

# 2009

## the social report

te pūrongo oranga tangata



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# Contents

3	CHIEF EXECUTIVE'S PREFACE	80	CULTURAL IDENTITY
4	INTRODUCTION	82	Local content programming on New Zealand television
9	PEOPLE	84	Māori language speakers
18	HEALTH	86	Language retention
20	Health expectancy	88	LEISURE AND RECREATION
22	Life expectancy	90	Satisfaction with leisure time
24	Suicide	92	Participation in physical activity
26	Cigarette smoking	94	Participation in cultural and arts activities
28	Obesity	96	PHYSICAL ENVIRONMENT
30	Potentially hazardous drinking	98	Air quality
32	KNOWLEDGE AND SKILLS	100	Drinking water quality
34	Participation in early childhood education	102	SAFETY
36	School leavers with higher qualifications	104	Assault mortality
38	Participation in tertiary education	106	Criminal victimisation
40	Educational attainment of the adult population	108	Fear of crime
42	Adult literacy skills in English	110	Road casualties
44	PAID WORK	112	SOCIAL CONNECTEDNESS
46	Unemployment	114	Telephone and internet access in the home
48	Employment	116	Regular contact with family/friends
50	Median hourly earnings	118	Trust in others
52	Workplace injury claims	120	Loneliness
54	Satisfaction with work-life balance	122	Contact between young people and their parents
56	ECONOMIC STANDARD OF LIVING	124	SUMMARY
58	Market income per person	139	Summary table of indicators
60	Income inequality	143	BIBLIOGRAPHY
62	Population with low incomes	150	APPENDIX 1
64	Housing affordability		Changes to <i>The Social Report 2009</i>
66	Household crowding	151	APPENDIX 2
68	CIVIL AND POLITICAL RIGHTS		Technical details
70	Voter turnout	171	ENDNOTES
72	Representation of women in government		
74	Representation of ethnic groups in government		
76	Perceived discrimination		
78	Perceived corruption		



# Chief Executive's Preface



In the same way as we report on New Zealand's economic performance over time, *The Social Report 2009* provides a comprehensive picture of how New Zealand is doing against a range of important social indicators. It shows how we have performed over time.

With the Social Report, New Zealand is recognised as world leading in its reporting on key social trends. In its eighth year of production, the Social Report is now well established as a source of information which is widely used by non-government organisations, local government and public and private sector organisations to inform their business decisions and their planning.

The combined picture makes a vital contribution to understanding and taking action on complex social issues. Many of the indicators are disaggregated to regional and territorial authority level.

The indicators are also broken down by groups where possible. For example, this enables us to know how Māori, Pacific peoples are faring compared to other New Zealanders, and to see the results for men and women. The report also compares results for New Zealand compared to those for a number of other countries.

The report has an important contribution to make to informed discussion about social issues at both a national and local levels across New Zealand.

This year's report captures the first impacts of the economic recession.

I would like to acknowledge the contribution of everyone who has been involved in producing this year's report.

I am sure that *The Social Report 2009* will be of great use to decision makers, advisors and commentators in the business, public and community sectors across New Zealand.

A handwritten signature in black ink, consisting of a large, stylized 'P' followed by 'eter Hughes'.

**Peter Hughes**  
Chief Executive  
Ministry of Social Development

# Introduction

## THE SOCIAL REPORT 2009

The social report uses a set of statistical indicators to monitor trends across 10 “domains”, or areas of people’s lives. Together these domains provide a picture at a national, regional and territorial authority level.

*The Social Report 2009* is the latest in an annual series. It builds on the social monitoring framework first established by *The Social Report 2001* and uses the same domains as those used last year.

This introduction outlines:

- the purpose of the social report
- what are social indicators
- how we report outcomes for age, sex, region or other characteristics
- the domains and indicators used for *The Social Report 2009*
- the structure of the report.

## PURPOSE OF THE SOCIAL REPORT

The social report has four key aims:

- to report on social indicators that complement existing economic and environmental indicators
- to compare New Zealand with other countries
- to contribute to better-informed public debate
- to help identify key issues and help with planning and decision making.

The report enables us to examine how people are faring in New Zealand, how this has changed over time, and varies for different groups in the population. It helps us to identify adverse trends in social outcomes at an early stage. While the report cannot always illuminate what is driving these trends, it can point to the need for further research to understand what is happening and what actions need to be taken to address them.

The trends identified in the social report are influenced by many factors. The economy, policy, international factors, demographic change and the decisions and choices of individuals, families, communities and businesses all affect social indicators. The cross-cutting nature of many social issues means the social report is not a tool for evaluating the effectiveness of specific government policies.

## DOMAINS AND SOCIAL INDICATORS

*The Social Report 2009* identifies 10 discrete outcome domains. These are listed in Table IN1. The outcome domains are interconnected. Doing well or poorly in one domain is often likely to impact on performance in another outcome domain. For example, participation in leisure and recreation is a good thing in itself, but it may also lead to improved physical and mental health, and better social networks.

Social indicators are signposts that help measure progress towards a desired outcome. Indicators are chosen because they measure the outcome of interest directly (for example, the unemployment rate in the Paid Work domain) or because they are known to be a good predictor of, or are associated with, that outcome (for example, cigarette smoking in the Health domain).

The use of social indicators means we can measure trends over time by compressing the sizeable body of statistical information in an outcome domain to a few high-level measures. For example, we use five indicators to represent the outcomes in the Knowledge and Skills domain. Though the indicators do not describe the state of knowledge and skill acquisition in New Zealand in detail, they provide important summary information on outcomes in that domain (for example, educational attainment of the adult population) or they act as key predictors of future outcomes (for example, participation in early childhood education).

One of the key features of a social indicator is that any change can be interpreted as progress towards, or a movement away from, the desired outcome. This distinguishes social indicators from some social statistics that cannot be interpreted in this way. For example, while a change in the average age at which New Zealand women give birth to their first child is an important social statistic, it cannot be said to be necessarily “good” or “bad”.

Indicators have been selected against the following criteria:

- **relevant to the social outcome of interest** – the indicator should be the most accurate statistic for measuring both the level and extent of change in the social outcome of interest, and it should adequately reflect what it is intended to measure
- **based on broad support** – there should be wide support for the indicators chosen so they report on a broadly shared understanding of wellbeing
- **grounded in research** – there should be sound evidence on key influences and factors affecting outcomes
- **able to be disaggregated** – it should be possible to break the data down by age, sex, socio-economic status, ethnicity, region and, where possible, to the individual (or smallest group possible), so we can compare outcomes for different groups
- **consistent over time** – the usefulness of indicators is related directly to the ability to track trends over time, so indicators should be consistent over time
- **statistically sound** – the measurement of indicators needs to be methodologically rigorous
- **timely** – data needs to be collected and reported regularly to ensure indicators are providing up-to-date information
- **enable international comparisons** – as well as reflecting the social goals of New Zealanders, indicators need to be consistent with those used in international programmes so we can make comparisons.

Trade-offs between these criteria are sometimes required. For example, it may be necessary to choose an indicator where data is produced at long intervals to ensure a consistent time series is available.

In some outcome domains, such as Health, there is an abundance of good data from which to draw appropriate indicators. In other outcome domains, in particular Physical Environment and Cultural Identity, there is less good-quality, relevant data available, resulting in fewer indicators in these domains.



## REPORTING OUTCOMES FOR AGE, SEX, REGION OR OTHER CHARACTERISTICS

Ideally, it would be desirable to break down each indicator by population characteristics of interest, such as age, sex, ethnicity, socio-economic status, disability status and by regional council and territorial authority areas. Most indicators can be broken down by age, sex and ethnicity. For the majority of indicators, disaggregation by socio-economic status or disability status is not possible because the indicators rely on data sources that do not collect this type of information, or the sample sizes are too small to allow this type of breakdown.

For some indicators (for example, unemployment and employment) additional disaggregations are possible. However, to make the report as direct and accessible as possible, we limit reporting by population breakdowns to the most pertinent characteristics for each indicator.

Additional breakdowns for regions and territorial authority boundaries are available in a regional social report section of this website. The regional section provides data for the same indicators as the national report, where possible, or for aligned indicators where different data sources can provide subnational results. Time series for this information is provided where historical data is available.

## DOMAINS AND INDICATORS FOR THE SOCIAL REPORT 2009

The indicators for The Social Report 2009 are set out in Table IN1, with the updated indicators highlighted in bold.

There have been no changes to the outcome domains in this year's report, but there have been changes to some indicators. In this edition, the reporting period for the market income per person, unemployment and employment indicators has changed from December years to March years to better reflect the ongoing recession. The adult literacy skills in English indicator, last published in the 2006 report, is included again this year, with new data from a 10-yearly survey. We also have a new indicator on the representation of ethnic groups in government. A full summary of these changes is provided in Appendix 1. Technical details about indicator construction are in Appendix 2.

Thirty-four of the 43 indicators have new information this year. This includes the two new indicators. Those that have not been updated are either based on surveys that are not repeated annually or new data was not available in time for it to be included in this report.

Table IN1 **The Social Report 2009 outcome domains and indicators (updated indicators in bold)**

### HEALTH

#### DESIRED OUTCOME STATEMENT

Everybody has the opportunity to enjoy a long and healthy life. Avoidable deaths, disease and injuries are prevented. Everybody has the ability to function, participate and live independently or appropriately supported in society.

#### INDICATORS

Health expectancy  
Life expectancy  
Suicide  
Cigarette smoking  
Obesity (international comparison updated)  
Potentially hazardous drinking (international comparison updated)

### KNOWLEDGE AND SKILLS

#### DESIRED OUTCOME STATEMENT

Everybody has the knowledge and skills needed to participate fully in society. Lifelong learning and education are valued and supported.

#### INDICATORS

Participation in early childhood education  
School leavers with higher qualifications  
Participation in tertiary education  
Educational attainment of the adult population  
Adult literacy skills in English



## PAID WORK

### DESIRED OUTCOME STATEMENT

Everybody has access to meaningful, rewarding and safe employment. An appropriate balance is maintained between paid work and other aspects of life.

### INDICATORS

Unemployment  
Employment  
Median hourly earnings  
Workplace injury claims  
Satisfaction with work-life balance

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## ECONOMIC STANDARD OF LIVING

### DESIRED OUTCOME STATEMENT

New Zealand is a prosperous society, reflecting the value of both paid and unpaid work. Everybody has access to an adequate income and decent, affordable housing that meets their needs. With an adequate standard of living, people are well-placed to participate fully in society and to exercise choice about how to live their lives.

### INDICATORS

Market income per person  
Income inequality  
Population with low incomes  
Housing affordability  
Household crowding

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## CIVIL AND POLITICAL RIGHTS

### DESIRED OUTCOME STATEMENT

Everybody enjoys civil and political rights. Mechanisms to regulate and arbitrate people's rights in respect of each other are trustworthy.

### INDICATORS

Voter turnout  
Representation of women in government  
Representation of ethnic groups in government  
Perceived discrimination  
Perceived corruption

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## CULTURAL IDENTITY

### DESIRED OUTCOME STATEMENT

New Zealanders share a strong national identity, have a sense of belonging and value cultural diversity. Everybody is able to pass their cultural traditions on to future generations. Māori culture is valued and protected.

### INDICATORS

Local content programming on New Zealand television  
Māori language speakers  
Language retention

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## LEISURE AND RECREATION

### DESIRED OUTCOME STATEMENT

Everybody is satisfied with their participation in leisure and recreation activities. They have sufficient time to do what they want to do and can access an adequate range of opportunities for leisure and recreation.

### INDICATORS

Satisfaction with leisure time  
Participation in physical activity  
Participation in cultural and arts activities

---

## PHYSICAL ENVIRONMENT

### DESIRED OUTCOME STATEMENT

The natural and built environment in which people live is clean, healthy and beautiful. Everybody is able to access natural areas and public spaces.

### INDICATORS

Air quality  
Drinking water quality

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## SAFETY

### DESIRED OUTCOME STATEMENT

Everybody enjoys physical safety and feels secure. People are free from victimisation, abuse, violence and avoidable injury.

### INDICATORS

Assault mortality  
Criminal victimisation  
Fear of crime  
Road casualties

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## SOCIAL CONNECTEDNESS

### DESIRED OUTCOME STATEMENT

People enjoy constructive relationships with others in their families, whānau, communities, iwi and workplaces. Families support and nurture those in need of care. New Zealand is an inclusive society where people are able to access information and support.

### INDICATORS

Telephone and internet access in the home (international comparison for internet access updated)  
Regular contact with family/friends  
Trust in others  
Loneliness  
Contact between young people and their parents

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## STRUCTURE OF THE REPORT

The social report is organised into three sections.

The first part of the report, the People section, provides background and contextual information on the size and composition of the New Zealand population.

The second section is the core of the report and is organised around the 10 outcome domains listed earlier. Within each domain, information is presented for several indicators showing how well New Zealanders are doing.

The final section, the Summary, looks across the report and reviews how social outcomes have changed since the mid-1990s, how New Zealand compares with other OECD countries, and how different population groups are faring.

Information at the regional and territorial authority levels is available separately on the website.

## OTHER INDICATOR REPORTS

Government agencies publish indicator reports on a wide range of different outcomes. Many of these reports are useful complements to the social report:

- Economic Development Indicators report.<sup>1</sup> Published bi-annually by the Ministry of Economic Development, The Treasury and Statistics New Zealand, this report provides a picture of New Zealand's economic performance.
- Environment New Zealand 2007.<sup>2</sup> Published by the Ministry for the Environment for the first time in January 2008, it reports on a core set of national environmental indicators.
- Measuring New Zealand's Progress Using a Sustainable Development Approach: 2008.<sup>3</sup> Published by Statistics New Zealand in July 2009, this report focuses on New Zealand's environmental, economic and social progress within a sustainable development framework.

