Annual in-depth regional report

AUCKLAND REGION

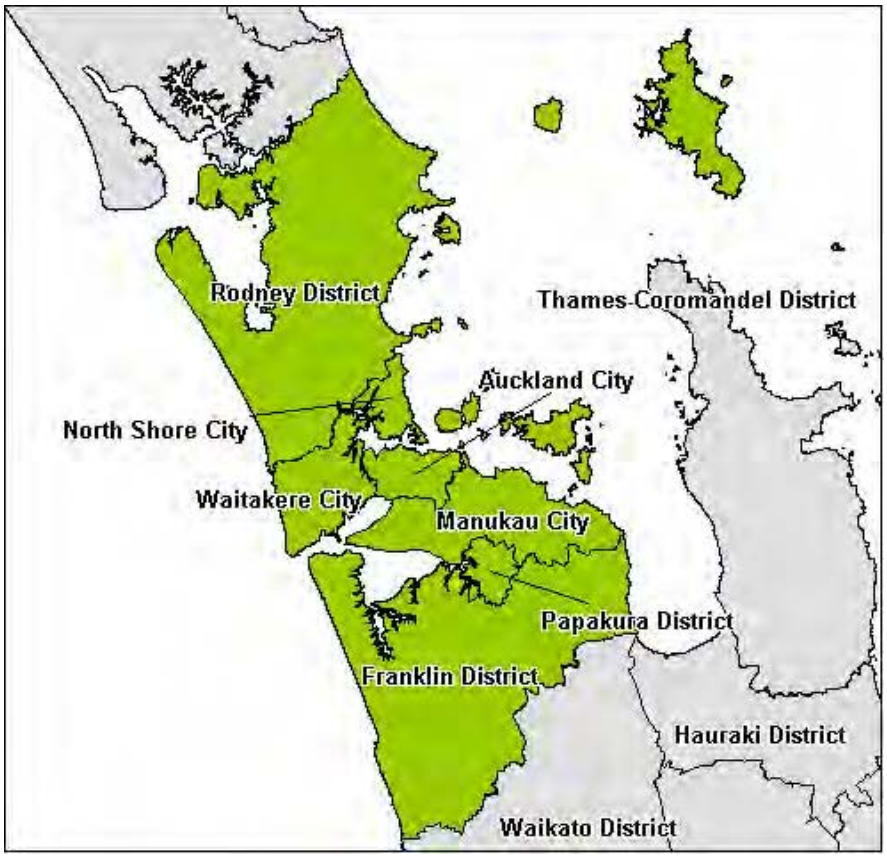
Department of Labour
TE TARI MAHI

INTRODUCTION

This report describes in detail the characteristics of the Auckland 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 Best Practice Guidelines[1].

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 Auckland Regional Council boundaries and, where available, the constituent Territorial Authority (TA) boundaries. For the purposes of this report these include: Rodney District, North Shore City, Waitakere City, Auckland City, Manukau City, Papakura District and Franklin District[2].

Figure 1: Boundaries of the Auckland Region



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

[2] The TAs listed here are an inexact fit with the Auckland Regional Council boundaries because part of Franklin District lies within the Waikato Regional Council.

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 LMKMs 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.

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EXECUTIVE SUMMARY

The Auckland Region's labour force grew faster than the national average between 2001 and 2006. This was due mostly to Auckland's population growing faster than any other region during this period. There was also a rise in labour force participation rates to historically high levels. Auckland benefits from having a relatively young population. A larger than average share of the population is aged in its 20s and 30s. People in this age group, particularly men, have a high degree of participation in the labour force.

Looking forward, the labour force is expected to continue growing. This will be driven by population growth, which is projected to be much faster than the national average. Also, the population, while aging like the rest of New Zealand, is expected to remain relatively younger than the national average. Participation rates are at historically high levels therefore the potential for further increases is limited.

Auckland's working-age population is well qualified compared with the national average, but taking into account overall population growth, rises in the number of people with higher level qualifications has not kept pace with the country as a whole. The share of people with no qualifications is below the national average, and the share with a Bachelor degree or higher is above the national average. Between 2001 and 2006, there was strong growth in the number of people with a Level 4 certificate gained after school, Level 5 diploma and Bachelor degree or higher. The number of people with no qualifications in the region grew marginally during the same period.

Employment in the Auckland Region grew slightly faster than the national average. Most new jobs were created in Property and Business Services. Significant numbers were also created in Retail Trade, Finance and Insurance, Education and Health and Community Services.

Auckland's employment growth was slightly faster than the national average primarily because of its industry mix. The fast-growing Property and Business Services industry is relatively large in Auckland, so the region benefited from the national economic factors that have driven growth in this industry. The region also has a relatively small Agriculture industry, therefore it has been sheltered from the national factors that have caused agricultural employment to decline.

Auckland's growth in employment outstripped growth in the labour force so the unemployment rate fell. This continues a downward trend in unemployment that began in the early 1990s. Employment has grown mostly among people with higher level qualifications such as a Level 4 certificate gained post-school, Level 5 diploma and Bachelor degree or higher. This growth has almost been matched by growth in the labour force. Where shortfalls have occurred, there have been falls in unemployment.

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

If Auckland employers' skill requirements continue to focus on people with higher qualifications, the requirements must be met mainly by increased productivity (higher value produced per hour of work), increases in the working-age population, or up-skilling people with relatively low qualifications. The potential for further rises in participation rates or falls in unemployment rates is limited.

The labour force grew in all of Auckland's TAs between 2001 and 2006. This was the result of strong increases in the size of the working-age population and, in some instances, some quite large rises in participation rates. Rodney District's labour force grew the most. The 22.8% rise was due to 18.8% growth in the working-age population and a rise in the participation rate from 66% in 2001 to 68% in 2006. Papakura District's labour force grew the least; 10.4% growth meant it was the only Auckland TA where the labour force grew by less than the working age population.

Looking forward, the labour force in all Auckland's TAs will continue to grow in future. This assessment is based on projections of strong population growth outweighing the effect of population aging and the already high participation rates.

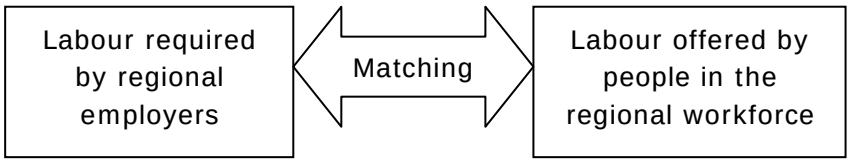
Qualification levels in all of Auckland's TAs have improved recently. Qualification levels are particularly high in North Shore City and Auckland City. Papakura District and Franklin District are below the national average. The other Auckland TAs are close to the national average. Growth in higher qualifications such as a Bachelor degree or higher, Level 5 diploma and Level 4 certificate gained at school has been much stronger than growth in people with no qualifications.

The employment rate in all of Auckland's TAs grew between 2001 and 2006. Franklin District's employment rate was highest at just over 70%. The lowest was Manukau City's at just under 62%. Although employment growth between 2001 and 2006 varied markedly between the TAs from 23% among people living in Rodney District to 10% among people living in Papakura District, disparities in employment rates evident in 1996 and 2001 remained in 2006. This is because TAs that experienced higher employment growth also experienced higher working-age population growth.

In all of the Auckland Region's TAs, unemployment rates were also much lower in 2006 than they were in 2001. This fall in unemployment rates may be because employment has grown by more than the labour force. The disparities in unemployment rates that existed in 1996 and 2001 were still evident in 2006. Unemployment rates are lowest in Franklin District and Rodney District and highest in Manukau City and Papakura District.

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' labour[3] 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, 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.

[3] 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 outcome[4].

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 Auckland 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 Auckland workforce are covered in section 2. Section 3 outlines some of the characteristics of Auckland 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 Auckland.

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

[4] Maré, David C. and Timmins, Jason (2004) "Internal Migration and Regional Labour Markets In New Zealand".

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)[5]. 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.

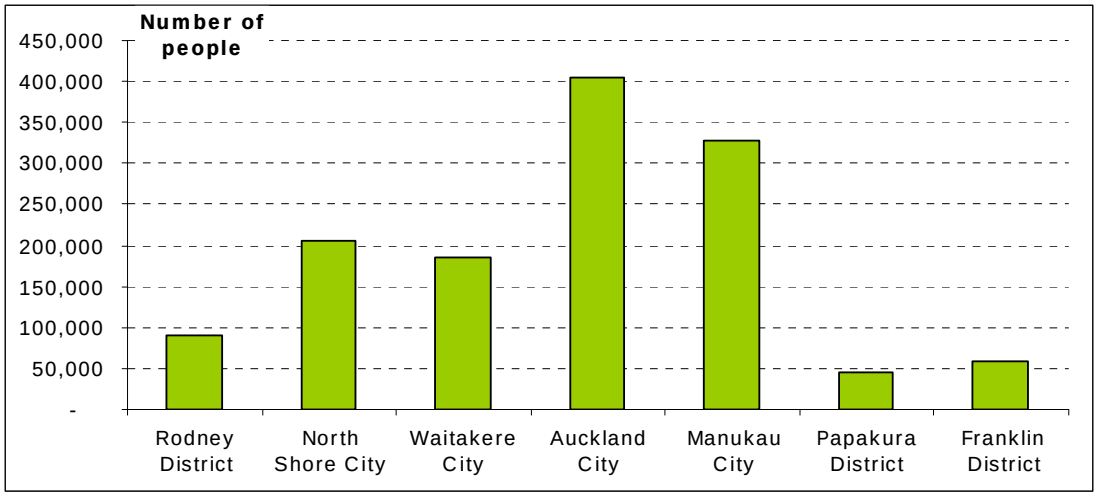
2.1 Population trends

In 2006, almost 1,303,000 people lived in the Auckland Region. Chart 1 shows that the regional population is concentrated in Auckland City (404,658 people were reported as usual residents in the 2006 Census) and Manukau City (328,965 residents). The other TAs are North Shore City (205,608 residents), Waitakere

[5] 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.

City (186,447 residents), Rodney District (89,565 residents), Franklin District (58,935 residents) and Papakura District (45,186 residents).

Chart 1: Population in Auckland's Territorial Authorities in 2006



Source: Census 2006, Statistics New Zealand

Table 1 shows that, between 2001 and 2006, the population of the Auckland Region grew by 11% or 144,000 people. This was well ahead of national growth of 8%. Within the region, Rodney District experienced the fastest population growth (18%) followed by Manukau City (16%) and Franklin District (14%). The other regions grew by 10–11%, which was just below the national average. Strong growth in Rodney District, Franklin District and Manukau City has reduced the concentration of the region's population in Auckland City.

Looking forward, the latest population projections for the region[6] suggest that the Auckland Region will continue to grow much faster than the national average. Manukau City and Rodney District will continue to be the fastest growing TAs, with Auckland City, North Shore City and Waitakere City close behind. Population growth will be slowest in Papakura District but even here it is projected to almost match national average growth.

The implication of these projections is that the relative populations of the TAs will change. Manukau City is projected to close the population gap with Auckland City, Rodney District is projected to close the gap with North Shore City and Waitakere City, and Franklin District is projected to increase its population relative to Papakura District.

[6] These are published by Statistics New Zealand. The latest projections are based on the 2001 Census population counts and trends in international migration, births and deaths from 2001 to 2005. Later this year, Statistics New Zealand will update their population projections to take into account the 2006 Census population counts.

Table 1: Population trends 1991 to 2026

	Growth rates				Share of population[7]	
	1991–96	1996–01	2001–06	2001–26	2006	2026
New Zealand	7%	3%	8%	27%		
Auckland Region	13%	8%	12%	53%	32%	37%
Rodney District	21%	15%	18%	63%	7%	7%
North Shore City	13%	7%	11%	46%	16%	15%
Waitakere City	14%	8%	10%	49%	14%	14%
Auckland City	13%	6%	10%	52%	31%	31%
Manukau City	13%	11%	16%	62%	25%	26%
Papakura District	7%	2%	11%	28%	3%	3%
Franklin District	15%	8%	14%	48%	4%	4%

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 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.

