



WORKFORCE 2020

DEMOGRAPHIC SHIFT

The Asian workforce: A critical part of New Zealand's current and future labour market



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Acknowledgements

This report was reviewed by Richard Bedford, Waikato University; Paul Callister, Victoria University; Robert Didham, Statistics New Zealand and Andrew Butcher, Asia New Zealand Foundation.

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Suggested citation:

Badkar, J. and Tuya, C. *The Asian workforce: a critical part of New Zealand's current and future labour market*. Department of Labour, Wellington, 2010.

ISBN 978-0-478-36012-7

June 2010

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EXECUTIVE SUMMARY

The 2006 Census showed that Asians comprised the fourth largest major group of ethnicities in New Zealand after European, Māori and Other, comprising 9.2 percent of our population.¹ This proportion is expected to increase to approximately 15 percent by 2026.² The Asian population is substantial and is growing fast - there has been a 104 percent increase between 1996 and 2006.

There is a high level of diversity within the Asian ethnic groups. Asians in New Zealand differ widely in areas such as language, culture and settlement history. All of these factors can impact on labour market outcomes and there are serious limitations in using the term 'Asian' as a blanket ethnic descriptor. In particular, smaller ethnic minorities may be lost by averaging within such a large grouping, and as a result, their specific labour market outcomes may be rendered invisible. Therefore, this report attempts to minimise this by analysing four Asian subgroups separately: North Asian, South Asian, Southeast Asian and Other Asian.^{3 4}

The two main objectives associated with this report are:

- to examine the skill level and qualifications of the Asian workforce in New Zealand
- to gain an understanding of the occupations and industries in which the Asian workforce is employed.

KEY FINDINGS

1: The Asian workforce is a critical part of New Zealand's current and future labour market

In 1996, Asians comprised 5 percent of the total working-age population. This share increased to 7 percent in 2001 and 9 percent in 2006. In 2016, the Asian working-age population is projected to make up 13 percent of the total working-age population and 15 percent in 2026. The Asian workforce has become a critical part of New Zealand's current and future labour market.

Some other observations from the 2006 Census of Population and Dwellings:

- 80 percent of the Asian population were born overseas.
- 91 percent of New Zealand's Asian working-age population⁵ were born overseas.
- The Asian workforce was over-represented in the Retail Trade sector (22 percent compared to 13 percent of the total working-age population).

¹ The Other ethnicity group includes the New Zealander response and Other ethnicity.

² Projections for the total Asian population in 2026, using the Census - 30 June 2006 base.

³ We have not referred to this group explicitly in the commentary due to their small numbers in relation to the other Asian subgroups.

⁴ Refer to Table 4 on page 19 for a detailed breakdown of Asian ethnicities in each group.

⁵ Wherever the 'working-age population' or 'workforce' are referred to in this report, they refer to all people aged 15 years and over.

- The Asian workforce was over-represented in Professional occupations (18 percent compared to 16 percent in the total population). Across all subgroups, a large proportion of the Asian workforce was employed as Business Professionals.
- Within the Health and Community Services sector, 49 percent of Asians were employed as Professionals compared to 37 percent of the total population, reflecting the highly qualified and skilled nature of the Asian workforce in New Zealand.
- The Asian workforce was over-represented in Service and Sales Worker occupations (20 percent compared to 14 percent of the national average).
- Asians with a bachelor's degree were three times more likely to be working as Clerks than the national average (33 percent versus 11 percent). This suggests that the skills of some Asians are not fully utilised and that some Asians are over-qualified for the types of jobs they are employed in.
- The Asian workforce is youthful. Half of the Asian working-age population were aged between 15-34 years compared to a third in this age group in the total population.
- The Asian workforce is highly qualified and is more likely to have tertiary qualifications especially in the younger age groups.
- At the 2006 Census the unemployment rate for Asians was 5.3 percent. Since the economic downturn, the unemployment rate for Asians increased to 9.2 percent.^{6 7}

2: The Asian workforce is not homogenous: migrants from different parts of Asia occupy distinct parts of our labour market

North Asians

- A third of North Asians were aged between 15-24 years, reflecting the presence of international students, particularly from China and Korea in this group.
- 18 percent of North Asians in the workforce were employed as Computing Professionals (compared to 15 percent of South Asians and 14 percent of Southeast Asians), reflecting growth in the IT sector.
- 52 percent of North Asians were employed as Housekeeping and Restaurant Workers (compared to 48 percent of Southeast Asian and 30 percent of South Asians). This was almost double the national average (27 percent).

South Asians

- 33 percent of South Asians had a bachelor's degree or higher (compared to the 27 percent of North Asians and Southeast Asians).
- 12 percent of South Asians were employed as Health Professionals (compared to 10 percent of North Asian and 7 percent of Southeast Asians), reflecting the global demand for medical professionals. This was double the national average (12 percent versus 6 percent).

⁶ Based on current Household Labour Force Survey data (December 2009).

⁷ The unemployment rates for the other ethnic groups (from the December 2009 HLFS) were: European (4.6%), Maori (15.4%) and Pacific (14%).

- 45 percent of South Asians were employed as Salespersons and Demonstrators (compared to 32 percent of North Asians and 30 percent of Southeast Asians).

Southeast Asians

- 57 percent of Southeast Asians were employed in semi-skilled/elementary occupations (compared to 49 percent of North Asian and 46 percent of South Asians).
- 28 percent of Southeast Asians were employed as Nursing and Midwifery professionals (compared to 11 percent of South Asians and 5 percent of North Asians), reflecting the growth and demand in this occupation. This was more than double of the national average (12 percent).

Future opportunities and challenges

Asians are a growing part of the New Zealand population. Understanding their contribution to the future workforce and the skills they will bring will help support the government's economic growth agenda, by ensuring New Zealand has the skills it needs.

Similar to other developed countries, New Zealand's population is ageing. The Asian workforce, with over half aged under 35 years, is an important source of young workers. In the future they will be as large as the Māori workforce, forming an important source of skilled labour and adding diversity to our workplaces.

As the proportion of New Zealand-born Asians increase, future employers need to develop a recruitment culture that is not based on assumptions. Second generation Asians might not face the same barriers being born and bred New Zealanders, educated in English, and for many English would be their first language. Therefore employers need to be agile to respond and capitalise on this future change.

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GLOSSARY OF TERMS⁸

Working-age population: A person who is 15 years or over at the time of the Census who is employed or unemployed or seeking work.⁹

Employed: A person in the working-age population working for at least an hour a week.

Unemployed: A person in the working-age population who is not working, but is available for and actively seeking work.

In labour force: Those who are either in work or are available for and actively seeking work (that is, employed or unemployed as defined above).

Not in the labour force: A person in the working-age population who is neither employed nor unemployed.

Full-time/part-time employment: Full-time workers usually work 30 hours or more per week, and part-time workers usually work less than 30 hours per week.

Labour force participation rate: Proportion of the working-age population that is in the labour force.

Unemployment rate: Proportion of the labour force that is unemployed.

Industry: The type of activity undertaken by the organisation, enterprise, business or unit of economic activity within which a person aged 15 years or over is employed.

Occupation: A set of jobs that require the performance of similar or identical tasks and are collected for people aged 15 years and over.

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

⁸ These definitions are from Statistics New Zealand:

[www.stats.govt.nz/census/about-2006-census/2006-census-definitions-
questionnaires/definitions/personal.aspx](http://www.stats.govt.nz/census/about-2006-census/2006-census-definitions-
questionnaires/definitions/personal.aspx)

⁹ In this report, we use the term workforce and working-age population interchangeably.

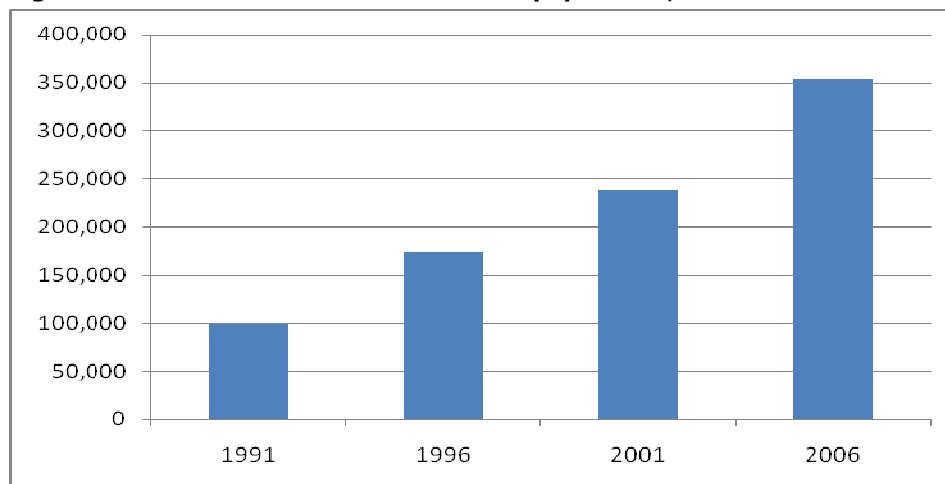
1. INTRODUCTION

1.1 Growing Asian population in New Zealand

People of Asian ethnicities have been living in New Zealand from the early nineteenth century. In the 1840s, New Zealand attracted Chinese migrant workers to the Otago goldfields to replace the European miners who left Otago to work in the newly discovered goldfields of the West Coast.¹⁰ In 1866, there were 12 Chinese men, and by late 1868, this had increased to over 2,000. Initially, the numbers were heavily weighted towards males because Chinese women were restricted from entering New Zealand (Badkar et al 2007; Ip 2009). Similarly, Indian migrants, who were mainly men, came into New Zealand as temporary labourers in the late 1800s, and were employed as “pedlars, hawkers and domestics” (Taher 1970; Leckie 2007, as cited in Davey, Keeling and Zodgekar 2010). By 1920, when a permit system to restrict further Asian immigration was introduced, the Indian population had grown to about 2,000, still mainly men.

Figure 1 shows the growth in New Zealand’s population of Asian ethnicities (hereafter referred to as the Asian population) from 1991-2006. The Asian population more than trebled from around 100,000 in 1991 to over 350,000 in 2006. Prior to 1991, Asians were classified and counted in the Other ethnic category.

Figure 1: Growth in New Zealand’s Asian population, 1991-2006



Source: Census of Population and Dwellings 1991-2006, Statistics New Zealand.
Note: Prior to the 1991 Census, Asians were classified under Other Ethnicity.

In the 1980s and 1990s, the number of Asians grew rapidly. This growth was mainly a result of the Immigration Policy Review of 1986 which introduced a major change in policy settings for immigrant selection from the earlier focus on nationality and ethnic origin to a focus that allowed people who met specified educational, business, professional and age requirements regardless of race or nationality, to be considered for residency. From the review came the

¹⁰ www.teara.govt.nz/NewZealanders/NewZealandPeoples/Chinese/2/en/#1#1

Immigration Act 1987, which discarded source country criteria and allowed for approval of migrants who applied for residence under the General Category to have skills contained in the Occupational Priority List. A Business Immigration Policy was also established that allowed migrants with proven business capability and investment capital to be accepted (Bellamy 2008). These changes resulted in the rapid growth in migrants from Asia, especially from China. This is not surprising, as Asia is home to nearly 60 percent of the world's population, and China itself is the world's most populous country with a population of 1.3 billion people in 2006 (Hugo 2006, 2007).

Table 1 shows that the Asian resident population in New Zealand has doubled in the last 10 years from 1996-2006 (104 percent), while the European population declined by 9 percent.

Table 1: Growth in major ethnic groups in New Zealand, 1996-2006

Year	Ethnic group				Total NZ population
	European	Māori	Pacific Peoples	Asian	
1996	2,879,085	523,374	202,236	173,502	3,618,303
2001	2,871,432	526,281	231,801	238,176	3,737,280
2006	2,609,589	565,329	265,974	354,549	4,027,947
<i>% change (1996-2006)</i>	<i>-9.4%</i>	<i>8.0%</i>	<i>31.5%</i>	<i>104.3%</i>	<i>11.3%</i>

Source: Census of Population and Dwellings 1996-2006, Statistics New Zealand.

Note 1: Middle Eastern/Latin American/African and Other Ethnicities ethnic groups were excluded due to their small numbers.

Note 2: The numbers reported in this table differ slightly from Tables 2 and 3, as it include the count for 'Not elsewhere included'.

