note: Highest qualification levels in this table differ to highest qualification levels in Chart 5. The qualifications in this table have been aggregated to increase comparability between 2001 and 2006 Census data. The 2006 Census had a different classification system to the 2001 Census. As a result of the classification changes, some 2001 qualifications were not coded the same way in 2006. The changes primarily affect Level 4 Certificate Gained Post-school, Level 5 Diploma and Level 6 Diploma.

2.3 Labour force participation

The information in this section refers to the labour force participation of people living in the region, regardless of whether or not they work in the region or commute to another region.

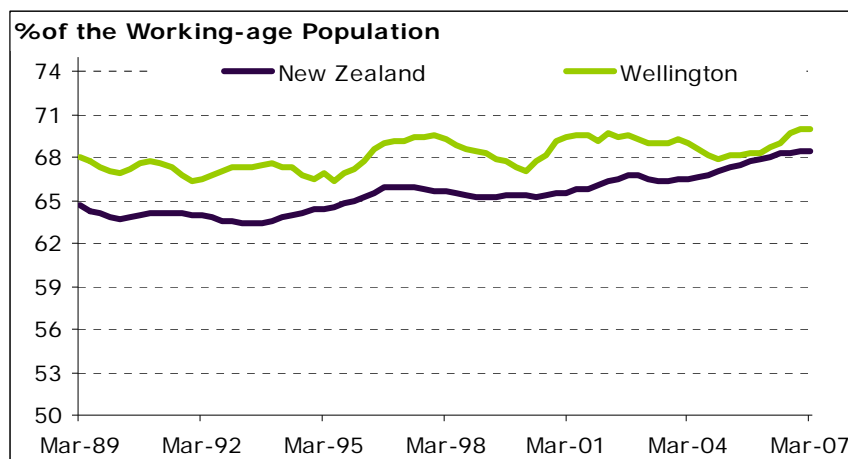
In that respect, it is a relatively crude measure of the labour pool available to the region's employers. In reality, the employers' labour pool is defined by the area of residence within which people are willing to travel to work for them.

Participation trends⁸

The regional labour force participation rate for the Wellington Region was consistently above the national average between 1998 and 2006, standing at a historical high of 70% in 2006.

The participation rate for Wellington remained fairly constant between 1998 and 2006, while the overall participation rate for New Zealand as a whole has been steadily increasing. Hence the gap in labour force participation between Wellington and the rest of the country is gradually closing.

Chart 6: Labour force participation rate from 1989 to 2007 (12-month moving average)



Source: Household Labour Force Survey, Statistics New Zealand

The labour force participation rate rose across Wellington Region between 1996 and 2006. The rise in labour force participation was most notable in South Wairarapa District. For all TAs, growth in the working-age population and the participation rate led to a marked increase in the size of the labour force.

It is likely that the labour force in several TAs will continue to grow over the next two decades, especially in Kapiti Coast District and Wellington City. Recent growth has been driven by growth in the working-age population and, as shown in Table 1, the population is projected to continue increasing in Kapiti Coast District, Porirua City, Lower Hutt City, Wellington City and Carterton District.

⁸ Labour force participation rates from the Household Labour Force Survey and Population Census differ. This is a result of the different scope and coverage of the two surveys. For more information, see the Data Dictionary.

The labour forces of Upper Hutt City, Masterton District and South Wairarapa District face the risk of declining in the next two decades. The population in these TAs is projected to decline and, as labour force participation in these areas is currently at a historically high rate, it is uncertain how much further participation rates might rise.

Table 5: Change in the regional labour force 1996 to 2006

| | Change in the Working-Age Population (2001–2006) | Participation Rate (%) | | | Change in the Labour Force (2001–2006) |
|--------------------------|--|------------------------|-------|-------|--|
| | | 1996 | 2001 | 2006 | |
| New Zealand | 9.4% | 65.4% | 66.7% | 68.5% | 12.1% |
| Wellington Region | 7.7% | 68.1% | 69.6% | 71.0% | 9.6% |
| Kapiti Coast District | 11.0% | 55.2% | 57.0% | 59.2% | 14.5% |
| Porirua City | 5.1% | 66.8% | 69.3% | 70.6% | 5.5% |
| Upper Hutt City | 7.3% | 66.9% | 67.4% | 69.6% | 10.6% |
| Lower Hutt City | 3.9% | 67.6% | 69.2% | 70.6% | 6.2% |
| Wellington City | 10.7% | 73.5% | 74.7% | 75.4% | 11.8% |
| Masterton District | 2.8% | 62.5% | 63.3% | 65.6% | 6.0% |
| Carterton District | 5.8% | 62.9% | 66.3% | 68.4% | 8.5% |
| South Wairarapa District | 3.8% | 61.6% | 61.6% | 69.0% | 5.8% |

Source: Census 1996, 2001 and 2006, Statistics New Zealand

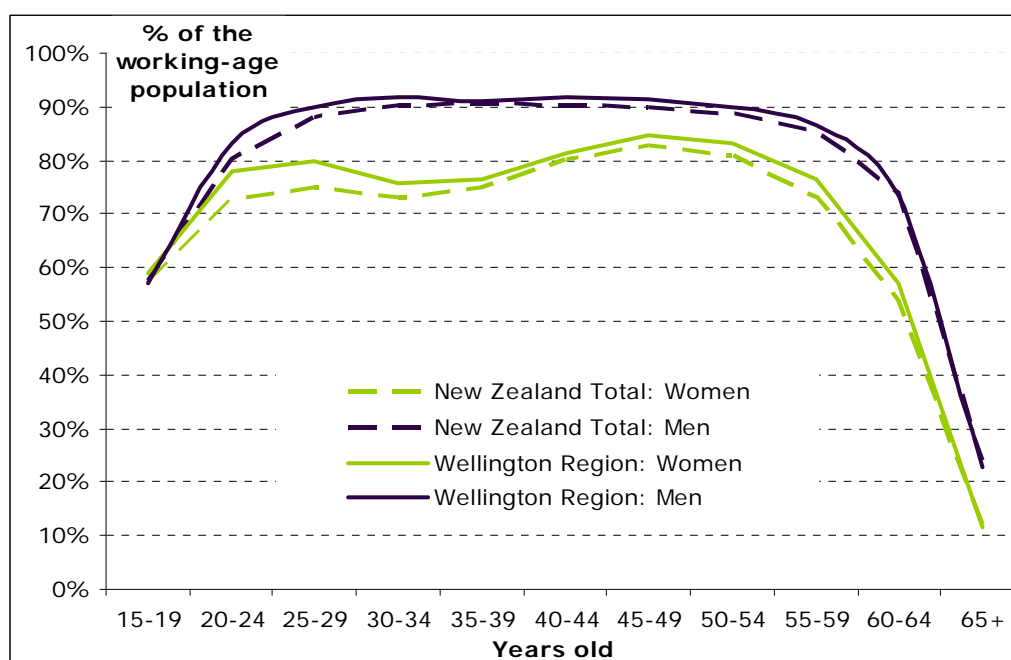
Participation of men and women of different ages

Chart 7 shows participation rates of men and women in different age groups.

Young people's participation tends to be low because many remain in education after school rather than entering the job market. Among people in their 20s and 30s, men's participation is higher than women's, primarily because these are the years in which many people start families.

Compared to the national average in 2006, labour force participation of both males and females in most of the prime working-age groups (20–64 years old) was higher in Wellington Region.

Chart 7: Wellington Labour force participation rate by age by sex in 2006



Source: Census 2006, Statistics New Zealand

Adjusted participation rates

Differences between regional and sub-regional participation rates can be caused by differences in labour market performance and by differences in the demographic profile of the population.

For example, in a population that has a relatively small share of its population in the prime age groups, the participation rate will tend to be lower irrespective of how the labour market is performing.

The effect of this can be seen in Table 6. An adjusted labour participation rate for Wellington Region indicates what the rate would be if the age and gender structure were the same as the national average. The adjusted participation rate was lower for Wellington Region as a whole. This suggests that, if the share of the overall population aged 15–64 years old in the Wellington Region was smaller, and equivalent to the national average, the overall participation will see a slight fall.

Across Wellington’s constituent TAs, adjusted participation rates vary.

The adjusted rate was lower for Wellington City, Porirua City and Lower Hutt City. This is probably because of the larger proportion of people in their prime working ages (15–64 years) in these TAs compared to the national average.

The major contrast to this result is for Kapiti Coast District, where the adjusted participation rate is almost 10 percentage points higher than the unadjusted rate. This large increase in the adjusted participation rate reflects the larger than average share of older residents in the Kapiti Coast District population.

Table 6: Labour force participation rate adjusted for age and sex in 2006

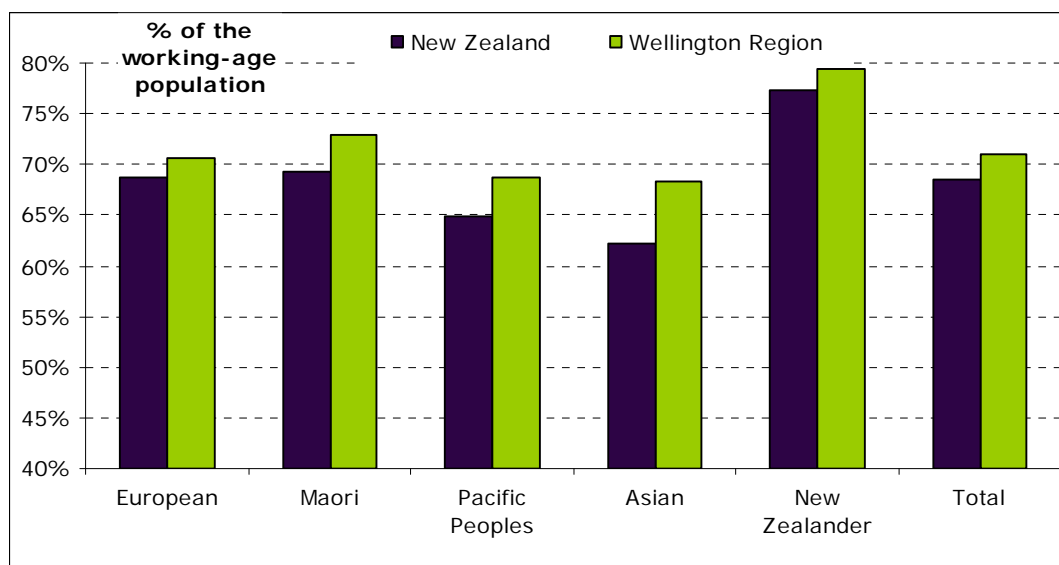
| | Participation Rate (%) | |
|--------------------------|------------------------|----------|
| | Unadjusted | Adjusted |
| New Zealand | 68.5% | 68.5% |
| Wellington Region | 71.0% | 70.0% |
| Kapiti Coast District | 59.2% | 68.4% |
| Porirua City | 70.6% | 67.9% |
| Upper Hutt City | 69.6% | 69.6% |
| Lower Hutt City | 70.6% | 69.5% |
| Wellington City | 75.4% | 71.3% |
| Masterton District | 65.6% | 69.4% |
| Carterton District | 68.4% | 70.4% |
| South Wairarapa District | 69.0% | 71.1% |

Source: Census 2006, Statistics New Zealand

Participation of people in different ethnic groups

Compared to the national average in 2006, the labour force participation rate for all the ethnic groups was higher in the Wellington Region, most notably for the Asian ethnic group. On average in 2006, labour force participation in Wellington Region was highest among those self-identified as New Zealanders, followed by the Maori ethnic group.