## FEEDBACK

We welcome your feedback and suggestions as to how you think the report can best be refined.

Comments can be made to:

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The social report monitors outcomes for the New Zealand population. This section contains background information on the size and characteristics of the population to provide a context for the indicators that follow.

# People

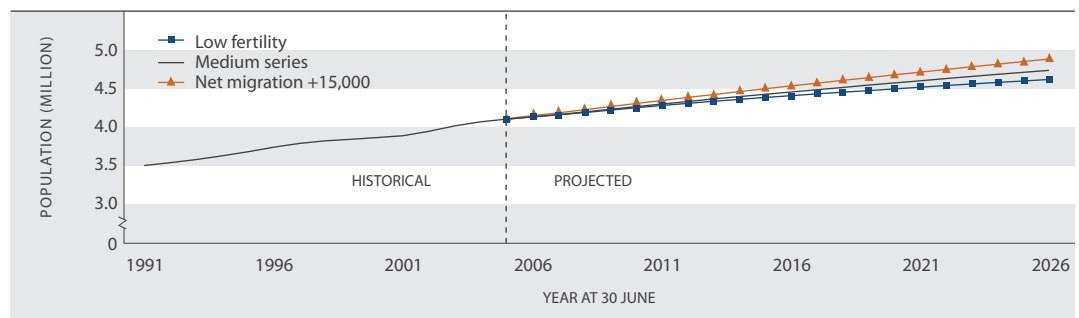
## POPULATION SIZE AND GROWTH

New Zealand's resident population reached 4 million in 2003 and was estimated to be 4.29 million at the end of December 2008.

During 2008, the population grew by 39,300 or 0.9 per cent. This rate of growth was lower than that recorded in 2007 (41,200 or 1.0 per cent) and lower than the average annual increase during the decade ended December 2008 (46,300 or 1.1 per cent).<sup>4</sup>

Under 2006-based medium population projection assumptions, the population growth rate is expected to drop from 1.0 per cent in 2008 to 0.9 per cent by 2011. Natural increase will account for three-quarters of the projected population growth, and net migration the remaining quarter. Assuming net migration of 10,000 people per year, the growth rate is expected to slow to 0.7 per cent per year between 2021 and 2026. Such growth rates would add around 671,100 people to the population between 2008 and 2026.<sup>5</sup>

Figure P1 **Estimated and projected resident population, 1991–2026**



Source: Statistics New Zealand

Note: All three projection series assume medium mortality (life expectancy at birth 84.5 years for males, 88.0 years for females by 2061). The low fertility series (total fertility rate of 1.7 births per woman by 2026) and the medium series assume a long-term annual net migration gain of 10,000 from 2010. The medium series and the high migration series assume medium fertility (total fertility rate of 1.9 births per woman)

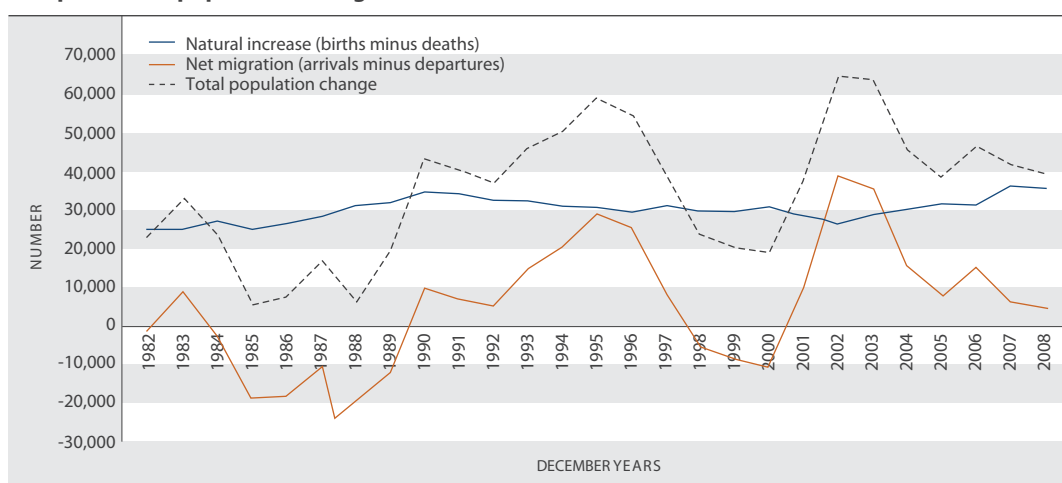
## COMPONENTS OF POPULATION CHANGE

Changes in national population size are driven by two factors: natural increase (births minus deaths) and net external migration.

Births registered in the December 2008 year exceeded deaths registered in that year by 35,200, just below the 35,500 recorded in 2007. Historically, natural increase has been the main component of population growth in New Zealand, but its contribution is set to decline gradually as the population ages and fertility remains stable. By 2026, natural increase is projected to be about 22,500 a year.

The number of people coming to live in New Zealand in 2008 exceeded those leaving the country to live elsewhere by 3,800. This was below the net migration gain of 5,500 in 2007 and the lowest net migration gain for a December year since 2000. In the December 2008 year, the net gain from permanent and long-term migration accounted for 10 per cent of population growth.

Figure P2 **Components of population change, 1982–2008**



Source: Statistics New Zealand

Notes: (1) Before 1991, estimated population change was based on the de facto population concept. From 1991 onwards, population change was based on the resident population concept (2) Net migration refers to permanent and long-term migration

The reduced gain from net migration in 2008 was mainly due to an increase in long-term departures to Australia, from 41,600 in 2007 to 48,500 in 2008. The net outflow to Australia was 35,400 in the December 2008 year, up from 28,000 in the December 2007 year. This was the highest net outflow to Australia recorded.

The main contributing countries to the net migration gain in 2008 were the United Kingdom (7,800), India (5,200), the Philippines (3,700), South Africa and Fiji (each 2,800) and China (2,600). Increased net inflows from these six countries between 2007 and 2008 were not sufficient to offset the increased net outflow to Australia. The United Kingdom has been New Zealand’s leading net source of migrants since 2004.

Two-thirds (66 per cent) of New Zealand nationals returning home in 2008 after a long-term absence came from either Australia or the United Kingdom. These two countries were also the most popular destinations for New Zealand citizens departing for a permanent or long-term absence.

In 2008, there was a net inflow of 40,900 non-New Zealand citizens and a net outflow of 37,000 New Zealand citizens. The net inflow of non-New Zealand citizens more than doubled between 2000 and 2002 (from 26,600 to 54,900), fell to 32,000 in 2005, then rose to 38,200 in 2006 and 2007.

In the decade to 2008, New Zealand had a net gain of 108,500 migrants. Adults aged 25–49 years contributed more than half of this gain (58 per cent), with children aged under 15 years (22 per cent) and young people aged 15–24 years (14 per cent) accounting for most of the remainder. Most new migrants settle in Auckland.

### PEOPLE BORN OVERSEAS

Overseas-born people make up an increasing proportion of the New Zealand population. At the time of the 2006 Census there were 879,500 overseas-born people living in New Zealand, making up 23 per cent of the country’s population compared with 19 per cent in 2001 and 17 per cent in 1996.

The composition of New Zealand’s overseas-born population is also changing, reflecting the changes in New Zealand’s immigration patterns. The United Kingdom and Ireland – historically the major sources of New Zealand’s immigrants – still account for the largest share of New Zealand’s overseas-born population, but at 29 per cent in 2006 this is considerably lower than the 1996 figure of 38 per cent. Over the same period there were also falls in the proportion of overseas-born residents who were born in Australia, the Pacific Islands and the other countries of North-West Europe.

The largest growth was in the North-East Asia category. This was mainly because of an increase in the number of people born in the People's Republic of China from 19,500 to 78,100 between 1996 and 2006. The Southern and Central Asia category also increased markedly, reflecting a more-than-threelfold increase in the Indian-born population from 12,800 to 43,300. The largest proportionate increase was in the sub-Saharan Africa group, largely the result of an almost fourfold increase in the South African born population, from 11,300 to 41,700.

Table P1 **Birthplaces of the overseas-born population, 1996 and 2006**

Birthplace	Census year			
	1996		2006	
	Number	Per cent	Number	Per cent
Australia	54,711	9.0	62,742	7.1
Pacific Islands	99,258	16.4	135,852	15.4
United Kingdom and Ireland	230,049	38.0	251,688	28.6
North-West Europe	39,168	6.5	44,103	5.0
Southern and Eastern Europe	16,431	2.7	23,964	2.7
North Africa and the Middle East	7,245	1.2	16,533	1.9
South-East Asia	37,332	6.2	58,266	6.6
North-East Asia	61,179	10.1	135,168	15.4
Southern and Central Asia	19,410	3.2	57,699	6.6
The Americas	22,629	3.7	34,383	3.9
Sub-Saharan Africa	17,439	2.9	59,118	6.7
<b>Total with overseas birthplace specified</b>	<b>604,851</b>	<b>100.0</b>	<b>879,516</b>	<b>100.0</b>

Source: Statistics New Zealand (2007e) Table 7

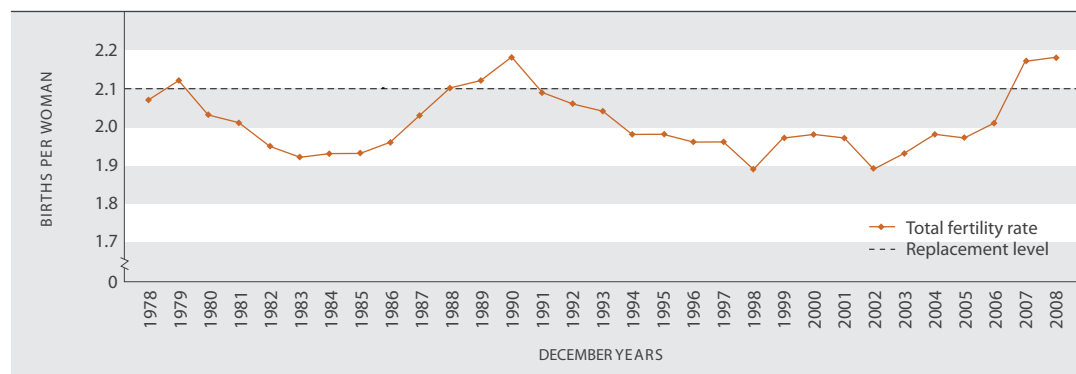
Significant proportions of New Zealand's immigrant population are relatively recent arrivals in the country. In 2006, almost a third (32 per cent) of overseas-born residents had lived here less than five years, while a further 17 per cent had lived here between five and nine years.

New Zealand's immigrant population is disproportionately concentrated in the Auckland region. In 2006, over half (52 per cent) of the overseas-born population lived in Auckland. People born in Pacific and Asian countries had particularly high concentrations in Auckland (73 per cent and 66 per cent respectively). Overseas-born people were under-represented in all other regions with the exception of Wellington, which was home to 11 per cent of both the overseas-born and the total populations.

## FERTILITY

Fertility rates for the year 2008 indicate that New Zealand women average 2.18 births per woman. This is slightly higher than the rate of 2.17 births per woman in 2007 and just above the level required by any population to replace itself without migration (2.1 births per woman). Despite the recent upturn, New Zealand's total fertility rate has been relatively stable over the last three decades, averaging 2.01 births per woman. During this period, the total fertility rate varied from 2.18 births per woman in 1990 and 2008 to 1.89 in 1998 and 2002.

Figure P3 **Total fertility rate, 1978–2008**



Source: Statistics New Zealand

Several other OECD countries have experienced recent rises in fertility rates, including the United States (second after New Zealand with a rate of 2.10 births per woman in 2006), Australia, England and Wales, Scotland, the Nordic countries, France and Canada. Despite the increases, most other developed countries have sub-replacement fertility rates, including France (2.00 births per woman in 2008), Norway (1.96 in 2008), Australia (1.93 in 2007), England and Wales (1.92 in 2007), Sweden (1.91 in 2008), Denmark (1.89 in 2008), Finland (1.85 in 2008), Scotland (1.73 in 2007), the Netherlands (1.72 in 2007), Canada (1.59 in 2006) and Japan (1.34 in 2007).

New Zealand's comparatively high fertility rate reflects, in part, the higher fertility rates of Māori women (2.95 births per woman in 2008) and Pacific women (2.95 in 2005–2007) as well as the higher share of Māori and Pacific women in the female population of childbearing age. In the December 2008 year, births registered to Māori women accounted for 23 per cent of all live births registered. In the period 2005–2007, 11 per cent of all live births were registered to Pacific women. The total fertility rate for Asian women in 2005–2007 was 1.52 births per woman and 10 per cent of all live births were registered to Asian women in that period.

The median age of New Zealand women giving birth has risen from 27 years in the 1980s to around 30 years since 2002. For women having their first birth, the median age is 28 years. Age at childbearing varies widely by ethnicity, with European and Asian mothers having the highest median age (31 years in 2006), followed by Pacific mothers (28 years) and Māori mothers (26 years).