The 2006 Census showed that the Asian ethnic cluster was the fourth largest cluster of ethnicities in New Zealand after European, Māori and Other ethnicity, comprising 9.2 percent of our population.¹¹ This proportion is expected to increase to approximately 15 percent by 2026. Just under a third of Asians were young adults aged between 15-29 years. In 2001, a third of people born overseas were born in the United Kingdom and Ireland, but by 2006, the proportion from these areas dropped to 29 percent. In contrast, the proportion of people born in countries in Asia increased from 24 percent in 2001 to 29 percent in 2006, equalling the proportion born in the United Kingdom and Ireland. While the United Kingdom remains the most common overseas birthplace (1956, 1981, 2001 and 2006 Censuses), the People's Republic of China moved from the fourth most common birthplace in 2001 to the second most common in 2006, with the number born there doubling during this period (from 38,949 to 78,117). In addition to this, people born in India also doubled from 20,892 in 2001 to 43,344 in 2006 (Statistics New Zealand 2007a).

It is worth noting that being born in Asia does not equate to an Asian ethnicity. As noted in Bedford and Ho (2008), being of an Asian ethnicity such as Chinese or Indian does not necessarily mean that one originates from China or India.

¹¹ The Other ethnicity group includes the New Zealander response and Other ethnicity.

Therefore, it needs to be recognised that Asian peoples who are resident in New Zealand can come from many different places or indeed be born in New Zealand.

The meaning of 'born overseas' or 'born in New Zealand' is also complicated. A person may have been born overseas but have spent most of their childhood as well as adult life in New Zealand. In cases of professional qualifications such as doctors, nurses, engineers and so on, this has implications when trying to assess whether a person was trained in New Zealand or overseas based on where they were born. For example, in the case of doctors, the main birthplace for those who were born overseas at the time of the 2006 census was the United Kingdom and Ireland (Callister, Badkar and Didham 2008). However, country of birth is a poor indicator of ethnicity; nearly a fifth of the doctors born in the UK and Ireland recorded an Asian ethnicity. Many of these Asian doctors came from non-Asian source countries, including Pacific nations and from Africa. On the other hand, ethnicity does not necessarily give a good indication of country of birth. For example in 2006, 7 percent of Māori doctors were born overseas. On some measures, these Māori doctors would be counted as foreign or overseas-trained doctors (Callister, Badkar and Didham 2008).

In New Zealand, about two-thirds of people of Asian ethnicities live in Auckland (Friesen 2008). People from Asia tend to settle in Auckland as it is a large metropolitan area with an existing Asian population base. In addition to this, people (especially migrants) tend to settle where the jobs are (Badkar 2006). Also, Auckland is an international gateway, and initially people tend to live near where they first arrive. Asians are the second largest cluster of ethnicities in Auckland after European, making up 19 percent of the total Auckland population (Statistics New Zealand 2007a). Given their growing presence in the workforce, it is important that the labour market outcomes of Asian New Zealanders are carefully monitored and the changing labour market outcomes of this population are assessed.

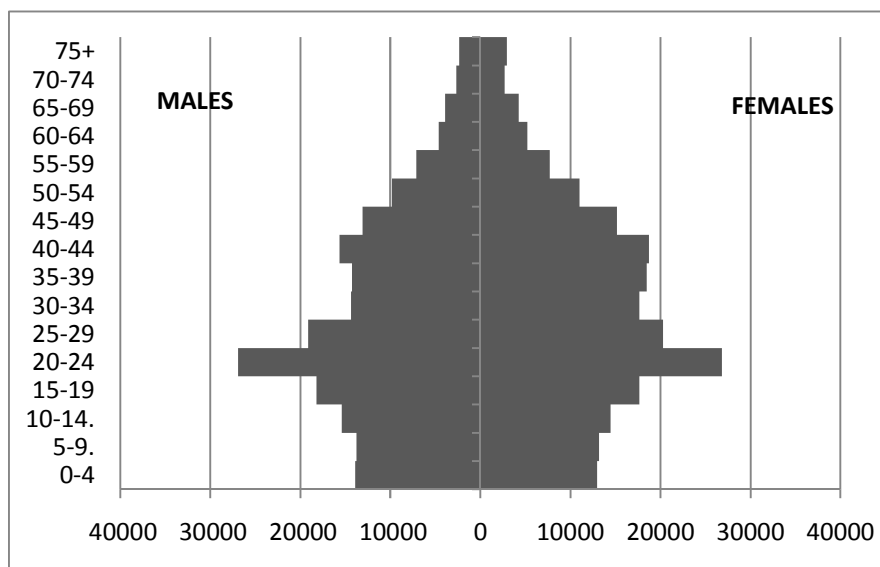
1.2 Future growth of the Asian population in New Zealand

Depending on the assumption applied, in 2026, the Asian population is projected to grow to between 603,000 to 990,000 (Bedford and Ho 2008).¹² Using the medium variant assumption (mid-range series 6) produces an Asian population of 788,260 in 2026, which is an increase of 95 percent, based on the June 2006 estimate (Statistics New Zealand 2008).¹³

The population pyramids presented in Figures 2 to 4 provide a good visual illustration of the dynamics of the projected growth over the medium term of the future Asian population using two scenarios:

1. Zero net migration.¹⁴
2. Medium variant migration.¹⁵

Figure 2: Age-sex structure of the Asian ethnic population, base population, June 2006



Source: Unpublished data from Statistics New Zealand (via Richard Bedford).

Note: Projections assume medium fertility, medium mortality and medium inter-ethnic mobility.

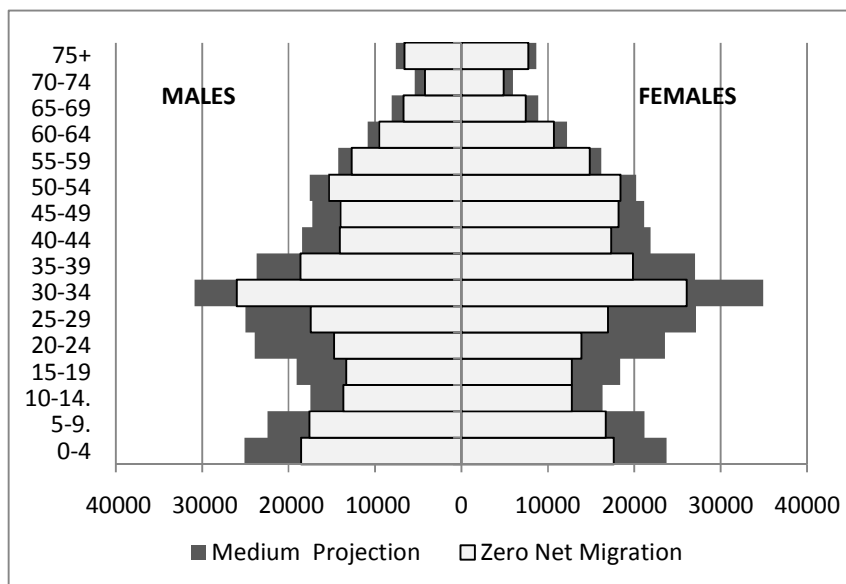
¹² Assumptions are about fertility, mortality, net migration and inter-ethnic mobility.

¹³ This increase is significantly higher than the increases projected for other ethnic groups.

¹⁴ The zero net migration projection uses the medium variant fertility, mortality and inter-ethnic migration assumptions, but has no net migration gain added to the base population through the projection period.

¹⁵ The medium variant migration projection uses the medium variant fertility, mortality and inter-ethnic migration assumptions, as well as annual net migration gains of 13,000 for the period 2007-2009 and then annual gains of 12,000 per annum to 2026.

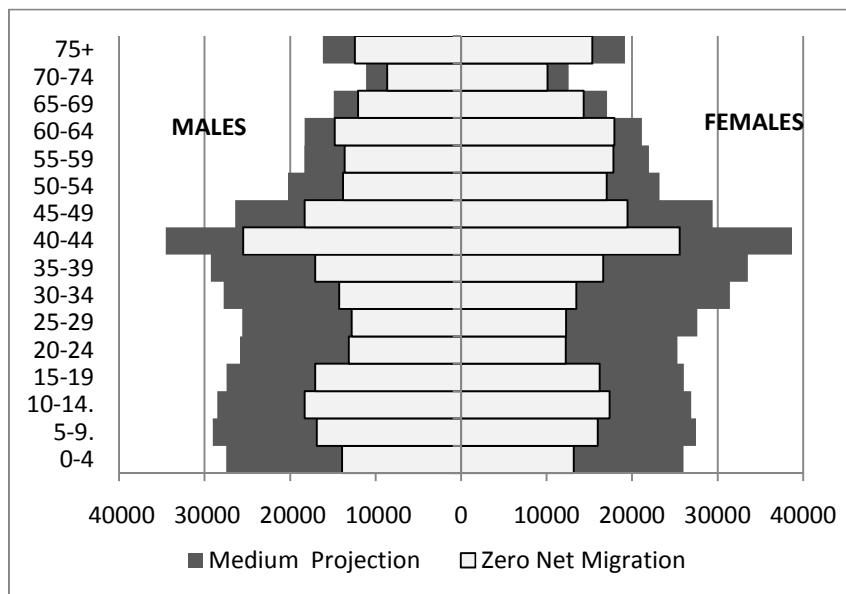
Figure 3: Age-sex structure of the Asian ethnic population, 2016 projections



Source: Unpublished data from Statistics New Zealand (via Richard Bedford).

Note: Projections assume medium fertility, medium mortality and medium inter-ethnic mobility.

Figure 4: Age-sex structure of the Asian ethnic population, 2026 projections



Source: Unpublished data from Statistics New Zealand (via Richard Bedford).

Note: Projections assume medium fertility, medium mortality and medium inter-ethnic mobility.

The purpose of these pyramids is to illustrate the impact of the medium variant migration assumptions on the Asian population through to 2026.

The base population for the Asian population as at June 2006 was 404,430 (Figure 2).¹⁶ The medium variant projection gives a population of 594,501 Asians in 2016 (Figure 3). By 2026, this population would reach to 788,260 (Figure 4).¹⁷

If there was no annual net migration gain (zero net migration) between 2006 and 2016, the population of Asians in 2016 will be 459,220 (Figure 3) assuming medium fertility, mortality and inter-ethnic mobility. The difference between the medium variant (which includes migration) and zero migrant variant in 2016 is 135,290, of which 123,000 is accounted for directly by annual net migration.¹⁸ The remaining 12,290 is the additional contribution to natural increase made by the migrant intake between 2007-2016.¹⁹

If the zero net migration assumptions held to 2026 the Asian population would grow to 497,380 (Figure 4). The difference between the medium variant (which includes migration) and the zero migration variant in 2026 is 290,880, of which 243,000 is accounted for directly by net migration (annual net migration gains). The balance of the difference (47,880) is the additional contribution made to natural increase by the migrant intake between 2007-2026.

This analysis demonstrates that if there were no additional net migration gains of Asians between 2007-2026 the Asian population would increase to 497,380 through natural increase and inter-ethnic mobility. This total in 2026 is 37 percent less than the 788,260 when medium net migration assumption is also applied. On-going Asian migration thus has a critical impact on New Zealand's population growth, especially in the workforce age groups.

1.3 Asians in New Zealand – who are they?

People classed as 'Asians' in New Zealand differ widely in language, religion, culture and settlement history - factors which could affect their labour market outcomes.

To recognise this diversity in the Asian population, we have grouped the Asian ethnicities by geographic region (North Asian, South Asian, Southeast Asian and Other Asian) so as to diminish the impact of averaging. Details of the groupings can be found in Section 3 of this report. Table 2 examines the changes in the resident Asian population subgroups from 1996-2006. Substantial increases have occurred across all subgroups, with the most substantial growth occurring in the South Asian subgroup (144 percent).

¹⁶ Estimated number at June 2006, which is higher than the Census population in March 2006 as it takes into account an undercount of people in the Census, people who were overseas in March who have returned and the natural increase (balance of births over deaths) in the population between March and June 2006.

¹⁷ The medium variant annual net migration estimates 2007-2016 are 2007-2009 (13,000 per annum) and 2010-2016 (12,000 per annum).

¹⁸ Calculated by: $123,000 = (13,000 \times 3) + (12,000 \times 7)$ using the medium variant annual net migration estimates mentioned above.

¹⁹ Natural increase is the balance of births over deaths.

Table 2: Trends in Asian subgroups, 1996-2006

Year	Ethnicity					Total NZ population
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
1996	100,035	24,975	48,600	2,052	171,693	3,425,388
2001	132,546	31,296	72,054	4,092	236,874	3,562,761
2006	186,396	45,786	118,491	4,143	351,693	3,815,586
	% of total NZ population					
1996	2.9%	0.7%	1.4%	0.1%	5.0%	3,425,388
2001	3.7%	0.9%	2.0%	0.1%	6.6%	3,562,761
2006	4.9%	1.2%	3.1%	0.1%	9.2%	3,815,586
<i>% change (1996-2006)</i>	<i>86.3%</i>	<i>83.3%</i>	<i>143.8%</i>	<i>101.9%</i>	<i>104.8%</i>	<i>11.4%</i>

Source: Census of Population and Dwellings 1996-2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications as it excludes the count for 'Not elsewhere included'.