Chart 8: Labour force participation rate by ethnicity in 2006



Source: Census 2006, Statistics New Zealand

Participation rates among ethnic groups in each TA generally follow the pattern of overall participation: TAs with low or high participation rates generally have low or high participation rates among all ethnic groups.

Table 7: Labour force participation rate by ethnicity in 2006

| | Participation rate (%) | | | | | Total |
|--------------------------|------------------------|-------|-----------------|-------|---------------|-------|
| | European | Maori | Pacific Peoples | Asian | New Zealander | |
| New Zealand | 68.7% | 69.3% | 65.0% | 62.2% | 77.4% | 68.5% |
| Wellington Region | 70.6% | 72.9% | 68.7% | 68.3% | 79.4% | 71.0% |
| Kapiti Coast District | 57.1% | 69.3% | 68.2% | 66.7% | 67.8% | 59.2% |
| Porirua City | 72.4% | 69.5% | 64.2% | 64.4% | 81.5% | 70.6% |
| Upper Hutt City | 68.5% | 73.0% | 67.8% | 66.1% | 78.4% | 69.6% |
| Lower Hutt City | 70.1% | 71.8% | 70.0% | 69.5% | 79.5% | 70.6% |
| Wellington City | 76.2% | 78.4% | 73.2% | 68.3% | 83.8% | 75.4% |
| Masterton District | 64.1% | 69.0% | 68.4% | 65.6% | 74.3% | 65.6% |
| Carterton District | 67.4% | 71.7% | 57.9% | 73.7% | 77.3% | 68.4% |
| South Wairarapa District | 67.7% | 71.3% | 65.4% | 78.8% | 76.5% | 69.0% |

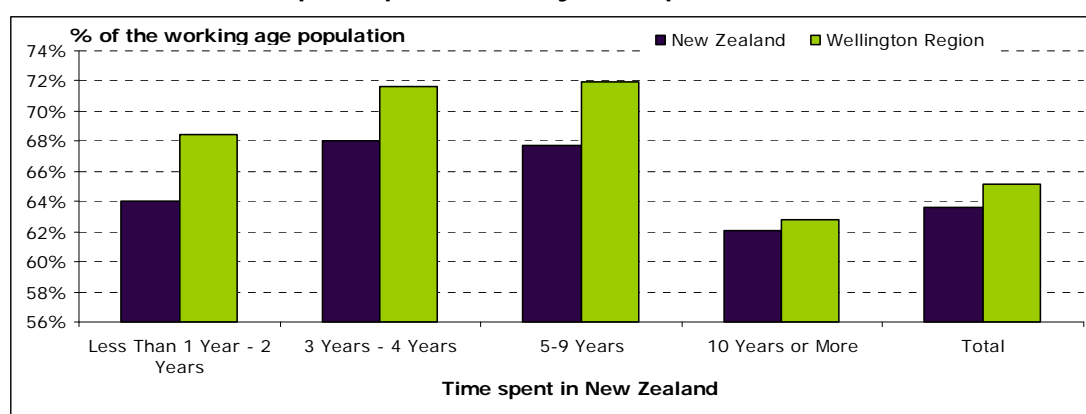
Source: Census 2006, Statistics New Zealand

Participation rates of migrants

Migrants made up 22% of the total population in Wellington Region, similar to that of New Zealand as a whole. Compared to the national average in 2006, participation of migrants was higher in the Wellington Region, regardless of the period of time since their arrival in New Zealand.

Participation rates were highest for migrants in the Wellington Region who have been in New Zealand for less than 10 years. The participation rate of migrants who have been in the country for 10 years or more is relatively low. This might be due to the fact that the age profile of this group is older than those who have been here for fewer years, and will include many retired people.

Chart 9: Labour force participation rate by time spent in New Zealand in 2006



Source: Census 2006, Statistics New Zealand

Participation rates of people with different qualification attainment

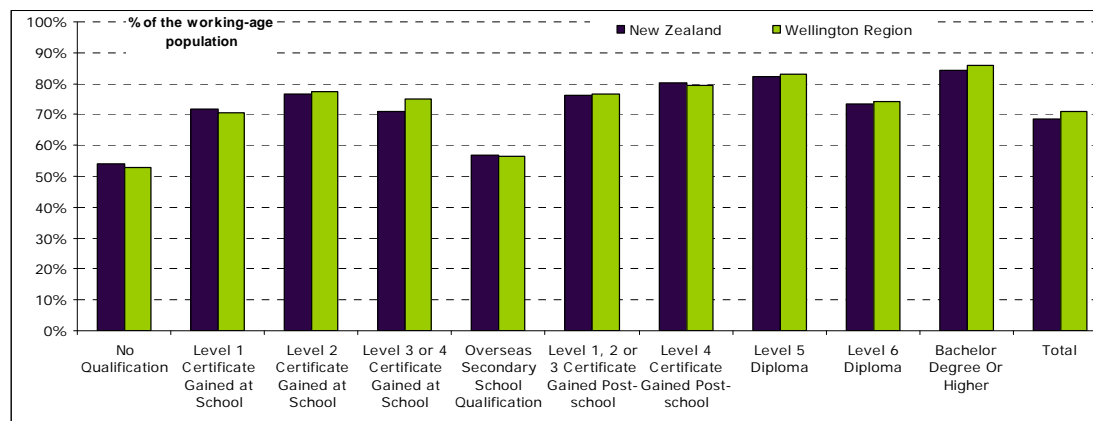
Reflecting national trends, labour force participation across the Wellington Region was higher for people with higher qualifications.

The participation rate was highest for people with Bachelor degree or higher and lowest for people with no qualifications and a Level 1 certificate gained at school.

Compared to the national average in 2006, labour force participation was slightly higher for those with Bachelor degrees or higher, Level 5 and 6 diplomas, as well as people with Level 2, 3 and 4 certificates gained at school.

In contrast, labour force participation was lower for people with no qualifications, Level 1 certificates gained at school, and Level 4 certificates gained post-school.

Chart 10: Labour force participation rate by highest qualification in 2006



Source: Census 2006, Statistics New Zealand

Table 8 shows the participation rates of people of people with different qualifications among the Wellington Region's constituent TAs.

Taking into account the overall participation of each TA, the participation rate of people with no qualifications was disproportionately low in Wellington City and disproportionately high in Carterton District and South Wairarapa District.

The participation of people with Bachelor degree or higher was also disproportionately high in Masterton and South Wairarapa districts (although lower than the national average).

Table 8: Labour force participation rate by highest qualification in 2006

| | Participation rate (%) | | | | | | | | | | Total |
|--------------------------|------------------------|--------------------------------------|--------------------------------------|---|----------------------------------|--|--|-----------------|-----------------|---------------------------|-------|
| | No Qualification | Level 1 Certificate Gained at School | Level 2 Certificate Gained at School | Level 3 or 4 Certificate Gained at School | Overseas Secondary Qualification | Level 1, 2 or 3 Certificate Gained Post-school | Level 4 Certificate Gained Post-school | Level 5 Diploma | Level 6 Diploma | Bachelor degree or higher | |
| New Zealand | 54.2% | 71.7% | 76.7% | 70.9% | 56.8% | 76.0% | 80.1% | 82.4% | 73.5% | 84.4% | 68.5% |
| Wellington Region | 52.9% | 70.7% | 77.6% | 75.2% | 56.6% | 76.5% | 79.3% | 83.2% | 74.3% | 85.9% | 71.0% |
| Kapiti Coast District | 45.4% | 62.5% | 69.9% | 68.6% | 41.3% | 67.9% | 69.6% | 73.1% | 59.7% | 73.6% | 59.2% |
| Porirua City | 56.1% | 71.4% | 79.4% | 80.7% | 59.4% | 75.3% | 82.6% | 85.3% | 78.7% | 85.7% | 70.6% |
| Upper Hutt City | 54.3% | 73.6% | 79.3% | 81.0% | 53.2% | 77.1% | 80.4% | 83.9% | 76.2% | 84.8% | 69.6% |
| Lower Hutt City | 55.5% | 73.1% | 79.0% | 79.6% | 59.0% | 77.6% | 81.1% | 83.4% | 76.6% | 84.3% | 70.6% |
| Wellington City | 50.3% | 70.6% | 78.1% | 73.3% | 59.5% | 79.1% | 80.9% | 84.7% | 77.5% | 87.7% | 75.4% |
| Masterton District | 53.4% | 71.0% | 76.5% | 74.6% | 53.8% | 74.6% | 77.9% | 83.4% | 65.4% | 83.1% | 65.6% |
| Carterton District | 57.0% | 73.0% | 76.6% | 78.5% | 50.0% | 75.3% | 79.1% | 85.9% | 72.3% | 82.7% | 68.4% |
| South Wairarapa District | 58.8% | 71.8% | 76.9% | 72.2% | 55.8% | 74.4% | 78.2% | 86.4% | 71.3% | 83.2% | 69.0% |

Source: Census 2006, Statistics New Zealand

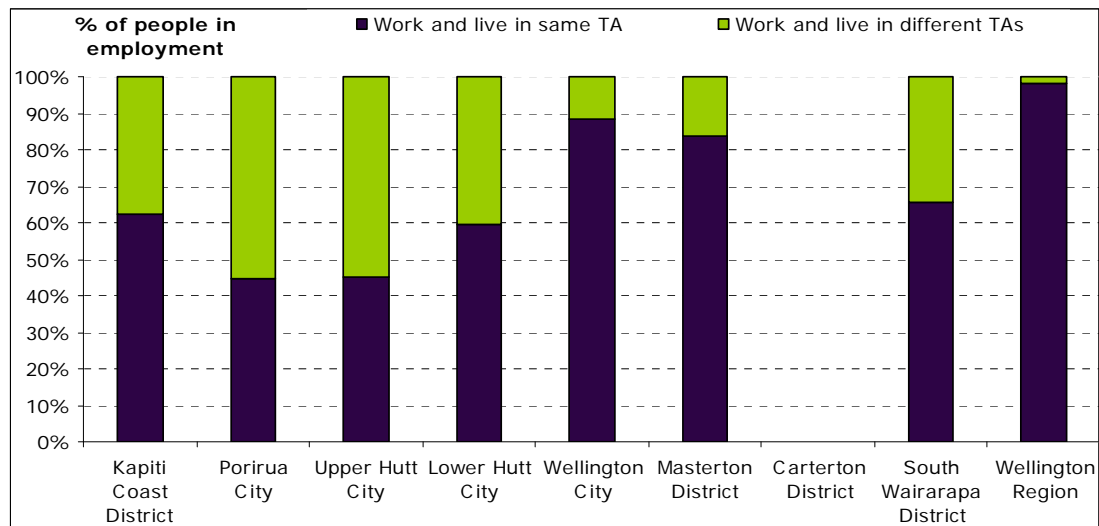
Discussion point 2:

- **What types of people face disadvantages in your regional labour market, why is this, what opportunities are there to increase participation and what's being done about it?**
- **Are there any concentrations of low participation in your region among groups or people or in local areas?**
- **What barriers exist to labour market participation such as affordable housing, cultural issues, transport, childcare, healthcare, low skills, motivation, discrimination?**
- **What is the availability, awareness and take-up of regional services that are designed to help people overcome such barriers?**

2.4 Commuting

High commuting patterns are seen across the Wellington Region⁹. In 2006, more than half of the people in Porirua City commuted to Wellington City for work, and more than half of the people in Upper Hutt City commuted to both Lower Hutt City and Wellington City for work. More than one third of the people in Kapiti Coast District, Lower Hutt City and South Wairarapa District also commute to another TA for work.