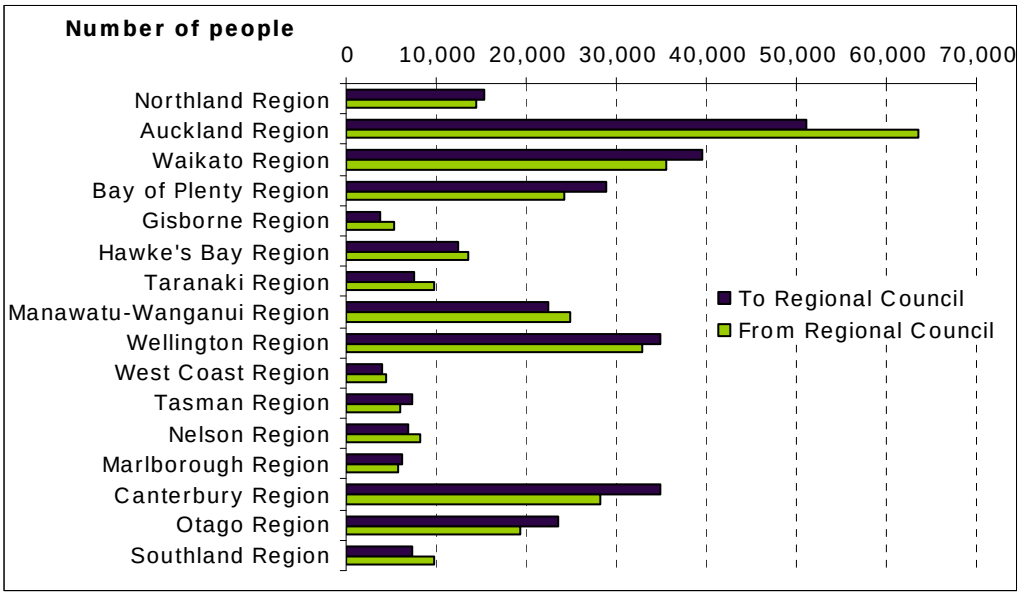
Inter-regional migration

Migration of people between regions can significantly change the size and make-up of regional populations. Numerically between 2001 and 2006, Auckland experienced a net population loss of almost 12,500 people to other regions. Despite this, Auckland's population loss between 2001 and 2006 accounted for the smallest proportion of the regional population compared to other New Zealand 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 Auckland was equivalent to 4% of the population, while the number leaving the region was equivalent to approximately 5% of the population, making Auckland Region one of the most stable populations on a per capita basis.

[7] The Share of Population columns show the region's share of the national population, and the TA's share of the region population.

Auckland experienced one of the largest net gain in people aged 15–24 years old from other regions in New Zealand, reflecting the region is a significant centre for tertiary study.

Chart 2: Inter-regional migration from 2001 to 2006

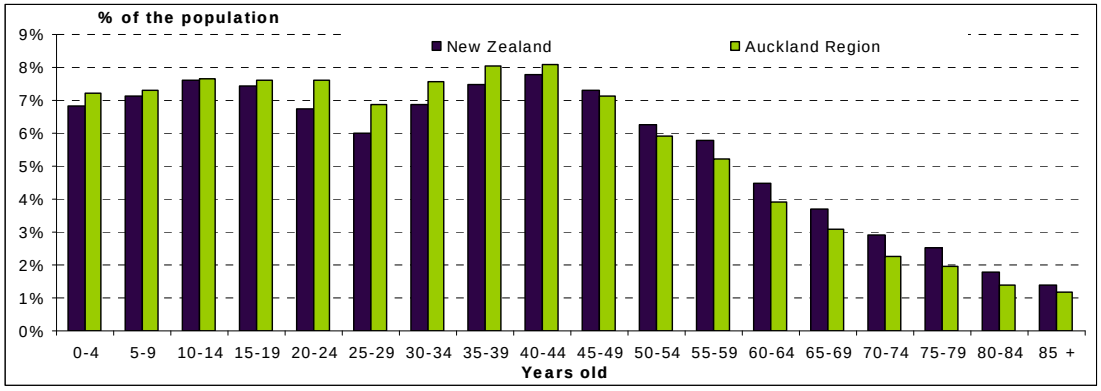


Source: Census 2006, Statistics New Zealand

The age profile of the population

Age is an important factor in the ability and willingness of people to work – young people and older people are less likely to work than people in their 20s, 30s, 40s and 50s. Auckland has a relatively young population. In the Auckland Region in 2006, the number of people aged between 20 and 44 made up a relatively large part of the population compared with the national average. The part of the population that is aged 45 years and above is smaller than the national average. People aged 45 to 64 are highly likely to work, and their experience means that on average they work in more senior positions than people in younger age groups. New Zealand doesn't have an official retirement rate so people aged 65 years and above are counted as part of the working-age population for statistical purposes, but realistically, many of these people are unlikely to be in work. The number of young people in the region is also relatively large.

Chart 3: Population by age in 2006



Source: Census 2006, Statistics New Zealand

The age profile of the population varies across the region's TAs. The part of the population that is aged 0 to 14 years is largest in Manukau City, Papakura District, Franklin District and Waitakere City. Auckland City stands out as having a large part of its population aged 15 to 39 years. Rodney District, North Shore City and Franklin District all have relatively old populations – particularly Rodney District, which is the only Auckland TA where the share of the population aged 65 years and above is higher than the national average.

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, opportunities are created for providers of aged care. However, retirees from the workforce need to be replaced by younger people, otherwise the workforce shrinks. Regions that already have a relatively old demographic profile, that tend to attract older people for lifestyle reasons or that lose younger people to regions that perhaps offer greater tertiary education or job opportunities, face a greater risk of seeing their workforce shrink.

The population is projected to age across the whole Auckland Region. The share of the population that is aged 65 years and above is expected to rise in all TAs, and the share of the population that is most likely to be in work – people aged 15 to 64 – is expected to fall. By 2026, more than a fifth of Rodney District's population will be aged 65 years or more. In several other sub-regions, the share of the population in this age group is projected to double.

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	40–64	65+
New Zealand	22%	35%	32%	12%	17%	31%	32%	20%
Auckland Region	22%	38%	30%	10%	18%	34%	32%	16%
Rodney District	22%	28%	35%	15%	18%	27%	33%	22%
North Shore City	20%	37%	33%	11%	17%	33%	33%	18%
Waitakere City	24%	37%	30%	9%	20%	34%	31%	16%
Auckland City	19%	42%	29%	10%	15%	36%	35%	14%
Manukau City	26%	37%	29%	8%	21%	34%	30%	15%
Papakura District	25%	35%	30%	10%	20%	33%	29%	18%
Franklin District	25%	31%	34%	10%	19%	29%	32%	20%

Source: Census 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

The ethnic profile of the Auckland Region is relatively diverse. Compared with the national average, the part of the Auckland regional population that identifies itself as Maori is relatively small, but the parts that identify themselves Asian and Pacific Peoples are large.

Maori make up a large share of the total population in Papakura District: more than a quarter in 2006. However, the total population in this TA is relatively small. There were many more Maori living in Manukau. Here, they made up 14% of the population in 2006.

People in the Asian ethnic groups were concentrated mostly in Auckland City and Manukau City where they made up over a fifth of the population in 2006. Significant numbers also live in North Shore City and Waitakere City. People who identify themselves as part of the Pacific Peoples ethnic group are concentrated mainly in Manukau City where they made up over a quarter of the population in 2006. Significant numbers also live in Auckland City and Waitakere City. Relatively speaking, people living in Rodney District and Franklin District predominately identify themselves as part of the European ethnic group.

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%
Auckland Region	54%	11%	8%	18%	14%	7%
Rodney District	78%	8%	12%	3%	2%	5%
North Shore City	66%	6%	10%	18%	3%	4%
Waitakere City	55%	12%	8%	15%	14%	7%
Auckland City	51%	7%	7%	23%	12%	7%
Manukau City	38%	14%	5%	20%	26%	7%
Papakura District	58%	25%	8%	8%	10%	6%
Franklin District	70%	14%	11%	5%	3%	6%

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

Migrants from overseas make up a relatively large share of the Auckland population. In 2006, 35% of the population was born overseas compared with a national average of 22%. Most migrants live in Auckland City and Manukau City although a significant number also reside in North Shore City and Waitakere City.

Auckland migrants have, on average, been in New Zealand for a slightly shorter time compared with the national average, reflecting the region's importance as a destination for recent migrants. Of those living in Auckland in 2006, 52% had been in New Zealand for less than 10 years compared with 47% across the country as a whole.

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)?**

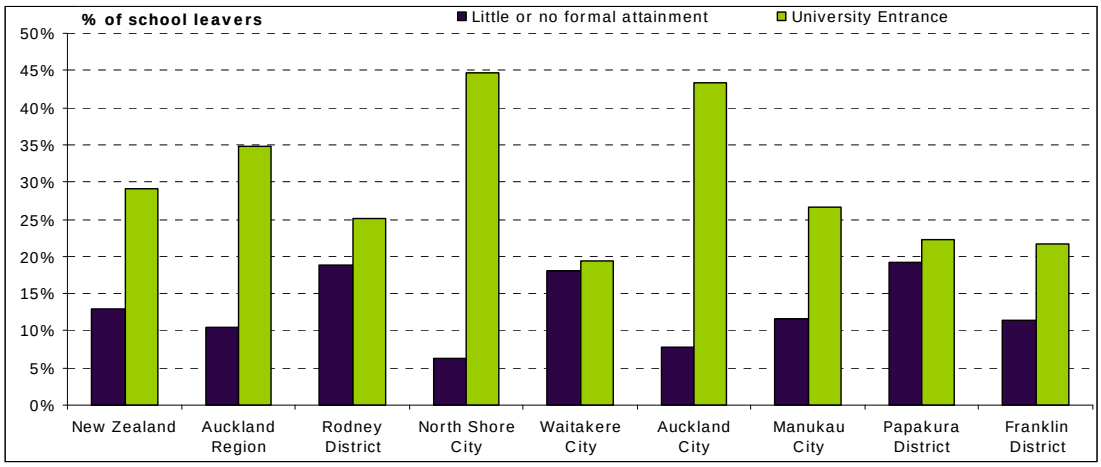
2.2 Skills

School leaver attainment

Qualification achievement at school has a significant impact on future labour market outcomes. Chart 4 shows that, on average, Auckland Region's school leavers achieved a higher level of attainment compared with the national average. The share of students leaving school with no qualifications in 2005 was lower than the national average, and the share leaving with university entrance qualifications was higher than the national average.

Attainment varies across the region's constituent TAs. On average in 2005, school leavers in North Shore City and Auckland City reached a much higher level of attainment compared with the regional average. School leavers in the other TAs reached a lower level of attainment compared with both the regional average and the national average.

Chart 4: School leaver attainment in 2005



Source: Ministry of Education

Note: 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

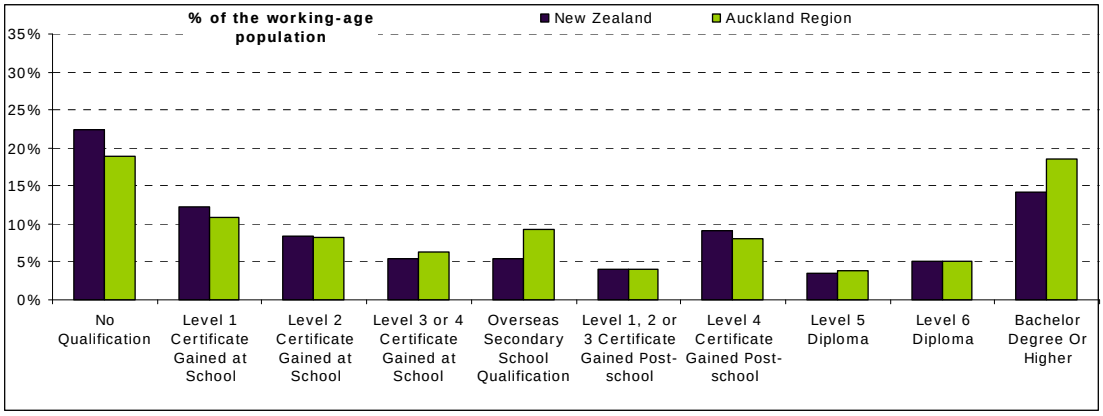
Chart 5 shows that the working-age population in the Auckland Region has, on average, higher qualifications than the national average. In 2006, 30% had either no qualification or a Level 1 certificate gained at school as their highest qualification compared with 35% across the country as a whole. In contrast, 18% of the regional population had a Bachelor degree or higher compared with a national average of 14%. Auckland also has a notably high share of people with overseas secondary qualifications. This characteristic is most likely related to the high number of international migrants living in the region.

North Shore City and Auckland City had, on average in 2006, higher qualified populations than other Auckland TAs. Less than a quarter of the working-age population in these two TAs had either no qualification or a Level 1 certificate gained at school as their highest qualification. This compares with over 40% on

Papakura District and Franklin District. The other TAs were close to the national average in this respect.