In 2008, the teenage (under 20 years) fertility rate was 33.1 births per 1,000 females aged 15–19 years, an increase from 31.6 per 1,000 in 2007. The teenage fertility rate fell between 1997 and 2002 (from 33.2 to 25.8 per 1,000) but rose by almost as much between 2002 and 2008. Over the same period, the Māori teenage fertility rate fell from 84.0 per 1,000 in 1997 to 61.8 per 1,000 in 2002, rising to 80.7 per 1,000 in 2008. For non-Māori females under 20 years, the pattern was similar but less pronounced: a fall in the rate between 1997 and 2003 (from 19.9 to 15.7 per 1,000), followed by a rise to 20.3 per 1,000 in 2008. The birth rate for Pacific females aged 15–19 years declined from 47.4 per 1,000 in 2000–2002 to 42.5 per 1,000 in 2005–2007. Over the same period the birth rate for Asian teens fell from 7.4 to 6.9 per 1,000.

New Zealand has a relatively high rate of childbearing at young ages compared with most other developed countries. At 33.1 births per 1,000 females aged 15–19 years in 2008, the New Zealand teenage birth rate is higher than the rate in England and Wales (26.0 per 1,000 in 2007) but considerably lower than that of the United States (41.9 per 1,000 in 2006).

## **DISTRIBUTION OF THE POPULATION**

Over three-quarters (76 per cent) of the population live in the North Island, and one-third (33 per cent) in the Auckland region.

Reflecting the impact of both internal and external migration, the population growth in the Auckland region accounted for just over half (52 per cent) of the total population growth between June 2007 and June 2008.

The Māori population is heavily concentrated in the North Island (87 per cent), but only 24 per cent of Māori lived in the Auckland region at the 2006 Census.

The New Zealand population is highly urbanised. At the 2006 Census, 86 per cent of the population was living in an urban area. This includes 72 per cent living in main urban areas (population of 30,000 or more), 6 per cent living in secondary urban areas (10,000–29,999) and 8 per cent living in minor urban areas (1,000–9,999).

There are marked ethnic differences in urbanisation, with the vast majority of Pacific peoples, Asian and Other ethnic groups living in main urban areas and very few in rural areas.

Table P2 **Urban and rural residence (%), by ethnic group, 2006**

	European	Māori	Pacific peoples	Asian	Other	Total
Main urban area (30,000+)	69	65	92	94	91	72
Secondary urban area (10,000–29,999)	7	7	3	2	2	6
Minor urban area (1,000–9,999)	9	13	2	2	3	8
Total urban	84	84	97	98	96	86
Rural	16	16	2	2	4	14
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Statistics New Zealand, 2006 Census, unpublished data

Note: New Zealander is included in European; Middle Eastern, Latin American and African groups are included in Other

### ETHNIC COMPOSITION OF THE POPULATION

The ethnic diversity of the New Zealand population continues to increase.

While the European ethnic group still has the largest share (78 per cent) of the total population, the number of people identifying as European increased by only 8 per cent in the 15 years between 1991 and 2006. Over the same period, the number who identified as Māori increased by 30 per cent, the Pacific peoples ethnic group increased by 59 per cent, and the number of Asian people increased by 255 per cent. While people of all other ethnicities still make up less than 1 per cent of the population, they grew in number faster than any of the major ethnic groups (by 440 per cent).

Table P3 **Ethnic distribution of the population, 1991–2006**

Ethnic group <sup>(1)</sup>	1991	%	1996	%	2001	%	2006	%
European <sup>(2)</sup>	2,783,028	83.2	2,879,085	83.1	2,871,432	80.1	2,997,051	77.6
Māori	434,847	13.0	523,374	15.1	526,281	14.7	565,329	14.6
Pacific peoples	167,070	5.0	202,233	5.8	231,798	6.5	265,974	6.9
Asian	99,759	3.0	173,502	5.0	238,176	6.6	354,549	9.2
Other	6,597	0.2	15,804	0.5	24,885	0.7	36,237	0.9
<b>Total people with ethnicity specified</b>	<b>3,345,741</b>		<b>3,466,515</b>		<b>3,586,641</b>		<b>3,860,163</b>	

Source: Statistics New Zealand (2007e) Table 1, and unpublished 2006 Census data (for European/New Zealander and Other)

Notes: (1) Includes all of the people who stated an ethnic group, whether as their only ethnic group or as one of several ethnic groups. Where a person reported more than one ethnic group, they have been counted in each applicable group. Totals therefore do not add up to 100 per cent (2) Before the 2006 Census, people who specified their ethnicity as "New Zealander" were included in the European ethnic group. The 429,429 people who identified as "New Zealander" in 2006 have been included in the European ethnic group to maintain consistency over time (3) In 2006, the Other category includes 17,514 people who identified with Middle Eastern ethnic groups, 6,657 with Latin American groups, and 10,647 people with African groups (4) Up to three responses were used for 1991 and 1996; up to six for 2001 and 2006

In 2006, Māori made up 15 per cent of the total New Zealand population compared with 13 per cent in 1991. At 9 per cent, the Asian ethnic group is now the third largest group, ahead of Pacific peoples (7 per cent). According to 2006-based medium population projections, by 2026 the Māori share of the population is projected to be 17 per cent, the Pacific peoples share 10 per cent and the Asian share 16 per cent.<sup>6</sup>

Ethnic diversity varies by age: among those aged under 25 years at the 2006 Census, Europeans made up 72 per cent, Māori 22 per cent, Pacific peoples and Asians each 11 per cent, and people of all other ethnicities 1 per cent. Among those aged 65 years and over, Europeans made up 91 per cent, Māori 5 per cent, Asians 3 per cent, Pacific peoples 2 per cent and people of other ethnicities 0.2 per cent.

The number of people with multiple ethnic identities is increasing. In 2006, 90 per cent of the population identified with only one ethnicity, down from 95 per cent in 1991. Younger people are far more likely to identify with more than one ethnicity than older people, with 19.7 per cent of children aged under 15 years reported as belonging to two or more ethnic groups in 2006, compared with 3.5 per cent of people aged 65 years and over. Birth registration data for the December 2008 year shows that 25 per cent of babies were identified with more than one ethnicity, compared with 13 per cent of mothers.<sup>7</sup> Having multiple ethnic identities is most common among Māori: two-thirds of Māori children born in 2008 had more than one ethnicity, compared with one-half of Pacific babies, and just under one-third of babies within the European and Asian ethnic groups.

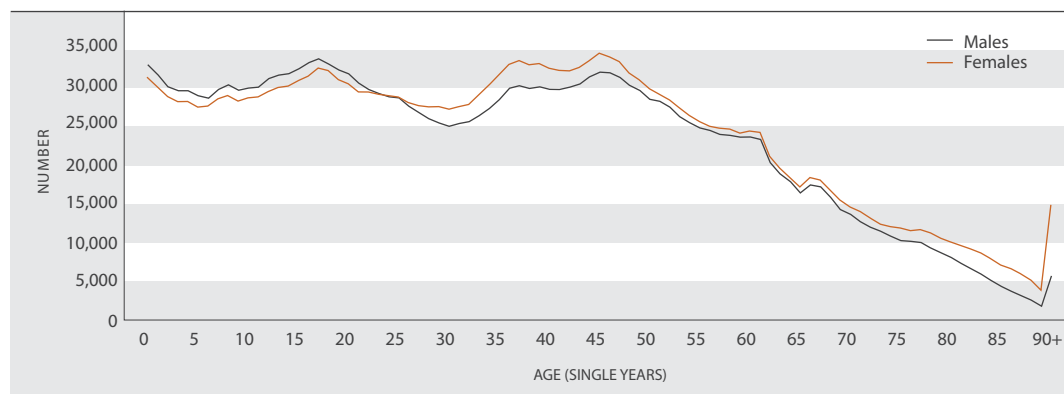


The figures for the ethnic distribution used in this section are based on the number of people identifying with each ethnicity. Because people can identify with more than one ethnicity, the total number of ethnic responses may be greater than the number of people. Elsewhere in the report, the approach to measuring ethnicity varies with the data source used.

### AGE AND SEX STRUCTURE OF THE POPULATION

Just over half (51 per cent) of the New Zealand population is female. Males outnumber females among children and youth, but females predominate among adults. More males are born than females, but males have higher mortality rates than females at all ages, particularly at ages 20–29 years. The imbalance in the middle years is partly an outcome of sex differences in net migration. At older ages, the difference reflects higher male mortality rates.

Figure P4 **Population, by age and sex, 2008**



Source: Statistics New Zealand

The New Zealand population is ageing: the median age of the total population was 36 years in 2006, and it is expected to rise to 38 years by 2016, and to 40 years in 2026.<sup>8</sup>

The proportion of the population under 15 years of age has declined from 25 per cent in 1985 to 22 per cent in 2006. The population aged 65 years and over has increased from 10 per cent of the total population in 1985 to 12 per cent in 2006.

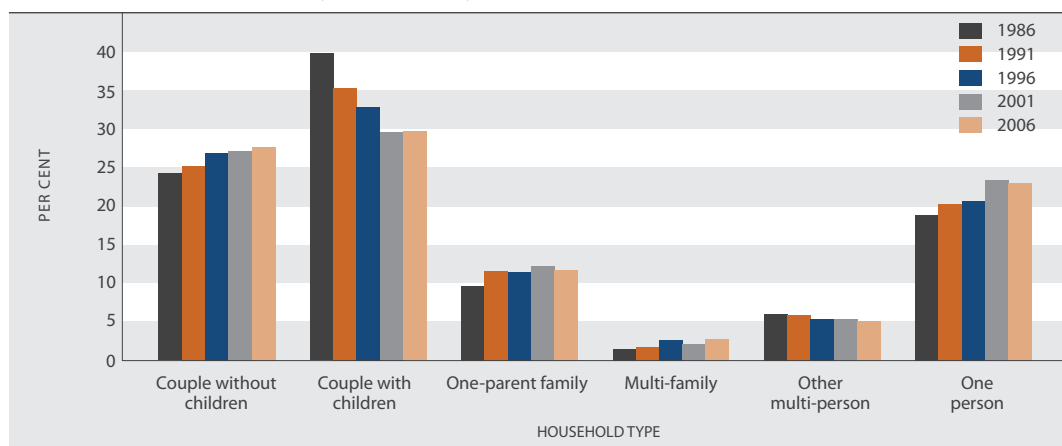
Age structure varies by ethnic group. In 2006, the European or Other population was the oldest, with a median age of 38 years, followed by the Asian population (28 years), the Māori population (23 years) and Pacific peoples (22 years). By 2026, half of all Māori will be older than 25 years and half of all Pacific peoples will be older than 23 years. Over the same period, the median age of Asian New Zealanders is expected to rise to 36 years, while for European or Other New Zealanders it will rise to 43 years.<sup>9</sup>

### HOUSEHOLDS

A household may contain a single person living alone, or two or more people who usually live together and share facilities, either as families (couples, parents with children) or as groups of individuals flatting together. There were 1.45 million households in New Zealand at the 2006 Census, an increase of 8 per cent over the number recorded in 2001 and 34 per cent higher than the number in 1986.

Twenty-eight per cent of households contained couples without children in 2006, 30 per cent contained two-parent families with children, 12 per cent were one-parent family households, 3 per cent contained more than one family, 5 per cent comprised a group of individuals and 23 per cent were one-person households.

Figure P5 **Distribution of households, by household type, 1986–2006**



Source: Statistics New Zealand

Couple-only and one-person households are the fastest growing household types and are projected to increase the most over the next 15 years. Population ageing is the major factor behind both of these changes. But declining fertility and the closing gap between male and female life expectancy are also contributing to the rising number of couples without children. Delayed marriage, divorce and changing lifestyle preferences are other factors contributing to the growing number of one-person households.

### HOUSING TENURE

Most New Zealand householders own their own homes but they are less likely to do so than in the past. Between 1991 and 2001, the proportion of New Zealand households owning their dwellings either with or without a mortgage or in a family trust fell from 74 per cent to 68 per cent. Since 2001 the decline has been less marked, with a fall from 68 per cent to 67 per cent in 2006.<sup>10</sup> Between 2001 and 2006, there was a decline in home ownership among all age groups from 25–74 years but it was most marked among those aged between 35–54 years. The proportion of 35–44 year olds who owned or partly owned their own dwellings fell from 65 per cent to 61 per cent over the five years, while among 45–54 year olds the figure fell from 76 per cent to 72 per cent. The only age group to experience a significant increase in home ownership was the 75 years and over age group.

### FAMILIES WITH CHILDREN

In 2006, there were 641,500 families with children living within New Zealand households. Of these families, 515,800 (80 per cent) had dependent children (aged under 18 years and not in full-time employment).<sup>11</sup>

The number of families with dependent children increased by 8 per cent in the five years to 2006, the largest increase since the census count of families began in 1976. The number of two-parent families with dependent children grew faster than the number of one-parent families (9 per cent, compared with 3 per cent). As a result, the proportion of families with dependent children headed by one parent fell slightly, from 29 per cent in 2001 to 28 per cent in 2006. For many of these families there will be parents living in another household who are actively involved in the care and upbringing of the children.

Table P4 **Families with dependent children, by family type, 1976–2006**

	1976	1981	1986	1991	1996	2001	2006
	<b>Number</b>						
Two-parent family	398,772	380,886	363,489	339,681	346,086	339,159	370,809
One-parent family	46,296	62,280	82,632	110,055	126,585	140,178	145,032
<i>Mother only</i>	39,153	52,938	71,388	92,028	107,394	117,018	120,996
<i>Father only</i>	7,143	9,342	11,244	18,024	19,191	23,163	24,036
<b>Total families</b>	<b>445,068</b>	<b>443,166</b>	<b>446,121</b>	<b>449,736</b>	<b>472,671</b>	<b>479,337</b>	<b>515,841</b>
	<b>Percentage distribution</b>						
Two-parent family	89.6	85.9	81.5	75.5	73.2	70.8	71.9
One-parent family	10.4	14.1	18.5	24.5	26.8	29.2	28.1
<i>Mother only</i>	8.8	11.9	16.0	20.5	22.7	24.4	23.5
<i>Father only</i>	1.6	2.1	2.5	4.0	4.1	4.8	4.7
<b>Total families</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Statistics New Zealand, published and unpublished census data

Note: The census definition of child dependency has changed over time. From 1996, a dependent child is a person in a family aged less than 18 years who is not in full-time employment. For earlier years, a dependent child is a person in a family under 16 years or aged 16–18 years and still at school

Compared to other OECD countries, New Zealand has a relatively high proportion of families with children under 18 years headed by sole parents (28 per cent), second only to the United States (33 per cent in 2006) and higher than the United Kingdom (25 per cent in 2006), Australia and Canada (both 22 per cent in 2006).