The 2006 Census of Population and Dwellings showed that 80 percent of Asians were born overseas and 20 percent were born in New Zealand. With the exception of the Other Asian subgroup, this proportion is similar across all the Asian ethnicities (Table 3).

Table 3: Proportion of Asian people who were born in New Zealand and born overseas compared to the total New Zealand population, 2006

Ethnicity	Born in New Zealand	Born overseas	Total
North Asian	19%	81%	186,396
Southeast Asian	19%	82%	45,786
South Asian	22%	78%	118,491
Other Asian	36%	64%	4,143
Total Asian	20%	80%	351,693
Total New Zealand Population	77%	23%	3,815,586

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications as it excludes the count for 'Not elsewhere included'.

1.4 Is 'Asian' a meaningful ethnic grouping?

The Statistics New Zealand definition includes people whose ethnicities originate in the Asian continent which extends from Afghanistan in the west to Japan in the east and from China in the north to Indonesia in the south. Statistics New Zealand's definition of Asia excludes people originating from the Middle East (including Iran) and Asian Russia. Accordingly, these ethnicities are excluded from this report.

The New Zealand Standard definition of 'Asian' used by Statistics New Zealand does not correspond to definitions used in some other Western countries such as the United Kingdom (Rasanathan, Craig and Perkins 2006). This means that we will not be able to compare directly the New Zealand Asian population to Asian populations in other countries.

In New Zealand, colloquial usage of the term 'Asian' does not necessarily correspond to the Statistics New Zealand definition. Indian and other South Asian peoples may not be labelled 'Asian', with the term being reserved by some for North and Southeast Asian peoples (McKinnon 1996). For example a recent survey of New Zealanders' perceptions of Asia revealed over half of the respondents gave China (as the first Asian country that comes to their mind) when asked to think about Asia (Asia New Zealand Foundation 2009).²⁰

In recent years, the term 'Asian' has been widely used as an ethnic descriptor in New Zealand and is generally used in comparisons with other ethnic cluster descriptors, such as European (or Pākehā), Māori and Pacific. The construct of an Asian ethnic grouping has provided a label under which to consider and, for statistical purposes, to monitor the Asian population and its communities in New Zealand.

The diversity within the Asian grouping must always be taken into consideration. Asians in New Zealand differ widely not only in language, culture and religion, but also in socioeconomic status, English-language ability and settlement history. Because all of these factors can impact on labour market outcomes, there are major limitations in using Asian as a blanket ethnic descriptor.²¹ In particular, differences between smaller ethnic minorities may be lost by averaging within such a large grouping, and as a result their specific labour market outcomes may be rendered invisible.

This report attempts to diminish the impact of this averaging by analysing four Asian subgroups separately: North Asian, South Asian, Southeast Asian and Other Asian. By doing this we hope to identify some of the distinguishing labour market characteristics among Asians in New Zealand.

2. FOCUS OF REPORT

2.1 Purpose and research objectives

Significant changes in the composition of New Zealand's population over the last two decades have resulted in a greater ethnic diversity in New Zealand, especially in our workforce. These changes have several labour market implications such as changing attitudes, values and approach to work. A growing proportion of our future labour supply will be Asian. Currently, there is a dearth of detailed information about the Asian workforce, and the distinctive parts of the labour market that they occupy.

²⁰ This does not necessarily imply that India is not seen to be part of Asia by these respondents.

²¹ This applies to other level 1 groupings (with the possible exception of Māori).

This report contributes to existing labour-related analysis of the Asian workforce in New Zealand by providing a 2006 baseline from which to monitor future trends in the employment and labour market outcomes of the Asian workforce as these can be established using Census data. It is important to understand and improve the performance of New Zealand's labour market and the information gained from this analysis will be useful when preparing employers and consumers for a more ethnically diverse workforce in the future.

The two main objectives associated with this report are:

- to examine the skill level and qualifications of the Asian workforce in New Zealand
- to gain an understanding of the occupations and industries in which the Asian workforce is employed.

2.2 Structure of report

- Section 1 introduces the study and the data base.
- Section 2 outlines the focus of the report and provides the purpose and research objectives.
- Section 3 outlines the methodology, which includes information on the data sources, groupings, definitions and classifications that have been used and the caveats.
- Section 4 contains the results of the analysis, which includes a detailed review of the census data relating to occupations and industries that the overall Asian workforce and specific Asian subgroups are employed in and information about their skill levels and qualifications. As a comparison, an analysis of the total New Zealand workforce (the national average) is provided in all the tables.
- Section 5 provides an interpretation of the findings and suggests some future opportunities and challenges.
- Appendix A provides additional detailed data tables.

3. METHODS

Data sources

The datasets used in this report are all from the 1996, 2001 and 2006 Censuses of Population and Dwellings, provided by Statistics New Zealand.

Statistical methods

The analysis is mainly descriptive and the following variables are used: Asian ethnic sub-groupings, age groups, gender, qualifications, industry, occupations and skill level. The body of the report mainly contains findings from the 2006 Census of Population and Dwellings. Tables containing data from the 2001 and 1996 Censuses are in Appendix A.

3.1 Groupings

Asian subgroups

The findings in this report relate to the population that identifies with those Asian ethnicities that are classified in Table 4 as:

- North Asian
- Southeast Asian
- South Asian
- Other Asian.

Total Census population counts by major ethnic cluster are used in the tables.

Table 4: Asian ethnicity groupings

South Asian	Southeast Asian	North Asian	Other Asian
43100 Indian nfd	41000 Southeast Asian nfd	42100 Chinese nfd	44416 Eurasian
43111 Bengali	41111 Filipino	42111 Hong Kong Chinese	44499 Asian nec
43112 Fijian Indian	41211 Cambodian	42116 Taiwanese	40000 Asian nfd
43113 Gujarati	41311 Vietnamese	42199 Chinese nec	
43114 Indian Tamil	41411 Burmese	44211 Japanese	
43115 Punjabi	41412 Indonesian	44311 Korean	
43116 Sikh	41413 Laotian	44415 Tibetan	
43117 Anglo Indian	41414 Malay		
43199 Indian nec	41415 Thai		
44100 Sri Lankan nfd	41499 Southeast Asian nec		
44111 Sinhalese	42112 Cambodian Chinese		
44112 Sri Lankan Tamil	42113 Malaysian Chinese		
44199 Sri Lankan nec	42114 Singaporean Chinese		
44411 Afghani	42115 Vietnamese Chinese		
44412 Bangladeshi			
44413 Nepalese			
44414 Pakistani			

Source: www.stats.govt.nz/methods_and_services/access-data/ClassificationCodeFinder/ClassificationCodeHierarchy.aspx?classification=4270&code=4&action=collapse&scrollLeft=0&scrollTop=0

Age groups

This analysis focuses mainly on those people in the working-age population and uses six age categories:

- 15-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65 years and over.

Skill level groupings

NZSCO99 is a skill-based classification. It does not measure the skill level of individuals in the labour force but the skill level that is usually required to perform the job competently.

Skill level is measured by the level of formal education and training, the amount of work experience in a related occupation and the amount of on-the-job training required to perform the tasks and duties for that occupation.

The skill level of an occupation depends on the difficulty and range of tasks involved to perform the job. The greater the difficulty and range of set of tasks involved, the higher the skill level of the occupation.

The breakdowns of the skill level groupings are:

Skill level groupings	NZSCO (1-digit level)
Highly skilled	1 Legislators, Administrators and Managers 2 Professionals
Skilled	3 Technicians and Associate Professionals 7 Trades Workers
Semi-skilled/elementary	4 Clerks 5 Service and Sales Workers 6 Agriculture and Fishery Workers 8 Plant and Machine Operators and Assemblers 9 Elementary Occupations

Source: New Zealand Standard Classification of Occupations 1999 Manual, Statistics New Zealand
www.stats.govt.nz/~media/Statistics/class-stnd/occupation/NZSCO-99-manual.ashx

3.2 Industry classification

Industries in the dataset are coded according to the Australia and New Zealand Standard Industry Classification 1996 (ANZSIC96), unless specified otherwise, and are reported at the level 1 classification. An earlier version of the classification (ANZSIC96) was used to allow comparisons across the three Censuses as the 1996 and 2001 Censuses have not been coded to the latest version of ANZSIC (ANZSIC06).

3.3 Occupation classification

Occupations in the dataset are coded according to the New Zealand Standard Classification of Occupations 1999 (NZSCO99) and are reported at the level 1 classification. An earlier version of the classification (NZSCO99) was used to allow comparisons across the three Censuses, as the 1996 and 2001 Censuses have not been coded to the latest version of ANZSCO (ANZSCO06).

3.4 Caveats

- The Asian workforce was predominantly born overseas (91 percent) and would therefore be classified as migrants. Our analysis examines the entire Asian workforce (both New Zealand-born and overseas-born).
- In this report, the working-age population comprises those aged 15 years and over. This is based on Statistics New Zealand's definition, which is different from how it is commonly defined in other countries/publications.²² This includes workers over the age of 65 who are still in the labour force, as New Zealand does not have a compulsory retirement age. However, using this definition has restricted us from having an 'old age' population (65 years and over) as it is expected that the number of Asians over 65 outside the labour force will increase.
- We have not standardised for age. The Asian workforce is youthful, and the differences between the Asian workforce and the total working-age population, which is older, may weaken if differences in age structure were controlled for in our analysis.
- As the purpose of this report is to provide an overview of Asians in New Zealand's labour market using data from the 2006 Census of Population and Dwellings, the analysis in this report is primarily descriptive. The differences between subgroups are real as we are dealing with a total population, not a sample.
- Different totals appear in different tables. Most tables focus on the New Zealand working-age population. Data in Tables 1-3 are based on the total New Zealand population. Tables 5-8 are based on the total New Zealand working-age population. Tables 9-16 and Tables A1-A4 are based on the total employed working-age population. The overall total population counts used in this report excludes the 'Not elsewhere included'²³ category, unless specified otherwise.²⁴
- In regards to the accuracy of Census data, it is difficult to determine whether the Asian population has been fully covered and has responded accurately to the questions asked in the Census. There are variations between ethnic groups in the way they respond to questions on education, incomes and

²² The working-age population is commonly defined as those in the 15-64 years age group.

²³ Residual categories are classified under 'Not elsewhere included'. Residual categories include 'Not elsewhere classified (nec)', 'Not further defined (nfd)', 'Don't know', 'Refused to answer', 'Repeated value', 'Response unidentifiable', 'Response outside scope', and 'Not stated'.

www.stats.govt.nz/~media/statistics/class-stnd/ethnicity/ethnic05-statistical-standard.aspx

²⁴ Where a person reported more than one ethnic group, they have been counted in each applicable group. Therefore, the total number of responses in the table will be greater than the total number of people.

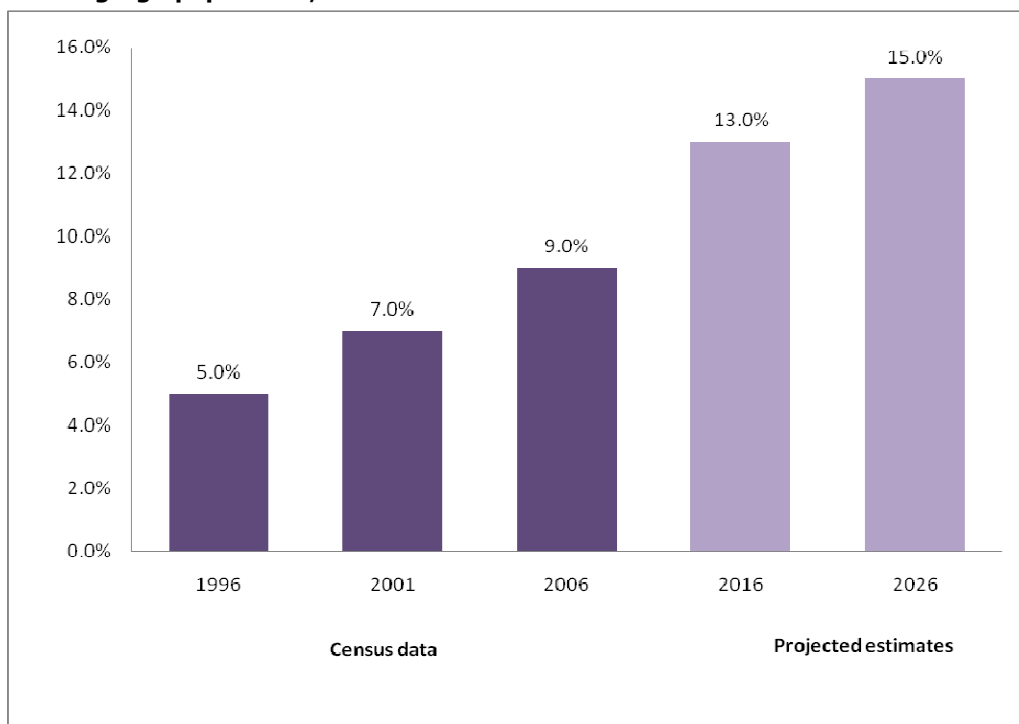
occupation. These variations are not restricted to Asian respondents and would occur across all population groups (Statistics New Zealand 2007b).