The same pattern is also evident among highly qualified people; 27% of the Auckland City population and 22% of the North Shore City populations have a Bachelor degree or higher compared with around 8–9% of the Papakura and Franklin District populations. The other regions were close to the national average.

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



Source: Census 2006, Statistics New Zealand

Table 4 shows that, across the region as a whole, the working-age population is becoming better qualified. Auckland Region has shown some of the largest skill increases across the country between 2001 and 2006. The proportion of the working-age population with no qualifications or school based qualifications has declined significantly, while the share of the population with Level 4 and higher qualifications has increased significantly. Unlike many of the other regions of New Zealand, the increase in higher qualifications is spread across Level 4–6 qualifications, and Bachelor degree and higher.

Franklin and Rodney Districts' share of the working-age population with Level 4–6 qualifications as their highest qualifications grew well ahead of the national average. This level of qualification tends to be based on industry training and reflects the availability and demand for these skills within the districts. The share of the North Shore and Auckland City populations with a Bachelor degree or higher has increased at a rate greater than the national average. This reflects the demand and availability of these qualifications in the area. Given the large amount of corporate work in central Auckland, and the large amount of commuting into Auckland, the increased qualifications in this area between 2001 and 2006 is to be expected.

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%
Auckland Region	-1%	-4%	0%	3%	5%
Rodney District	-2%	-4%	1%	5%	4%
North Shore City	-2%	-5%	0%	3%	7%
Waitakere City	-1%	-4%	0%	4%	5%
Auckland City	-1%	-4%	0%	2%	7%
Manukau City	-1%	-3%	1%	3%	4%
Papakura District	0%	-3%	1%	4%	2%
Franklin District	-1%	-2%	0%	5%	3%

Source: Census 2001 and 2006, Statistics New Zealand

Note: Highest qualification levels in this table differ to highest qualification levels in Table 8. 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.

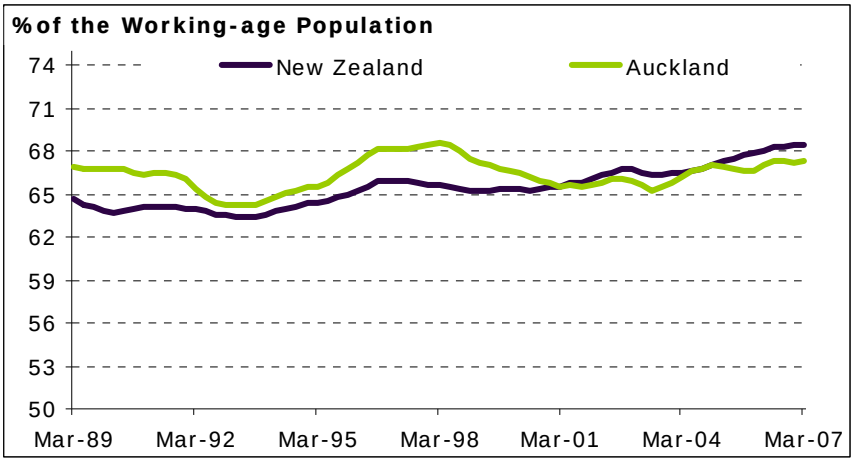
2.3 Labour force participation

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 trends[8]

Chart 6 shows that, in 2001, the Auckland regional labour force participation rate generated by the Household Labour Force Survey slipped below the national average for the first time since comparable recording began in the mid 1980s. This was the result of a decline in the labour force participation rate that began in 1998 and lasted until 2001.

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



Source: Household Labour Force Survey, Statistics New Zealand

Table 5 shows participation rates from the last three Censuses. These data are not strictly comparable to the data used in the chart above, which is sourced from the Household Labour Force Survey. The Census data show quite a different picture, as the Auckland labour force participation rate was the same as the national average in 2006, having been above it in 2001 and 1996.

Between 2001 and 2006, the Auckland regional labour force grew by almost 15%. This was driven mostly by growth in the working-age population and partially by growth in the labour force participation rate.

In Rodney District, Manukau City and Franklin District, the labour force has grown faster than the regional average. In all three sub-regions, the growth was driven

[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.

mostly by higher growth in the working-age population. Rodney District also experienced an increase in labour force participation of almost two percentage points, which is the largest of all the TAs.

Papakura District's labour force grew the least, but even here it grew by 10% between 2001 and 2006. This was below both the regional and national averages because growth in the working-age population was relatively weak and because Papakura District's participation rate fell during this period.

It is likely that the labour force in Auckland's TAs will continue to grow in the coming two decades.

Recent growth has been driven by growth in the working-age population and, as shown in Table 1, strong growth is projected to continue. Participation rates across the region were at relatively high levels. It is questionable how much higher they can rise, particularly as the population ages. The exception is Manukau City where the participation rate is notably below average and therefore may have room to rise further.

The remainder of this section looks at participation rates of specific groups in the population as a way of determining where there might be potential for them to increase further.

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%
Auckland Region	13.6%	66.8%	67.7%	68.6%	14.8%
Rodney District	18.8%	64.0%	66.1%	68.0%	22.8%
North Shore City	12.4%	68.7%	69.4%	70.5%	14.4%
Waitakere City	12.0%	69.2%	69.3%	69.3%	11.3%
Auckland City	11.3%	66.0%	67.2%	68.8%	13.5%
Manukau City	17.3%	65.3%	65.9%	66.2%	17.3%
Papakura District	11.8%	68.4%	68.7%	68.2%	10.4%
Franklin District	15.5%	70.4%	72.6%	73.4%	17.5%

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

Participation of men and women of different ages

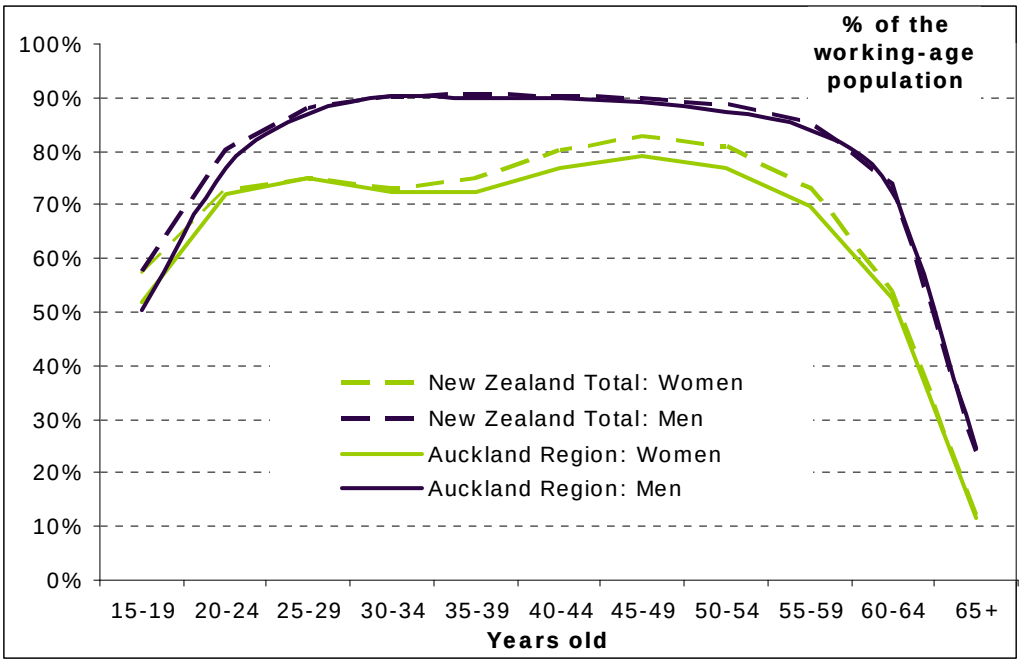
Chart 7 shows participation rates of men and women in different age groups. Young people's participation tends to be low because many remain in education after school rather than entering the job market.

Among people in their 20s and 30s, men's participation is frequently higher than women's primarily due the high share of couples starting families. Women's participation rate rises again among women in their 40s and 50s. Among older men and women, participation rates are lower mainly because people retire.

In the Auckland Region, the participation of young people is slightly lower than the national average, as is the participation of women in their late 30s, 40s and 50s – the age when many women return to the labour force after having children.

Each TA has its own pattern of participation. Participation of women in their late 30s, 40s and 50s is relatively low in Manukau City and Auckland City, and given that these two regions have the largest labour forces, they probably influence the shape of Chart 7 the most.

Chart 7: Auckland 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 not only by differences in labour market performance, but also by differences in the demographic profile of the population. For example, in a population such as Auckland, which has a relatively large share of its population in the prime age groups, the participation rate will tend to be higher irrespective of how the labour market is performing because, as a group, these people are more likely to participate in the labour force.

Table 6 shows what participation rates would be if Auckland's age and gender profile was the same as the national average – this is the "adjusted" rate. It confirms that Auckland benefits from having a young population. If the Auckland population had fewer people in their 20s and 30s, the adjusted participation rate would be lower. Almost all of Auckland's TAs benefit from having a relatively young population. The adjusted participation rate is higher only in Rodney District. This is because (as Table 2 showed) the population here is relatively old.

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

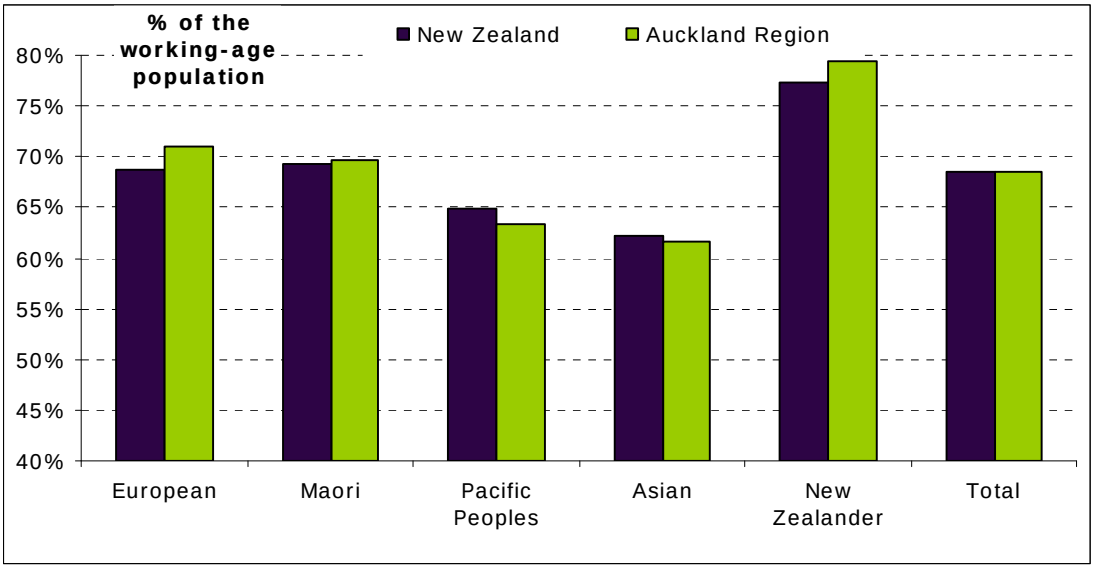
	Participation Rate (%)	
	Unadjusted	**Adjusted**
New Zealand	68.5%	68.5%
Auckland Region	68.6%	66.7%
Rodney District	68.0%	70.2%
North Shore City	70.5%	69.2%
Waitakere City	69.3%	67.0%
Auckland City	68.8%	65.9%
Manukau City	66.2%	64.1%
Papakura District	68.2%	67.3%
Franklin District	73.4%	72.1%

Source: Census 2006, Statistics New Zealand

Participation of people in different ethnic groups

Nationally, the labour force participation of people who identify themselves as Asian or Pacific Peoples is lower than people who identify themselves as Maori or European. In Auckland, the participation rate of Pacific Peoples is slightly lower than the national average and the participation rate of European is slightly higher than the national average.

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 rates. TAs with low participation rates generally have low participation rates among all their ethnic groups; similarly for TAs with higher participation rates. One notable exception is the Asian ethnic group in North Shore City, which has a participation rate below 60% despite the TA having a relatively high participation rate overall.

The participation rate of Manukau City is the lowest in this report. This low rate is most likely due to the high proportion of Pacific and Asian ethnicities in the City,

two groupings who tend to participate less in the labour force. In Manukau City, these ethnic groups make up almost half of the population.