Chart 11: Commuting pattern of the working population in 2006



Source: Census 2006, Statistics New Zealand

The proposed Kapiti airport development may produce a change in the commuter flows in the greater Wellington area. The Kapiti Coast Chamber of Commerce, in their submission to the Kapiti Coast District Council¹⁰, stated that the

⁹ There is no data for Carterton District. Data was not made available by Statistics New Zealand due to confidentiality concerns.

¹⁰ Kapiti Coast Chamber of Commerce, 18 May 2007.

development of the area would reduce flows of regional residents into and out of Wellington City, and increase jobs located in the general airport area.

Discussion point 3:

- **Does this picture fit with what you know about the region?**
- **What are the main commuter flows within the region? Think about: where people commute from/to, what routes they use.**
- **Will there be any changes to the region's infrastructure that might change these commuter flows in future?**

3. EMPLOYERS' LABOUR REQUIREMENTS

The employers represented in this section are those whose businesses are located within the relevant regional boundary. This can be a whole business or the branch of a business that has other units in other regions. The employment numbers in this section refer to people working in the region regardless of where they live. This is different to the previous section, in which population and participation figures referred to people living in the region regardless of where they work.

The first part of this section looks at the size of businesses in the regional economy (in terms of the number of people they employ). This is an important characteristic of the labour market because it indicates the extent to which employees are concentrated in a small number of big firms or a large number of small firms. There's also a connection between business size and skill requirements. Generally speaking, people in larger businesses are employed in more specialised jobs compared with people employed in smaller businesses.

The following two sections look at two different types of labour requirements – new labour requirements, which result from businesses expanding, and replacement labour requirements, which result from the normal turnover of employees in a business, regardless of whether the business is growing.

The analysis of new labour requirements looks at overall changes in employment in regional industries and the occupations people perform in these industries. Information about industries tells us what is produced. Information about occupations tells us about the skill requirements of people's jobs and the tasks they are required to perform. It is worth noting that this section will also look at types of labour for which employers' requirements have declined. The analysis of replacement labour requirements looks particularly at replacements due to retirements.

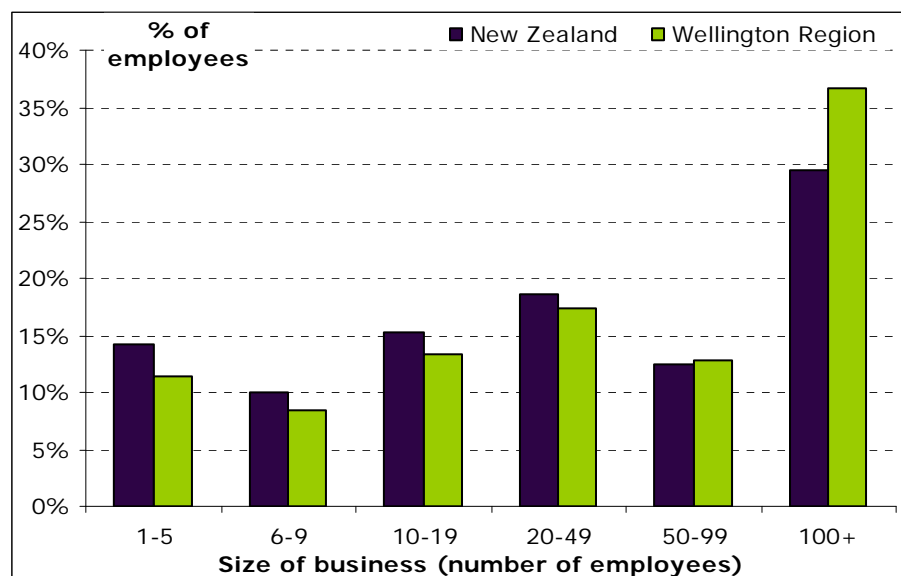
Using employment numbers underestimates labour requirements because it excludes requirements that employers are not able to meet. In the current tight labour market many employers are unable to fill their job vacancies because people with the required skills are not available. The later section entitled *Labour market outcomes* looks at the available measures of unmet labour demand to determine the extent to which labour supply is not meeting labour demand.

3.1 Firm size¹¹

A large proportion of the people in the Wellington Region as a whole were employed in large businesses. Just under 37% of people in Wellington Region were employed in businesses with 100+ employees, higher than the national average of 29%. In contrast, people in Wellington were less likely to be employed in businesses with less than 50 employees, compared to the national average.

¹¹ Employment data provided by 2006 Business Demographics Statistics differ to employment data provided by the 2006 Population Census. This is a result of the different scope, coverage and time period of the two surveys. See the Data Dictionary for information about these surveys.

Chart 12: Share of employees working in businesses by business size in 2006



Source: Business Demographic Statistics, 2006, Statistics New Zealand

Within the Wellington Region in 2006, the pattern of employment across business size was varied. Businesses with 100+ employees accounted for a large proportion of the total employment in Wellington City, Upper Hutt City, Porirua City and Lower Hutt City. This is largest for Wellington City, where 45% of the people were employed in businesses with 100+ employees.

In contrast, most people in Kapiti Coast District, Carterton District and South Wairarapa District were employed in businesses of less than 50 employees, especially businesses of 1–5 employees. This is most significant for South Wairarapa District where 31% were employed in businesses with 1–5 employees, and there was an absence of large businesses with 100+ employees.

Table 9: Employees working in businesses by business size in 2006

| | % of all employees | | | | | | Total |
|--------------------------|--------------------|-----|-------|-------|-------|------|-----------|
| | 1–5 | 6–9 | 10–19 | 20–49 | 50–99 | 100+ | |
| New Zealand | 14% | 10% | 15% | 19% | 13% | 29% | 1,843,888 |
| Wellington Region | 11% | 8% | 13% | 17% | 13% | 37% | 227,941 |
| Kapiti Coast District | 23% | 15% | 19% | 21% | 11% | 11% | 11,103 |
| Porirua City | 13% | 10% | 16% | 14% | 13% | 33% | 14,694 |
| Upper Hutt City | 15% | 9% | 14% | 15% | 12% | 35% | 10,966 |
| Lower Hutt City | 13% | 10% | 16% | 19% | 13% | 29% | 43,249 |
| Wellington City | 9% | 6% | 11% | 16% | 13% | 45% | 132,804 |
| Masterton District | 17% | 13% | 18% | 23% | 14% | 14% | 9,701 |
| Carterton District | 24% | 14% | 17% | 21% | 12% | 12% | 2,474 |
| South Wairarapa District | 31% | 17% | 19% | 28% | 5% | 0% | 2,921 |

Source: Business Demographic Statistics, 2006, Statistics New Zealand

3.2 New labour requirements

Goods and services produced

The goods and services produced in the Wellington Region changed between 2001 and 2006, and this has had an impact on employment in the region. Total employment in the Wellington Region grew by 8% to over 200,000 people between 2001 and 2006. This is well below the national employment growth of 15% in the same period.

Linked to the low growth in jobs, the Wellington Region experienced lower than average growth in Gross Domestic Product. Over the five years to March 2006, the Wellington Region grew at 2.7% compared to the national rate of 3.7%¹². Recognising the significance of this issue, the Wellington Regional Strategy stated:

In 2006, councils in the region invested \$3.9 million in economic development. It is proposed this be increased to \$4.5 million in 2007/08 and \$4.5 to \$5.6 million for each of the subsequent two years¹³,

In terms of absolute numbers, the largest employment growth occurred in the Property and Business Services and Government Administration and Defence industries. The growth of these industries is important to Wellington Region as they accounted for over a quarter of the total employment in 2006. A number of industries experienced a decline, including Manufacturing, Communication Services, Transport and Storage and Agriculture, Forestry and Fishing, although these industries are not all large employers in the region.

Across the whole country, recent economic growth during this period has been driven by the domestic economy. Domestically, interest rates over the last eight years have been lower than those over the previous 20 years (although higher than many other OECD countries) and, combined with inward migration have contributed to the growth in consumer spending and the property market. As employment grew and house prices rose, consumers were spurred on to continue spending.

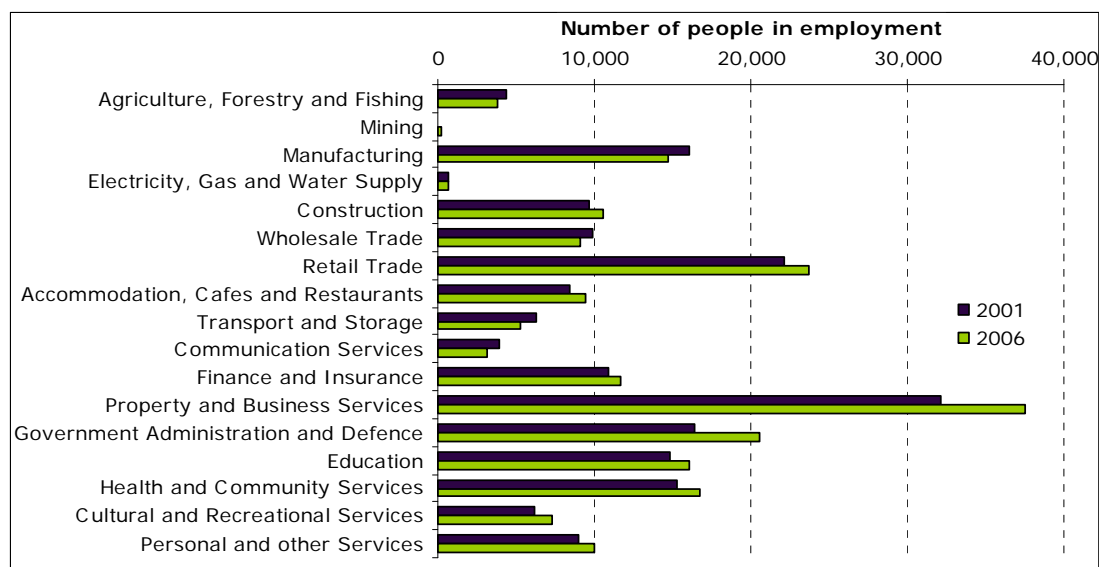
This has created demand for retail products, residential construction, property services, hospitality, personal services, cultural services and recreational services. As these business expanded, this created demand across the supply chain for wholesale goods, business services, communications, transport and storage, finance and insurance. Government spending has also contributed to growth in health and community services and education.

The exporting sector (mainly agriculture and manufacturing) had a more difficult time. The strong New Zealand dollar reduced the competitiveness of manufactured goods and agricultural products in international markets.

¹² Wellington Regional Strategy, February 2007. p6.

¹³ Ibid. p8. The Wellington Regional Strategy is available at: <http://www.wrs.govt.nz/>

Chart 13: Employment in industries in Wellington from 2001 to 2006 (people whose workplace address is in the region)



Source: Census 2001 and 2006, Statistics New Zealand

At the time of the 2006 Population Census, the largest employing industry in the Wellington Region was Property and Business Services (nearly 37,554 employees, 18.4% of regional employment). This employment was focused on the Other Business Services and Marketing and Business Management Services industries.

The second largest industry in terms of employment numbers was Retail Trade, with nearly 24,000 employees – 11.6% of employment. This employment was focused around the Supermarket and Grocery Stores, Specialised Food Retailing, and Other Personal and Household Good Retailing industries.