### OFFICIAL LANGUAGES

New Zealand has three official languages: English, Māori (from 1987) and New Zealand Sign Language (from April 2006). The 2006 Census recorded that 96 per cent of people could speak English, 4 per cent of people could speak Māori, and 0.6 per cent could converse in New Zealand Sign Language.<sup>12</sup>

In 2006, eight out of 10 people (79 per cent) spoke English as their only language while a further 17 per cent spoke English along with at least one other language. Of the 4 per cent of New Zealanders who could not speak English, almost half (49 per cent) were children under the age of five, most of whom would still be learning to speak. Of the 2 per cent of people who spoke at least one language but not English, most (80 per cent) were born overseas. People born in Asian countries (17 per cent) and people born in Pacific countries (12 per cent) had the highest proportions who spoke at least one language but not English.

The number of people able to converse in New Zealand Sign Language was 24,000 in 2006, a decline from 27,300 in 2001. This fall of 12 per cent followed an increase of 3 per cent between the 1996 and 2001 censuses. In 2006, 9 per cent or 2,200 of those people who were able to converse in New Zealand Sign Language indicated it was their only language. A further 89 per cent were also able to converse in English, 26 per cent in Māori and 25 per cent in other languages (either alone or in combination).

### NEW ZEALANDERS EXPERIENCING DISABILITY

In 2006, an estimated 660,300 New Zealanders reported a disability, representing 17 per cent of the total population.<sup>13</sup>

Disability increases with age. In 2006, the prevalence of disability ranged from 10 per cent of children (0–14 years) to 45 per cent of people aged 65 years and over.

For children with disabilities, conditions or health problems that existed at birth and disease or illness were the most common causes. Disease or illness, accidents or injuries and ageing were the most common causes of disability for adults.<sup>14</sup>

Table P5 **Number and prevalence (%) of people experiencing disabilities (total population residing in households and residential facilities), by age group and sex, 2006**

Age group (years)	Males		Females		Total	
	Number	Rate (%)	Number	Rate (%)	Number	Rate (%)
0–14	53,500	12	36,500	9	90,000	10
15–44	73,800	9	67,600	8	141,500	9
45–64	104,700	21	103,800	19	208,500	20
65+	95,600	43	124,700	46	220,300	45
<b>Total</b>	<b>327,700</b>	<b>17</b>	<b>332,600</b>	<b>16</b>	<b>660,300</b>	<b>17</b>

Source: Statistics New Zealand, 2006 Disability Survey

The total disability rate for Māori (17 per cent) was higher than the disability rate for Pacific peoples (11 per cent) but lower than the disability rate for Europeans (18 per cent). The Asian population had the lowest rate (5 per cent). Because Māori and Pacific peoples have a younger age structure than Europeans, disability rates should be compared by age group. In every age group, Māori had a higher disability rate than other ethnic groups.

Many New Zealanders experiencing disability face barriers to full participation in society. For example, only 60 per cent of 15–64 year olds with a disability were employed in 2006, compared with 80 per cent of non-disabled 15–64 year olds.<sup>15</sup>

### GAY, LESBIAN, BISEXUAL AND TRANSGENDER PEOPLE

There is little population information based on sexual orientation or gender identity in New Zealand. Reliable data on the size of gay, lesbian, bisexual and transgender populations in relation to the total population is not available.

Some information about same-sex couples who share a residence has been collected in censuses since 1996. The 2006 Census recorded just over 12,300 adults living with a partner of the same sex, making up 0.7 per cent of all adults living in couples. This is an increase from the 10,000 recorded in the 2001 Census when they made up 0.6 per cent of all couples and the 6,500 recorded in the 1996 Census when they made up 0.4 per cent of all couples. However, it is difficult to know whether the change in numbers represents a real increase in the number of same-sex couples living together, or a greater willingness on their part to report living arrangements and partnership status, or both. According to Statistics New Zealand, it is likely that the figures understate the actual number of same-sex couples because of the inconsistent way people responded to the census question. Moreover, these statistics refer only to same-sex partners who live together. They do not measure sexual orientation or reflect the proportion of gay, lesbian and bisexual people in the population.

Some information on sexual orientation is available from the national youth health and wellbeing survey conducted in 2007. The 9,000 secondary school students in the survey were aged between 12 and 18 years. Most students (92 per cent) reported being exclusively attracted to the opposite sex, while 4 per cent reported being attracted to the same sex or both sexes. The remaining 4 per cent were attracted to neither sex or were not sure of their sexual orientation. These proportions did not change markedly between the 2001 and 2007 surveys.<sup>16</sup>

## DESIRED OUTCOMES

Everybody has the opportunity to enjoy a long and healthy life. Avoidable deaths, disease and injuries are prevented. Everybody has the ability to function, participate and live independently or appropriately supported in society.

# Health

## INTRODUCTION

Good health is critical to wellbeing. Without good health, people are less able to enjoy their lives to the fullest extent and their options are limited.

Good health has two core dimensions: how long people live and the quality of their lives. The desired outcomes recognise both aspects. As well as enjoying long lives, people want to be free from the pain, suffering and incapacity that result from injury or illness.

The desired outcomes also acknowledge that not everybody can live a fully independent life. For some people, illness or disability means they need support from families, government agencies or other networks to overcome barriers to their participation in society.

People with injuries or illness (both mental and physical) may experience barriers to participating in education, training and employment, thus reducing their economic standard of living. These barriers can also reduce people's ability to participate in other areas of life, such as family life, socialising with friends, joining community activities and taking part in recreation and leisure pursuits, which can lead to feelings of frustration and isolation.

A range of factors affect and are affected by health outcomes, including genetic predisposition, behaviour, the physical and social environment and the availability of health services. Increasing attention is being paid to the interaction between socio-economic and health outcomes. People with low incomes, poor housing and few qualifications are likely to have disproportionately poorer health.<sup>17</sup>

INDICATORS

Six indicators are used in this chapter. Together they provide a picture of the current state of the nation’s health and the likely trends in the future. They cover the length and quality of life and include both physical and mental health. The indicators are: health expectancy, life expectancy, suicide, cigarette smoking, obesity and potentially hazardous drinking.

The first three indicators are relevant to the current state of the nation’s health. Together, they directly measure the desired outcomes relating to long and healthy lives, and people’s ability to participate in society. The last three indicators are strong predictors of future health outcomes.

Health expectancy refers to the number of years a person can expect to live independently, ie free of any disability requiring the assistance of another person or complex assistive device. This is a summary measure of a population’s health integrating both fatal (life expectancy) and non-fatal (disability requiring assistance) health outcomes.

Life expectancy measures the survival experience of the population: how long people live. It is an indicator of fatal health outcomes.

The suicide death rate serves as a proxy for the mental health status of the population. The indicator covers the suicide death rate for society as a whole and includes details for subsets of the population.

The links between cigarette smoking and poor health are widely recognised. For example, cigarette smoking (active and passive) is a risk factor for many cancers and respiratory and cardiovascular diseases, and has been linked with low birth weight, Sudden Infant Death Syndrome, and other adverse child health outcomes. Obesity is linked with poor health outcomes, such as an increased risk of heart attacks, strokes, type 2 diabetes and some cancers.<sup>18</sup>

The majority of New Zealanders consume alcohol at least occasionally.<sup>19</sup> Potentially hazardous drinking is an established pattern of alcohol consumption that carries a high risk of future damage to physical or mental health, but may not yet have resulted in significant adverse effects.<sup>20</sup> Alcohol also contributes to death and injury due to traffic accidents, drowning, suicide, assaults and domestic violence.<sup>21</sup>

# Health expectancy

## DEFINITION

The number of years a person could expect to live in good health if current mortality and morbidity rates persist.

The particular measure of health expectancy used here is the number of years a person could expect to live independently, ie live without any functional limitation requiring the assistance of another person or complex assistive device. Hence it is also described as independent life expectancy. The measure uses information from the 1996, 2001 and 2006 Disability Surveys to calculate disability-adjusted life expectancy estimates.

## RELEVANCE

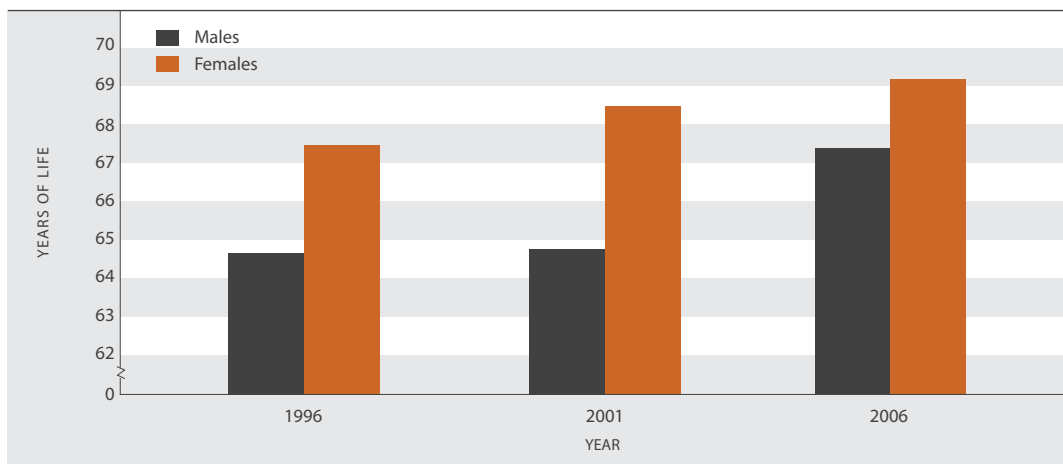
Health expectancy is a summary measure of a population’s health that captures both the “quantity” and “quality” of life dimensions of health. Independent life expectancy at birth is a positive measure, capturing expectations of a life free from functional limitation that requires assistance. Improvements in health expectancy reflect changes in social and economic conditions, lifestyle changes, medical advances and better access to health services.

## CURRENT LEVEL AND TRENDS

In 2006, males and females had an independent life expectancy at birth of 67.4 years and 69.2 years respectively. The gap between males and females in independent life expectancy at birth was 1.8 years in 2006, a decrease of two years since 2001. For the total population, independent life expectancy at birth has improved since 1996 (an increase of 2.7 years for males, 1.7 years for females).

It should be noted that the 2006 Disability Survey reported a significant decline in the levels of disability reported in the previous survey, due to a range of methodological and other factors. Statistics New Zealand has advised that caution should be exercised when comparing the results of the 2006 Disability Survey with those from previous surveys.

Figure H1.1 Independent life expectancy at birth, by sex, 1996, 2001 and 2006



Source: Ministry of Health

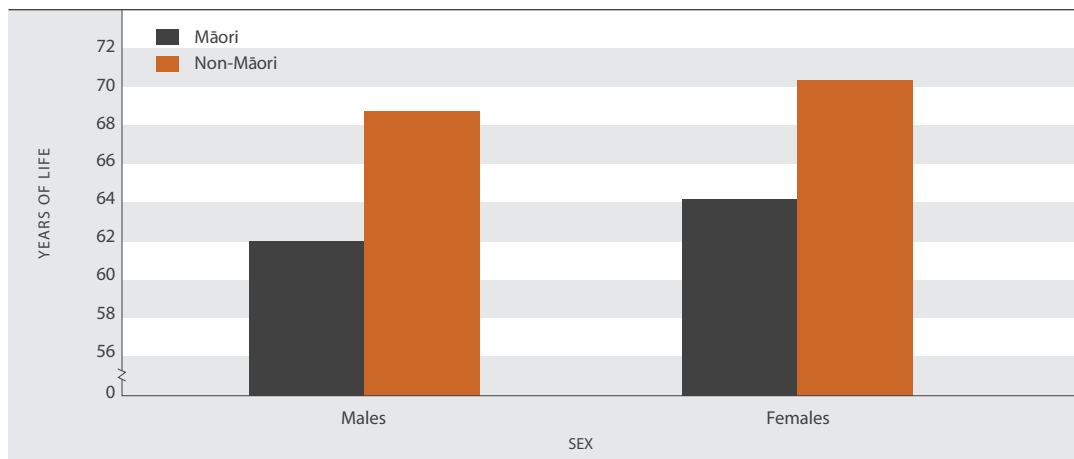


## ETHNIC DIFFERENCES

Independent life expectancy for Māori was produced in the same way as for the total New Zealand population. These ethnic-specific statistics are comparable with those for the total population.

Māori males had an independent life expectancy at birth of 62.0 years in 2006. The figure for Māori females was 64.2 years, a gender gap of 2.2 years. There are large ethnic differences in health expectancy, despite a very rapid improvement in survivorship for Māori in recent years. In 2006, the gap in independent life expectancy at birth between Māori and non-Māori was 6.8 years for males and 6.2 years for females (the independent life expectancy at birth for non-Māori was 68.8 years and 70.4 years for males and females respectively).