Table 7: Labour force participation rate by ethnicity in 2006

	Participation rate (%)					
	European	Maori	Pacific Peoples	Asian	New Zealander	Total
New Zealand	68.7%	69.3%	65.0%	62.2%	77.4%	68.5%
Auckland Region	71.0%	69.7%	63.3%	61.7%	79.3%	68.6%
Rodney District	67.2%	72.2%	69.7%	61.2%	74.6%	68.0%
North Shore City	72.5%	76.6%	70.5%	59.0%	79.8%	70.5%
Waitakere City	70.2%	70.9%	66.9%	64.3%	79.9%	69.3%
Auckland City	72.2%	70.5%	62.5%	61.6%	81.1%	68.8%
Manukau City	70.2%	66.9%	61.8%	61.8%	78.5%	66.2%
Papakura District	68.7%	66.2%	64.1%	64.9%	77.5%	68.2%
Franklin District	73.2%	71.1%	69.4%	72.1%	79.7%	73.4%

Source: Census 2006, Statistics New Zealand

Participation rates of migrants

The lowest participation rate is among people who have been in New Zealand for 10 years or more; 62% of people participated in the labour market in 2006. Participation is probably relatively low in this group because the age profile is older than migrants who have been here for fewer years. Among migrants who have been in New Zealand between 3 and 9 years, participation rates were around 66% to 67%. This is slightly below participation rates of the whole population, and lower than the national average for this group.

In Auckland, migrants make up a relatively large share of the population, therefore the labour market outcomes of migrants is critical to the Auckland labour market

There is some evidence to suggest that barriers exist to the employment of migrants, and this is a particular issue for Auckland where 40% of migrants settle. The Hudson Report found that employers across the country believe that migrants faced barriers to employment[9]. While many businesses proclaim their readiness to employ skilled migrants, ethnic minorities tend to experience greater difficulties in obtaining employment even after language capabilities and other human capital factors have been adjusted for. This is more notable when combined with immigrant status[10]. While many migrants are satisfied with their work and lifestyle, some 22,000 leave the country each year because their

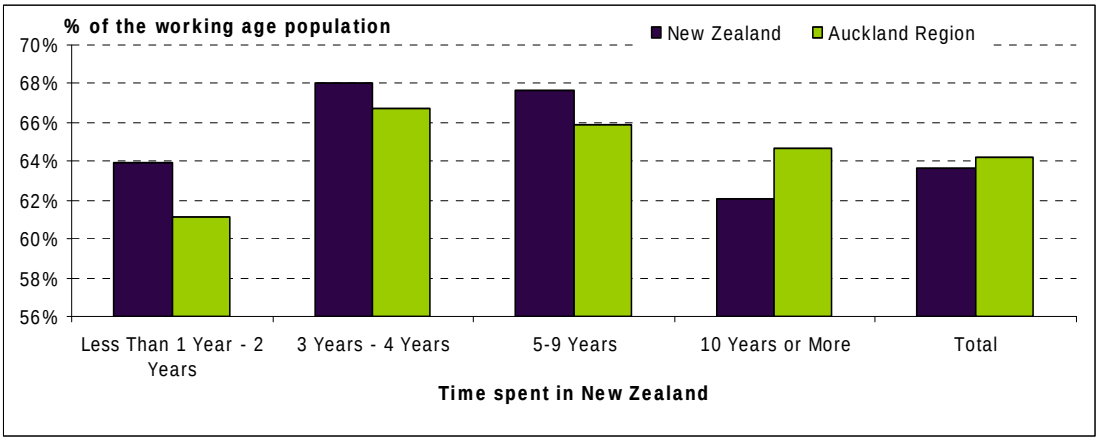
[9] Hudson Recruiting New Zealand. 2006 *The Hudson Report NZ* (July to December 2006) cited in Committee for Auckland. 2006. *The Case For Auckland* (August 2006).

[10] Wilson, M. G., Gahlout, P., Liu, L. and Mouly, S. 2005. A rose by any other name: the effect of ethnicity and name on access to employment. *University of Auckland Business Review* **7**(2), 65 – 72. Also see Ward, C. and Masgoret, A-M. 2004. New Zealander's attitudes towards immigrants and immigration. *Paper presented at the New Directions, New Settlers, New Challenges – Building and Enhancing Communities End-users Seminar*, Wellington, New Zealand.

expectations have not been met[11]. This issue has also prompted the Ministry of Social Development to set up the Auckland Migrant and Refugee Strategy, with specialised staff helping migrants and refugees to find work or participate in training that will help them get work.

People who have been in New Zealand for 10 years or more have lower participation rates than those who have been here a shorter time, but in Auckland the gap is narrower. In Auckland, their participation rate was 65% in 2006 compared with a national average of 62%. Participation is probably relatively low in this group because the age profile is older than migrants who have been here for fewer years.

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



Source: Census 2006, Statistics New Zealand

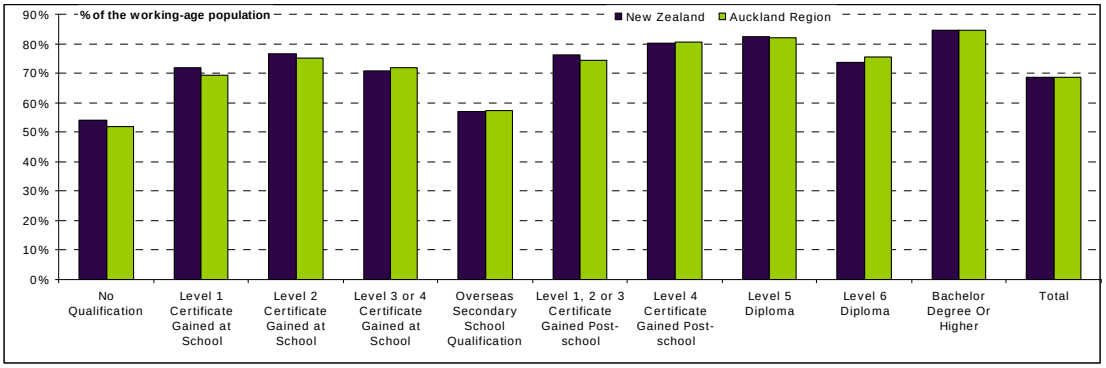
Participation rates of people with different qualification attainment

Chart 10 shows that, nationally in 2006, participation rates were higher among people with higher qualifications. Auckland reflects this pattern, except that regional participation rates of people with no qualifications or school qualifications were slightly lower than the national average.

Both nationally and in the region, participation rates among people with Bachelor degree or higher were almost 85% compared with less than 55% among people with no qualifications.

[11] Committee for Auckland. 2006. *The Case For Auckland* (August 2006) http://www.aucklandnz.org/portfolio.cfm

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



Source: Census 2006, Statistics New Zealand

Participation rates for each of Auckland's TAs are shown below. Each TA follows the same pattern – participation rates were higher among people with higher qualifications.

Some particularly low participation rates are shown for residents with no formal qualifications.

Data for Auckland City and North Shore City are particularly low, perhaps reflecting a lack of job opportunity for these residents in the area.

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

	Participation rate (%)										
	No Qualification	Level 1 Certificate Gained at School	Level 2 Certificate Gained at School	Level 3 or 4 Certificate Gained at School	Overseas Secondary School 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	Total
New Zealand	54.2%	71.7%	76.7%	70.9%	56.8%	76.0%	80.1%	82.4%	73.5%	84.4%	68.5%
Auckland Region	51.9%	69.2%	75.0%	71.9%	57.3%	74.4%	80.6%	82.0%	75.7%	84.6%	68.6%
Rodney District	54.2%	70.7%	75.8%	75.4%	58.6%	72.7%	79.2%	80.8%	72.6%	81.4%	68.0%
North Shore City	51.7%	70.2%	75.7%	72.5%	58.2%	76.1%	81.0%	81.4%	73.8%	83.2%	70.5%
Waitakere City	54.6%	71.2%	77.3%	75.7%	59.1%	75.5%	81.9%	82.9%	78.2%	85.1%	69.3%
Auckland City	46.7%	64.7%	72.9%	69.5%	54.6%	73.4%	78.2%	81.0%	75.1%	85.5%	68.8%
Manukau City	52.4%	69.4%	74.2%	72.1%	58.1%	73.7%	81.4%	83.0%	77.3%	83.4%	66.2%
Papakura District	56.1%	72.2%	78.6%	75.4%	60.6%	74.3%	82.2%	85.6%	80.0%	86.3%	68.2%
Franklin District	60.6%	77.4%	80.9%	80.1%	66.2%	78.0%	85.7%	86.2%	78.3%	87.2%	73.4%

Source: Census 2006, Statistics New Zealand

The quality, affordability and desirability of housing available can have an impact on where people live and work. Evidence suggests that the lack of affordable housing is becoming more of a problem in the Auckland Region. House price affordability has declined between 2001 and 2006, with Auckland City being the least affordable[12]. The research also show that the majority of renter households who have housing stress[13] work in the same area where they live. A significant number of renter households experiencing housing stress in Manukau City also work in Otahuhu in Auckland City. This has implications for people who are unable to afford housing close to where they work; in particular, lower-paid jobs in retail, hospitality and tourism are becoming more difficult to fill as workers move away from where the jobs are located.

One potential housing project that aims to address this is the Flat Bush project, which is planned to be completed in 2020, and located south of the New Botany development and east Manukau City. This is touted to be New Zealand's largest centrally-planned town that will house 40,000 people. It is hoped that this may result in more affordable and/or quality housing that will attract more workers to live in the area[14].
Problems of urban sprawl also see urban intensification forming the basis of the Auckland Regional Growth Strategy, achieved through medium and higher density housing along metropolitan areas and major transport routes.

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?**

[12] Centre for Housing Research, Aotearoa New Zealand and Auckland Regional Council. March 2007. *The Future of Home Ownership and the Role of the Private Rental Market in the Auckland Region.*

[13] Housing stress is defined as paying more than 30% of the gross household income on housing costs.

[14] Manukau City Council, 2007. Flat Bush – New Zealand's newest town coming to Manukau. http://www.manukau.govt.nz/default.aspx?id=2818

2.4 Commuting

The previous section looked at labour force participation rates of people living in the Auckland Region, regardless of whether or not they work in the region or commute to another region. This section provides information about cross-regional commuting.

Commuting is relatively common between Auckland's TAs, with Auckland City as the exception. The bulk of commuters within Auckland Region work in Auckland City. In Papakura District and Franklin District, a large proportion of commuters from the area commute to Manukau City.

Time spent commuting around the greater Auckland Region, particularly between South Auckland and the North Shore areas, has increased dramatically over recent years as existing road networks have their capacity stretched. According to the Auckland Transport Authority, each day, an additional 49 people and 35 cars join the Auckland Region[15]. The motorway network carries approximately one-third of traffic in the morning peak hours, the busiest being the north-south motorway that passes through the CBD and serve as an access to the CBD[16].

The proposed Western Ring Route is a 48 kilometre highway between North Shore City and Manukau City that would provide road users an alternative to Stage Highway 1[17]. The highway, a combination of new roads and extensions to existing roads would provide an alternative to State Highway 1, bypassing Auckland City to the west and providing another link for Manukau, Auckland, Waitakere and North Shore cities. Benefits of the proposed Western Ring Route to Manukau City and the greater Auckland Region include reduced travel time, congestion and pressures on existing local roads.

The Western Ring Route is expected to be constructed in various stages/projects, with the Manukau Extension[18] and Manukau Harbour Crossing[19] projects expected to have the largest direct affects on commuting around Manukau City. The Manukau Extension, currently under construction, will be a four-lane motorway linking Puhinui Road with the Southern Motorway through Manukau Central. The Manukau Harbour Crossing, which is in advanced planning stages, would see a duplicate bridge built to carry road users across the Manukau harbour to ease congestion in the area.