Government Administration and Defence was the third largest employer, with slightly over 20,000 employees – 10.1% of regional employment. This employment was focused closely on Government Administration, reflecting the concentration of government departments in Wellington City.

Employment growth was largest in Property and Business Services, with over 5,300 more employees in 2006 compared with 2001.

Over the same period, employment within the Government Administration and Defence industry grew by just over 4,000 employees.

Table 10: Changing employment in industries in Wellington from 2001 to 2006 (people whose workplace address is in the region)

| | Wellington Region | | | New Zealand | |
|---------------------------------------|-------------------|------------|--------------|-------------|--------------|
| | Employment count | % Growth | | Employment | Hours Worked |
| | | Employment | Hours Worked | | |
| Agriculture, Forestry and Fishing | 3,870 | -11% | -16% | -3% | -7% |
| Mining | 213 | 78% | 57% | 24% | 24% |
| Manufacturing | 14,700 | -9% | -11% | 1% | -1% |
| Electricity, Gas and Water Supply | 675 | -1% | -6% | 2% | -1% |
| Construction | 10,605 | 9% | 5% | 42% | 39% |
| Wholesale Trade | 9,156 | -7% | -10% | 8% | 5% |
| Retail Trade | 23,727 | 7% | 4% | 14% | 11% |
| Accommodation, Cafes and Restaurants | 9,411 | 12% | 8% | 18% | 13% |
| Transport and Storage | 5,298 | -15% | -17% | 13% | 10% |
| Communication Services | 3,129 | -21% | -23% | 5% | 3% |
| Finance and Insurance | 11,652 | 6% | 2% | 24% | 20% |
| Property and Business Services | 37,551 | 17% | 12% | 30% | 26% |
| Government Administration and Defence | 20,547 | 26% | 21% | 13% | 9% |
| Education | 16,062 | 9% | 4% | 10% | 5% |
| Health and Community Services | 16,728 | 10% | 10% | 15% | 14% |
| Cultural and Recreational Services | 7,257 | 18% | 15% | 25% | 22% |
| Personal and other Services | 10,044 | 11% | 7% | 18% | 15% |
| Total | 204,111 | 8% | 4% | 15% | 11% |

Source: Census 2001 and 2006, Statistics New Zealand

Discussion point 4:

- **Does this industry profile fit with what you know about the region?**

National, industry and regional impacts on regional employment growth

Employment change in a region over time is a product of three separate components:

- The performance of the national economy influences the performance of the local economy.
- National industries grow at different rates – the scale of an industry in a region and the national performance of that industry influence the performance of the local economy.
- The same industry can grow at different rates in different regions – region specific industry growth influences the performance of the local economy.

By separating out employment growth resulting from each of these three factors, we get a much clearer view of the causes of regional employment growth than from the total employment growth figure¹⁴. This section investigates each of these three influences on regional employment growth.

If the Wellington labour market had grown at the national rate, employment would have grown by just over 28,000 employees – this result is represented by the column in Chart 14 called National Growth.

After removing the influence of national growth, i.e. had the industries in Wellington grown at national growth rates, employment would have declined by just over 4,200 employees – this result is represented by the column in Chart 14 called Industry Mix.

After removing the influence of an industry's national growth rate, the remainder shows that employment would have declined by over 17,000 employees – this result is represented by the column in Chart 14 called Region Specific. These three components combine to produce an increase in Wellington employment of over 15,200 between 2001 and 2006.

Industry mix

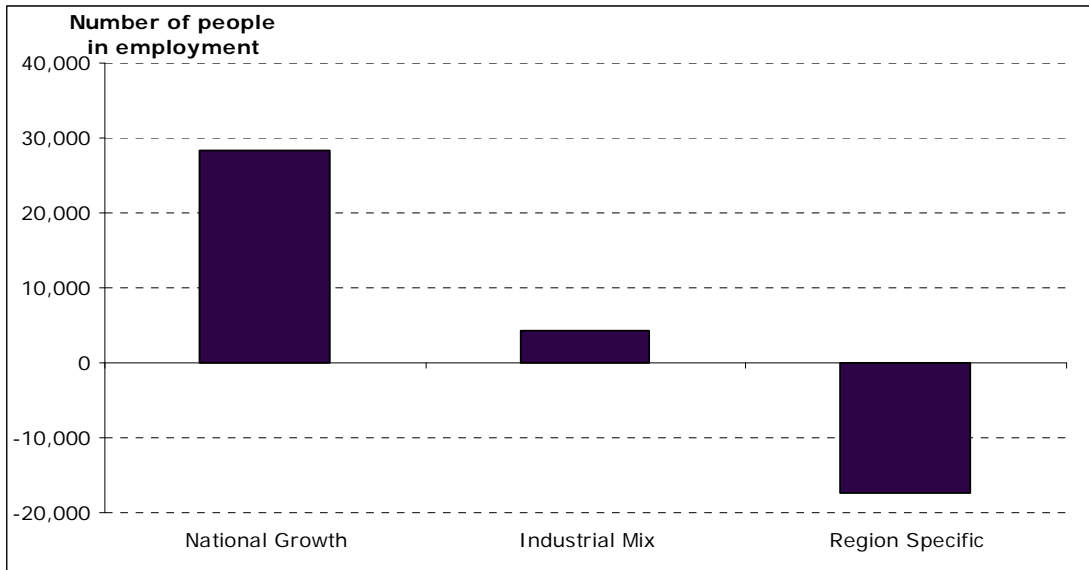
The mix of industries plays an important role in determining employment growth. While Agriculture, Forestry and Fishing employment declined and Manufacturing employment was almost static between 2001 and 2006, these industries were under-represented in the region. Conversely, the high growth Property and Business Service, and Finance and Insurance industries were over-represented in the region. With a low share of low growth industries, and a high share of high growth industries, the industry mix caused employment in the region to grow.

¹⁴ This method of analysis is commonly referred to as “shift-share” analysis.

Region specific

Region specific characteristics have had a major effect on employment growth in the Wellington Region. Between 2001 and 2006, all but the Government Administration and Defence industry, and the smallest industry in the Wellington Region grew at a lower rate than the national averages. Many variables can influence the performance of a region's industries independently of their national growth including regional infrastructure changes, businesses opening or closing and production issues.

Chart 14: Components of Wellington employment growth 2001 to 2006



Source: Census 2006, Statistics New Zealand

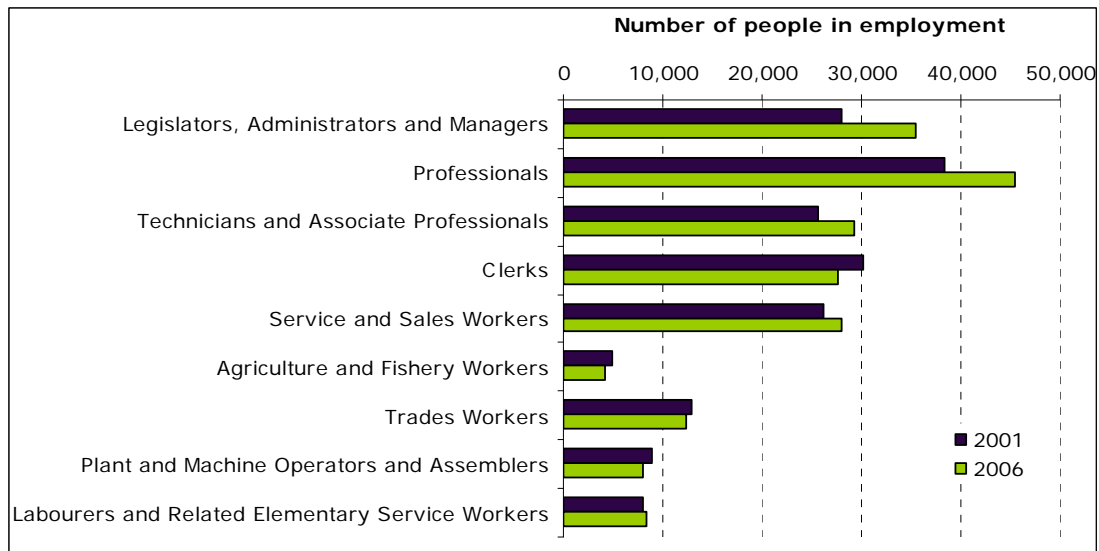
Discussion point 5:

- **What regional characteristics have created the current industrial landscape in the region? Think about: climate, topography, population, resources, regional planning and culture.**
- **Is there an over-dependence on a particular sector or sectors?**
- **Are there opportunities for industry clusters?**
- **Have there been or are there any major Foreign Direct Investment opportunities?**
- **Is your regional labour market influenced by offshoring of production?**
- **What have you heard about growing and declining industries?**
- **What international, national and regional forces are driving these changes in the industrial landscape?**
- **What is the outlook for your region's industries?**
- **What do you see as the key regional industries? What are their short-term and long-term priorities for these industries?**

Employment growth in occupations

In the Wellington Region between 2001 and 2006, employment grew in all the highly skilled occupations (Legislators, Administrators and Managers and Professionals), in the Technicians and Associate Professionals occupation group, and in some semi-skilled and elementary occupations (including Service and Sales Workers, and Labourers). Employment growth was largest for the highly skilled occupations. In contrast, employment decreased mainly in the semi-skilled and elementary occupations (including Clerks, Agriculture and Fishery Workers, Plant and Machine Operators and Assemblers), and in the Trades Workers occupation group. Employment growth in each occupation was smaller in Wellington Region than the national average. The decrease in the employment of Agriculture and Fishery Workers was also greater in Wellington Region.

Chart 15: Occupation employment levels in Wellington from 2001 to 2006 (people whose workplace address is in the region)



Source: Census 2001 and 2006, Statistics New Zealand

Table 11: Occupation employment growth in Wellington from 2001 to 2006 (people whose workplace address is in the region)

| | % Growth | | | | | | | | |
|-------------------|---|----------------------|--|---------------|--|--|---------------------------|---|-----------------------------------|
| | Legislators, Administrators and Managers | Professionals | Technicians and Associate Professionals | Clerks | Service and Sales Workers | Agriculture and Fishery Workers | Trades Workers | Plant and Machine Operators and Assemblers | Elementary Occupations |
| New Zealand | 31% | 22% | 26% | 1% | 11% | -6% | 16% | 4% | 21% |
| Wellington Region | 26% | 19% | 14% | -9% | 7% | -13% | -5% | -11% | 4% |

Source: Census 2001 and 2006, Statistics New Zealand

Regional, industry and occupational impacts on skill requirements

Skill requirements can change for a number of reasons. If regional employment is growing strongly, the economic conditions driving this can be expected to increase employer requirements for the whole range of skills. Skill requirements also change because of changes in the mix of goods and services being produced in the economy.

If there is an increase in the number of houses being built in the region, there will be an increase in employers' requirements for carpentry skills. Skill requirements also change if the mix of skills required in producing a given amount of a good or service changes. If the house builders in a region begin to use wood frames more and aluminium frames less (maybe because the price of wood has come down), employers' requirements for carpentry skills will increase even if the number of houses being built remains the same.

Addressing skill shortages is specifically identified within the Wellington Region Labour Market Strategy¹⁵. The strategy notes that

...action is needed to reverse the current trends of:

- decreasing job vacancy fill rates in the region
- people with skills moving off-shore for work
- shortages in the trades, technicians and apprenticeships
- higher percentage of workforce of some groups overrepresented in low skilled employment
- reduction in skilled migrant flows into the region.
- lack of matching of skills to business needs.¹⁶

The strategy goes on to identify a range of constraints, solutions and timelines to address these points. The key issue identified is the ability to identify future skill needs and train accordingly. The priority solution identified in the report is for the development of a regionally integrated clearing-house and collective intelligence sharing.