- Although an analysis of the Other Asian group is presented in the tables, we have not referred to this group explicitly in the commentary due to their small numbers in relation to the other Asian subgroups.

4. KEY FINDING: THE ASIAN WORKFORCE IS A CRITICAL PART OF NEW ZEALAND'S LABOUR MARKET

The Asian workforce is a critical and growing part of New Zealand's labour market. Figure 5 looks at the growth in the Asian working-age population from 1996-2006 and the projected growth estimates out to 2026. In 1996, the share of the Asian working-age population comprised 5 percent as a proportion of the total working-age population. This share of the Asian working-age population increased to 7 percent in 2001 and 9 percent in 2006. In 2016, the Asian working-age population is projected to make up 13 percent of the total working-age population and 15 percent in 2026, which will equal the share of the Māori workforce in 2026 (14 percent).²⁵ The Asian workforce is already a critical part of our labour market and will be even more important in the future.

Figure 5: Asian working-age population as a share of the total New Zealand working-age population, 1996-2026



Source: Census of Population and Dwellings 1996-2006 and National Population Projections: 2006(base)-2026, Statistics New Zealand.

Note 1: Working-age population comprises those aged 15 years and over.

²⁵ Projections for the Māori working-age population in 2026 were calculated using the Census (30 June 2006 base). The working-age population comprises those aged 15 years and over.

4.1 A snapshot of the Asian workforce in New Zealand

4.11 A large majority of the Asian working-age population was born overseas

Table 5 shows that 91 percent of the Asian working-age population was born overseas.

The overseas-born Asian workforce will include people who came to New Zealand as children (who will now be in their 20s) and would have most likely been educated and trained in New Zealand.

Table 5: Proportion of the working-age population of Asian ethnicity who were born in New Zealand and overseas, 2006

Birthplace	Asian		NZ working-age population	
	Number	%	Number	%
New Zealand-born Asian	25,158	9	2,213,016	74
Overseas-born Asian	250,260	91	775,797	26
Total	275,418	100	2,988,813	100

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Working-age population comprises those aged 15 years and over.

4.12 Employment rate

At the 2006 Census, 57 percent of the Asian workforce was employed. This was lower than the national average, where the employment rate was 65 percent (refer to Table 6). Within the Asian subgroups, North Asians had the lowest employment rate (49 percent). This can be attributed in part to the youthfulness of the Asian workforce, particularly North Asians who were most likely to be studying full-time at school/university and therefore not actively looking for work. Conversely, South Asians had the highest employment rate (67 percent), which can be ascribed to immigrants from South Asia who had come to New Zealand to work in areas of skill shortages.

Table 6 shows that the proportion of North Asians who are not in the labour force is higher than the other Asian subgroups, which suggests that this group includes a higher proportion of students who are not actively looking for work.

Table 6: Labour force status of the working-age population of Asian ethnicity compared to the total New Zealand working-age population, 2006

Labour force status	Ethnicity					Total NZ working-age population
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
Employed	49.4%	62.5%	67.6%	63.4%	57.0%	65.4%
Unemployed	5.6%	5.2%	4.8%	5.6%	5.3%	3.5%
Not in labour force	45.0%	32.3%	27.6%	30.8%	37.7%	31.2%
Total	150,696	34,944	89,295	2,667	275,415	2,988,813

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

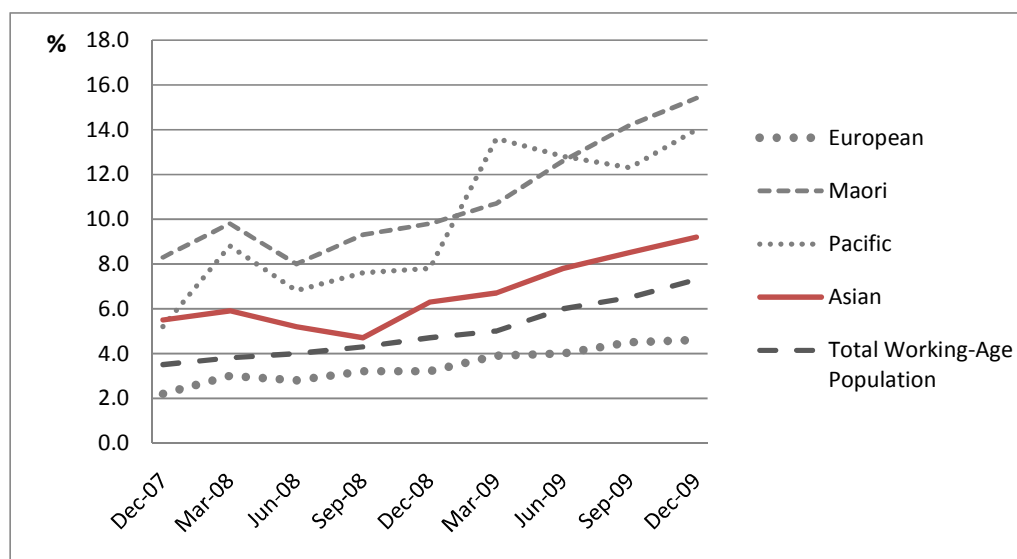
Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Working-age population comprises those aged 15 years and over.

Figure 6 shows the unemployment rate of Asians compared to European, Māori and Pacific ethnicities. It illustrates that, across all ethnicities, unemployment increased over the two years December 2007 to December 2009. At the 2006 Census, the unemployment rate for Asians was 5.3 percent, and this has increased to 9.2 percent (based on current Household Labour Force Survey data). This shows that, since the economic downturn, the unemployment rate has almost doubled for Asians, which is consistent with the national average.

Figure 6: Unemployment rate by ethnicity, December 2007 to December 2009 quarter



Source: Household and Labour Force Survey (HLFS) December 2007-December 2009 quarters, Statistics New Zealand.

Note 1: MELAA and Other ethnicity groups were removed to be consistent with Table 1.

Note 2: A separate Asian ethnic category was not included prior to the December 2007 quarter.

Note 3: Working-age population comprises those aged 15 years and over.

4.13 Youthful Asian workforce

Half of the Asian working-age population (50 percent) was aged between 15-34 years, compared to just over a third of the national average (Table 7). The youthfulness of the Asian working-age population can be attributed to three factors: the presence of international students in New Zealand, particularly from China and Korea; the children of Asian immigrants who migrated to New Zealand in the mid-80s, who were aged in their early 20s in 2006; and many migrants being young, due to the age selective settings in Immigration policy.

This can be observed in Table 7 where 32 percent of North Asians were aged between 15-24 years compared to 28 percent of all Asians. This reflects the presence of international students, particularly from China and Korea. In contrast to the youthful Asian workforce, 29 percent of the total working-age population was aged over 55 years, which was more than double the 13 percent share in the Asian workforce in that age group.

Table 7 also shows that 43 percent of Asians who were born in New Zealand were aged between 15-24 years compared to 27 percent of their overseas-born Asian counterparts, confirming that these are mostly children of Asian immigrants (who migrated to New Zealand in the mid-80s) who are now part of New Zealand's diverse workforce.

Table 7: Proportion of the working-age population of Asian ethnicity who were born in New Zealand and overseas by age group, 2006

Birthplace	Ethnicity					Total NZ working-age population
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
New Zealand-born Asian						
15-24 Years	37.8%	81.6%	43.9%	59.1%	43.4%	18.7%
25-34 Years	19.6%	12.6%	21.5%	21.1%	19.8%	16.3%
35-44 Years	18.4%	3.4%	16.5%	12.3%	16.6%	19.0%
45-54 Years	11.9%	1.6%	12.3%	4.1%	11.2%	17.5%
55-64 Years	7.5%	0.5%	3.9%	2.3%	5.6%	13.2%
65 Years And Over	4.8%	0.3%	2.0%	0.0%	3.4%	15.3%
Total	14,316	1,926	8,946	513	25,158	2,213,016
Overseas-born Asian						
15-24 Years	31.5%	23.7%	19.2%	20.5%	26.5%	16.3%
25-34 Years	19.6%	22.2%	25.6%	21.6%	21.9%	16.8%
35-44 Years	20.0%	25.5%	24.1%	27.2%	22.1%	21.1%
45-54 Years	14.6%	18.6%	16.8%	19.9%	15.9%	16.9%
55-64 Years	7.5%	6.5%	8.5%	6.5%	7.7%	12.8%
65 Years And Over	6.8%	3.6%	5.7%	4.3%	6.0%	16.0%
Total	136,380	33,018	80,346	2,154	250,260	775,797
Total population						
15-24 Years	32.1%	26.9%	21.7%	27.9%	28.0%	18.1%
25-34 Years	19.6%	21.6%	25.2%	21.5%	21.7%	16.4%
35-44 Years	19.9%	24.3%	23.4%	24.2%	21.6%	19.6%
45-54 Years	14.3%	17.6%	16.4%	17.0%	15.4%	17.3%
55-64 Years	7.5%	6.2%	8.1%	5.7%	7.5%	13.1%
65 Years And Over	6.6%	3.4%	5.3%	3.5%	5.8%	15.5%
Total	150,699	34,944	89,295	2,667	275,418	2,988,813

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Working-age population comprises those aged 15 years and over.

4.14 Highly qualified and skilled Asian workforce

Table 8 shows that the Asian workforce was almost two times more likely to have a bachelor's degree or higher than the national average (29 percent versus 16 percent). However this difference was not that strong when age-specific differences were examined (refer to Table A5).

Asians in the younger age groups (15-24, 25-34 and 35-44) were more likely to have a bachelor's degree or higher than the national average, while older Asians (45-54, 55-64 and 65 and over) were less likely to have a bachelor's degree or higher than their national counterparts. This variation demonstrates the different

age structures of the Asian and total populations, where there are much smaller shares of older people in the Asian population (see Table 7). This is not surprising, as New Zealand's immigration policies are focused on attracting skilled migrants who are relatively younger than the national average (due to the age-selectivity criteria), which has resulted in a highly qualified and skilled Asian workforce.²⁶ In addition to this, Asian domestic students have had the strongest growth in enrolments across all qualification types (Callister and Newell 2008).

Table 8: Proportion of the working-age population by highest qualification by Asian ethnicity and total population, 2006

Highest qualification	Ethnicity					Total NZ working age population
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
Level 1-4 certificate gained at school	19.6%	16.2%	17.8%	21.0%	18.6%	29.0%
Overseas secondary school qualification	27.9%	21.6%	19.7%	20.6%	24.5%	6.1%
Level 1-4 certificate gained post-school	6.0%	8.8%	9.5%	10.4%	7.5%	14.7%
Level 5-6 diploma	8.1%	6.5%	8.4%	8.3%	8.0%	9.5%
Bachelor's degree/Level 7 qualifications	20.6%	22.5%	22.0%	20.1%	21.3%	11.2%
Post-graduate/Honours degree	1.9%	1.3%	2.9%	2.6%	2.2%	2.0%
Master's degree	4.1%	2.9%	7.4%	4.3%	5.0%	2.1%
Doctorate degree	0.6%	0.4%	1.1%	0.7%	0.7%	0.6%
No qualification	11.3%	19.6%	11.2%	12.1%	12.3%	25.0%
Total	142,179	32,475	83,979	2,505	259,041	2,815,356

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: In the 2006 Census, highest qualification categories are based on the new qualifications framework. For more information on the qualifications framework, refer to the Statistical Standard for Qualifications, available from Statistics New Zealand's website

http://www.stats.govt.nz/methods_and_services/surveys-and-methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx .

Note 4: Working-age population comprises those aged 15 years and over.

Another interesting observation is that a quarter (25 percent) of the Asian working-age population had an overseas secondary school qualification as their highest qualification. This is not surprising either, as 91 percent of the employed working-age population was born overseas (see Table 5). This observation was strongest in the North Asian subgroup, where 28 percent had overseas secondary school qualification as their highest qualification, and is consistent with the youthfulness of this group.

Within the Asian workforce, the South Asian subgroup was more likely to have a bachelor's degree or higher (33 percent) than the North Asian and Southeast

²⁶ Much of this difference may disappear if the data were standardised for differences in age structure.

Asian subgroups (27 percent each), reflecting the growth in skilled immigrants from this region, especially India (Department of Labour 2009b).