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[15] Auckland Region Transport Authority – http://www.arta.co.nz/arc/xxarta/what-we-do/road.cfm

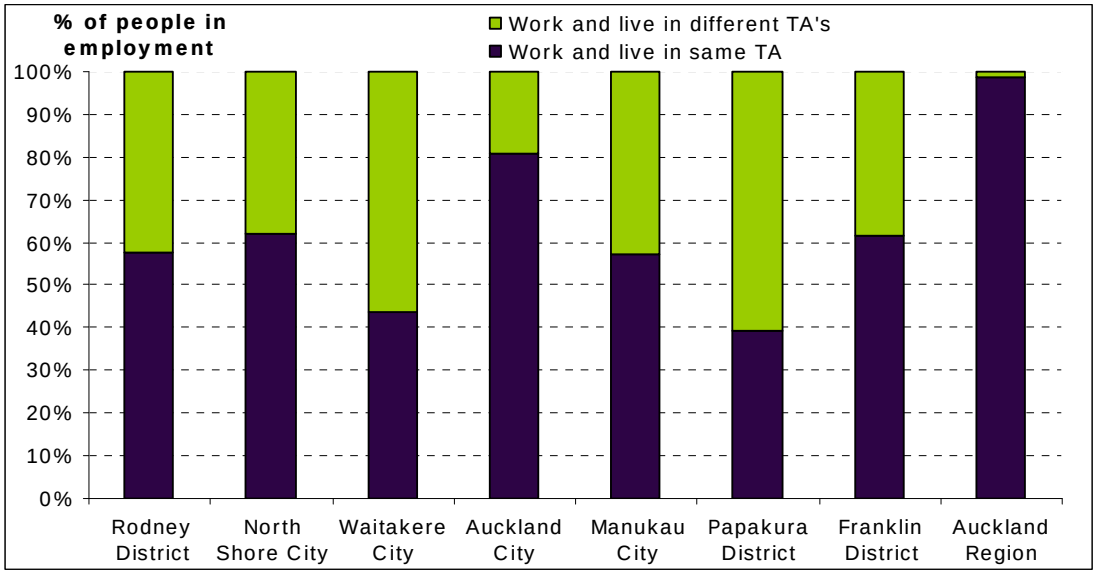
[16] Auckland Regional Council. *Auckland Regional Transport Strategy 2005.*

[17] Transit New Zealand – http://www.transit.govt.nz/projects/wrrconsultation/about

[18] http://www.transit.govt.nz/projects/view_project.jsp?content_type=project&=edit&primary_key=166&action=edit

[19] http://www.transit.govt.nz/projects/view_project.jsp?content_type=project&=edit&primary_key=180&action=edit

Chart 11: Commuting pattern of the working population in 2006



Source: Census 2006, Statistics New Zealand

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 businesses 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. 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.

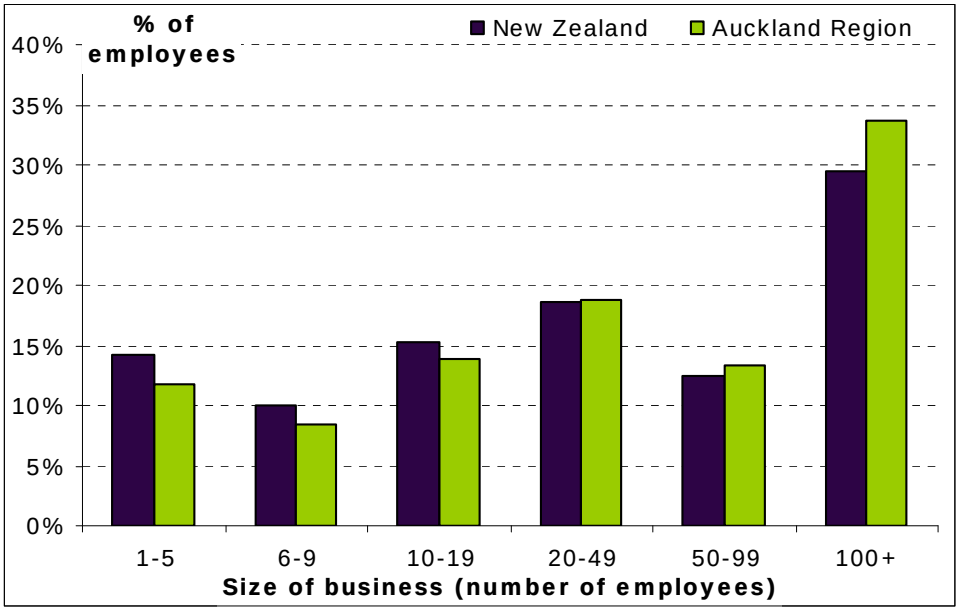
3.1 Firm size[20]

The business profile of the Auckland Region is characterised by a higher than average number of large firms. In 2005, 34% of employees worked in businesses employing 100 or more people compared with a national average of 29%. A further 34% of employees in the region worked in businesses employing fewer than 20 people compared with 39% at the national average. Most of these large

[20] 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.

businesses were in Manufacturing, Retail Trade and Property and Business Services.

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



Source: Business Demographic Statistics 2006, Statistics New Zealand

The regional business profile outlined above is influenced mainly by Auckland City. Here, 38% of employees work in business employing 100 or more people. Manukau City is also above the national average in this respect, but the other Auckland TAs were below the national average. In Rodney District, for example, only 14% of employees work in business employing 100 or more people, while 57% work in business employing fewer than 20 people.

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

	% of all employees						
	1–5	6–9	10–19	20–49	50–99	100+	Total
New Zealand	14%	10%	15%	19%	13%	29%	1,843,888
Auckland Region	12%	8%	14%	19%	13%	34%	606,914
Rodney District	25%	13%	19%	19%	10%	14%	21,758
North Shore City	14%	10%	16%	18%	13%	28%	82,595
Waitakere City	16%	11%	17%	20%	13%	23%	45,001
Auckland City	10%	7%	13%	18%	14%	38%	307,184
Manukau City	10%	8%	13%	20%	14%	35%	121,037
Papakura District	16%	11%	17%	23%	11%	22%	15,554
Franklin District	21%	12%	18%	20%	9%	20%	16,999

Source: Business Demographic Statistics 2006, Statistics New Zealand

3.2 New labour requirements

Goods and services produced

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 further across the 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.

Employment grew by 16% (over 75,000) to 543,000 in the Auckland Region between 2001 and 2006 compared with 15% growth at the national average. During this time, the goods and services produced in Auckland changed. This had an effect on employment in the region. Chart 13 shows that employment grew in almost all industries in the Auckland Region between 2001 and 2006, but much of the growth in has been in the Property and Business Services industry. Almost a third of the total rise in employment occurred in this industry. Significant growth was also experienced in Retail Trade, Finance and Insurance, Education and Health, and Community Services. In terms of size, the largest industries in Auckland were Property and Business Services, Manufacturing, Retail Trade and Wholesale Trade.

The largest industry in Auckland Region is Property and Business Services (18% of regional employment, 95,319 jobs), with jobs mainly focused in Marketing and Business Management Service, and Other Business Services (such as employment placements, contracting, secretarial, cleaning, security services etc.). This reflects the importance of Auckland as a home to a large proportion of the country's head offices for firms in the Business Services sector. The Information and Communications Technology (ICT) sector[21] has been identified as a high growth industry in the future and will be significant to the economy. This is particularly significant for Auckland as, according to a survey from the HiGrowth Project, 47% of ICT companies' head offices are located in Auckland[22].

The Manufacturing industry is also significant (13% of regional employment, 69,285 jobs). Manufacturing employment is spread across many of the sub

[21] The ICT Sector falls under a few different Statistics New Zealand industrial classifications (ANZSIC 1996), including some of C284 Electronic Equipment Manufacturing, C285 Electrical Equipment and Appliance Manufacturing, F461 Machine and Equipment Wholesaling, J712 Telecommunication Services, as well as L783 Computer Services. IDC Market Research. March 2006. *The New Zealand ICT Sector Profile – Economic Impact*.

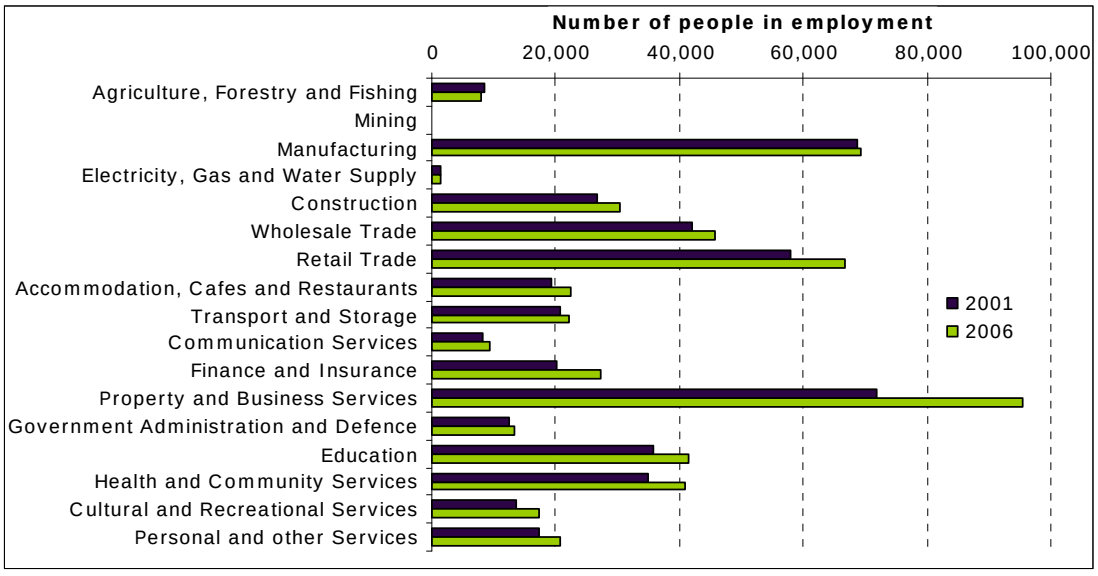
[22] IDC Market Research. February 2006. *The HiGrowth Project: New Zealand ICT Sector Profile.*

industries, with Plastic Product Manufacturing, Machinery and Equipment Manufacturing, and Food Manufacturing being three of the largest areas. As mentioned before, the strong New Zealand dollar reduced the competitiveness of manufactured goods. This is illustrated by the recent decision by Fisher and Paykel, one of the largest manufacturing companies in Manukau, to move its washing machine plant to Thailand. This decision was in response to growing global competition and will result in a loss of 350 jobs[23].

Retail Trade accounted for 66,795 jobs, or 12% of regional employment. This reflects the influence of a large population and tourism level on the region. Wholesale Trade accounts for 45,765 jobs, or 8% of regional employment.

Future employment growth in all industries will be significant in the CBD area, Auckland airport and its surrounding areas, East Tamaki, Albany Basin and Onehunga-Panmure. Out-of-centre employment locations are predominantly in manufacturing, wholesale and business services. This is driven in part by business land demands, as distribution centres, warehouses and productive units are land-hungry business activities. Increased demand is also expected for Industrial/Commercial/Business Parks in suitable greenfield areas that can provide facilities such as parking, staff recreation and services, and park-like surroundings. This can be seen in recent developments such as Highbrook Business Park in Manukau[24].

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



Source: Census 2001 and 2006, Statistics New Zealand

[23] New Zealand Herald. 2007. No Jobs Guaranteed at Fisher and Paykel (27 April 2007) http://www.nzherald.co.nz/section/11/story.cfm?c_id=11&objectid=10436393

[24] Auckland Regional Council. 2005. *Auckland Region employment, Business and Centres Location, A discussion on patterns, trends, requirements and policy implications for the Growth Strategy Update 2004/5.*

Table 10 shows a broader view of labour utilisation, illustrating the changes in the number of hours worked as well as employment between 2001 and 2006. In terms of percentage growth, Auckland's fastest growing industries were Finance and Insurance, Property and Business Services, and Cultural and Recreational Services. On the whole, the region's industries grew at similar rates to the national average. This may be partly due to Auckland's size relative to the New Zealand economy resulting in it having a strong effect on the national average. That said, there were some notable differences. Communication Services, Finance and Insurance and Education all grew faster than the national average. Growth in the Construction industry was notable below the national average.

The number of people employed in Auckland grew by 16% while total hours worked grew by 13%, which implies that more people were working and that, on average, they were working fewer hours. This pattern was also evident across most of Auckland's industries as well as across the national economy as a whole.

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

	Auckland Region			New Zealand	
	Employment count	% Growth			
		Employment	Hours Worked	Employment	Hours Worked
Agriculture, Forestry and Fishing	8,046	-5%	-9%	-3%	-7%
Mining	324	20%	27%	24%	24%
Manufacturing	69,285	1%	-1%	1%	-1%
Electricity, Gas and Water Supply	1,314	2%	-4%	2%	-1%
Construction	30,345	14%	11%	42%	39%
Wholesale Trade	45,762	9%	6%	8%	5%
Retail Trade	66,795	15%	11%	14%	11%
Accommodation, Cafes and Restaurants	22,539	16%	14%	18%	13%
Transport and Storage	22,065	7%	4%	13%	10%
Communication Services	9,429	14%	11%	5%	3%
Finance and Insurance	27,198	35%	32%	24%	20%
Property and Business Services	95,319	33%	28%	30%	26%
Government Administration and Defence	13,419	8%	5%	13%	9%
Education	41,520	16%	11%	10%	5%
Health and Community Services	40,842	17%	15%	15%	14%
Cultural and Recreational Services	17,268	28%	26%	25%	22%
Personal and other Services	20,733	19%	15%	18%	15%
Total	**543,099**	**16%**	**13%**	**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 figure[25]. This section investigates each of these three influences on regional employment growth.