The following is an outline of what's driving changes in Wellington employers' skill requirements.

Highly skilled jobs:

- The employment growth of Legislators, Administrators and Managers was highest among all the occupation groups between 2001 and 2006. This was mainly driven by an increase in the concentration of these occupations in all of the industries, especially in the Property and Business Services and Retail Trade. Together, these industries accounted for more than a third of the total employment of Legislators, Administrators and Managers.
- The employment growth of Professionals in the Wellington was high between 2001 and 2006. This was driven by the growth of a number of

¹⁵ Wellington Region Labour Market Strategy, April 2006, p7.

¹⁶ Ibid, pp14–15.

industries, especially Property and Business Services and Government Administration and Defence, where over 40% of Professionals were employed in 2006. The growth was supported by the increase in the number of Professional employees in a number of industries, most significantly Government Administration and Defence, Property and Business Services, Finance and Insurance and Personal and Other Services.

Skilled jobs:

- Growth in the employment of Technicians and Associate Professionals was also relatively high between 2001 and 2006. This was partly driven by the growth in a number of industries, most notably Property and Business Services and Government Administration and Defence, where one-third of the occupation group was employed. More importantly, the growth was driven by an increase in the prevalence of Technicians and Associate Professionals in a number of industries, most significantly in Retail Trade, Finance and Insurance and Health and Community Services.
- The employment of Trades Workers in the Wellington Region declined between 2001 and 2006. This was partially because of the decline in the Manufacturing industry employment, which accounted for a quarter of the total employment of Trades Workers in the region. More significantly, the employment decline was due to the decrease in prevalence of Trades Workers in a number of industries, notably Construction, Retail Trade and Property and Business Services.

Semi-skilled and elementary jobs:

- Employment of Clerks in Wellington Region declined significantly between 2001 and 2006. This is due to a pronounced decrease in the share of clerical occupations in most industries, especially in Finance and Insurance, Property and Business Services and Government Administration and Defence.
- The employment growth for Service and Sales Workers had been moderate in the Wellington Region. This was driven by the growth in Retail Trade and Accommodation, Cafes and Restaurants, where more than half of the Service and Sales Workers were employed.
- Employment growth of Labourers and Elementary Workers was small between 2001 and 2006. This is mainly driven by a slight increase in the prevalence of this occupation group in a number of industries, especially the Construction and Manufacturing industries.
- The employment of Plant and Machine Operators and Assemblers decreased between 2001 and 2006. This was mainly driven by the declining employment in the Manufacturing and Transport and Storage industries, where just over half of Plant and Machine Operators and Assemblers were employed. It was also driven by the decrease in the share of this occupation group in a number of industries, especially in Manufacturing, Construction and Transport and Storage.

Paul Mather, Director, Centre for Smart Product at Weltec reports:

There is little in the way of clearly-articulated skill shortage advised by industry. Weltec have isolated issues and likely skill shortages around the current and potential sunrise industries, in particular, high level technician skills to support the high temperature superconductor sector, the biotechnology sector and the nanotechnology sector. There is also likely to be ongoing demand for advanced toolmakers. The issue is, when do we put the money in to develop the infrastructure to support these new industries?

Discussion point 6:

- **What types of skill are most in demand in the region? Think about: technical skills such as carpentry or sheet metal working, soft skills such as communication, punctuality and management skills.**
- **Are businesses able to articulate their skill demands? If not, why not?**
- **What skills are in growing demand? What is driving this growing demand?**

3.3 Replacement labour requirements

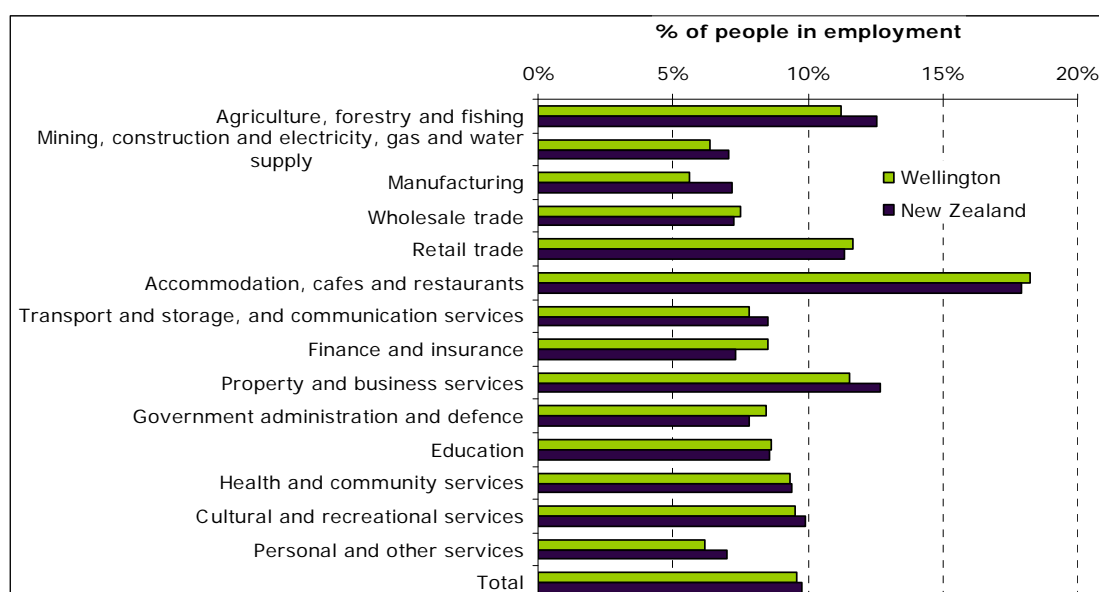
The worker replacement rate measures the proportion of workers that change independent of job availability. The worker replacement rate (WRR) is calculated by taking the Worker Turnover Rate (WTR: People starting and leaving work as a proportion of total jobs) and subtracting the Job Flow Rate (JFR: The creation and destruction of jobs as a proportion of total jobs).

$$\text{WRR} = \text{WTR} - \text{JFR}$$

By taking the amount of workers that change and subtracting the amount of jobs that change, the remainder is the proportion of workers that change independent of job availability, the underlying rate of worker replacement. When employment conditions are held constant, this is rate at which workers need to be replaced.

The highest labour replacement requirements in the Wellington Region were likely to be in the largest industries: Retail Trade and Property and Business Services. Worker turnover rates in these industries were relatively high, and they accounted for a large proportion of total employment in the region. The hospitality (Accommodation, Cafes and Restaurants) and Agriculture, Forestry and Fishing industries had the highest turnover rates but they were relatively small industries in Wellington Region.

Chart 16: Worker replacement rates in industries in Wellington in 2006



Source: Linked Employee Employer Dataset, Statistics New Zealand

3.4 Retirements

Staff retirement is a key source of replacement labour demand. As the workforce ages, younger people need to replace older workers in sufficient numbers, otherwise the workforce will contract.

While there is no standard measure for estimating retirement, the Department of Labour uses a calculation based on 20% of the workforce aged 60 and above retiring every year¹⁷. Based on this ratio, the Department of Labour estimates that, annually, nationwide retirements amount to be 1.9% of the whole workforce. Retirement rates of over 3.0% are expected among Agriculture and Fishery Workers. Most other occupations are expected to have retirement rates of between 1.5% and 2.5%.

Over 3,300 people were estimated to retire each year in the Wellington Region. This is equivalent to about 1.6% of the total number of people in employment. Retirement is probably highest among and Professionals and Legislators, Administrators and Managers as they accounted for the largest proportion of total employment in the region. Agriculture and Fishery Workers, Labourers and Elementary Occupations, and Plant and Machine Operators and Assemblers have a relatively old age profile, although accounting for a small proportion of the total people in employment.

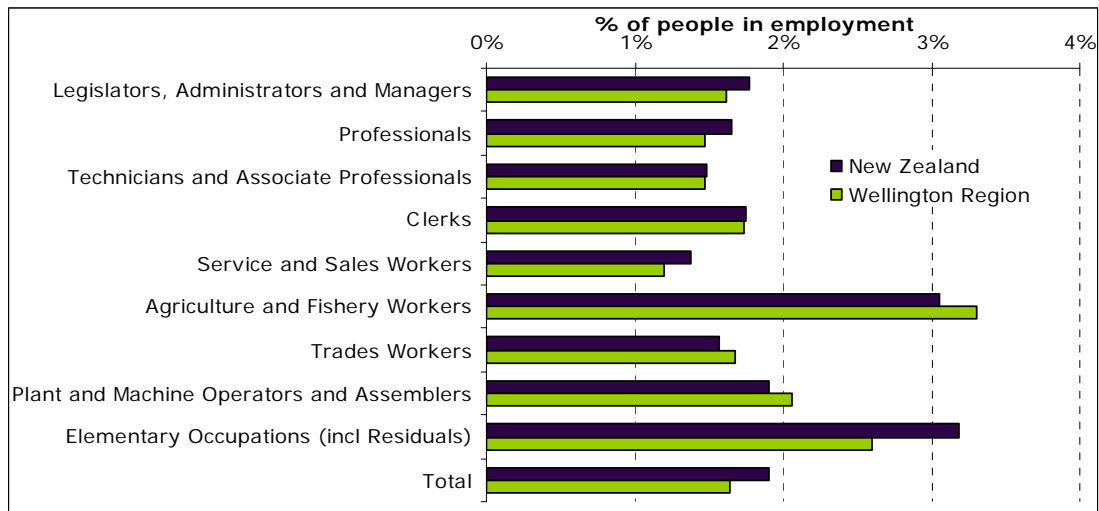
Anecdotal information from TradeStart¹⁸ and from current tradespeople indicate that there are many tradespeople in their 50s within the region who are not

¹⁷ For further information about this retirement rate, see the Glossary of Terms at the end of this report.

¹⁸ TradeStart is a programme run by Hutt City Council to encourage and help people, particularly school leavers, into skilled jobs. For more information visit www.tradestart.org.nz/

looking to expand their businesses, but looking to get some work-life balance in their lives and that this is having a negative impact on the rate that these people are taking on new staff. This is particularly significant for the volume of new apprenticeships in the region.

Chart 17: Annual retirement rates in occupations in 2006 (for people who live in Wellington)



Source: Census 2006, Statistics New Zealand

Discussion point 7:

- **Do these trends fit with what you know about aging occupations or industries in your region?**

4. LABOUR MARKET OUTCOMES

There are broadly two ways in which employers' labour requirements can be mismatched with the labour offered by the workforce. Firstly, employers' labour requirements may be insufficient to provide work for everyone who is willing and able to work. The first part of this section looks at unemployment rates to get a sense of this mismatch.

Secondly, even when job vacancies are available, some people might still be unemployed because they don't have the skills required for the jobs. The second part of this section looks at the number of advertised job vacancies and employers' ability to fill. The third part of this section looks at how labour market outcomes differ among people with different qualifications.

The final part of this section looks at wages. Wages are the result of complex interactions between employers and workers and are influenced by such things as the value that workers add in the production process, and the extent to which employers' skill requirements can be met by the skills on offer in the workforce. When employers are facing skill shortages, workers with those skills are in a position to bid up their wages.