Nearly half (49 percent) of the Asian workforce were employed in semi-skilled/elementary occupations and 51 percent in highly skilled/skilled occupations, which was consistent with the national average (Table 9). The high number of Asians in semi-skilled/elementary occupations possibly reflects the youthfulness of this population and that these occupations are more likely to attract younger people due to the minimal requirements for entry. Other reasons cited elsewhere suggest that there is some discrimination towards Asians in the labour market, and Asians are unable to find skilled jobs (Department of Labour 2009a).

Table 9: Proportion of the employed working-age population by skill level by Asian ethnicity, total population, 2006

Skill level	Ethnicity					Total NZ employed working-age population
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
Highly skilled	34.2%	23.6%	34.1%	30.5%	32.7%	30.7%
Skilled	17.3%	19.1%	19.8%	18.6%	18.5%	21.8%
Semi-skilled/elementary	48.5%	57.3%	46.2%	50.7%	48.9%	47.5%
Total	68,712	20,409	56,292	1,593	145,731	1,862,823

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Skill level is an attribute of occupations, not of individuals in the labour force.

Note 4: Working-age population comprises those aged 15 years and over.

An analysis of occupations (as a proxy for skill level) by highest qualifications showed that Asians were more likely to have a bachelors degree/Level 7 qualification or post-graduate/honours degree than the national average across all of the highly skilled occupations (Table 10). For example, 56 percent of Asians employed in Professional occupations had a bachelor's degree compared to 46 percent of the national average. In addition, Asians working as Technicians and Associate Professionals were three times more likely to have a master's degree than the national average.

It is also interesting to note that a higher proportion of Asians working in semi-skilled/elementary jobs had a bachelor's degree/Level 7 qualifications or post-graduate/honours degree than the national average. For example, Asians with a bachelor's degree were three times more likely to be working as Clerks than the national average (33.1 percent versus 10.7 percent). This suggests that many Asians are over-qualified for the types of jobs they are employed in and may not be fully utilising their skills.

Table 10: Proportion of employed Asians in the working-age population by highest qualification and by occupation, 2006

Occupation	Highest qualification				Total employed
	No qualification	Level 1 certificate gained at school to Level 6 diploma	Bachelor 's degree/Level 7 qualifications to post-graduate/honours degree	Master's degree to doctorate degree	
Asian only					
Highly skilled					
Legislators, Administrators and Managers	6.2%	52.2%	30.5%	8.3%	22,038
Professionals	0.4%	24.9%	56.3%	17.8%	25,566
Skilled					
Technicians and Associate Professionals	2.4%	48.7%	38.0%	9.0%	18,588
Trades Workers	16.1%	69.8%	8.7%	1.2%	8,313
Semi-skilled/elementary					
Clerks	3.2%	53.9%	33.1%	7.6%	18,864
Service and Sales Workers	10.4%	67.0%	15.8%	2.4%	29,310
Agriculture and Fishery Workers	21.0%	56.0%	13.5%	2.3%	3,501
Plant and Machine Operators and Assemblers	17.1%	58.7%	15.4%	3.2%	10,050
Elementary Occupations (incl NEI)	12.6%	51.5%	13.9%	3.4%	21,834
Total	7.7%	51.7%	28.4%	7.3%	158,067
Total employed in New Zealand					
Highly skilled					
Legislators, Administrators and Managers	11.8%	63.0%	18.9%	4.4%	281,931
Professionals	2.3%	39.7%	46.3%	11.0%	290,781
Skilled					
Technicians and Associate Professionals	9.2%	66.1%	19.7%	3.0%	238,896
Trades Workers	19.3%	74.7%	2.0%	0.2%	166,968
Semi-skilled/elementary					
Clerks	15.3%	69.4%	10.7%	2.0%	217,059
Service and Sales Workers	20.4%	68.5%	6.4%	0.7%	267,654
Agriculture and Fishery Workers	29.5%	59.4%	6.0%	0.7%	128,808
Plant and Machine Operators and Assemblers	40.0%	50.5%	2.6%	0.4%	149,307
Elementary Occupations (incl NEI)	31.6%	46.5%	5.3%	1.3%	229,863
Total	17.9%	59.3%	15.4%	3.2%	1,971,270

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: Occupations are coded according to NZSCO99 and are reported at the 1-digit level.

Note 3: Totals differ from totals in Table 9 as it includes the count for 'Not elsewhere included' (NEI).

Note 4: Working-age population comprises those aged 15 years and over.

4.2 The Asian workforce in New Zealand's economy

The following section examines in detail the industries and occupations Asians are employed in to gain an understanding of their characteristics.

4.2.1 The Retail sector is heavily reliant on Asian workers

Table 11 shows the proportion of the Asian workforce employed in the Retail Trade sector is considerably higher than the national average (22 percent versus 13 percent). The Retail sector has had the largest share of Asians employed across all ethnic subgroups from 1996-2006; especially for North Asian and South Asian subgroups (refer to Table A1). This high representation in the Retail sector can be attributed to the entrepreneurial nature of many Asian people where 26 percent were self-employed, which was markedly higher than the national average, where 18 percent were self-employed (refer to Table 12).

Table 11: Proportion of the employed working-age population by industry groups by Asian ethnicity and total population, 2006

Industry	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
Agriculture, Forestry and Fishing	2.2%	2.6%	2.8%	3.2%	2.5%	7.3%
Mining	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Manufacturing	9.0%	17.9%	11.2%	13.9%	11.1%	12.1%
Electricity, Gas and Water Supply	0.2%	0.1%	0.3%	0.2%	0.2%	0.3%
Construction	3.2%	3.9%	3.0%	4.0%	3.2%	7.9%
Wholesale Trade	5.9%	4.8%	5.6%	5.5%	5.6%	5.7%
Retail Trade	22.9%	18.3%	21.3%	14.1%	21.6%	12.7%
Accommodation, Cafés and Restaurants	12.0%	11.5%	6.1%	8.1%	9.7%	5.0%
Transport and Storage	3.9%	2.4%	4.6%	2.8%	4.0%	4.0%
Communication Services	1.1%	1.4%	2.2%	1.7%	1.6%	1.3%
Finance and Insurance	3.9%	3.9%	5.8%	4.5%	4.6%	3.4%
Property and Business Services	16.4%	12.0%	14.3%	15.1%	15.0%	13.5%
Government Administration and Defence	1.9%	2.8%	3.4%	4.3%	2.6%	3.6%
Education	5.7%	3.6%	5.9%	6.2%	5.5%	7.4%
Health and Community Services	5.7%	10.4%	9.5%	11.5%	7.9%	8.6%
Cultural and Recreational Services	2.3%	2.1%	1.5%	2.8%	2.0%	2.8%
Personal and Other Services	3.6%	2.3%	2.2%	1.9%	2.9%	4.1%
Total	68,880	20,454	56,586	1,593	146,235	1,864,608

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Industries are coded according to ANZSIC96 and are reported at the 1-digit level.

Note 4: Results for the Mining industry and the Electricity, Gas and Water Supply industry should be treated with caution due to the small number of individuals in these categories.

Note 5: Working-age population comprises those aged 15 years and over.

The proportion of self-employed North Asians in the Retail sector was particularly high (31 percent), which suggests that people in this subgroup are owners of their own businesses (refer to Table A2).

The propensity for Asians to work in the Retail sector could be because this sector is relatively easy to enter as there are no obvious barriers in terms of qualification recognition, language and New Zealand work experience. Self-employment removes many of the barriers migrants face when seeking jobs from employers. Research has also shown that migrants from North Asia and Southeast Asia were more likely to have experienced discrimination than migrants from other regions (Department of Labour 2009a). This suggests Asians, particularly North Asians, may be compelled into work in the Retail sector due to discrimination when applying for a job.

Table 12: Proportion of the employed working-age population of Asian ethnicity by industry and by employment status, 2006

Industry	Total Asian				Total employed in New Zealand			
	Paid employee	Self-employed	Unpaid family worker	Total	Paid employee	Self-employed	Unpaid family worker	Total
Agriculture, Forestry and Fishing	67%	24%	7%	3,714	49%	39%	11%	136,905
Mining	95%	5%	0%	60	91%	8%	0%	4,131
Manufacturing	90%	8%	1%	16,293	86%	13%	1%	224,862
Electricity, Gas and Water Supply	93%	6%	0%	321	93%	6%	0%	6,063
Construction	67%	30%	2%	4,752	64%	35%	1%	146,682
Wholesale Trade	83%	15%	2%	8,235	85%	14%	1%	107,121
Retail Trade	68%	26%	5%	31,536	80%	18%	2%	236,898
Accommodation, Cafés and Restaurants	80%	16%	3%	14,133	83%	15%	2%	94,056
Transport and Storage	69%	29%	1%	5,787	82%	17%	1%	74,805
Communication Services	80%	19%	1%	2,307	83%	16%	1%	24,225
Finance and Insurance	92%	7%	0%	6,768	88%	11%	1%	63,870
Property and Business Services	77%	21%	2%	21,885	70%	28%	1%	252,426
Government Administration and Defence	97%	2%	0%	3,852	96%	4%	0%	66,801
Education	91%	7%	1%	8,037	94%	5%	0%	138,444
Health and Community Services	87%	11%	0%	11,496	89%	10%	0%	160,281
Cultural and Recreational Services	83%	15%	1%	2,874	76%	22%	1%	51,381
Personal and Other Services	69%	27%	3%	4,188	76%	22%	1%	75,660
Total	79%	18%	2%	146,235	79%	19%	2%	1,864,608

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Count for 'Not elsewhere included' was excluded in this table.

Note 2: Industries are coded according to ANZSIC96 and are reported at the 1-digit level.

Note 3: Results for the Mining industry and the Electricity, Gas and Water Supply industry should be treated with caution due to the small number of individuals in these categories.

Note 4: 'Self-employed' is the aggregation of 'Employer' (employer of other person(s) in own business) with 'Self-employed and without employees' (self-employed and not employing others).

Note 5: Working-age population comprises those aged 15 and over.

Table 12 also shows a higher proportion of unpaid family workers amongst Asians in the Retail Trade sector than the national average, 5 percent versus 2 percent. Most unpaid family workers were aged between 30-49 years (44 percent) and 15-29 years (35 percent). This suggests that this group mainly consisted of spouses,

older relatives and children/young people who were working as part of the family business (refer to Table 13).

Table 13: Proportion of Asians in the working-age population employed as unpaid family workers by age group, 2006

Age	North Asian	South Asian	Southeast Asian	Other Asian	Total Asian
15-29 years	31.9%	40.3%	37.5%	32.4%	34.8%
30-49 years	45.3%	37.5%	45.8%	49.8%	44.4%
50 years and over	22.8%	22.2%	16.0%	17.7%	20.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note: Working-age population comprises those aged 15 years and over.

4.22 There has been a growth in the Information Technology (IT) and Medical sectors, and this is expected to grow further

About a fifth of the Asian workforce was employed as Professionals (18 percent), which was higher than the national average (Table 14).

Table 14: Proportion of the employed working-age population by occupation groups by Asian ethnicity, 2006

Occupation	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
Highly skilled						
Legislators, Administrators and Managers	17.4%	9.0%	14.6%	12.1%	15.1%	15.1%
Professionals	16.8%	14.6%	19.5%	18.5%	17.5%	15.6%
Skilled						
Technicians and Associate Professionals	12.4%	10.6%	14.0%	13.0%	12.8%	12.8%
Trades Workers	4.9%	8.5%	5.7%	5.8%	5.7%	9.0%
Semi-skilled/elementary						
Clerks	11.6%	12.9%	14.6%	14.7%	12.9%	11.7%
Service and Sales Workers	23.1%	21.7%	16.0%	18.5%	20.1%	14.4%
Agriculture and Fishery Workers	2.3%	2.5%	2.5%	2.3%	2.4%	6.9%
Plant and Machine Operators and Assemblers	5.0%	11.4%	7.5%	7.9%	6.9%	8.0%
Labourers and Related Elementary Service Workers	6.6%	8.8%	5.5%	7.4%	6.5%	6.5%
Total	68,715	20,406	56,292	1,590	145,731	1,862,823

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Occupations are coded according to NZSCO99 and are reported at the 1-digit level.

Note 4: Working-age population comprises those aged 15 years and over.

It is not surprising that a high proportion of Asians are employed as Professionals, as New Zealand's immigration policies are focused on targeting and recruiting

skilled migrants to meet the labour demand in areas of skill shortages, and a growing number of recent immigrants who fill these roles are coming from various parts of Asia (Callister, Badkar and Didham 2008; Department of Labour 2009b).

In New Zealand, although immigrants have traditionally been male, women - especially from Asia - are an important and growing source of skilled migrants, particularly in the Health sector (Badkar et al. 2007; Badkar, Callister and Didham 2008).

Table 15 examines these occupations at the 3-digit level and shows that, within the Professional occupational category, 24 percent of Asians were employed as Business Professionals, followed by 16 percent as Computing Professionals, and 11 percent as Health Professionals. This was considerably higher than the national average. The high proportion working as Computing Professionals could reflect the growth in the Information Technology industry, needing high-skilled immigrants (primarily from India and China) to work in this sector.