If the Auckland labour market had grown at the national rate, employment would have grown by almost 70,000 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 Auckland grown at national growth rates, employment would have declined by just over 5,200 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 increased by just over 200 employees – this result is represented by the column in Chart 14 called Region Specific. These three components combine to produce a decline in Auckland employment of nearly 75,500 between 2001 and 2006.

Industry mix

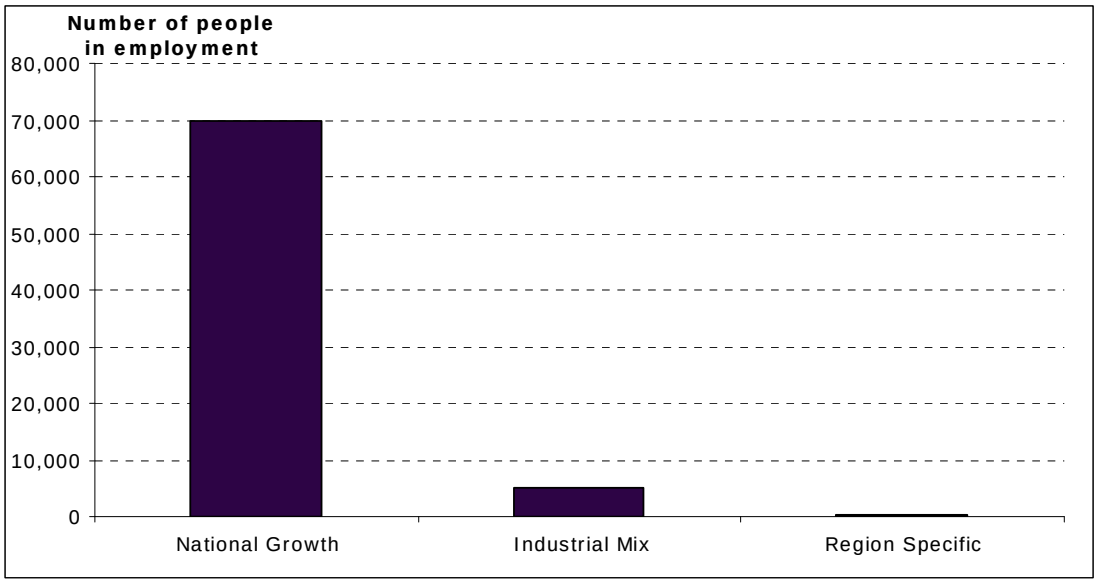
The mix of industries plays an important role in determining employment growth. The decline in Agriculture, Forestry and Fishing was not felt particularly in Auckland given the low share of regional employment. The Property and Business Services industry grew strongly across New Zealand, and Auckland and had a higher than average share of regional employment. This high share of a high growth industry provided much of the employment growth due to the Industry Mix.

[25] This method of analysis is commonly referred to as “shift-share” analysis.

Region specific

Region specific characteristics have also had an effect on employment growth in the Auckland Region. Between 2001 and 2006, Construction industry employment grew significantly faster outside of Auckland region. This is perhaps due to the already high level of employment in 2001 rather than any under performance in 2006 (employment did still increase by 13.5%). Other than Construction, many of the other industries within the Auckland Region increased employment at a rate faster than the national averages. Overall, these two competing movements offset each other giving only a slight increase in region specific employment. 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 regional employment growth in Auckland Region between 2001 and 2006



Source: Census 2006, Statistics New Zealand

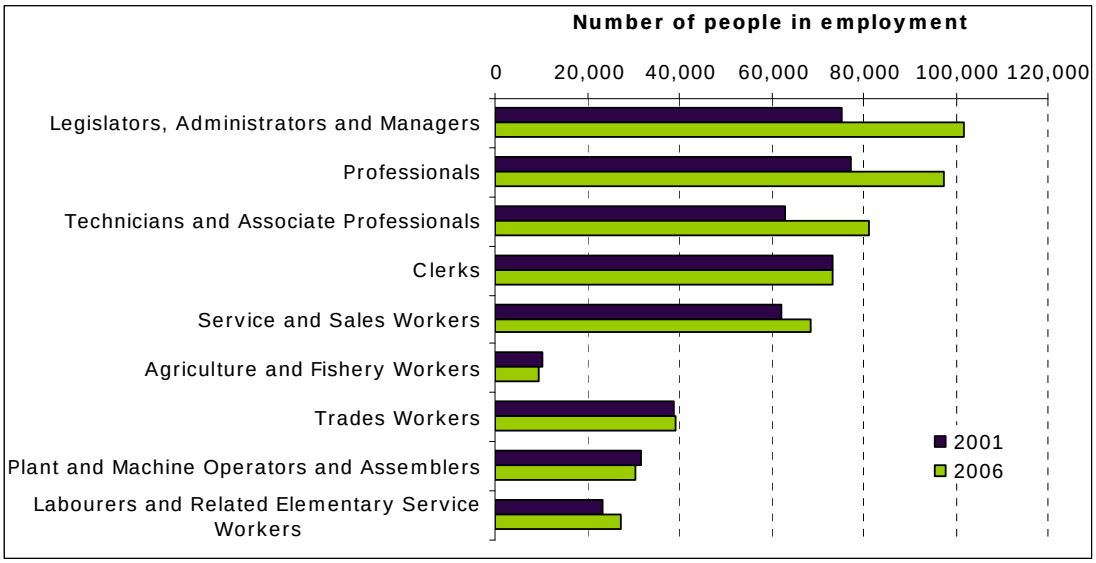
Discussion point 5:

- **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

Chart 15 shows that employment growth had mostly occurred in the higher skilled occupation groups, namely Legislators, Administrators and Managers, Professionals, and Technicians and Associate Professionals. This was caused by the changing mix of products and services being produced in Auckland, most importantly the growth in the Property and Business Services being provided. Table 11 shows that regional employment growth exceeded the national average in all Higher Skilled groups.

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



Source: Census 2001 and 2006, Statistics New Zealand

Despite nationwide growth, regional employment of Trades Workers hardly changed between 2001 and 2006, and regional employment of Plant and Machine Operators and Assemblers declined. Employment of people working in Clerical occupations in Auckland remained the same (as it did across the country). Regional employment growth of Services and Sales Workers matched the moderate growth observed nationally, and regional growth of Labourers fell short of the national average.

Table 11: Occupation employment growth in Auckland 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%
Auckland Region	35%	27%	29%	0%	10%	-9%	1%	-4%	17%

Source: Census 2001 and 2006, Statistics New Zealand

Note: Numbers may not sum because of rounding. Numbers may not be consistent with those in other tables because of rounding.

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 house builders in a region begin to use wood frames more and aluminium frames less (maybe because the price of wood has decreased), employers' requirements for carpentry skills will increase even if the number of houses being built remains the same.

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

Highly skilled jobs:

- Employment growth of Legislators, Administrators and Managers was driven partly by these occupations becoming more prevalent in all Auckland's industries, irrespective of whether they grew or not. Key industries in this respect were Property and Business Services, Retail Trade, Manufacturing, Construction, Finance and Insurance, and Education. Employment of people in this occupational group also grew because of growth in the Property and Business Services industry, and to a lesser extent Finance and Insurance and Retail and Wholesale Trades where many such workers were employed.
- Employment growth of Professionals was driven partly by these occupations becoming more prevalent in most of Auckland's industries, irrespective of whether they grew or not. Growth within the Property and Business Services industry was the largest. Growth in the Property and Business Services industry and to a lesser extent growth in the Health and Community Services and Education also created many new professional jobs.

Skilled jobs:

- Employment growth of Technicians and Associate Professionals was driven partly by these occupations becoming more prevalent in most of Auckland's industries, regardless of whether they grew or not. Industries where more Technicians were employed mostly occurred include the Retail Trade, Cultural and Recreational Services, Finance and Insurance, Manufacturing and Health and Community Services. Employment of people in this occupational group also grew because of strong growth in Property and Business Services, and to a lesser extent Finance and Insurance and Cultural and Recreational Services.
- Trades Workers experienced hardly any employment growth in Auckland. More than half of all Trades workers in the region work in Manufacturing and Construction. The number of Trade Workers in these industries has fallen.

Semi-skilled and elementary jobs:

- Clerical Workers experienced hardly any employment growth in Auckland. More than half of all Clerical workers in the region work in Property and Business Services, Finance and Insurance, Retail Trade, Wholesale Trade and Manufacturing. The number of Clerical workers in these industries has fallen. Property and Business Services is the exception, here new jobs were created for clerical workers but the growth was small compared with growth in the industry overall.
- Service and Sales Workers grew mostly because of growth in the Retail Trade and Accommodation, Cafés and Restaurants industries, and to a lesser extent, Personal Services, Property and Business Services, and Health and Community Services, but with the exception of Property and Business Services, growth in Service and Sales Workers was not as strong as growth in the industry as a whole – Service and Sales Workers effectively became less prevalent in these industries.
- Employment of Plant and Machine Operators and Assemblers fell slightly. This was mainly because the nature of employment in Manufacturing (where half of such workers were employed) has changed recently with fewer Plant and Machine Operators and Assemblers employed in the regional industry in 2006 compared with 2001.
- The main reason why employment of Labourers and Related Elementary Service Workers grew was that the prevalence of these types of jobs increased in industries such as Manufacturing, Construction and the Wholesale Trade. Hence they increased their share of these industries. This was partially offset by decreases in the prevalence of such jobs in several industries, particularly Property and Business Services and Education.

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

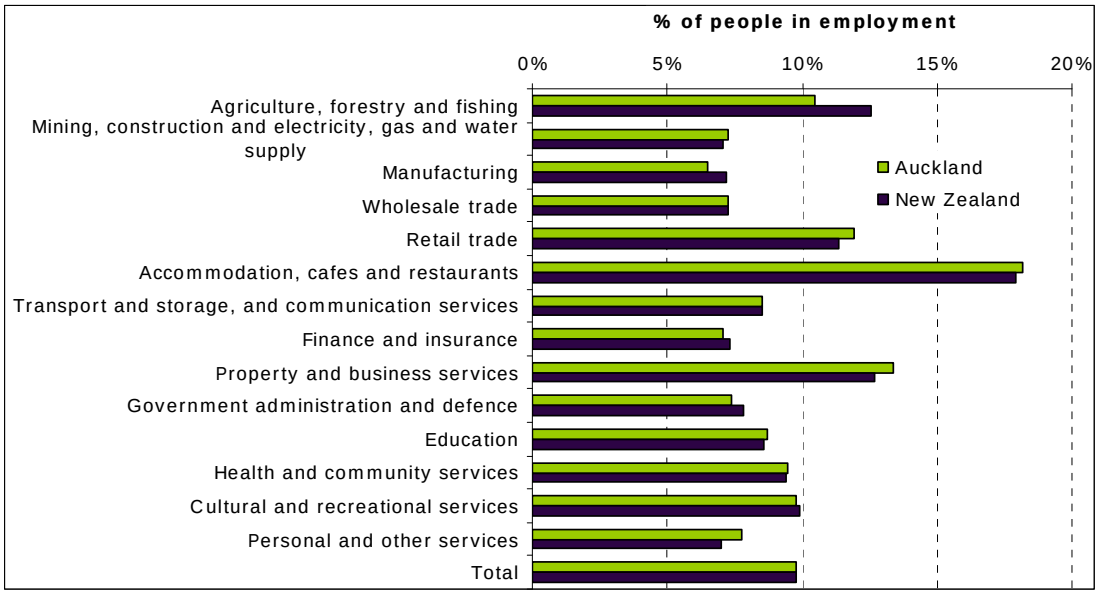
The worker replacement rate measures the proportion of workers that change independent of job availability. The worker replacement rate (WRR) is calculated by taking the Worker Turnover Rate (WTR: People starting and leaving work as a proportion of total jobs) and subtracting the Job Flow Rate (JFR: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

WRR = WTR - 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 the rate at which workers need to be replaced.

The highest replacement labour requirements in Auckland are likely to be in the region's largest industries: Manufacturing, Retail Trade and Property and Business Services. Worker replacement rates are estimated to be slightly higher in Retail Trade and Business and Financial Services (of which Property and Business Services is a part) than they were in Manufacturing. Worker replacement rates were highest in the Agriculture, Forestry and Fishing and Accommodation, Cafes and Restaurants industries. However, in Auckland these were relatively small industries.