When labour requirements are relatively low, competition for jobs places employers in a position to bid down wages (or at least suppress wage rises). Wages are a key labour market outcome not least because they are a major part of many employers' production costs, and they have a direct impact on the standard of living of people in employment.

4.1 Employment and unemployment

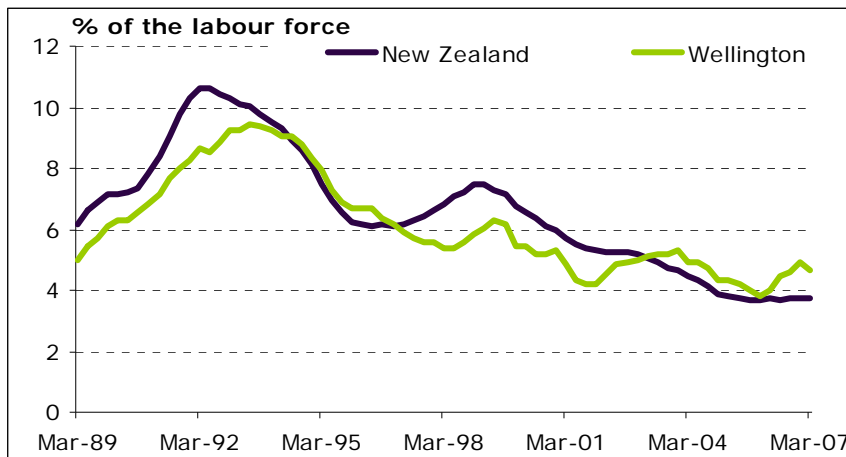
The unemployment rate in the Wellington Region, as in the country as a whole, is at a very low level¹⁹.

Recent economic growth has increased the demand for labour at a rate faster than the labour force has grown. Recent economic growth has been centred in domestic industries such as the Retail Trade, Construction and Property and Business Services. The amount of labour used to produce a given output in these industries is much higher than, say, the Dairy, Mining or Manufacturing industries, where capital investment plays a much bigger part of the production process.

Recent economic growth has, therefore, resulted in pronounced job growth.

¹⁹ Unemployment rates from the Household Labour Force Survey and Population Census differ. This is a result of the different scope and coverage of the two surveys. For more information, see the Data Dictionary.

Chart 18: Unemployment rate from 1989 to 2007 (12-month moving average)

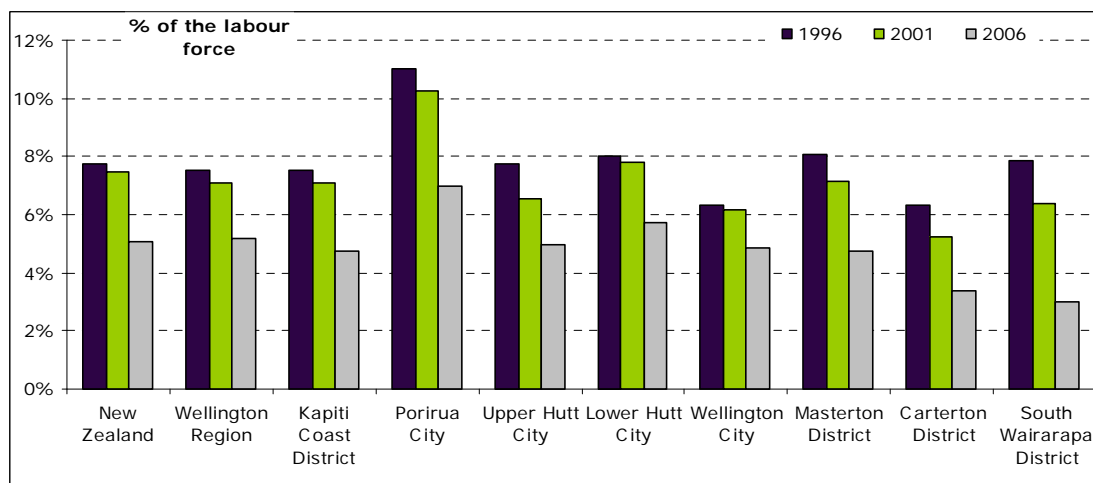


Source: Household Labour Force Survey, Statistics New Zealand

The unemployment rate in the Wellington Region has fallen steadily since 1993. The Wellington Region unemployment rate was lower than average from 1997 to 2002, although it has been higher than the national average since then. The current figure of 4.7% in the year to March 2007, while relatively low over recent years, is one of the highest in New Zealand.

Across Wellington's constituent TAs, unemployment rates fell between 1996 and 2006, with most of the fall occurring after 2001. The greatest fall in unemployment occurred in South Wairarapa District and Porirua City. Porirua City still had the highest unemployment rate at 7.0%, while South Wairarapa District had the lowest unemployment rate at 3.0%. All other TAs had unemployment rates between 3.4–5.7%. Within the Wellington Region, the fall in unemployment was the result of employment growth outstripping growth in the labour force. This suggests that labour available to employers expanded but labour requirements had expanded even more.

Chart 19: Unemployment rates for Wellington in 1996, 2001 and 2006



Source: Census 1996, 2001 and 2006, Statistics New Zealand

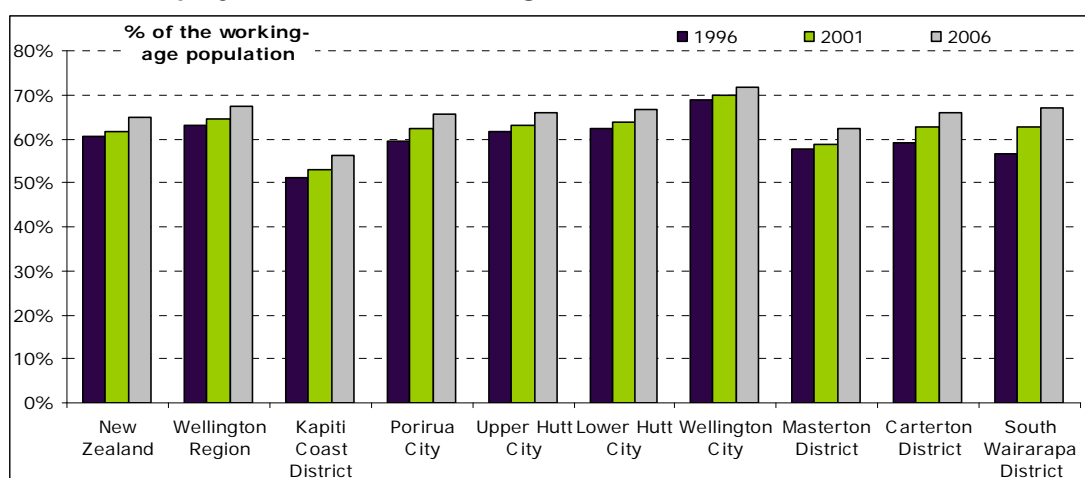
Discussion point 8:

- **Do these trends fit with what you know about your region?**
- **Are there any particular areas of high unemployment?**
- **Have there been any major redundancies in recent years?**
- **What types of people are over-represented among the unemployed in your region?**

Employment rates – the number of employed people as a percentage of the working-age population - are a useful way to compare regional labour markets. Employment is one indicator of the level of employers' labour and skill requirements and the extent to which the skills and labour on offer meets these requirements.

Employment rates have increased throughout Wellington Region as they have nationally between 1996 and 2006. South Wairarapa District experienced the greatest increase in its employment rate in this period, standing at 66.9% in 2006. Wellington City experienced the smallest increase, but it continued to have the highest employment rate of 71.7% in 2006.

Chart 20: Employment rates for Wellington in 1996, 2001 and 2006



Source: Census 1996, 2001 and 2006, Statistics New Zealand

Section 2 outlined changes in the skills offered in the Wellington labour force by using qualification attainment as a proxy measure of skills. The analysis in section 3 demonstrated that Wellington Region employers' skill requirements have also changed. Growth in labour requirements has been much greater for higher skilled jobs such as Managers, Administrators and Legislators, Professionals and Technicians and Associate Professionals. Table 12 draws this together by showing changes in key labour market outcomes for people with differing levels of attainments.

Table 12 shows that employment growth among those with low qualifications in Wellington Region has been slow, and in some cases has fallen. This includes people with no qualifications, school qualifications and basic vocational qualifications. In contrast employment growth was highest for people with a Bachelor degree or higher, and Level 4 to 6 qualification gained post school. The employment growth for people with Level 4 to 6 qualifications was 26% and for a Bachelor degree or higher it was 40%. In 2006, the unemployment rates for people with these qualifications were also low – below 3.5%. This suggests that, if employers' labour requirements continue to focus on people with higher qualifications, and if these requirements are to be met, an increase in the productivity of existing workers, increase in the working-age population or the up-skilling of people with low qualifications will be needed.

Table 12: Highest qualification of the working-age Wellington population by labour force status 2001 and 2006

| | Growth 2001 to 2006 | | Employment rate | | Unemployment rate | | Participation rate | |
|---|---------------------|--------------|-----------------|--------------|-------------------|-------------|--------------------|--------------|
| | Employment | Labour force | 2001 | 2006 | 2001 | 2006 | 2001 | 2006 |
| No Qualification | 2% | -1% | 47.8% | 48.3% | 11.7% | 8.7% | 54.1% | 52.9% |
| School based Qualification | -2% | -3% | 65.9% | 66.8% | 7.5% | 6.3% | 71.2% | 71.3% |
| Level 1, 2 or 3 Certificate Gained Post-school | 19% | 16% | 71.8% | 70.8% | 9.1% | 7.4% | 79.0% | 76.5% |
| Level 4 Certificate Gained Post-school or Level 5 or 6 Diploma | 26% | 24% | 77.6% | 76.3% | 4.2% | 2.9% | 81.0% | 78.6% |
| Bachelor Degree Or Higher | 40% | 39% | 83.2% | 83.7% | 3.3% | 2.6% | 86.0% | 85.9% |
| Total | 12% | 10% | 64.7% | 67.3% | 7.1% | 5.2% | 69.6% | 71.0% |

Source: Census 2001 and 2006, Statistics New Zealand

Note: Highest qualification levels in this table differ to highest qualification levels in Chart 5. The qualifications in this table have been aggregated to increase comparability between 2001 and 2006 Census data. The 2006 Census had a different classification system to the 2001 Census. As a result of the classification changes, some 2001 qualifications were not coded the same way in 2006. The changes primarily affect Level 4 Certificate Gained Post-school, Level 5 Diploma and Level 6 Diploma.

4.2 Skill shortages

Recently, New Zealand has experienced unprecedented levels of reported shortages of skilled and unskilled labour. In many areas of the labour market employers have reported that these shortages have prevented them from increasing employment as much as they would like. The introduction to section 3 explained that the full extent of employers' labour requirements is difficult to estimate. Employment numbers are a useful measure of requirements that have been met by suitable workers, but the extent and nature of any shortfalls is an area we know little about.

The 2006 Survey of Employers who have Recently Advertised (SERA) helps fill this gap. The survey takes a sample of job vacancies that have been advertised and establishes whether employers who have advertised these vacancies were able to fill them with an adequately qualified and experienced person within ten weeks of advertising. What's unique about SERA is that job vacancies are sorted into occupations. This enables shortages of jobs requiring different skills to be assessed. While the survey has historically focused only on highly skilled and skilled occupations, the 2006 SERA includes information for semi-skilled/elementary occupations.