Similarly, the proportion of Asians employed as Business Professionals could reflect the demand for people with skills in commerce-related fields such as accounting and auditing. This observation was the strongest for North Asians, where 27 percent were employed as Business Professionals and 18 percent as Computing Professionals.

Also within the Professional group, the high proportion employed as Health Professionals and Nursing and Midwifery Professionals reflects the growing global demand for health workers. Over the last decade, the demand for health workers has increased, which has resulted in a growing number of migrant doctors and nurses coming to work in New Zealand from various parts of Asia (Badkar et al. 2007; Callister, Badkar and Didham 2008). This observation was strongest for South Asians - where 12 percent were employed as Health Professionals - and Southeast Asians - where 28 percent were employed as Nursing and Midwifery Professionals.

Table 15: Proportion of the employed working-age population for Professionals and Service and Sales Workers by Asian ethnicity and total population, 2006

Occupation	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
2 Professionals						
211 Physicists, Chemists and Related Professionals	0.5%	0.5%	0.7%	0.0%	0.6%	0.5%
212 Mathematicians, Statisticians and Related Professionals	0.5%	0.4%	0.4%	0.0%	0.5%	0.3%
213 Computing Professionals	18.4%	14.1%	14.5%	13.0%	16.2%	9.5%
214 Architects, Engineers and Related Professionals	8.8%	8.4%	8.0%	9.0%	8.4%	9.4%
221 Life Science Professionals	1.6%	1.4%	1.7%	2.0%	1.6%	2.3%
222 Health Professionals (except Nursing)	10.4%	6.8%	12.1%	7.0%	10.7%	6.2%
223 Nursing and Midwifery Professionals	5.0%	28.1%	10.7%	22.0%	10.3%	12.0%
231 Tertiary Teaching Professionals	6.1%	3.9%	4.7%	8.0%	5.3%	5.6%
232 Secondary Teaching Professionals	3.6%	1.6%	5.9%	6.0%	4.4%	7.3%
233 Primary and Early Childhood Teaching Professionals	5.1%	6.4%	10.8%	5.0%	7.7%	15.0%
234 Special Education Teaching Professionals	1.5%	0.8%	1.0%	1.0%	1.2%	1.5%
235 Other Teaching Professionals	1.2%	0.3%	0.3%	0.0%	0.7%	0.9%
241 Business Professionals	26.7%	20.8%	23.0%	18.0%	24.3%	18.4%
242 Legal Professionals	2.9%	1.5%	2.2%	1.0%	2.4%	3.9%
243 Archivists, Librarians and Related Information Professionals	1.0%	0.9%	1.0%	2.0%	1.0%	1.8%
244 Social and Related Science Professionals	4.7%	3.3%	2.3%	5.0%	3.5%	4.1%
245 Religious Professionals	2.0%	0.8%	0.6%	1.0%	1.3%	1.3%
Professionals subtotal	11,565	2,976	10,980	300	25,569	290,784
5 Service and Sales Workers						
511 Travel Attendants and Guides	3.9%	0.7%	0.6%	1.0%	2.5%	2.1%
512 Housekeeping and Restaurant Services Workers	52.4%	47.9%	30.4%	39.2%	44.9%	26.9%
513 Personal Care Workers	4.9%	13.3%	14.2%	11.3%	9.0%	14.6%
514 Other Personal Services Workers	4.9%	6.2%	3.9%	5.2%	4.8%	8.3%
515 Protective Services Workers	1.3%	1.8%	5.0%	6.2%	2.6%	9.6%
521 Salespersons and Demonstrators	32.3%	29.9%	45.4%	37.1%	35.9%	38.0%
522 Street Vendors	0.3%	0.2%	0.3%	0.0%	0.3%	0.4%
523 Fashion and Other Models	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Service and Sales Workers subtotal	15,840	4,431	8,997	291	29,307	267,645

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Occupations are coded according to NZSCO99 and are reported at the 3-digit level.

Note 4: Working-age population comprises those aged 15 years and over.

4.23 Asians are over-represented in Service and Sales occupations

Overall, a fifth (20 percent) of the Asian workforce was employed as Service and Sales Workers (Table 14). This has remained consistent from 1996-2006, and was considerably higher than the national average (refer to Table A3).

An analysis of occupations at the 3-digit level within the Service and Sales Workers occupation group showed that 45 percent of Asians were employed as Housekeeping and Restaurant Workers (which was considerably higher than the national average of 27 percent), and North Asians and Southeast Asians were more likely to be employed in this occupation (52 percent and 48 percent). This could be because a high proportion of this group were employed in semi-skilled/elementary occupations, and given the youthfulness of this group, many could be students (including international students) undertaking some part-time work while studying (Table 15). Another explanation could be around the growth in 'ethnic' restaurants employing family workers (spouses, children or older relatives) who may be low skilled.

An analysis of occupations by selected industry (Retail Trade, and Health and Community Services) showed that, within the Retail Trade sector, over a third of Asians were working as Service and Sales Workers (37 percent) and a quarter (24 percent) as Legislators, Administrators and Managers. This was consistent with the national average. However, within the Health and Community Services sector, 49 percent of Asians were employed as Professionals, compared to 37 percent of the total population, reflecting the highly qualified and skilled nature of the Asian workforce in New Zealand (Table 16).²⁷

²⁷ We selected the Retail Trade and Health and Community Services industries given the high representation of Asians in these sectors.

Table 16: Proportion of employed Asians in the working-age population by selected industries and by occupation, 2006

Occupation	Selected industries	
	Retail Trade	Health and Community Services
Asian only		
Highly skilled		
Legislators, Administrators and Managers	24.3%	3.6%
Professionals	2.9%	48.5%
Skilled		
Technicians and Associate Professionals	7.1%	13.5%
Trades Workers	7.1%	0.1%
Semi-skilled/elementary		
Clerks	12.4%	7.5%
Service and Sales Workers	37.1%	23.5%
Agriculture and Fishery Workers	0.5%	0.1%
Plant and Machine Operators and Assemblers	2.9%	0.8%
Elementary Occupations (incl NEI)	5.7%	2.3%
Total	31,536	11,496
Total employed in New Zealand		
Highly skilled		
Legislators, Administrators and Managers	20.9%	6.2%
Professionals	3.1%	36.7%
Skilled		
Technicians and Associate Professionals	6.6%	17.1%
Trades Workers	11.9%	0.4%
Semi-skilled/elementary		
Clerks	12.1%	10.3%
Service and Sales Workers	35.2%	24.6%
Agriculture and Fishery Workers	1.1%	0.5%
Plant and Machine Operators and Assemblers	3.6%	0.8%
Elementary Occupations (incl NEI)	5.6%	3.3%
Total	238,104	161,127

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: Industries are coded according to ANZSIC96 and are reported at the 1-digit level.

Note 3: Occupations are coded according to NZSCO99 and are reported at the 1-digit level.

Note 4: Totals includes the count for 'Not elsewhere included (NEI)'.

Note 5: Working-age population comprises those aged 15 years and over.

4.24 Gender differences

At the 3-digit level, Asian men were more likely to be employed as Computing Professionals and Health Professionals, while Asian women were more likely to be employed as Nursing and Midwifery Professionals. However, this pattern was also observed in the national average, reflecting that some jobs are dominated by males or females irrespective of their ethnic backgrounds. It is worth noting that, although the proportion of Asian women working as Computing Professionals was

lower than Asian men (8 percent versus 25 percent), twice as many were employed in this occupation in relation to their national average counterparts (4 percent). This suggests this is a job that is strongly driven by the labour market and most probably attracting migrant women from Asia into this sector (refer to Table A4).

A higher proportion of Asian women than men were employed as Service and Sales Workers (23 percent versus 17 percent), which was also consistent with the national average (20 percent versus 10 percent). However, within this occupation, 50 percent of Asian men and 40 percent of Asian women were working as Housekeeping and Restaurant workers. This was two times more than the national average (26 percent for men and 27 percent for women). Once again, this reflects the youthfulness of the Asian workforce who are drawn more to jobs with minimal entry requirements.

5. DISCUSSION – FUTURE OPPORTUNITIES AND CHALLENGES

In addition to growing Māori and Pasifika populations, the resident Asian population has been growing fast, increasing by 104 percent from 1996-2006. The Asian population is expected to increase at a rate significantly higher than that of any other ethnic group. It is also worth noting that, by 2026, the Asian workforce is projected to equal that of the Māori workforce - Asians will make up 15 percent of the total working-age population, Māori 14 percent and Pasifika 8 percent.²⁸

Similar to other developed countries, New Zealand's population is ageing. However, the Asian workforce in New Zealand is youthful, with over half aged under 35 years. It is evident that an increasing proportion of Asian people will enter the workforce over the next 20 years and will comprise 15 percent of New Zealand's workforce in 2026. One outcome of this is that they will form a critical and skilled part of New Zealand's workforce in the future, adding to the diversity in our workplaces. Therefore employers need to be agile to respond and capitalise on this future opportunity.

Two factors are driving the growth in the Asian population - net migration and natural increase. Most of the projected increase in the Asian population will be driven by net in-migration (i.e. the balance of permanent and long-term (PLT) arrivals in New Zealand over PLT departures). The number of births in the Asian population is expected to increase due to growth in the number of Asian women in their reproductive/child-bearing ages. However, Asians tend to have a lower natural increase compared to other ethnicities because of their relatively low fertility and mortality rates; as a consequence they are likely to have low rates of natural increase over the next 20 years (Bedford and Ho, 2008).

The age-sex structure of the Asian population will change in the next 20 years. In 20 years' time, as the population ages, half of the Asian population will be more than 35 years old. However, the Asian population will continue to be younger compared to the overall New Zealand-born population due to the presence of international students, New Zealand-born Asians and age-selective Immigration policies.

The impact of the Asian population on the future workforce

The age, gender and ethnic composition of the New Zealand workforce have changed significantly over the last 25 years. Our future workforce will be diverse not only because of these changes, but also because skill sets required in the future labour market will be different from those currently required. The Asian

²⁸The estimates calculated by Statistics New Zealand differ, as the analysis only includes those aged 15-64 years. This report uses the working-age population definition, which comprises those 15 years and over.

http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/nationaethnicpopulationprojections_hotp06-26.aspx

workforce is not homogenous and Asians occupy distinct parts of New Zealand's labour market.

The Asian component of New Zealand's workforce will remain younger, in relative terms, than the total workforce. In 20 years time the great majority will still be immigrants, but the share of the Asian workforce that is New Zealand-born will grow.

Research suggests that Asians tend to be over-qualified for the type of jobs that they have, especially those in low skilled occupations. As shown earlier, Asians with a bachelor's degree were three times more likely to be working as Clerks than the national average. Department of Labour research shows that Asian immigrants have difficulty finding work in New Zealand as their overseas qualifications are not fully recognised, because they do not have New Zealand work experience and, in some cases, have language difficulties (Department of Labour 2009a).²⁹ While these may be issues in the future for some Asians in New Zealand, increasing numbers will be New Zealand-born and educated and trained in New Zealand. In addition to this, numbers of international students from Asia studying in New Zealand are increasing again with a share of these staying on and becoming residents (Merwood 2007).

Therefore employers in the future need to be aware that they will be facing a much more diverse New Zealand labour pool, which means that they need to become more comfortable with diversity, i.e. employing people with backgrounds, experiences and values different to theirs, and possibly outside their comfort zone. Additionally it is important for employers not to make assumptions during recruitment. For example assuming a person with an Asian name would be overseas trained and qualified or would not be able to speak English. With labour mobility intensifying with globalisation, employers would need to recognise the value of non-New Zealand experience, and that skills can be transferred. As the proportion of New Zealand-born Asians increase, future employers need to develop a recruitment culture that is not based on assumptions, as these Asians would be born and bred New Zealanders, educated in English, and for many English would be their first language.

Given the entrepreneurial nature of Asians, it is likely that in the future there will be greater cultural diversity amongst our employers. Employers and consumers of services need to be responsive to this future change in terms of how they interact with a multicultural workforce. Asian migration is likely to remain significant, and this will add more diversity to our workplaces in terms of language skills, educational background and values.

What skills will the Asian workforce bring to New Zealand's labour market?

Required skills for work in all sectors will shift as a result of technological development. This will result in a greater demand for labour in the form of technical staff to develop, train, operate and repair new technology; to develop

²⁹ However this research does not explore the mismatch between qualifications and occupations.

and install software; and to build and maintain networks. This will transform the demand for skills in our workplaces. Future employers need to recognise the value of diversity in their workplaces through international linkages, language skills and different world views. As a result, employers have the opportunity to use their more diverse workforce to develop new products and services to an increasingly diverse clientele.