Figure H1.2 **Independent life expectancy at birth, Māori and non-Māori population, by sex, 2006**



Source: Ministry of Health

# Life expectancy

## DEFINITION

Life expectancy at birth indicates the total number of years a person could expect to live, based on the mortality rates of the population at each age in a given year or period.

## RELEVANCE

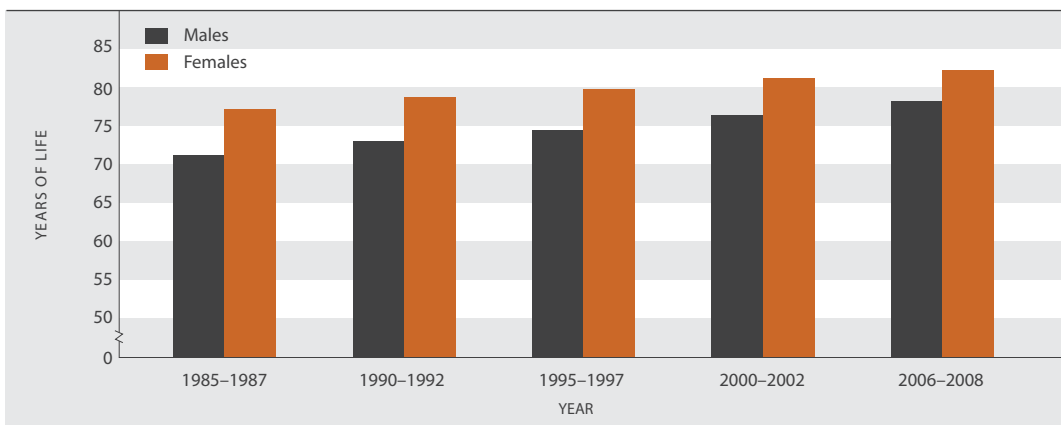
Life expectancy at birth is a key summary indicator of fatal health outcomes, ie the survival experience of the population.

## CURRENT LEVEL AND TRENDS

Based on the mortality experiences of New Zealanders in the period 2006–2008, life expectancy at birth was 78.2 years for males and 82.2 years for females. Since the mid-1980s, gains in longevity have been greater for males than for females. Between 1985–1987 and 2006–2008, life expectancy at birth increased by 7.1 years for males and 5.1 years for females. As a result, the gap between males and females in life expectancy narrowed from 6.0 years to 4.0 years over this period.

The gains in life expectancy at birth since the mid-1980s can be attributed mainly to reduced death rates for people in the late-working and retirement age groups (55–84 years). However, reduced death rates for infants (from 11.2 deaths per 1,000 live births in 1986 to 5.0 per 1,000 in 2008), for people aged 45–54 years, and for women aged 85 years and over were also significant.

Figure H2.1 **Life expectancy at birth, by sex, 1985–1987 to 2006–2008**



Source: Statistics New Zealand

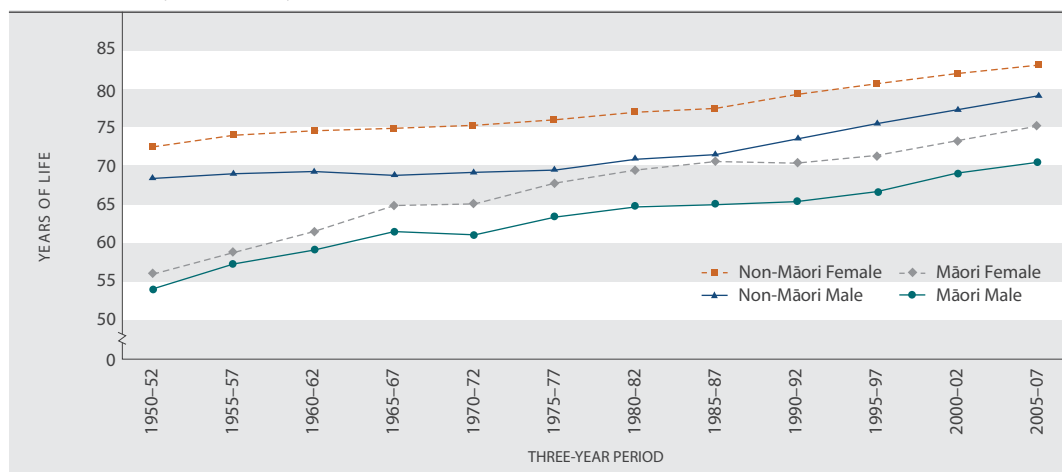
Note: The period life table data in this graph is from complete life tables for all periods up to 2000–2002 and an abridged life table for 2006–2008

## ETHNIC DIFFERENCES

There are marked ethnic differences in life expectancy. In 2005–2007, male life expectancy at birth was 79.0 years for non-Māori and 70.4 years for Māori, a difference of 8.6 years. Female life expectancy at birth was 83.0 years for non-Māori and 75.1 years for Māori, a difference of 7.9 years.

The pace of improvement in life expectancy has varied by ethnic group. For non-Māori, there was a fairly steady increase in life expectancy at birth over the period from 1985–1987 to 2005–2007, with males gaining 7.6 years and females 5.6 years. For Māori, there was little change during the 1980s, but a substantial improvement in the 10 years to 2005–2007 (a gain of 3.8 years for both sexes). This exceeded the improvement for non-Māori over the same period (3.6 years for males and 2.4 years for females). However, the overall gain in Māori life expectancy from 1985–1987 to 2005–2007 (5.5 years for males, 4.6 years for females) was less than that for non-Māori.

Figure H2.2 Life expectancy at birth, by ethnic group and sex, 1950–1952 to 2005–2007



Source: Statistics New Zealand

Note: Ministry of Health data has been used for 1980–1982 to 1995–1997. It includes an adjustment for undercount of Māori deaths relative to the Māori population by linking mortality to census records

### SOCIO-ECONOMIC DIFFERENCES

There is an association between life expectancy and the level of deprivation in the area where people live. In 2005–2007, males in the least deprived 10th of small areas in New Zealand could expect to live 8.8 years longer than males in the most deprived 10th of small areas (82.1 versus 73.3 years). For females, the difference was smaller, but still substantial, at 5.9 years (84.6 versus 78.7 years). These differences illustrate the links between socio-economic status and health.

### INTERNATIONAL COMPARISON

In 2005–2007, New Zealanders' life expectancy at birth was 82.2 years for females and 78.1 years for males. This was slightly below the OECD median of 82.3 years for females and slightly above the OECD median of 77.1 years for males. Out of 30 OECD countries, New Zealand was ranked 17th for females, and seventh equal for males. In 1960–1961, New Zealand's ranking was ninth for females and seventh equal for males. Through the 1960s, 1970s and 1980s, longevity improved faster in many other OECD countries than it did in New Zealand. Since the 1980s, faster-than-average gains in life expectancy in New Zealand, particularly for males, have improved New Zealand's relative position. In 2006, life expectancy at birth was highest for females in Japan (85.8 years) and highest for males in Iceland (79.4 years). Compared to New Zealand, female life expectancy was higher in Australia (83.5 years) and Canada (82.7 years in 2005), but lower in the United Kingdom (81.1 years in 2005) and the United States (80.4 years in 2005). Male life expectancy was higher in Australia (78.7 years), similar in Canada (78.0 years in 2005), and lower in the United Kingdom (77.1 years in 2005) and the United States (75.2 years in 2005).<sup>22</sup>

# Suicide

## DEFINITION

The number of suicide deaths per 100,000 population, for the population aged 5 years and over.

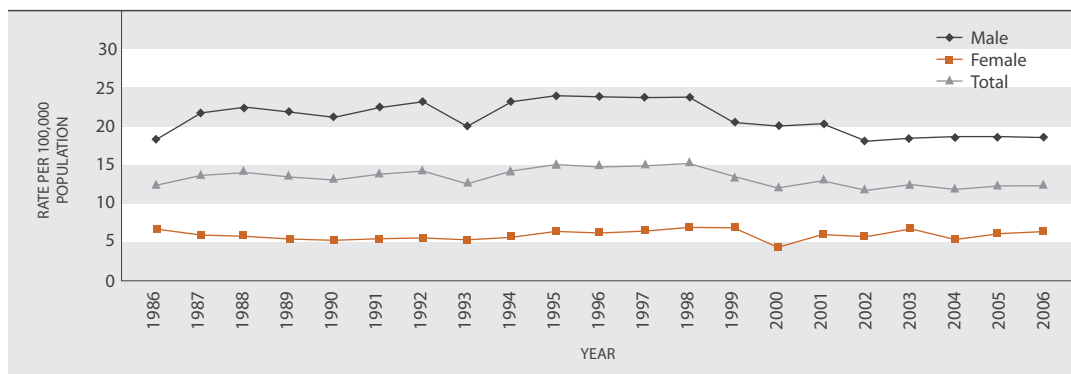
## RELEVANCE

Suicide is an indicator of the mental health of society and a major cause of injury-related death in the population.

## CURRENT LEVEL AND TRENDS

In 2006, 524 people died by suicide, an increase from the 511 people who died in 2005.<sup>23</sup> The age-standardised<sup>24</sup> suicide death rate was 12.2 per 100,000 population in 2006, the same rate as in 2005. Over the 1980s and 1990s there was an upward trend in the suicide death rate, which peaked at 15.1 per 100,000 in 1998. The rate has generally declined since then and in 2006 it was similar to the rate in 1986 (12.3 per 100,000).

Figure H3.1 **Age-standardised suicide death rate, by sex, 1986–2006**



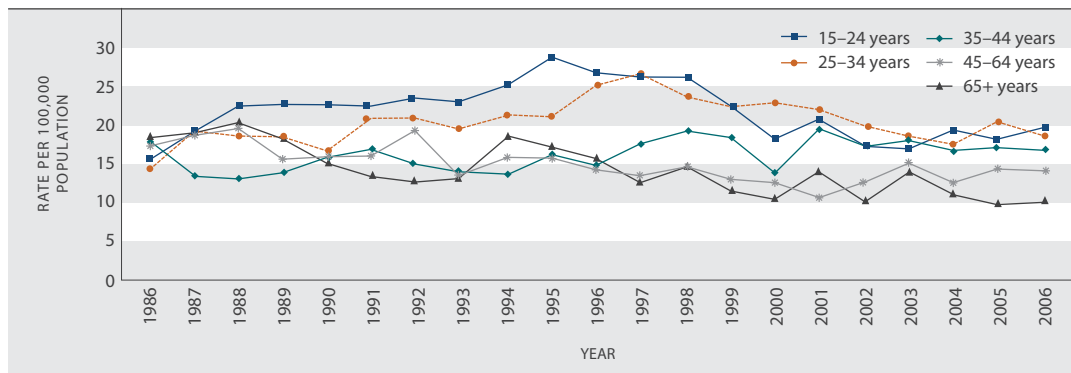
Source: Ministry of Health

Notes: (1) 2006 figures are provisional (2) Age-standardised to WHO standard population

## AGE DIFFERENCES

People aged 15–24 years had the highest suicide death rate in 2006 (19.7 per 100,000 population, with 119 deaths), followed by people aged 25–34 years (18.6 per 100,000, with 102 deaths).

Figure H3.2 **Suicide death rate, by age, 1986–2006**



Source: Ministry of Health

Note: 2006 figures are provisional

The youth (15–24 year olds) suicide death rate increased steeply in the late-1980s, peaking at 28.7 per 100,000 people aged 15–24 years in 1995. It has fallen by 32 per cent since then, but is still higher than the 1986 rate of 15.6 per 100,000. The pattern is similar for 25–34 year olds. Suicide death rates have fallen over the past two decades for people aged 45 years and over. These age patterns may reflect, in part, cohort effects.

**SEX DIFFERENCES**

Males have a significantly higher rate of death by suicide than females, with an age-standardised rate of 18.5 deaths per 100,000 males in 2006, compared with 6.3 deaths per 100,000 females. The male suicide death rate increased sharply in the late-1980s, peaked at 23.9 deaths per 100,000 males in 1995, then declined after 1998. In the years 2002 to 2006, the male rate was similar to the 1986 rate of 18.3 deaths per 100,000 males. In comparison, the female rate has been relatively stable over the last 20 years. Because of the small numbers involved, it is more reliable to consider the trend over several years.

While the suicide death rate is higher for males, more females than males are hospitalised for intentional self-harm. In 2006, the female–male rate ratio for intentional self-harm in New Zealand was 1.8 female hospitalisations to every male hospitalisation per 100,000 population. Females more commonly choose methods that are less likely to be fatal.<sup>25</sup>

**ETHNIC DIFFERENCES**

In 2006, there were 107 Māori deaths by suicide, accounting for 20 per cent of all suicide deaths in that year. The age-standardised rate of suicide deaths in 2006 was 17.8 per 100,000 population for Māori, compared to 11.0 per 100,000 for non-Māori. The suicide death rate for Māori youth (15–24 year olds) in 2006 was 31.8 per 100,000, compared with the non-Māori rate of 16.8 per 100,000. Since 1996, suicide death rates have declined for non-Māori but there is no obvious trend for Māori, although the small numbers of Māori suicide deaths make it hard to ascertain trends.

**INTERNATIONAL COMPARISON**

A comparison of the latest age-standardised suicide death rates in 13 OECD countries<sup>26</sup> between 2004 and 2006 shows New Zealand's (2006) rate was the fifth highest for males (18.2 per 100,000 males) and the eighth highest for females (6.2 per 100,000 females).<sup>27</sup> Finland had the highest male suicide death rate (31.1 per 100,000 in 2006), while Japan had the highest female rate (12.7 per 100,000 in 2004). Australia (16.4 in 2005) had a lower rate of male suicide deaths than New Zealand, as did the United States (18.0 in 2005) and Canada (17.7 in 2004). The United Kingdom had the lowest male suicide death rate (11.1 in 2005). Canada (4.5), the United States (4.4), Australia (4.3) and the United Kingdom (3.8) all reported lower female suicide death rates than New Zealand.