Table 13 shows national advertised vacancy fill rates for the nine major occupation groups (currently, information is available from SERA only at the national level). As a rule of thumb, if an occupation has a fill rate of less than 80%, this is seen as an indication that it is in moderate shortage, if the fill rate is less than 60%, it is seen as being in severe shortage, and if the fill rate is less than 40%, it is considered to be in extreme shortage.

The nine major occupational groups shown in the table are the same groups for which employment growth in the Wellington Region is shown in Chart 15. We consider national fill rates alongside regional employment growth to draw conclusions about possible skill shortages in the region. A low fill rate alongside strong employment growth is a sign that an occupation may be in shortage.

Nationally in 2006, there were acute shortages of Professionals, Technicians and Associate Professionals, Trades Workers, and Plant and Machine operators and Assemblers. Without full regional data, a tentative conclusion can be made that Wellington is experiencing shortages in Professionals and Technicians and Associate Professionals. In contrast, the shortages felt nation-wide of Trades Workers, Plant and Machine Operators and Assemblers might not be felt in Wellington, because there was only moderate growth in the Labourers and Plant and Machine Operators and Assemblers occupation group, and a decrease in the number of Trade Workers. Nationally, there were moderate shortages of a number of occupations including Legislators, Administrators and Managers. The shortage of Legislators, Administrators and Managers might also be felt in Wellington Region, as this occupation group experienced relatively high employment growth between 2001 and 2006.

The Ministry of Social Development Labour Market Development team have identified an increasing skill shortage in the trades sector. To address this shortage, the TradeStart initiative has been developed, which helps people identify a trade they wish to pursue, and helps them engage with relevant training providers²⁰. By facilitating the engagement of people with trade training it is hoped that some of the shortages can be attenuated.

Table 13: National job vacancy fill rates by major occupation

| Occupation Group | Fill rate in 2006 |
|--|-------------------|
| Legislators, Administrators and Managers | 67% |
| Professionals | 56% |
| Technicians and Associate professionals | 54% |
| Clerks | 75% |
| Service and Sales Workers | 63% |
| Agriculture and Fishery Workers | 70% |
| Trade Workers | 48% |
| Plant and Machine Operators and Assemblers | 54% |
| Labours and other Elementary Service Workers | 61% |

Source: Department of Labour, Survey of Employers who have Recently Advertised

The occupational groups referred to above include many different types of job. The degree to which these individual jobs types are in shortage varies considerably.

There isn't the capacity in this report to go into any further detail. This detail can instead be found in the Department of Labour report: Occupations in Shortage in New Zealand: 2006. This is available on the Department of Labour website – <http://www.dol.govt.nz/publications/jvm/shortage2006/index.asp>.

While the Wairarapa area has a significant Horticulture and Viticulture industry, the seasonal labour force is generally sourced from Hawke's Bay contractors. Recently, the Department of Labour implemented the Recognised Seasonal Employer (RSE) scheme. This scheme allows employers who cannot find suitable New Zealand residents to apply for accreditation as Recognised Seasonal Employer status. This status allows the employer to recruit non-New Zealand residents to work²¹. It is currently expected that only one Wairarapa grower will be applying under the RSE scheme, with the remaining vineyards and olive producers continuing to utilise contractors from outside the region.

²⁰ Leading Social Development in Wellington, Wellington Regional Plan 2006/07, Ministry of Social Development, p 25.

²¹ Information comes from the Immigration New Zealand website. <http://www.immigration.govt.nz/community/stream/employ/employmentprocesses/employingtemporaryworkers/whatisrequired/seasonalwkrs/>

Discussion point 9:

- **To what extent does the supply of labour and skills in the region match the demand for labour and skills?**
- **What industries are facing skill shortages and what skills are in shortage (e.g. technical skills, soft skills or management skills)?**
- **Are the skills available to meet these shortages?**
- **How adaptable is the region's workforce (i.e. are there people with specific skills for specific jobs and/or are there people whose skills suit them to a range of jobs?)**
- **What labour market dynamics such as seasonality, inward/outward migration rapid industry growth, recruitment difficulties affect the skill demand-supply matching process?**
- **To what extent has industry growth been constrained by skill or labour shortages?**
- **Are education and training providers delivering courses that teach participants the skills employers need?**
- **Are there any barriers to this happening?**
- **Are enough people coming through the education and training system to meet employer needs?**
- **Are industries attracting and training enough young people to replace the older workers when they retire?**

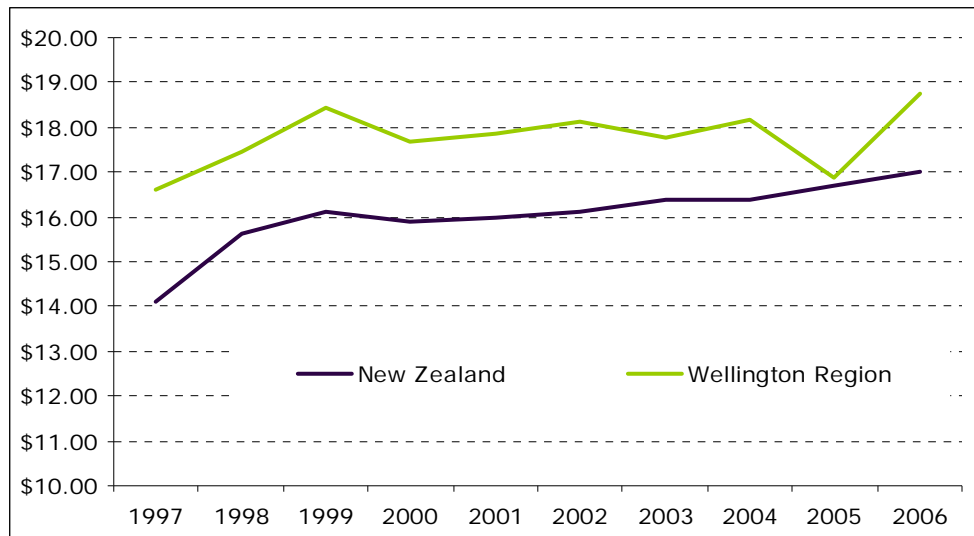
4.3 Wages

Between 1997 and 2006, the median hourly wage within the Wellington Region was consistently above the national median. Only two regions (Auckland and Wellington) have been consistently above the national median hourly wage. One reason for this is that the economies of these two urban labour markets create more employment for highly skilled workers than other regions. While hourly wages has been higher than the national rate, the gap between the two has declined over time.

Chart 21 shows that, in real²² terms from 1997 to 2006, growth in hourly earnings was slow for Wellington, while the hourly earnings for New Zealand as a whole had been steadily increasing. Data for 2005 shows an unusually large decline in the hourly wage in Wellington, contrasting the slight increase in hourly wages in New Zealand overall, perhaps due to issues with survey sample size.

²² Regional earnings have been deflated using the Consumer Price Index, and are expressed in 2006 prices.

Chart 21: Real median hourly earnings for residents of Wellington compared with the national median – 1997 to 2006

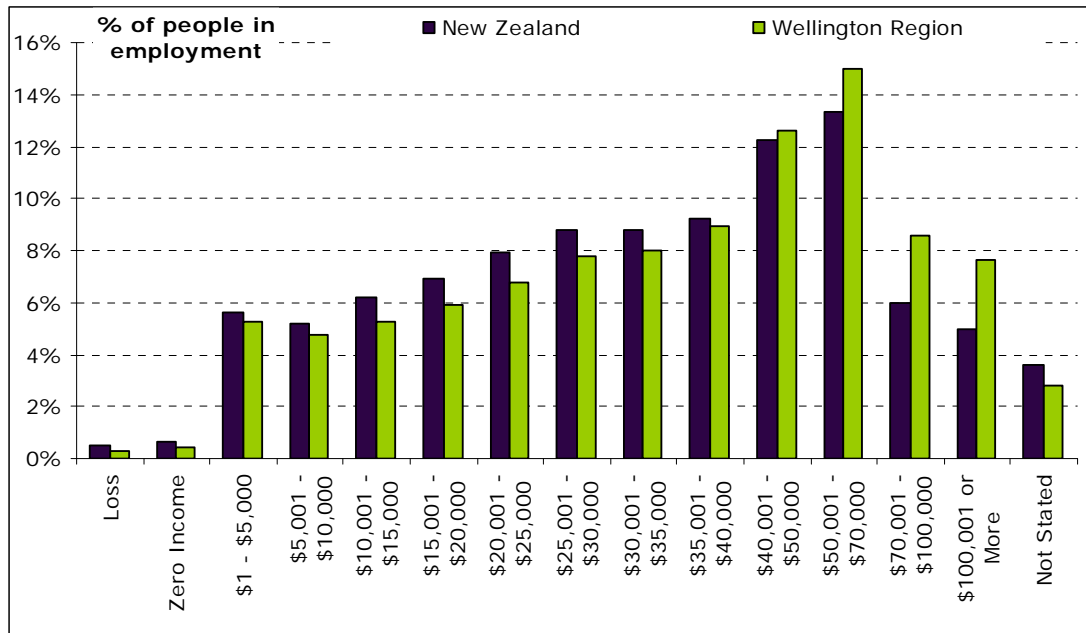


Source: New Zealand Income Survey, Consumer Price Index (CPI), Statistics New Zealand

Chart 22 shows the annual incomes of people in employment. This is only an approximate measure of earnings because people in employment may earn money from other sources such as investments. It shows that, compared to New Zealand as whole, there were more working people with incomes higher than \$40,000 and relatively less working people with incomes between \$10,000 and \$40,000.

The higher levels of income also reflect the higher than average share of highly skilled occupations within the labour force. Within the Wellington Region in 2006, 40% of people in employment were within the occupations of Legislators, Administrators and Managers or Professionals, compared to a national rate of 29%.

Chart 22: Total personal incomes for people in employment and resident in Wellington compared with the national average in 2006



Source: Census 2006, Statistics New Zealand

Discussion point 10:

- What determines wage levels and wage growth in your region's industries?
- Are wage levels in any industries a barrier to attracting skills?

GLOSSARY OF TERMS

Adjusted labour force participation rate: See 'labour force participation rate'.

Employment: The number of people in work for one hour or more per week.

Employment rate: The proportion of the working-age population that is employed.

Ethnicity: Ethnic group or groups that people identify with or feel they belong to. Ethnicity is a measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship. Ethnicity is self-assigned, and people can belong to more than one ethnic group.

Highest qualification: Combines highest secondary school qualification and post-school qualification to derive a single highest qualification by category of attainment for people aged 15 years and over. Qualifications are registered at one of ten levels, with the level depending on the complexity of the skills and knowledge that are being recognised. Level 1 qualifications are the least complex and are open-ended downward to capture all learning. Level 10 is the most complex. The levels do not equate to 'years spent learning' but reflect the content of the qualification. A brief description of the contents of the qualifications is:

- Level 1 to 3: Senior secondary school learning (NCEA), foundation skills and introductory trades training
- Level 3 to 4: initial trade certificates
- Level 5 to 7 are advanced trades, technical and business qualifications
- Level 7 and above are graduate and post-graduate qualifications.

Highly skilled workers: Legislators, Administrators and Managers, and Professionals.

Hours worked per week: Total number of hours usually worked in employment per week by the working-age population.

Income: Before-tax income from a range of source such as labour, entrepreneurial skills and assets, and transfers received. Tax credits and money received by borrowing, making withdrawals from savings and receiving repayments of loan principal are excluded.

Industry: The type of activity undertaken by the organisation, enterprise or business within which a person aged 15 years and over is employed. Based on a classification managed by Statistics New Zealand.