The Asian workforce is spread across the skill spectrum, with half employed in highly skilled/skilled occupations and half in semi-skilled/elementary occupations (which is consistent with the national average). In New Zealand, the Asian workforce is also highly qualified and is twice more likely than the national average to have tertiary qualifications than the national average which can be attributed to selective immigration policies, focusing on skill level and labour market demand in New Zealand.

Within highly skilled occupations, the Asian workforce has a higher representation in Professional occupations especially Computing Professionals. Globally as we become more and more technologically advanced, the reliance on people with these skills in computing will rise, and an obvious source of people with these skills will be from parts of Asia, especially North Asia and South Asia.

The Asian workforce is also over-represented as Business Professionals, and the demand for skills in this area will continue to grow despite changes in technology. Another crucial area where the Asian workforce is over-represented is within the Health sector. The number of Asians employed in the Health Care industry has grown almost three times from 3,291 in 1996 to 11,496 in 2006. Of Asians in the Health Care industry almost half were employed as Professionals. This reflects the growing demand for doctors in New Zealand, where migrant doctors from South Asia are of increasing importance in filling this gap. Similarly, the reliance on migrant nurses from Southeast Asia has also grown.

What type of jobs will the Asian workforce fill?

As New Zealand's population ages, the demand for health services will grow and future providers of health services are likely to be of a different from the main groups of consumers (Badkar, Callister and Didham 2008). This means that various cross-cultural interactions will occur, and employers, consumers and providers need to be aware and prepared for this change. With an ageing population there will be a growing demand for paid caregivers. The proportion of older people aged 65 years and over in New Zealand is projected to double over the next 30 years. As the incidence of disability increases with age, so does the need for care. This means that the number of paid caregivers also needs to increase, and Department of Labour projections show that the number of paid caregivers needs to treble over the next three decades in order to meet the likely future demand for paid care (Department of Labour 2009c).³⁰

³⁰ www.dol.govt.nz/services/LMI/workforce2020/ageing/paid-caregivers/index.asp

Caregiving is categorised as a low skilled occupation and does not readily attract local workers due to the low wage rates and poor working conditions. Currently, three-quarters of paid caregivers are New Zealand-born. However, over the last five years, the numbers of caregivers from Asia, especially the Philippines, have increased significantly (Badkar, Callister and Didham 2009). In the future, increasing numbers of caregivers are likely to come from parts of Asia, especially Southeast Asia, if we are unable to improve the wage rates, working conditions and career pathways for caregivers in New Zealand (OECD 2009).

In the future, the types of jobs the Asian workforce fills will be dependent on what the demand is in New Zealand's future labour market and the types of skills that are required. Immigration will always be a lever through which New Zealand's labour market needs can be met; however this is a controlled lever that can be modified depending on the need at the time. The kinds of jobs the future New Zealand-born or naturalised Asian workforce will fill need to be considered as they will be the major source of labour in the future.

We need to ensure that the future Asian workforce is given choices and opportunities to contribute to the New Zealand workforce and that their existing skills and links with Asia are maximised and harnessed. It will be challenging ensuring they are equipped with the 'right' skills that we will need in the future. The New Zealand-born Asian population will remain very diverse even though an increasing share are likely to have been educated and trained in New Zealand, and will integrate more easily than their overseas-born counterparts into the labour market.

Conclusion

Asians are a growing part of the New Zealand population. Understanding their contribution to the future workforce and the skills they will bring will help support the government's economic growth agenda, by ensuring New Zealand has the skills it needs.

Similar to other developed countries, New Zealand's population is ageing. The Asian workforce, with over half aged under 35 years, is an important source of young workers. In the future they will be as large as the Māori workforce, forming an important source of skilled labour and adding diversity to our workplaces.

As the proportion of New Zealand-born Asians increase, future employers need to develop a recruitment culture that is not based on assumptions. Second generation Asians might not face the same barriers being born and bred New Zealanders, educated in English, and for many English would be their first language.

The main challenge is to ensure that increasing numbers of employers in New Zealand come to appreciate the advantages of having Asians in their workforce. This includes utilising the skills they bring to the job and the opportunities they might provide for better links with future markets in Asia.

APPENDIX A – DATA TABLES

Table A1: Proportion of the employed working-age population by industry groups by Asian ethnicity and total population, 1996 and 2001

Industry	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
1996						
Agriculture, Forestry and Fishing	5%	3%	4%	3%	4%	10%
Mining	0%	0%	0%	0%	0%	0%
Manufacturing	14%	26%	16%	16%	17%	15%
Electricity, Gas and Water Supply	0%	0%	1%	0%	0%	1%
Construction	2%	2%	2%	2%	2%	6%
Wholesale Trade	7%	6%	6%	4%	7%	6%
Retail Trade	23%	17%	25%	16%	22%	13%
Accommodation, Cafés and Restaurants	10%	9%	5%	10%	8%	5%
Transport and Storage	5%	3%	3%	4%	4%	4%
Communication Services	1%	1%	2%	2%	1%	2%
Finance and Insurance	4%	4%	5%	4%	4%	3%
Property and Business Services	12%	10%	10%	13%	11%	11%
Government Administration and Defence	3%	4%	4%	5%	4%	4%
Education	5%	4%	6%	7%	5%	7%
Health and Community Services	5%	6%	8%	8%	6%	7%
Cultural and Recreational Services	2%	2%	1%	3%	2%	2%
Personal and Other Services	3%	3%	2%	4%	2%	4%
Total Asian	28,821	8,001	18,897	549	54,858	1,519,545
2001						
Agriculture, Forestry and Fishing	4%	3%	4%	4%	4%	9%
Mining	0%	0%	0%	0%	0%	0%
Manufacturing	12%	22%	12%	17%	13%	14%
Electricity, Gas and Water Supply	0%	0%	0%	0%	0%	0%
Construction	2%	3%	2%	3%	2%	6%
Wholesale Trade	7%	5%	6%	6%	6%	6%
Retail Trade	22%	19%	23%	16%	22%	13%
Accommodation, Cafés and Restaurants	10%	12%	7%	9%	9%	5%
Transport and Storage	4%	2%	4%	2%	4%	4%
Communication Services	1%	1%	2%	2%	1%	1%
Finance and Insurance	4%	3%	5%	3%	4%	3%
Property and Business Services	14%	10%	12%	12%	13%	12%
Government Administration and Defence	2%	3%	3%	3%	3%	4%
Education	6%	3%	7%	5%	6%	8%
Health and Community Services	6%	9%	10%	12%	8%	9%
Cultural and Recreational Services	2%	2%	1%	3%	2%	3%
Personal and Other Services	3%	3%	2%	2%	3%	4%
Total Asian	38,451	11,820	30,096	1,449	80,592	1,626,273

Source: Census of Population and Dwellings 1996 and 2001, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publication, as it excludes the count for 'Not elsewhere included'.

Note 3: Industries are coded according to ANZSIC96 and are reported at the 1-digit level.

Note 4: Results for the Mining industry and the Electricity, Gas and Water Supply industry should be treated with caution due to the small number of individuals in these categories.

Note 5: Working-age population comprises those aged 15 years and over.

Table A2: Proportion of the employed working-age population by Asian ethnicity by industry and by employment status, 2006

Industry	Paid Employee	Self-employed	Unpaid Family Worker	Total	Paid Employee	Self-employed	Unpaid Family Worker	Total
	North Asian				Southeast Asian			
Agriculture, Forestry and Fishing	53%	35%	11%	1,548	84%	10%	5%	525
Mining	90%	10%	0%	27	100%	0%	0%	9
Manufacturing	85%	13%	1%	6,192	94%	4%	0%	3,666
Electricity, Gas and Water Supply	92%	8%	0%	105	100%	0%	0%	24
Construction	60%	37%	2%	2,238	62%	34%	2%	789
Wholesale Trade	76%	21%	2%	4,053	90%	8%	2%	978
Retail Trade	63%	31%	5%	15,780	76%	18%	4%	3,741
Accommodation, Cafés and Restaurants	76%	19%	3%	8,298	82%	14%	3%	2,361
Transport and Storage	75%	23%	1%	2,679	77%	21%	2%	495
Communication Services	89%	11%	0%	786	79%	20%	0%	282
Finance and Insurance	88%	11%	1%	2,667	95%	5%	0%	792
Property and Business Services	70%	27%	2%	11,292	85%	13%	1%	2,445
Government Administration and Defence	97%	2%	0%	1,332	97%	3%	0%	564
Education	88%	11%	1%	3,915	93%	6%	0%	738
Health and Community Services	80%	19%	1%	3,927	95%	4%	0%	2,121
Cultural and Recreational Services	79%	18%	2%	1,572	89%	10%	1%	438
Personal and Other Services	63%	32%	4%	2,463	75%	21%	2%	480
Total	73%	23%	3%	68,880	86%	12%	2%	20,454
	South Asian				Other Asian			
Agriculture, Forestry and Fishing	74%	19%	4%	1,611	76%	6%	18%	51
Mining	100%	0%	0%	24	0%	100%	0%	0
Manufacturing	93%	5%	0%	6,363	93%	5%	0%	222
Electricity, Gas and Water Supply	95%	5%	0%	186	100%	0%	0%	3
Construction	78%	20%	1%	1,704	65%	35%	0%	63
Wholesale Trade	88%	10%	1%	3,186	93%	7%	0%	87
Retail Trade	72%	23%	4%	12,036	89%	8%	3%	225
Accommodation, Cafés and Restaurants	87%	10%	2%	3,465	89%	7%	2%	129
Transport and Storage	63%	36%	1%	2,598	73%	27%	0%	45
Communication Services	76%	23%	1%	1,227	88%	13%	0%	27
Finance and Insurance	94%	5%	0%	3,291	92%	8%	0%	72
Property and Business Services	84%	15%	1%	8,112	84%	16%	0%	240
Government Administration and Defence	97%	2%	0%	1,938	95%	5%	0%	69
Education	96%	3%	0%	3,363	91%	6%	0%	99
Health and Community Services	90%	9%	0%	5,376	93%	7%	0%	183
Cultural and Recreational Services	86%	13%	1%	858	93%	7%	0%	45
Personal and Other Services	78%	19%	2%	1,245	80%	20%	0%	30
Total	83%	14%	2%	56,586	88%	11%	1%	1,593

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Count for 'Not elsewhere included' was excluded in this table.

Note 2: Industries are coded according to ANZSIC96 and are reported at the 1-digit level.

Note 3: Results for the Mining industry and the Electricity, Gas and Water Supply industry should be treated with caution due to the small number of individuals in these categories.

Note 4: 'Self-employed' is the aggregation of 'Employer' (employer of other person(s) in own business) with 'Self-employed and without employees' (self-employed and not employing others).

Note 5: Working-age population comprises those aged 15 years and over.

Table A3: Proportion of the employed working-age population by occupation groups by Asian ethnicity, 1996 and 2001

Occupation	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
1996						
Legislators, Administrators and Managers	18%	8%	16%	10%	16%	12%
Professionals	14%	10%	17%	13%	15%	12%
Technicians and Associate Professionals	11%	9%	10%	11%	10%	11%
Clerks	11%	14%	15%	18%	13%	14%
Service and Sales Workers	22%	20%	17%	22%	20%	15%
Agriculture and Fishery Workers	5%	3%	4%	3%	4%	10%
Trades Workers	5%	8%	6%	5%	6%	10%
Plant and Machine Operators and Assemblers	7%	16%	9%	10%	9%	9%
Labourers and Related Elementary Service Workers	5%	11%	7%	9%	7%	7%
Total Asian	29,196	8,037	19,131	558	55,503	1,539,513
2001						
Legislators, Administrators and Managers	17%	8%	14%	9%	14%	13%
Professionals	17%	12%	21%	16%	18%	15%
Technicians and Associate Professionals	11%	9%	11%	12%	11%	12%
Clerks	12%	13%	15%	17%	14%	13%
Service and Sales Workers	23%	22%	18%	21%	21%	15%
Agriculture and Fishery Workers	4%	4%	3%	3%	3%	8%
Trades Workers	5%	8%	6%	5%	6%	9%
Plant and Machine Operators and Assemblers	7%	15%	8%	10%	8%	9%
Labourers and Related Elementary Service Workers	5%	9%	5%	8%	5%	6%
Total Asian	38,316	11,748	29,706	1,452	80,004	1,622,394

Source: Census of Population and Dwellings 1996 and 2001, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Occupations are coded according to NZSCO99 and are reported at the 1-digit level.

Note 4: Working-age population comprises those aged 15 years and over.