New Zealand had the second highest male youth (15–24 years) suicide death rate (after Finland), and the second highest female youth suicide death rate (after Japan). New Zealand is one of a small number of countries which have higher suicide death rates at younger ages than at older ages.<sup>28</sup>

# Cigarette smoking

## DEFINITION

The proportion of the population who currently smoke cigarettes. Up to 2005, the survey population was people aged 15 years and over (ACNielsen survey). From 2006, the survey population is people aged 15–64 years (New Zealand Tobacco Use Survey, New Zealand Health Survey).

## RELEVANCE

Tobacco smoking is a well-recognised risk factor for many cancers and for respiratory and cardiovascular diseases. In addition, exposure to environmental tobacco smoke (particularly maternal smoking) is a major risk factor for Sudden Infant Death Syndrome and respiratory problems in children. Smoking has been identified as the major cause of preventable death in OECD countries.<sup>29</sup>

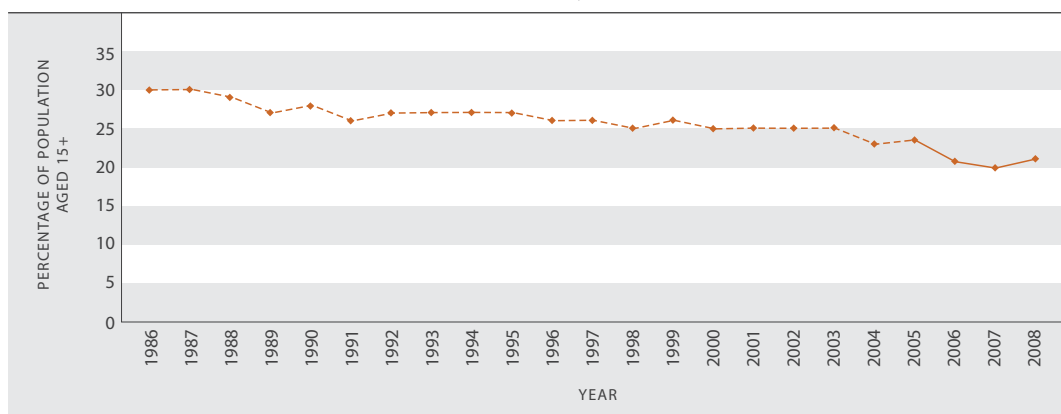
## CURRENT LEVEL AND TRENDS

In 2008, 23 per cent of people aged 15–64 years were current cigarette smokers, according to the New Zealand Tobacco Use Survey. This was just below the smoking prevalence rate derived from the New Zealand Tobacco Use Survey conducted in the first quarter of 2006 (24 per cent).

Long-term trends are available only for the population aged 15 years and over. The Ministry of Health's estimate of smoking prevalence for this population in 2008 is 21.0 per cent. This is similar to the 2006/2007 New Zealand Health Survey estimate of 19.9 per cent and the 2006 Census figure of 20.7 per cent, but below the 24 per cent derived from the ACNielsen survey for 2005. Among the population aged 15 years and over, smoking has declined from 30 per cent in 1986, with most of the decline occurring between 1987 and 1991.

It is important to note there are methodological differences between these three surveys and some caution should be used when comparing figures. Ongoing monitoring in the social report will be based on the New Zealand Tobacco Use Survey. As this survey is carried out in two out of every three years, it allows the most frequent updates.

Figure H4.1 **Prevalence of cigarette smoking, population aged 15 years and over, 1986–2008**



Source: Ministry of Health

Notes: (1) Data not standardised for age (2) Data is for the population aged 15 years and over. 1986–1995, 1997–2005: ACNielsen; 1996, 2006: Statistics New Zealand, Census of Population and Dwellings; 2007: New Zealand Health Survey; 2008: estimates derived by the Ministry of Health from the New Zealand Health Survey and the New Zealand Tobacco Use Survey

## AGE AND SEX DIFFERENCES

Smoking rates for females and males have generally been similar since the mid-1980s. However, after adjusting for age, the male rate was higher than the female rate in 2008 (26 per cent and 22 per cent respectively).

In 2008, smoking was most prevalent among people aged 25–34 years (28 per cent), followed by those aged 15–24 years (26 per cent). People aged 55–64 years had a significantly lower smoking prevalence than younger age groups (17 per cent). Since the mid-1980s, people aged 55 years and over have experienced the greatest decline in smoking prevalence.<sup>30</sup>

Daily smoking rates for 14–15 year olds have declined considerably since 1999. Between 1999 and 2007, the prevalence of daily smoking declined by 56 per cent for males in this age group (from 14 per cent to 6 per cent) and by 51 per cent for females (from 17 per cent to 8 per cent).

## ETHNIC DIFFERENCES

After adjusting for age, smoking prevalence is significantly higher among Māori and Pacific peoples (at around 46 per cent and 31 per cent respectively in 2008), than among the total population aged 15–64 years. It is significantly lower among Asian ethnic groups (13 per cent in 2008). Among Māori, smoking prevalence is significantly higher for women than for men. The opposite is the case for other ethnic groups, particularly Asians: Asian men have a significantly higher smoking prevalence rate than Asian women.

Table H4.1 **Age-standardised prevalence (%) of cigarette smoking, by sex and ethnic group, 2008**

	Percentage in each ethnic group who smoke cigarettes				
	European/Other	Māori	Pacific peoples	Asian	Total
Male	23.8	41.5	35.0	21.5	25.7
Female	20.9	49.3	28.1	5.2	22.3
<b>Total</b>	<b>22.3</b>	<b>45.7</b>	<b>31.4</b>	<b>13.1</b>	<b>23.9</b>

Source: Ministry of Health (2009b)

Notes: (1) Rates are age-standardised using the WHO world standard population (2) People who reported more than one ethnic group are counted once in each group reported

## SOCIO-ECONOMIC DIFFERENCES

In 2008, the smoking prevalence rate in the most deprived areas (NZDep2006 deciles 9 and 10) was 2.7 times the rate in the least deprived areas (deciles 1 and 2).<sup>31</sup>

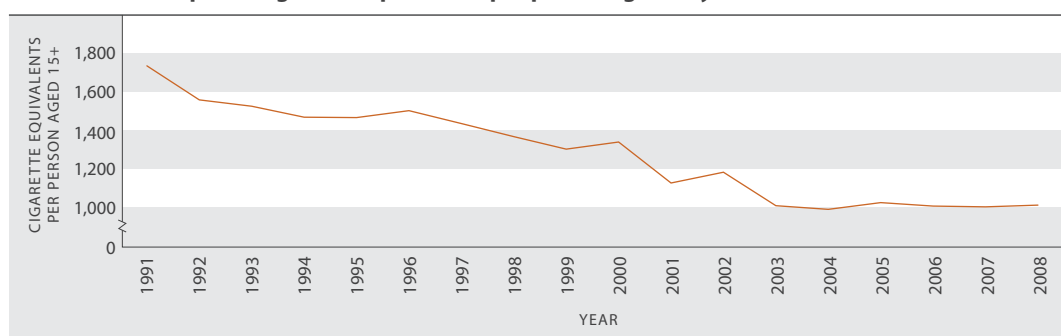
## INTERNATIONAL COMPARISON

In an OECD comparison of daily smoking rates for adults aged 15 years and over, New Zealand had a rate of 18 per cent in 2007, compared with an OECD median of 23 per cent.<sup>32</sup> New Zealand ranked fourth lowest out of 30 OECD countries. Smoking prevalence was highest in Greece (40 per cent in 2008) and lowest in Sweden (just under 15 per cent in 2006). New Zealand's daily smoking rate was lower than the United Kingdom's (21 per cent in 2007), similar to Australia's (17 per cent in 2007) and Canada's (18 per cent in 2007), and higher than the rate in the United States (15 per cent in 2007). Compared to other OECD countries, New Zealand's smoking levels are relatively low for both sexes, ranking fourth lowest for males and 13th lowest for females.<sup>33</sup>

## TOBACCO CONSUMPTION

In 2008, tobacco available for consumption was 1,011 cigarette equivalents per person aged 15 years and over, similar to 1,002 in 2007. Since 1991, tobacco consumption has decreased by 42 per cent. Over this period, the drop in tobacco consumption has been more rapid than the drop in smoking prevalence.

Figure H4.2 **Tobacco consumption, cigarette equivalents per person aged 15 years and over, 1991–2008**



Source: Statistics New Zealand



# Obesity

## DEFINITION

The proportion of the population aged 15 years and over who are obese, and the proportion of children aged 5–14 years who are obese.

For adults aged 18 years and over, obesity is defined as having a body mass index (BMI) greater than or equal to 30 kg/m<sup>2</sup> (for all ethnic groups).<sup>34</sup> For those aged under 18 years, internationally defined sex and age specific BMI cut-off points have been used.<sup>35</sup>

## RELEVANCE

Obesity is associated with a long list of adult health conditions, including heart disease, high blood pressure and strokes, type 2 diabetes, various types of cancer, and psychological and social problems. Obese children are likely to be obese into adulthood.<sup>36</sup>

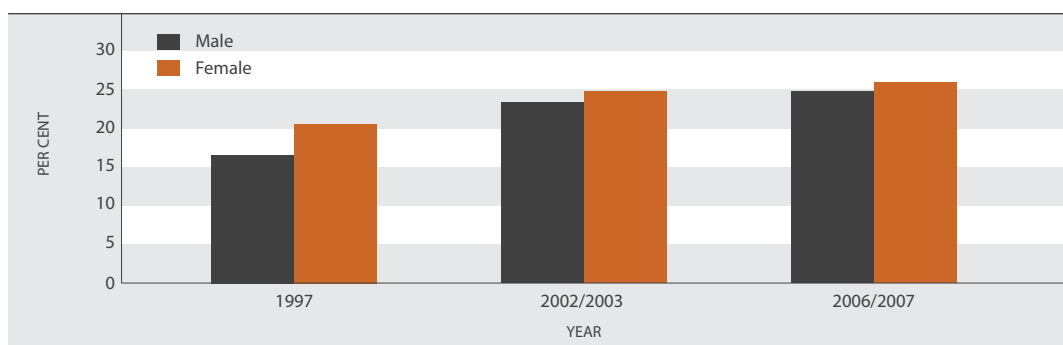
## CURRENT LEVEL AND TRENDS

In 2006/2007, the age-standardised obesity prevalence rate for the population aged 15 years and over was 25 per cent. This was similar to the 2002/2003 rate of 24 per cent but a significant increase from the 1997 rate of 19 per cent.<sup>37</sup>

In 2006/2007, 8 per cent of children aged 5–14 years were obese, a prevalence rate similar to that of 2002 (9 per cent).<sup>38</sup>

The major drivers of the increase in obesity rates have been changing dietary and physical activity patterns, reflecting an environment that promotes the over-consumption of energy-dense foods and drinks and limits the opportunities for physical activity.<sup>39</sup>

Figure H5.1 **Age-standardised prevalence of obesity, total population aged 15 years and over, by sex, 1997, 2002/2003 and 2006/2007**



Source: Ministry of Health

## AGE AND SEX DIFFERENCES

Age-standardised prevalence rates for 2006/2007 showed no significant sex difference in the proportion of the population aged 15 years and over who were obese (males, 25 per cent; females, 26 per cent). This was also the case in 2002/2003. In 1997, the age-standardised rate for females was significantly higher than the rate for males.

Among children aged 5–14 years, there was no significant difference by sex or age in the prevalence of obesity, either in 2002 or in 2006/2007.

Among those aged 15 years and over in 2006/2007, the prevalence of obesity was highest in the 55–64 years age group (36 per cent), followed by the 65–74 years age group.

Table H5.1 **Prevalence (%) of obesity, by age group and sex, 2006/2007**

	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75+
Males	8.1	12.7	22.2	29.9	30.8	35.9	29.9	21.7
Females	8.6	15.7	26.6	26.9	30.2	35.9	35.7	20.1
<b>Total</b>	<b>8.3</b>	<b>14.2</b>	<b>24.4</b>	<b>28.4</b>	<b>30.5</b>	<b>35.9</b>	<b>32.8</b>	<b>20.8</b>

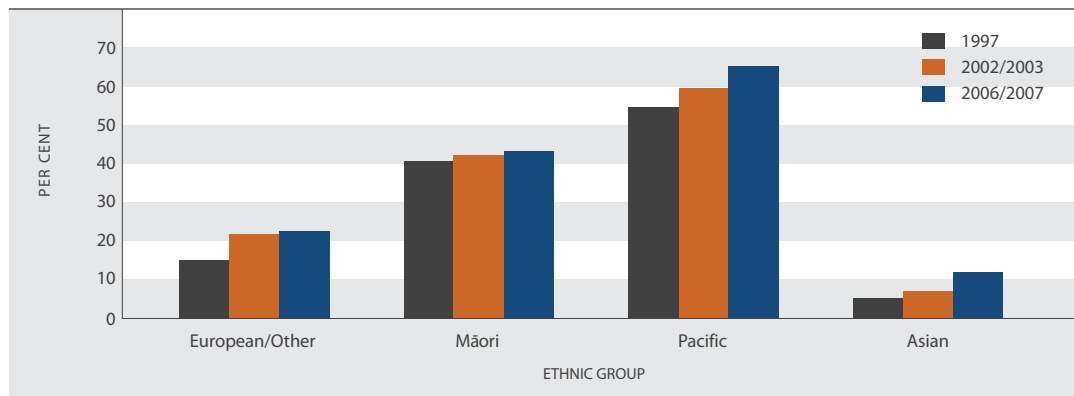
Source: Ministry of Health

**ETHNIC DIFFERENCES**

There are large differences in the prevalence of obesity by ethnicity. Among the population aged 15 years and over in 2006/2007, Pacific peoples (65 per cent) and Māori (43 per cent) had significantly higher age-standardised obesity rates than the total population in this age group, while Asians (12 per cent) had a significantly lower rate. The obesity rate of European/Other was (23 per cent). For Māori, there was no significant change from 1997 to 2006/2007 in the prevalence of obesity, adjusted for age, either for men or for women. Between 2002/2003 and 2006/2007, only Asians had a statistically significant increase in obesity.