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



Source: Linked Employee Employer Dataset, Statistics New Zealand

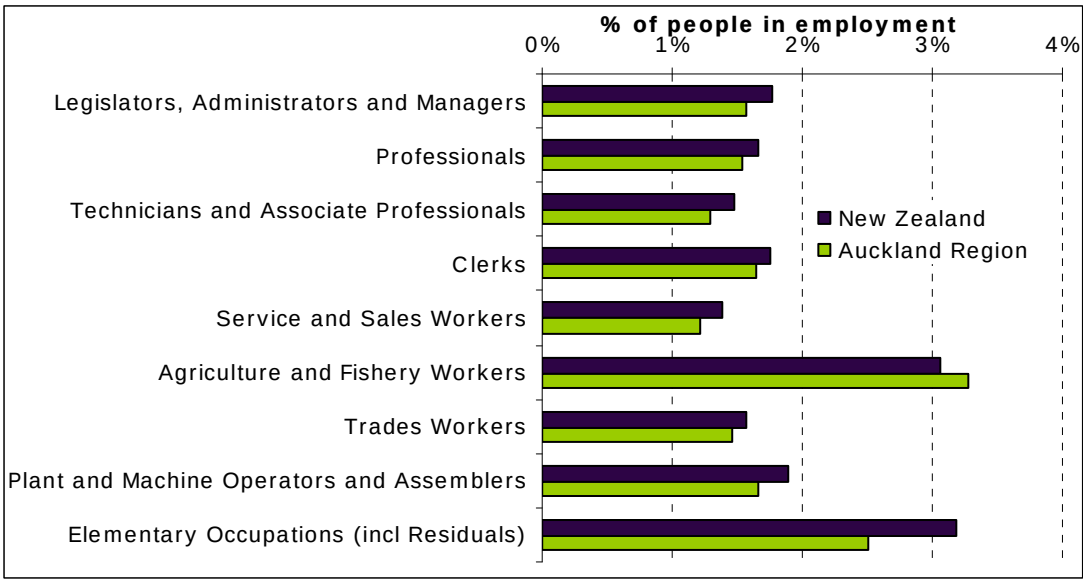
3.4 Retirements

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 shrink.

While there is no standard measure of estimating retirement, the Department of Labour uses a calculation based on 20% of the workforce aged 60 and above retiring every year[26]. Based on this ratio, the Department of Labour estimates that, annually, nationwide retirements amount to about 2.0% 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%.

In Auckland, the workforce is relatively young and the number of retirees is estimated to be relatively low. Also, the occupation group that has by far the oldest age profile, Agriculture and Fishery Workers, is relatively small in Auckland. Nonetheless, approximately 8,600 people are expected to retire every year in the Auckland Region. That is equivalent to 1.6% of the total number of people in employment in the region in 2006. Retirements are expected to be highest in the largest occupational groups. Roughly 1,600 Legislators, Administrators and Managers, 1,500 Professionals, 1,200 Clerks and 1,000 Technicians and Associate Professionals are expected retire every year. The age profile of these occupational groups is younger than the national average.

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



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?**

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

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. Some people are likely to be unemployed. 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 employers' ability to fill vacancies.

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 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.

Wage levels are the result of complex interactions between employers and workers. They 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).

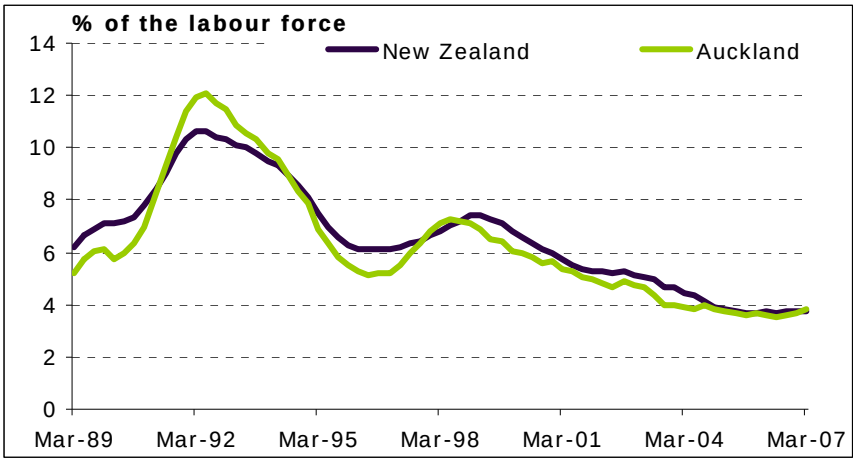
4.1 Employment and unemployment[27]

Chart 18 shows that the unemployment rate in Auckland, as in the country as a whole, is historically low having been on a downward trend for much of the time since the early 1990s.

As noted earlier in this report, recent economic growth has been centred on 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.

[27] 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

Chart 18 shows that, after falling significantly since 2001, the unemployment rate of the Auckland Region in 2006 was only marginally higher than the national average[28].

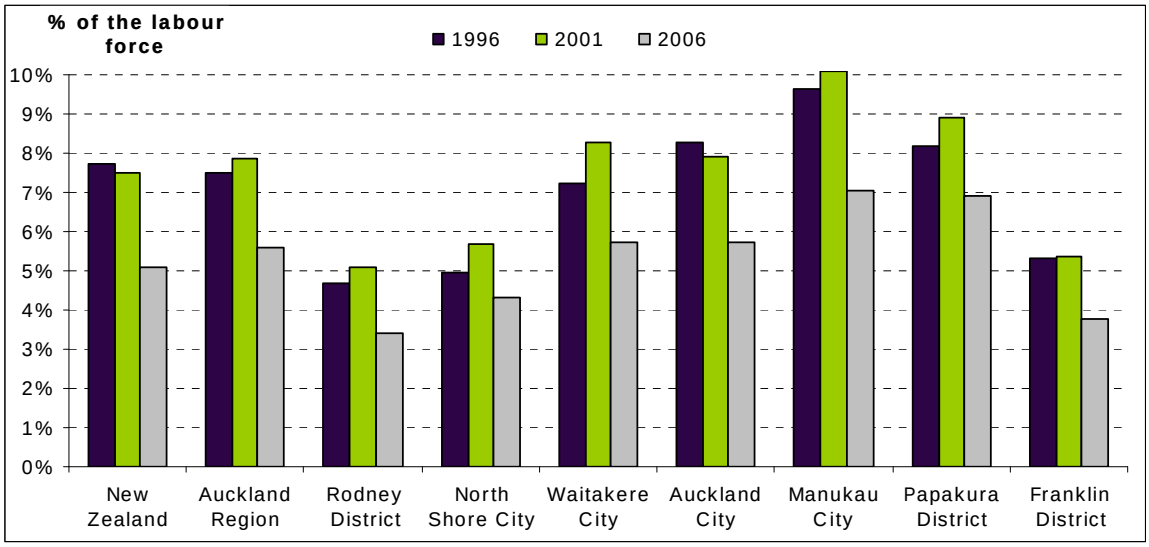
Within all of the Auckland Region's TAs, unemployment rates were also much lower in 2006 than they were in 2001. However, the disparities in unemployment rates that existed in 1996 and 2001 were still evident in 2006. Unemployment rates were lowest in Franklin District and Rodney District and highest in Manukau City and Papakura District.

In all of Auckland Region's TAs, the unemployment rate has fallen because employment has grown by more than the labour force.

For example, between 2001 and 2006, the Auckland Region labour force grew by 15% while the number of people living there who were in employment grew by 18%. 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 contracted.

[28] Although Charts 18 and 19 both show unemployment rates for New Zealand and the Auckland Region, they use different data sources and are therefore not strictly comparable.

Chart 19: Unemployment rates for Auckland 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?**

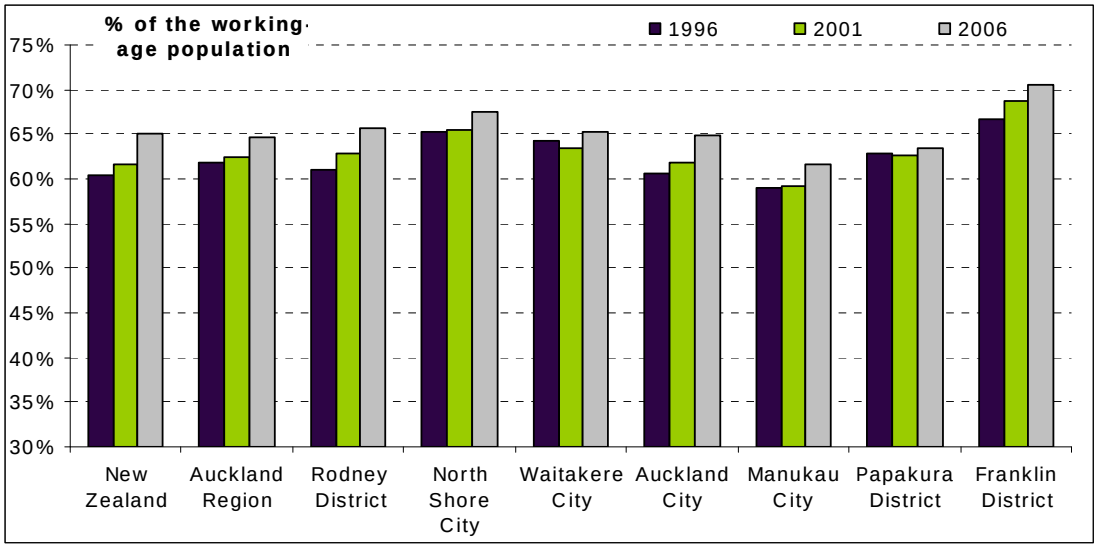
Employment rates – the number of employed people as a percentage of the working-age population – are a useful way to compare regional labour markets. Employment is one indicator of the level of employers' labour and skill requirements and the extent to which the skills and labour on offer meets these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

Note that the chart below shows employment rates for people living in the Auckland Region's TAs. The section on commuting earlier in this report demonstrated that some people live in one region and work in a different region, so employment rates in each TA will be partly determined by employers' labour requirements in other parts of the region – in the case of Auckland, particularly employers in the Auckland City where many people commute. The previous section on employers' labour requirements provided information about this.

Unsurprisingly, the employment rate in Auckland and all its constituent TAs rose between 2001 and 2006. The regional disparity in employment rates reflects the disparity in unemployment rates. Generally speaking, TAs with relatively low unemployment rates also have relatively high employment rates. The highest employment rate was in Franklin District at just over 70%. The lowest was Manukau City's at just under 62%.

Disparities in employment rates evident in 1996 and 2001 remained in 2006. This is despite the fact that employment growth between 2001 and 2006 varied among Auckland's TAs from 23% among people living in Rodney District to 10% among people living in Papakura District. Employment rates have risen across the board because growth in the labour force has been greater than growth in the working-age population. Disparities have remained because TAs that have experienced stronger employment growth have also experienced stronger working-age population growth.

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



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

Section 2 outlined changes in the skills offered in the Auckland labour force by using qualification attainment as a proxy measure of skills. The analysis in section 3 showed how Auckland employers' skill requirements have changed by looking at employment growth in different occupations. Occupations are grouped according to skill level, and section 3 showed that growth in skill requirements has been much greater for highly skilled jobs such as managers, professionals and technicians. Table 12 draws this together by showing changes in key labour market outcomes for people with differing levels of qualification attainment.

Table 12 shows that the employment of people with relatively low qualifications has grown only a little. The general increase in qualification levels of the population has meant that the number of such people in the labour force with these qualifications has not grown. The result is that unemployment rates have fallen, and employment rates have remained static.

The greatest increase in employment has been among people with more advanced vocational qualifications and degrees. This includes people with a Level 4 certificate gained post-school, Level 5 diploma and Bachelor degree or higher. Employment rates of people with these qualifications were relatively high at around 77–82%, unemployment rates contracted and were below 4% and participation rates were higher than 79%.

This all implies that if employers' labour requirements continue to focus on people with higher qualifications, and if these requirements are to be met, any increases in the labour offered will probably need to be driven by:

- productivity improvements in the existing labour force
- increases in the working-age population that will bring higher qualified entrants to the labour force than those currently employed, or
- up-skilling those people with relatively low qualifications.

The potential for further increases in labour force participation or reductions in unemployment is only limited and, as we have seen in section 2, there are a number of TAs for which the population is projected to both age and decline. In these cases, the potential for future growth in the higher skilled working-age population is more limited.