Table A4: Proportion of the employed working-age population for Professionals and Service and Sales Workers by Asian ethnicity and total population and by gender, 2006

Occupation	Ethnicity					Total employed in NZ
	North Asian	Southeast Asian	South Asian	Other Asian	Total Asian	
MALE						
2 Professionals						
211 Physicists, Chemists and Related Professionals	0.7%	0.6%	1.0%	0.0%	0.8%	0.9%
212 Mathematicians, Statisticians and Related Professionals	0.5%	0.6%	0.4%	0.0%	0.4%	0.4%
213 Computing Professionals	28.1%	26.5%	22.2%	19.5%	25.3%	16.6%
214 Architects, Engineers and Related Professionals	13.8%	17.3%	13.5%	14.6%	14.0%	19.0%
221 Life Science Professionals	1.6%	1.7%	1.8%	2.4%	1.7%	3.3%
222 Health Professionals (except Nursing)	12.3%	8.1%	14.2%	12.2%	12.8%	7.7%
223 Nursing and Midwifery Professionals	0.6%	11.7%	1.6%	7.3%	2.1%	2.0%
231 Tertiary Teaching Professionals	6.2%	5.9%	5.3%	9.8%	5.8%	6.2%

232 Secondary Teaching Professionals	2.6%	1.4%	5.4%	4.9%	3.8%	7.0%
233 Primary and Early Childhood Teaching Professionals	0.9%	1.1%	1.9%	2.4%	1.3%	3.8%
234 Special Education Teaching Professionals	0.7%	0.3%	0.4%	0.0%	0.5%	0.7%
235 Other Teaching Professionals	0.9%	0.3%	0.3%	0.0%	0.6%	0.6%
241 Business Professionals	21.4%	17.3%	26.2%	17.1%	23.2%	20.3%
242 Legal Professionals	2.7%	1.4%	2.5%	0.0%	2.4%	5.0%
243 Archivists, Librarians and Related Information Professionals	0.7%	0.8%	0.5%	2.4%	0.6%	0.9%
244 Social and Related Science Professionals	2.7%	3.4%	1.9%	4.9%	2.4%	3.5%
245 Religious Professionals	3.5%	1.7%	1.1%	2.4%	2.2%	2.2%
Professionals subtotal	5,526	1,074	5,619	123	12,198	124,554
5 Service and Sales Workers						
511 Travel Attendants and Guides	4.4%	0.8%	0.7%	0.0%	2.7%	2.9%
512 Housekeeping and Restaurant Services Workers	59.6%	56.3%	35.6%	38.7%	51.1%	26.2%
513 Personal Care Workers	1.6%	5.7%	3.6%	3.2%	2.7%	4.4%
514 Other Personal Services Workers	2.1%	2.4%	0.9%	0.0%	1.7%	2.3%
515 Protective Services Workers	2.4%	4.5%	9.3%	19.4%	5.0%	22.1%
521 Salespersons and Demonstrators	29.6%	30.1%	49.4%	38.7%	36.4%	41.4%
522 Street Vendors	0.3%	0.2%	0.5%	0.0%	0.4%	0.7%
523 Fashion and Other Models	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Service and Sales Workers subtotal	7,017	1,476	4,323	93	12,816	94,224
FEMALE						
2 Professionals						
211 Physicists, Chemists and Related Professionals	0.3%	0.5%	0.5%	0.0%	0.4%	0.2%
212 Mathematicians, Statisticians and Related Professionals	0.5%	0.5%	0.4%	0.0%	0.5%	0.2%
213 Computing Professionals	9.5%	7.1%	6.5%	6.8%	7.9%	4.2%
214 Architects, Engineers and Related Professionals	4.3%	3.3%	2.3%	3.4%	3.3%	2.2%
221 Life Science Professionals	1.6%	1.3%	1.6%	1.7%	1.5%	1.6%
222 Health Professionals (except Nursing)	8.6%	6.0%	9.9%	5.1%	8.7%	5.1%
223 Nursing and Midwifery Professionals	9.1%	37.4%	20.1%	32.2%	17.8%	19.6%
231 Tertiary Teaching Professionals	6.0%	2.8%	4.0%	6.8%	4.8%	5.1%
232 Secondary Teaching Professionals	4.6%	1.7%	6.5%	5.1%	4.9%	7.5%
233 Primary and Early Childhood Teaching Professionals	8.9%	9.3%	20.1%	8.5%	13.5%	23.3%
234 Special Education Teaching Professionals	2.3%	1.1%	1.6%	0.0%	1.8%	2.2%
235 Other Teaching Professionals	1.4%	0.3%	0.4%	0.0%	0.8%	1.1%
241 Business Professionals	31.4%	22.8%	19.6%	20.3%	25.4%	17.1%
242 Legal Professionals	3.0%	1.7%	2.0%	1.7%	2.4%	3.1%
243 Archivists, Librarians and Related Information Professionals	1.3%	0.9%	1.6%	3.4%	1.4%	2.5%
244 Social and Related Science Professionals	6.6%	3.1%	2.7%	5.1%	4.5%	4.5%
245 Religious Professionals	0.7%	0.3%	0.2%	0.0%	0.4%	0.6%
Professionals subtotal	6,048	1,911	5,376	177	13,368	166,221
5 Service and Sales						
511 Travel Attendants and Guides	3.6%	0.8%	0.6%	3.1%	2.3%	1.7%
512 Housekeeping and Restaurant Services Workers	46.8%	43.6%	25.7%	38.5%	40.2%	27.3%
513 Personal Care Workers	7.5%	17.1%	24.0%	15.4%	13.9%	20.2%
514 Other Personal Services Workers	7.2%	8.0%	6.7%	7.7%	7.2%	11.6%
515 Protective Services Workers	0.4%	0.5%	1.1%	0.0%	0.7%	2.8%
521 Salespersons and Demonstrators	34.4%	29.8%	41.8%	35.4%	35.6%	36.2%
522 Street Vendors	0.2%	0.2%	0.2%	0.0%	0.2%	0.2%
523 Fashion and Other Models	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Service and Sales Workers subtotal	8,823	2,961	4,671	195	16,497	173,430

Source: Census of Population and Dwellings 2006, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Occupations are coded according to NZSCO99 and are reported at the 3-digit level.

Note 4: Working-age population comprises those aged 15 years and over.

Table A5: Proportion of the working-age population of Asian ethnicity by qualification and by age group, 2006

Highest qualification	Age group	Asian	NZ working-age population
Overseas secondary school qualification	15-24 years	18%	12%
	25-34 years	18%	15%
	35-44 years	25%	21%
	45-54 years	21%	18%
	55-64 years	10%	14%
	65 years and over	8%	19%
	Total	63,426	170,754
Level 1-4 certificate - Level 5-6 diploma	15-24 years	49%	22%
	25-34 years	19%	17%
	35-44 years	15%	21%
	45-54 years	10%	18%
	55-64 years	4%	11%
	65 years and over	2%	11%
	Total	88,284	1,495,380
Bachelor's degree and Level 7 Qualifications	15-24 years	16%	11%
	25-34 years	34%	30%
	35-44 years	28%	25%
	45-54 years	15%	18%
	55-64 years	5%	9%
	65 years and over	3%	6%
	Total	55,128	314,433
Post-graduate, honours, masters and Doctorate Degree	15-24 years	5%	4%
	25-34 years	33%	24%
	35-44 years	34%	28%
	45-54 years	19%	23%
	55-64 years	7%	14%
	65 years and over	2%	7%
	Total	20,421	131,148
No Qualification	15-24 years	21%	17%
	25-34 years	11%	9%
	35-44 years	17%	15%
	45-54 years	18%	16%
	55-64 years	15%	18%
	65 years and over	18%	25%
	Total	31,779	703,641
Total	15-24 years	28%	18%
	25-34 years	22%	17%
	35-44 years	22%	20%
	45-54 years	16%	18%
	55-64 years	7%	13%
	65 years and over	5%	14%
	Total	259,038	2,815,356

Source: 2006 Census of Population and Dwellings, Statistics New Zealand.

Note 1: Due to rounding, some figures may not sum to the stated total.

Note 2: The totals used in this report differ slightly from those used in other publications, as it excludes the count for 'Not elsewhere included'.

Note 3: Data for each Asian ethnic subgroup was not included due to their small numbers.

Note 4: Working-age population comprises those aged 15 years and over.

Table A6: Occupation Definitions - Professional and Service and Sales Workers³¹

Occupation	Description
NZSCO99 Major Group 2 Professionals	Occupations where the main tasks involve the practical application of scientific and artistic concepts and theories, through the use of professional knowledge and experience in engineering, natural sciences, social sciences, humanities and related fields, to increase the existing stock of knowledge by means of research, creativeness and teaching.
NZSCO99 Major Group 5 Service and Sales Workers	Occupations where the main tasks involve the provision of protective and personal services, and the selling of wholesale and retail goods and services in a variety of establishments.

³¹ NZ Standard Classification of Occupation 1999, Statistics New Zealand

REFERENCES

Asia New Zealand Foundation (2009). New Zealanders' perceptions of Asia. Wellington, Asian New Zealand Foundation.

Badkar, J. (2006). [Life in New Zealand: Settlement Experiences of Skilled Migrants: Results from the 2005 Survey](#). Department of Labour, Wellington

Badkar, J., Callister, P., Krishnan, V., Didham, R and Bedford, R. (2007) Gender, mobility and migration into New Zealand: A Case study of Asian migration, Social Policy Journal, 32: 152-180.

Badkar, J., Callister, P. and Didham, R. (2008) The origin, family structure and labour supply of overseas born nurses, paper presented at the LEW 13 / ALMRW conference, Wellington.

Badkar, J., Callister, P. and Didham, R. (2009) [Ageing New Zealand: The growing reliance on migrant caregivers](#), IPS Working Paper 09/08. Wellington, Institute of Policy Studies.

Bedford, R and Ho, E (2008). Asians in New Zealand: Implications of a changing demography. Wellington, Asia New Zealand Foundation Paper 07.

Bellamy, P. (2008). Immigration Chronology: selected events 1840-2008 Parliamentary Library Research Paper 2008/01, Wellington.

Callister, P., Badkar, J. and Didham, R. (2008) Who are New Zealand's doctors? Gender, migration and changing living arrangements, IPS Working Paper 08/06, Wellington: Institute of Policy Studies.

Callister, P. and Newell, J, (2008) '[Gender and tertiary education enrolments and completions: An overview of trends 1994-2006](#)' IPS Working Paper 08/05, Wellington: Institute of Policy Studies.

Davey, J., Keeling, S. and Zodgekar, A. (2010) Families, Ageing and Migration: Indian Communities in Auckland, Wellington and Christchurch, IPS Working Paper 10/03, Wellington: Institute of Policy Studies.

Department of Labour (2009a) New Faces, New Futures: New Zealand – findings from the Longitudinal Immigration Survey: New Zealand (LisNZ) – wave one. Department of Labour, Wellington.

Department of Labour (2009b) Migration trends and outlook 2007/08. Department of Labour, Wellington.

Department of Labour (2009c) The future demand for paid caregivers in a rapidly ageing society. Department of Labour, Wellington

- Friesen, W (2008). Diverse Auckland. The face of New Zealand in the 21st Century? Wellington, Asia New Zealand Foundation Outlook Paper 06.
- Hugo, G. (2006) Immigration responses to global change in Asia: A review *Geographical Research*, 44(2): 155–172.
- Hugo, G. (2007) Recent trends in Chinese migration to Australia paper presented at *Workshop on Chinese in the Pacific: Where to Now?* Australian National University, Canberra.
- Ip, M. (2009) *The Dragon and the Taniwha: Maori and Chinese in New Zealand*. Auckland University Press.
- Leckie, J. (2007) *Indian Settlers: The Story of a New Zealand South Asian Community*. University of Otago Press, Dunedin.
- McKinnon M. (1996) Immigrants and citizens: New Zealanders and Asian immigration in historical context. Wellington: Institute of Policy Studies, Victoria University of Wellington.
- Merwood, P. (2007) International students: Studying and staying on in New Zealand. Department of Labour, Wellington.
- Ministry of Foreign Affairs and Trade (2007) *Our Future with Asia*. MFAT, Wellington.
- OECD. (2009). The Long-Term Care Workforce: Overview and Strategies to Adapt Supply to a Growing Demand. OECD, Paris. <http://apo.org.au/node/3719>.
- Rasanathan K, Craig D, Perkins R (2006). The novel use of "Asian" as an ethnic category in the New Zealand health sector. *Ethnicity Health*. 2006;11:211–27
- Statistics New Zealand (2007a). 2006 Census Data – QuickStats About Culture and Identity. Statistics New Zealand, Wellington
- Statistics New Zealand (2007b) A Report on the 2006 Post-enumeration Survey. Statistics New Zealand, Wellington.
- Statistics New Zealand (2008) National Ethnic Projections: 2006 (base) – 2006. Statistics New Zealand, Wellington.
- Taher, M. (1970) "The Asians" in *Immigrants in New Zealand*. (Eds) K.W. Thomson and A.D. Trlin. Palmerston North: Massey University.