Among children aged 5–14 years in 2006/2007, the pattern of ethnic differences in the prevalence of obesity was similar to that of the population aged 15 years and over. Pacific children had the highest rate (26 per cent), followed by Māori children (13 per cent), Asian children (6 per cent) and children of European/Other ethnic groups (5 per cent).

Figure H5.2 **Age-standardised prevalence of obesity, population aged 15 years and over, by ethnic group, 1997, 2002/2003 and 2006/2007**



Source: Ministry of Health  
Note: People who reported more than one ethnic group are counted once in each group reported

**SOCIO-ECONOMIC DIFFERENCES**

The prevalence of obesity is higher in relatively deprived neighbourhoods. In 2006/2007, 38 per cent of the population aged 15 years and over living in NZDep2006 quintile 5 (the most disadvantaged fifth of neighbourhoods) were obese, compared with 26 per cent of those living in quintile 4, 23 per cent of those living in quintile 3 and 21 per cent of those living in quintiles 1 and 2.

**INTERNATIONAL COMPARISON**

New Zealand has a relatively high prevalence of obesity compared with other OECD countries. In 2006/2007, New Zealand’s unadjusted rate was 26.5 per cent, compared to an OECD median of 14.9 per cent. New Zealand had the third highest rate out of 30 OECD countries reporting obesity prevalence from 1999–2007. However, most countries use the self-reporting method to measure obesity whereas New Zealand and seven other countries use actual measurements recorded by an interviewer. Out of the eight countries that use actual measurements, New Zealand had the second highest obesity rate after the United States (34.3 per cent in 2006), and a similar rate to the United Kingdom (24.0 per cent in 2007) and Australia (21.7 per cent in 1999). Out of all OECD countries, Japan (3.4 per cent in 2006) and Korea (3.5 per cent in 2005) had the lowest prevalence of obesity.<sup>40</sup>

# Potentially hazardous drinking

## DEFINITION

The proportion of the population aged 15 years and over who drink alcohol, who scored eight or more on the Alcohol Use Disorders Identification Test (AUDIT), as measured in the New Zealand Health Surveys conducted by the Ministry of Health in 1996/1997, 2002/2003 and 2006/2007. The AUDIT is a 10-item questionnaire covering alcohol consumption, alcohol-related problems and abnormal drinking behaviour.

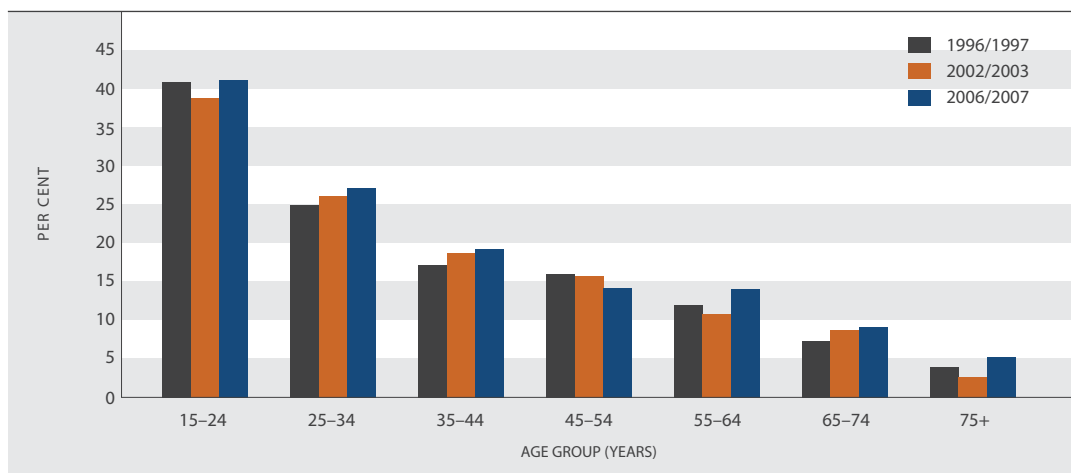
## RELEVANCE

Potentially hazardous drinking, defined by an AUDIT score of eight or more, is an established pattern of alcohol consumption that carries a high risk of future damage to physical or mental health, but may not yet have resulted in significant adverse effects.<sup>41</sup> Alcohol also contributes to death and injury due to traffic accidents, drowning, suicide, assaults and domestic violence.<sup>42</sup>

## CURRENT LEVEL AND TRENDS

In 2006/2007, 22.9 per cent of adult drinkers had a potentially hazardous drinking pattern, as indicated by an AUDIT score of eight or more. This was similar to the proportions recorded in the 1996/1997 and 2002/2003 surveys (22.3 per cent and 22.5 per cent, respectively).<sup>43</sup>

Figure H6.1 Potentially hazardous drinking among drinkers, by age, 1996/1997, 2002/2003 and 2006/2007



Source: Ministry of Health, Public Health Intelligence

## AGE AND SEX DIFFERENCES

For both males and females, the proportion of adult drinkers with a potentially hazardous drinking pattern is highest among those aged 15-24 years and declines at older ages.

In 2006/2007, male drinkers (29.2 per cent) were significantly more likely than female drinkers (13.0 per cent) to have a potentially hazardous drinking pattern. This was the case for all age groups and in each survey year.

Table H6.1 **Proportion (%) of adult drinkers with a potentially hazardous drinking pattern, by age group and sex, 1996/1997, 2002/2003 and 2006/2007**

	15–24	25–34	35–44	45–54	55–64	65–74	75+
<b>1996/1997</b>							
Male	49.8	35.7	25.5	25.2	21.1	12.6	7.3
Female	31.6	13.9	8.1	6.0	1.8	1.0	0.8
<b>Total</b>	<b>40.8</b>	<b>24.9</b>	<b>17.1</b>	<b>16.0</b>	<b>12.0</b>	<b>7.3</b>	<b>3.9</b>
<b>2002/2003</b>							
Male	45.8	36.1	28.0	23.5	18.1	16.4	4.4
Female	31.0	16.0	9.3	7.1	3.0	1.1	1.0
<b>Total</b>	<b>38.7</b>	<b>26.1</b>	<b>18.7</b>	<b>15.7</b>	<b>10.8</b>	<b>8.7</b>	<b>2.7</b>
<b>2006/2007</b>							
Male	49.2	36.2	29.0	21.1	23.1	14.7	7.9
Female	32.6	18.2	9.5	7.3	4.3	3.0	2.5
<b>Total</b>	<b>41.1</b>	<b>27.1</b>	<b>19.2</b>	<b>14.2</b>	<b>14.0</b>	<b>9.1</b>	<b>5.2</b>

Source: Ministry of Health, Public Health Intelligence

## ETHNIC DIFFERENCES

Māori and Pacific drinkers are significantly more likely than drinkers in the total population to have a potentially hazardous drinking pattern. Asian drinkers are significantly less likely to have such a pattern. These ethnic differences are evident for both sexes.

Table H6.2 **Age-standardised potentially hazardous drinking prevalence rate (%), for adult drinkers, by ethnic group and sex, 1996/1997, 2002/2003 and 2006/2007**

	European/Other	Māori	Pacific peoples	Asian	Total 15+
<b>1996/1997</b>					
Male	31.0	46.1	48.2	11.6	30.9
Female	12.0	30.6	20.8	5.1	13.3
<b>Total</b>	<b>21.6</b>	<b>38.3</b>	<b>38.1</b>	<b>9.4</b>	<b>22.3</b>
<b>2002/2003</b>					
Male	29.9	42.4	44.1	11.5	30.6
Female	13.3	24.1	24.3	4.8	14.2
<b>Total</b>	<b>21.7</b>	<b>32.9</b>	<b>36.1</b>	<b>8.6</b>	<b>22.5</b>
<b>2006/2007</b>					
Male	32.1	46.8	46.6	12.9	31.2
Female	14.5	28.5	25.8	3.8	14.7
<b>Total</b>	<b>23.1</b>	<b>37.5</b>	<b>37.7</b>	<b>8.9</b>	<b>22.9</b>

Source: Ministry of Health, Public Health Intelligence

Notes: (1) Rates are age-standardised using the WHO world population (2) People who reported more than one ethnic group are counted once in each group reported

## SOCIO-ECONOMIC DIFFERENCES

The proportion of adult drinkers with a potentially hazardous drinking pattern in 2006/2007 was significantly higher (at 30.8 per cent) in the most deprived small areas (NZDep2006 quintile 5) than in all other areas (quintiles 1–4), where proportions ranged from 19–24 per cent.

## INTERNATIONAL COMPARISON

Because of the paucity of international data using the AUDIT method of identifying potentially hazardous drinking, this section uses information on annual per capita alcohol consumption compiled by the OECD. New Zealand had the 13th lowest level of alcohol consumption out of 30 OECD countries in 2003–2007, with a per capita consumption of 9.2 litres in 2007. New Zealand's alcohol consumption in 2007 was higher than that of the United States (8.6 litres in 2006) and Canada (8.1 litres in 2006), but lower than that of Australia (9.9 litres in 2006) and the United Kingdom (11.2 litres in 2007). The OECD median in 2003–2007 was 9.9 litres of alcohol per capita.<sup>44</sup>

## DESIRED OUTCOMES

Everybody has the knowledge and skills needed to participate fully in society. Lifelong learning and education are valued and supported.

# Knowledge and Skills

## INTRODUCTION

Knowledge and skills enhance people's ability to meet their basic needs, widen the range of options open to them in every sphere of life, and enable them to influence the direction their lives take. The skills people possess can also enhance their sense of self-worth, security and belonging.

We live in a society where access to information and proficiency with technology are becoming more important. Being able to function fully in society requires people to have higher levels of knowledge and skills than in the past.

Knowledge and skills include education and training, as well as abilities gained through daily life. The experiences of very young children within their families affect their acquisition and use of knowledge and skills, and influence their capacity to learn. Adults acquire skills through their work and non-work activities – for example, parenting skills or skills relevant to recreation or leisure activities.

Knowledge and skills relate directly to employment decisions and to career choices. Those with relatively few educational qualifications are more likely to be unemployed and, on average, have lower incomes when in work. This affects people's economic standard of living as well as their security and ability to make choices about their lives. Knowledge and skills are important for gaining access to services and for understanding and exercising civil and political rights.

## INDICATORS

Five indicators are used in this chapter. Each provides a snapshot of New Zealanders' acquisition of knowledge and skills at a particular stage in their lives, from early childhood to school-leaving age to adulthood. They are: participation in early childhood education, school leavers with higher qualifications, participation in tertiary education, the educational attainment of the adult population and adult literacy skills in English. The focus of the indicators is on formal education and training. This reflects the importance of formal education and training and also the availability of data – there is little data that captures the contribution of informal, on-the-job training to acquiring knowledge and skills.

The indicators are relevant to the current state of knowledge and skills, as well as future trends. Participation in early childhood education contributes significantly to a child's later development. Going to a kindergarten, kōhanga reo or some other early childhood education service prepares children for further learning, helps equip them to cope socially at school and develops their bodies and minds to better prepare them for adult life. Quality early childhood education programmes can help narrow the achievement gap between children from low-income families and children from more advantaged families.<sup>45</sup>

Students who obtain higher qualifications at school tend to have more options for tertiary education and future employment. Those who leave school early have a greater risk of unemployment or low incomes.<sup>46</sup>

Participation in tertiary education opens up career opportunities and improves the skills people need to participate in society. This has become particularly important with the increasing dependence on "knowledge" industries that require well-educated, highly skilled workforces. It also captures aspects of lifelong learning through participation in tertiary education.

Educational attainment of the adult population provides a broad picture of New Zealanders' possession of knowledge and skills. It is influenced by factors not measured in the other indicators, such as adults gaining new qualifications and new migrants arriving with qualifications.

Literacy is a fundamental skill. A good level of literacy in English, including numeracy and the ability to understand documents and tables, is vital in the workplace and in everyday life.

# Participation in early childhood education

## DEFINITION

The number of enrolments of children aged 3 and 4 years in licensed early childhood education services as a proportion of all 3 and 4 year olds.

Over 90 per cent of the enrolments of children aged 3 and 4 years are in licensed early childhood education services. Licensed services include kindergartens, playcentres, education and care services, te kōhanga reo, home-based services and the Correspondence School. The measure overestimates participation because children enrolled in more than one early childhood education service will be double-counted. The measure is therefore termed the “apparent” participation rate. Information from an alternative measure which avoids double counting – the proportion of Year 1 students who participated in early childhood education – is also included.