Industry mix: The expected growth in employment in a particular industry calculated using the national growth rate for that industry.

Job vacancy fill rate: The proportion of vacancies that were filled within eight weeks (trades) ten weeks (professionals) of advertising; a key indicator of skill shortage.

Labour force: The labour force consists of members of the working-age population who are classified as employed or unemployed (people in the labour force).

Labour force participation rate: The proportion of the working-age population who are either employed or unemployed. The terms 'labour force participation rate' and 'participation rate' are often used interchangeably. The adjusted labour force participation rate is a hypothetical rate showing what the regional labour force participation would be like if the age and gender structure was the same as the national average.

Labour supply: People that make themselves available for work and the attributes and skills these people bring to the workplace.

Labour demand: People that employers are willing to have work for them, the number of hours they want them to work and the skills and attributes employers need from these people to perform their jobs.

Not in the labour force: Any person in the working-age population who is neither employed nor unemployed. This includes for example, retired people, students and people at home with children.

Occupation: A set of jobs that require the performance of similar or identical tasks, and is collected for employed people aged 15 years and over. Based on a classification managed by Statistics New Zealand.

Retirement rate: There is no agreed definition of what a retirement rate is; the age and rate of retirement is determined by a set of personal decisions made individually by members of the labour force. What can be stated is that retirement is generally linked to age, and the age of retirement is generally over 60. The retirement rate definition used in this report is based upon a calculation used within the Job Vacancy Monitoring Programme (JVMP) at the Department of Labour. The JVMP retirement rate definition is: 20% of the labour force aged 60 and above divided by the total labour force. While the retirement rate is only an estimate, it highlights the industries and occupations where older workers are and signals where the rate of retirement is likely to be highest.

Semi-skilled/elementary workers: Clerks, Services/Sales Workers, Plant/Machinery Workers, and Elementary Workers.

School leaver attainment: Highest qualification held by school leavers.

Skilled workers: Technicians and Associate Professionals, and Trades Workers.

Statistics New Zealand (SNZ): New Zealand's national statistical office.

Unemployment: The number of people in the working-age population who are without a paid job, are available for work and have actively sought work in the past four weeks or have a new job to start within the next four weeks.

Unemployment rate: The number of unemployed people expressed as a percentage of the labour force.

Wage and salary earnings: Earnings received for paid employment that is undertaken. Earnings consist of wages and salaries, back pay, commissions, allowances, bonuses (regular and non-regular), gratuities (tips), fees, piece rates, retainers, honoraria and paid leave.

Working-age population: Population aged 15 years and over.

Worker replacement rate: The worker replacement rate measures the proportion of workers that change independent of job availability. The rate is calculated by taking the rate at which employment changes occur (the Worker Turnover Rate) and subtracting the rate at which jobs change.

DATA DICTIONARY

Census of Population and Dwellings 1996, 2001, 2006

Conducted by Statistics New Zealand, the Census of Population and Dwellings is the primary source of information on the size, composition, distribution, economic activities and state of well-being of the population. Census data are used for analysing trends, planning public services and allocating public funds in the areas of health, housing, transport, education, income and law and order. The census is run every five years. The census data used in this report are for the years 1996, 2001 and 2006. Data for 2006 were released in December 2006.

Household Labour Force Survey

Produced by Statistics New Zealand, the Household Labour Force Survey (HLFS) collects information relating to the employed, the unemployed and those not in the labour force who comprise New Zealand's working-age (15 years and over) population. It provides a regular, timely and comprehensive portrayal of New Zealand's labour force and Statistics New Zealand's official employment measure. The HLFS is produced quarterly and available from the December quarter 1985.

Differences between the Household Labour Force Survey and the Census of Population

The HLFS and the Census of Population both produce estimates of labour force statistics such as unemployment and labour force participation rates. Because these two sources are gathered differently, they can produce different estimates. The HLFS is the official measure of labour market information for New Zealand. Within the Annual In-Depth Regional reports, Census of Population calculations of labour market variables have been used in many instances as estimates from this source are more robust for small areas, especially at the Territorial Authority level.

New Zealand Income Survey

Produced by Statistics New Zealand, the New Zealand Income Survey (NZIS) is run annually as a supplement to the Household Labour Force Survey (HLFS) during the June quarter (April to June). The purpose of the NZIS is to produce a comprehensive range of income statistics, which allows analysis of the links between labour force status, educational achievement and income of individuals and households.

Department of Labour Analysis tools

The Department of Labour has developed a series of on-line, labour market "tools". The tools are interactive, updatable and based on the latest official statistics. They enable the user to select a particular industry, occupation or region and compare information with other sectors, regions or the national average. The three labour market analysis tools currently available are; [Occupational indicators](#), [Regional industry snapshot](#) and [Regional industry trends](#).

These tools are stored on the Department of Labour website – <http://www.dol.govt.nz/services/LMI/tools.asp>

Business Demography Statistics

Produced by Statistics New Zealand, Business Demography statistics provide an annual snapshot (as at February) of the structure and characteristics of New Zealand businesses. Statistics are available on a range of variables including industry, region, institutional sector, business type, degree of overseas ownership and employment levels. Business Demography statistics are available from 1987.

The dataset used in this report is an aggregation of two databases, Business Demography 2006 (which excludes Agricultural Production), and the Agricultural Production (A01) statistics collected in 2006.

Job Vacancy Monitor

Produced by the Department of Labour, the Job Vacancy Monitor (JVM) is a monthly analysis of job advertisements in selected editions of 25 major newspaper around New Zealand and two internet job boards. The purpose of the job ad series is to monitor changes in occupational labour markets. It also provides the basis of the sample for the Survey of Employers who have Recently (SERA). The JVM data is available from 2003.

Survey of Employers Who Have Recently Advertised

Produced by the Department of Labour, the Survey of Employers who have Recently Advertised (SERA) gathers information from businesses who recently advertised vacancies. Information gathered from these interviews includes whether the business has filled their vacancy, and how many suitable applicants applied. From this information the Department is able to calculate a fill rate for each occupation. The Department is also able to calculate the average number of suitable applicants per vacancy, which is a useful indicator of the level of under-supply or over-supply within an occupation.

Linked Employer-Employee Dataset (LEED)

Produced by Statistics New Zealand, official quarterly statistics produced from the Linked Employer-Employee Data (LEED) measure labour market dynamics, providing an insight into the operation of New Zealand's labour market and its relationship to business performance. LEED uses existing administrative data drawn from the Inland Revenue Department (IRD), together with business data from Statistics NZ's Business Frame (BF).

National and Subnational Population Projections

Population projections are estimates of the size and composition of the population at a future date. Projections are available for the total New Zealand population, local and regional populations, various ethnic populations, families and households, and the labour force. A number of alternative series are produced in each set of projections. These use different combinations of appropriate

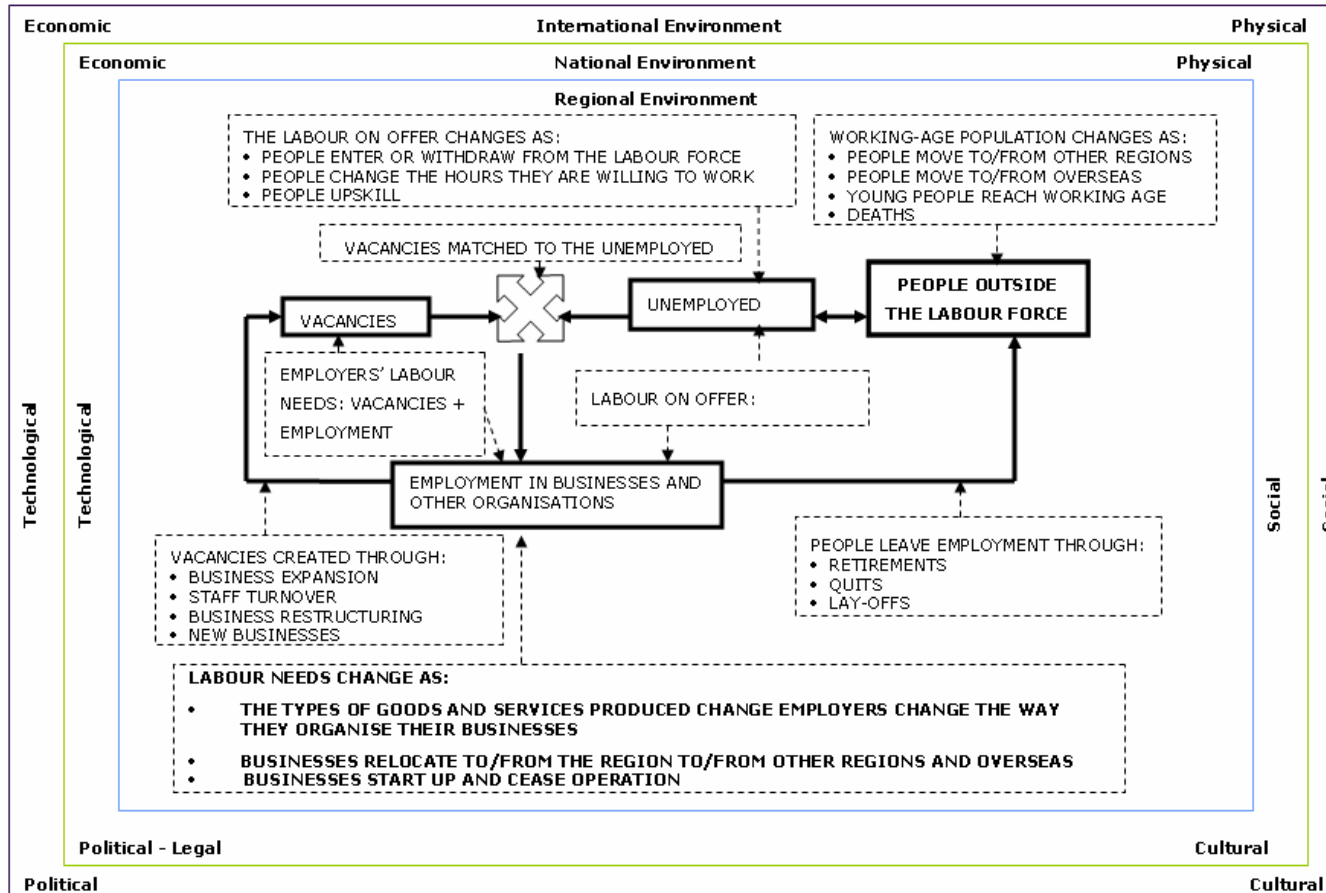
assumptions about future fertility, mortality, net migration, inter-ethnic mobility, living arrangement type and labour force participation patterns of the population. Projections are updated every 2–3 years.

The data used in this report is the Subnational Population Projection 2001-base to 2026 update released in February 2005. These projections have as a base the estimated resident population of each area at 30 June 2001. A revised set of Population projections, based upon Census 2006 data will be released later in 2007.

School Leavers data

Produced by the Ministry of Education, the monitoring of the highest attainment of school leavers is based on the annual 1st March survey of secondary and composite schools. These statistics include all full-time regular students, full-time adult students and special education class students who left school during the period 1 March 2005–28 February 2006, to go on to further education, training, the workforce or other activities.

APPENDIX 1 – REGIONAL LABOUR MARKET DYNAMICS



Note: this diagram is adapted from Morrison, (1989) Labour Adjustment in Metropolitan Regions, Victoria University Press for Institute of Policy Studies, which was itself extensively adapted from Carmichael (1981) which in turn was adapted from Holt (1969)

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