Table 12: Highest qualification of the working-age Auckland 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	4%	0%	48.1%	47.3%	12.2%	8.8%	54.8%	51.9%
School based Qualification	2%	0%	63.4%	63.6%	7.7%	6.3%	68.7%	67.9%
Level 1, 2 or 3 Certificate Gained Post-school	20%	18%	71.3%	68.8%	9.1%	7.6%	78.4%	74.4%
Level 4 Certificate Gained Post-school or Level 5 or 6 Diploma	39%	38%	78.2%	76.9%	4.1%	3.2%	81.6%	79.5%
Bachelor Degree Or Higher	63%	61%	80.2%	81.7%	4.8%	3.4%	84.2%	84.6%
Total	**18%**	**15%**	**62.4%**	**64.7%**	**7.8%**	**5.6%**	**67.7%**	**68.6%**

Source: Census 2001 and 2006, Statistics New Zealand

Note: Highest qualification levels in this table differ to highest qualification levels in Table 8. 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 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 about which little is known.

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. Currently, information is only available from SERA at the national level.

Table 13 shows national advertised vacancy fill rates for the nine major occupation groups. These are the same groups for which Auckland's employment growth is shown in Chart 15. 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.

Nationally, Professionals, Technicians and Associate Professionals, Trade Workers and Plant and Machine Operators and Assemblers were in severe shortage, but this is likely to vary from region to region. The analysis of employment growth and its drivers in section 3 can help. Considering national fill rates alongside regional employment enables us to draw tentative 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.

It is likely that Auckland, similar to New Zealand as whole, is experiencing both shortages in skilled and unskilled labour. Without full regional data, a tentative conclusion can be made that Auckland is experiencing shortages of Professionals and Technicians and Associate Professionals. Section 3 showed that strong employment growth was experienced by these two occupational groups. This growth originated from industries such as Property and Business Services expanding their workforce, and from most industries increasing the number of workers in these occupations regardless of overall growth in the workforce. This is supported by regional expectation that demand will remain high for positions in

the Accountancy and Finance industry, such as accountants, financial or performance analysts, tax analysts etc.[29]

It is likely that, as for New Zealand as whole, Auckland is experiencing some shortage of Trade Workers. This need can be seen in Work and Income's Trade Apprenticeship pilot scheme to address skills shortages in the Trades, and which is especially targeted at Pacific Peoples. It is likely that, compared to New Zealand as a whole, the shortage of Trades Workers in Auckland is less acute. The employment of Trades Workers in Auckland grew only slightly, and in the two industries where most Trades Workers were employed, Manufacturing and Construction, the number of Trades Workers fell. The shortages felt nationwide of Plant and Machine Operators and Assemblers may also be moderately felt in Auckland. The employment of Plant and Machine Operators and Assemblers fell in the Auckland Region, mainly because of reductions in the employment of such people in Manufacturing.

All other occupation groups were in moderate shortage nationwide. Of these groups, employment growth in the Auckland Region has been greatest among Legislators, Administrators and Managers. Therefore it is likely that regional shortages exist in this occupation group.

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

There is also a suggestion that firms are involved in a range of practices to try and minimise the impact of skills shortages on their businesses. This is especially critical with the worldwide competition for talent. One example of this is the law firm Minster Allison, which stay in touch if they "lose a bright spark overseas" in case they may wish to bring their skills back to New Zealand in the future[30]. The Bay of Plenty, Auckland and Northern District Health Boards are putting a greater focus on individual's career development so that staff feel encouraged staying in an organisation that recognises a sense of purpose in work[30].

The occupational groups referred to above include many different types of job. The degree to which these individual jobs types were in shortage varies considerably. There isn't the capacity in this report to go into any further detail.

[29] Hays Quarterly Forecast. 2007. http://www.hays-hps.co.nz/forecast

[30] Frances, H. 2006 Keeping our talent at home. *New Zealand Herald* (May 13 2006)

This detail can instead be found in the Department of Labour report: Occupations in Shortage in New Zealand: 2006. This is available on the DoL website – http://www.dol.govt.nz/publications/jvm/shortage2006/index.asp

Discussion point 9:

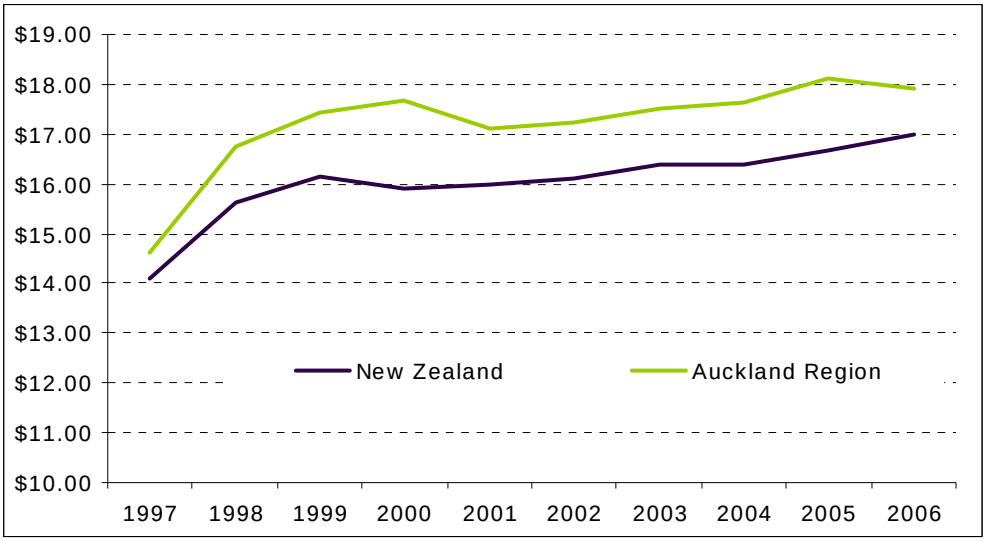
- **To what extent does the supply of labour and skills in the region match the demand for labour and skills?**
- **What industries are facing skill shortages and what skills are in shortage (e.g. technical skills, soft skills or management skills)?**
- **Are the skills available to meet these shortages?**
- **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

Chart 21 shows that, in real[31] terms from 1997 to 2006, median hourly earnings in Auckland have increased between 1997 and 2006 at the same pace as the national average. Only two regions (Auckland and Wellington) have been consistently above the national median in terms of hourly earnings. One reason for this is that the economies of these two urban labour markets create more employment for highly skilled workers than other regions. Section 3 showed how employment growth in the Auckland Region has been mostly in skilled and highly skilled occupations.

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

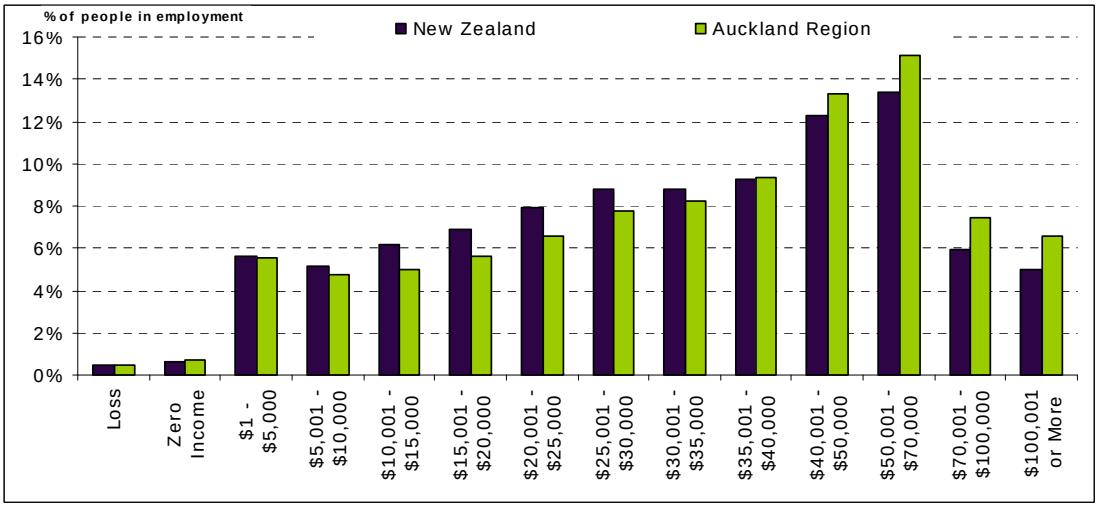
Chart 21: Real median hourly earnings for residents of Auckland compared with the national median from 1997 to 2006



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 earn money from other sources such as investments. However, the pattern of Auckland incomes supports the pattern of earnings shown in the chart above. Again, like Wellington Region, a higher than average proportion of residents in Auckland Region are at the higher end of the income distribution.

Chart 22: Total personal incomes for people in employment and resident in Auckland 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 six to 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 at 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

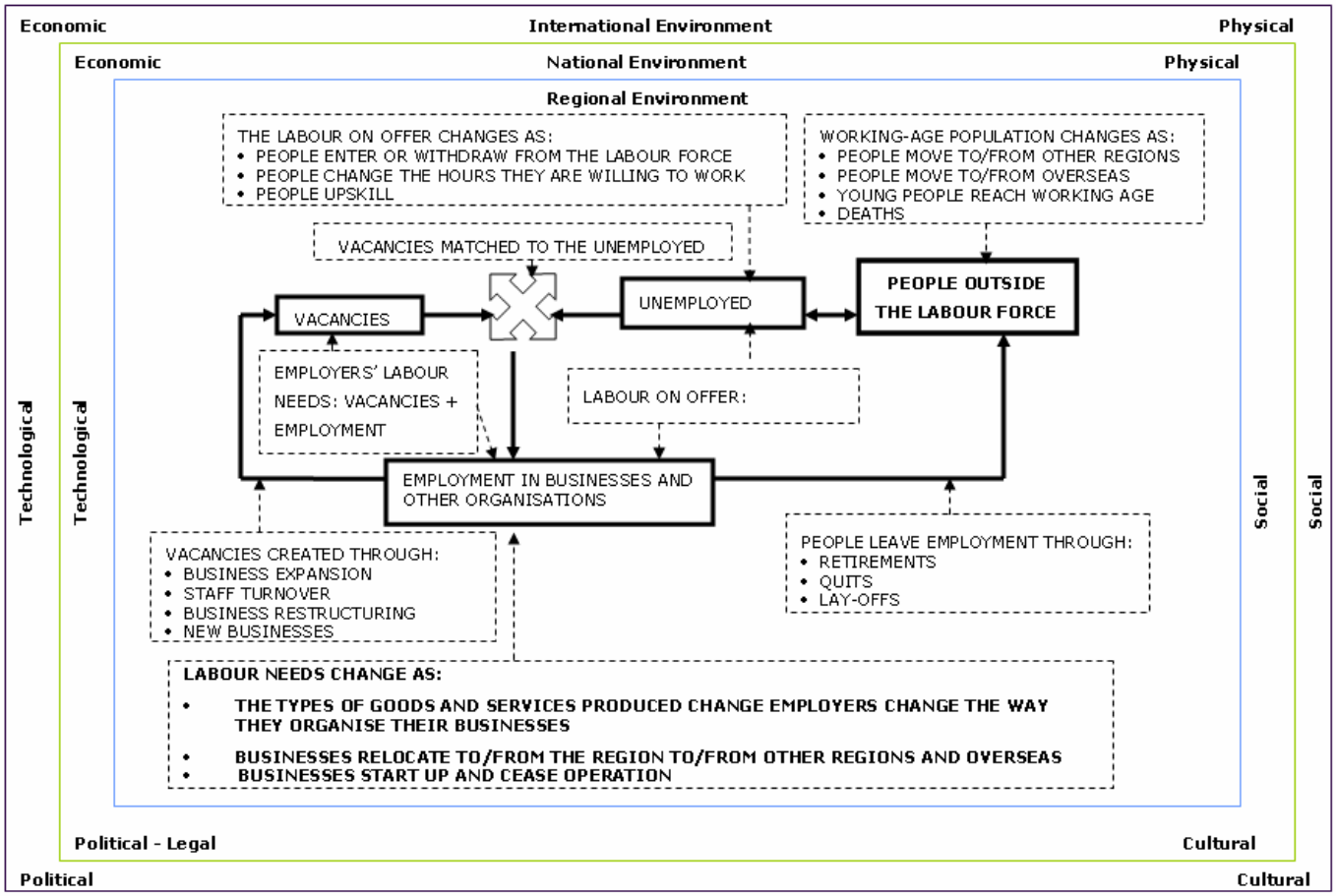
assumptions about future fertility, mortality, net migration, inter-ethnic mobility, living arrangement type and labour force participation patterns of the population. Projections are updated every 2–3 years.

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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