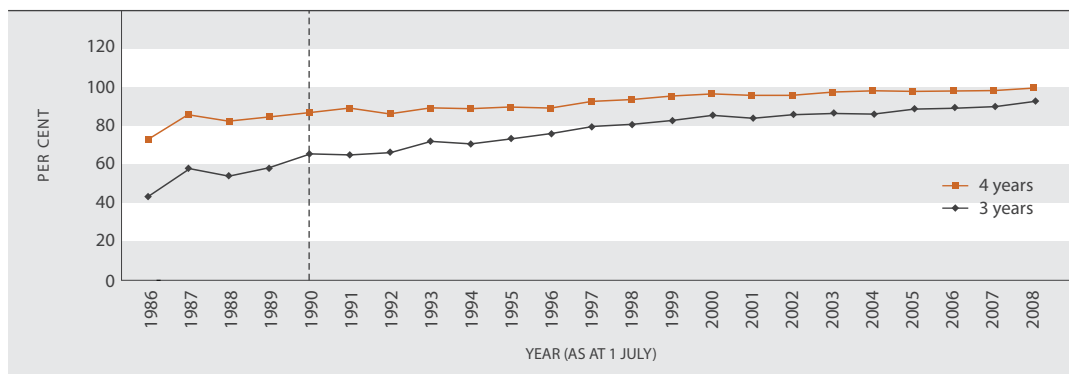
## RELEVANCE

Evidence from New Zealand and international research shows that the early childhood years are vital to a child’s development and to their future ability to learn.<sup>47</sup> Quality early childhood programmes prepare young children socially, physically and academically for entry into primary education and can help narrow the achievement gap between children from low-income families and those from more advantaged families.

## CURRENT LEVEL AND TRENDS

As at 1 July 2008, the apparent participation rate in licensed early childhood education services was 93 per cent for 3 year olds and 99 per cent for 4 year olds. These figures represent an increase from 90 per cent and 98 per cent respectively in 2007. Much of the growth in participation in early childhood education occurred in the five years between 1986 and 1991. Between 1997 and 2008, the participation rate increased by 14 percentage points for 3 year olds and by 7 percentage points for 4 year olds.

Figure K1.1 **Early childhood education apparent participation rate, 3 and 4 year olds, 1986–2008**



Sources: Ministry of Education; Ministry of Social Development

Notes: (1) These figures overestimate the true participation rate. Rates in excess of 100 per cent are possible because children can be enrolled in more than one service (2) Includes licensed services only from 1990

## SEX DIFFERENCES

Participation in early childhood education varies slightly by sex. In 2008, the apparent participation rate for 3 year old children enrolled in licensed services was 94 per cent for girls and 91 per cent for boys. For 4 year old children, the rates were 100 per cent for girls and 98 per cent for boys.

## PARTICIPATION BY TYPE OF EARLY CHILDHOOD EDUCATION SERVICE

In 2008, education and care services (49 per cent) and kindergartens (36 per cent) had the largest number of enrolments of 3 and 4 year olds in early childhood education. Much smaller numbers of children were enrolled in playcentres (5 per cent), home-based services (5 per cent), and ngā kōhanga reo (4 per cent).



## PRIOR PARTICIPATION IN EARLY CHILDHOOD EDUCATION

The prior participation rate is an alternative measure that avoids double counting. The percentage of new school entrants who previously participated in early childhood education services has increased over the last eight years, from 91 per cent in July 2000 to 95 per cent in July 2008.

## ETHNIC DIFFERENCES

New Zealand European children are the most likely to attend an early childhood education service before entering primary school: 98 per cent, compared with 95 per cent of Asian, 90 per cent of Māori and 85 per cent of Pacific Year 1 students in 2008. From 2000 to 2004, the prior participation rate for both Māori and Pacific new entrants increased faster than the rate for New Zealand European new entrants, narrowing the difference between these groups. However, since 2004, the growth in the rate for Māori has slowed, and there has been little further change in the proportion of Pacific new entrants attending early childhood education services before starting school.

Table K1.1 **Early childhood education attendance (%) by Year 1 students, by ethnic group, as at 1 July 2000–2008**

	European	Māori	Pacific peoples	Asian	Other	Total
2000	95.4	84.8	76.1	89.2	83.0	91.0
2001	96.0	85.3	76.3	89.8	84.1	91.4
2002	96.6	86.5	79.4	92.1	86.6	92.3
2003	97.4	88.4	83.4	92.4	88.9	93.6
2004	97.6	89.3	84.7	94.1	89.4	94.1
2005	97.7	89.9	84.5	95.1	89.9	94.3
2006	98.0	89.9	84.2	96.0	91.7	94.5
2007	98.2	90.6	84.0	96.0	93.6	94.7
2008	98.3	90.4	84.8	95.3	93.8	94.7

Source: Ministry of Education

Note: These figures exclude cases where attendance was unknown

## SOCIO-ECONOMIC DIFFERENCES

Year 1 children in low decile schools (those that draw their students from communities with the highest degree of socio-economic disadvantage) are much less likely to have attended an early childhood education service than children in high decile schools. In 2008, only 82 per cent of new entrants in decile 1 schools had previously attended early childhood education services, compared with 97 per cent in decile 6 schools and 99 per cent in decile 10 schools.

## REGIONAL DIFFERENCES

In 2008, prior participation in early childhood education was highest in the Canterbury and Otago regions (each 99 per cent), and lowest in Northland (91 per cent), Auckland and Gisborne (both 92 per cent).

# School leavers with higher qualifications

## DEFINITION

The proportion of secondary school leavers who left school with a qualification at National Certificate of Educational Achievement (NCEA) Level 2 or above.

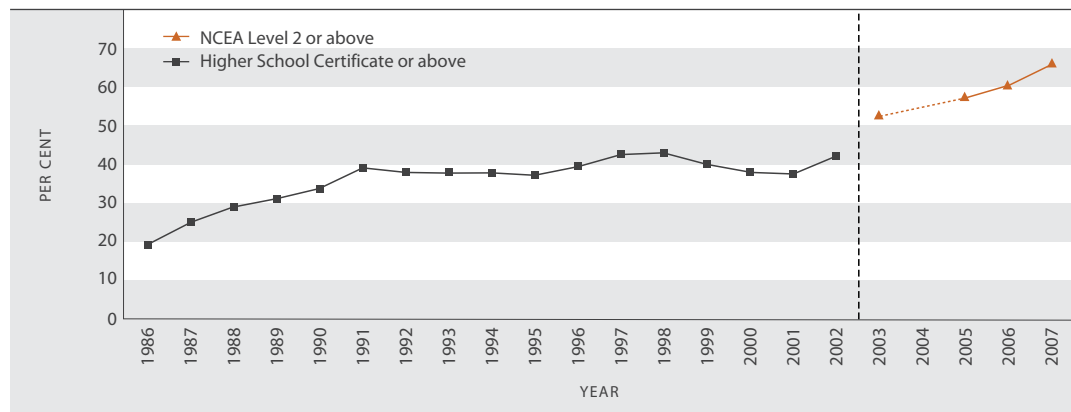
## RELEVANCE

Upper secondary school qualifications serve as the foundation for higher (post-secondary) learning and training opportunities as well as the preparation for direct entry into the labour market. Those who leave school early with few qualifications are at a much greater risk of unemployment or vulnerability in the labour force and of having low incomes.<sup>48</sup>

## CURRENT LEVEL AND TRENDS

In 2007, 66 per cent of school leavers (37,000 students) left school with a qualification at NCEA Level 2 or above, an increase from the 2006 figure of 60 per cent (34,000 students).<sup>49</sup> Because of changes in the qualification structure, it is not possible to compare exactly the attainment of upper secondary school students who left school before 2003 with those who left school in 2003 and later. To illustrate the trend in higher school attainment over the long term, Figure K2.1 includes the proportion of school leavers who left with Higher School Certificate and above for the years 1986 to 2002.

Figure K2.1 **Proportion of school leavers with Higher School Certificate or above, 1986–2002 and NCEA Level 2 or above, 2003, 2005–2007**



Source: Ministry of Education

Notes: (1) A direct comparison cannot be made between rates up to and including 2002 with rates for 2003 on, due to the change in the qualification structure (see Appendix 2 for details) (2) Because of methodological changes, 2004 is not comparable with other years and has been omitted

**SEX DIFFERENCES**

Female students are more likely than male students to leave school with an upper secondary school qualification. Between 2006 and 2007, the proportion of school leavers with NCEA Level 2 or above increased for both sexes but there was a slightly larger increase for females than for males. As a result, the sex difference in school attainment widened slightly between 2006 and 2007, from 8.7 percentage points to 9.3 percentage points.

Table K2.1 **Proportion (%) of school leavers with NCEA Level 2 or above, by sex, 2003, 2005–2007**

	Males	Females
2003	47.6	57.9
2005	52.0	62.3
2006	55.8	64.5
2007	60.9	70.2

Source: Ministry of Education

Note: Because of methodological changes, 2004 is not comparable with other years and has been omitted

**ETHNIC DIFFERENCES**

The proportion of school leavers with upper secondary school qualifications varies widely by ethnic group. Asian students who left school in 2007 had the highest proportion with NCEA Level 2 or above, followed by European school leavers, then Pacific and Māori school leavers. Between 2006 and 2007, there was an increase in the proportion of students leaving with a qualification at NCEA Level 2 or above for all ethnic groups. The increase was greater for Māori and Pacific students than for European and Asian students.

Table K2.2 **Proportion (%) of school leavers with NCEA Level 2 or above, by ethnic group, 2003, 2005–2007**

	European	Māori	Pacific peoples	Asian	Other	Total
2003	57.4	28.8	42.3	75.1	54.2	52.6
2005	63.0	32.7	45.3	79.9	55.8	57.1
2006	65.4	36.7	49.6	82.2	63.5	60.2
2007	70.6	43.9	56.0	84.2	67.0	65.5

Source: Ministry of Education

Note: Because of methodological changes, 2004 is not comparable with other years and has been omitted

**SOCIO-ECONOMIC DIFFERENCES**

Young people from schools that draw their students from low socio-economic communities are less likely than other young people to attain higher school qualifications. In 2007, only 49 per cent of school leavers from deciles 1–3 schools (in the most disadvantaged communities) attained qualifications at NCEA Level 2 or above, compared with 62 per cent of those leaving deciles 4–7 schools and 79 per cent of those leaving deciles 8–10 schools.

**REGIONAL DIFFERENCES**

The Otago, Wellington and Auckland regions had the highest proportion (70 per cent) of 2007 school leavers with qualifications at NCEA Level 2 or above, followed by Canterbury (68 per cent). The West Coast had the lowest proportion (45 per cent), followed by Gisborne (55 per cent) and Tasman (57 per cent).

# Participation in tertiary education

## DEFINITION

The proportion of the population aged 15 years and over enrolled at any time during the year in formal tertiary education leading to a recognised New Zealand qualification.

Tertiary education providers include public institutions (universities, polytechnics, wānanga) and private tertiary education providers receiving government funding or approval and registered with the New Zealand Qualifications Authority. Qualifications range from certificates and diplomas to bachelor and post-graduate degrees. Domestic students only are included. Students who were enrolled at more than one qualification level have been counted in each level.

## RELEVANCE

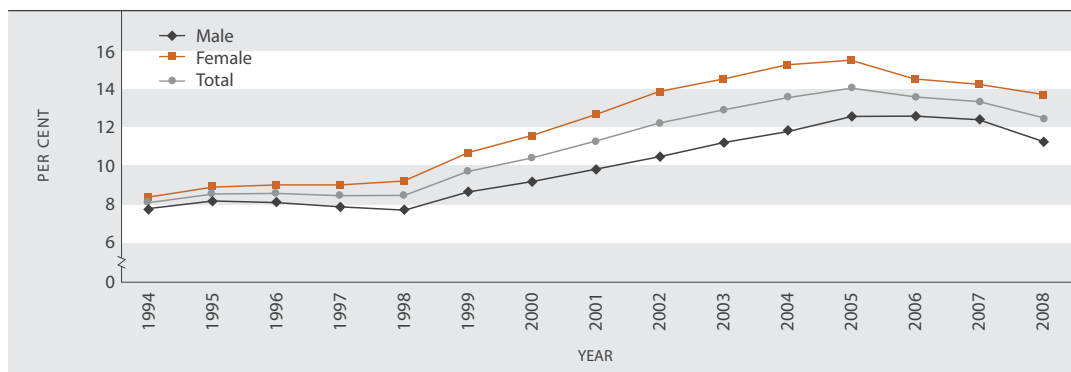
The acquisition of a tertiary qualification provides individuals with additional skills and knowledge to participate in society and in the economy.

## CURRENT LEVEL AND TRENDS

During 2008, 421,000 people aged 15 years and over were enrolled in formal tertiary education, a decline from 444,000 people in 2007. The age-standardised tertiary education participation rate was 12.5 per cent in 2008, down from 13.3 per cent in the previous year.

Between 1998 and 2005, there was a rapid increase in tertiary education enrolments: the age-standardised participation rate rose from 8.4 per cent in 1998 to a peak of 14.0 per cent in 2005. Enrolments for certificate-level qualifications have largely driven trends in tertiary participation over the last decade. Participation increased from 2.5 per cent in 1998 to 6.4 per cent in 2005 for Levels 1–3 certificate courses and from 0.5 per cent to 2.2 per cent for Level 4 certificate courses. By 2008, participation at these levels had fallen to 4.9 per cent and 1.9 per cent, respectively. In all other levels of qualification, participation rates remained relatively unchanged between 2005 and 2008. Against the overall fall in participation between 2007 and 2008, the rate of participation in bachelor's degree courses increased slightly, from 3.4 per cent to 3.5 per cent.

Figure K3.1 Age-standardised tertiary education participation rate, by sex, 1994–2008



Source: Ministry of Education

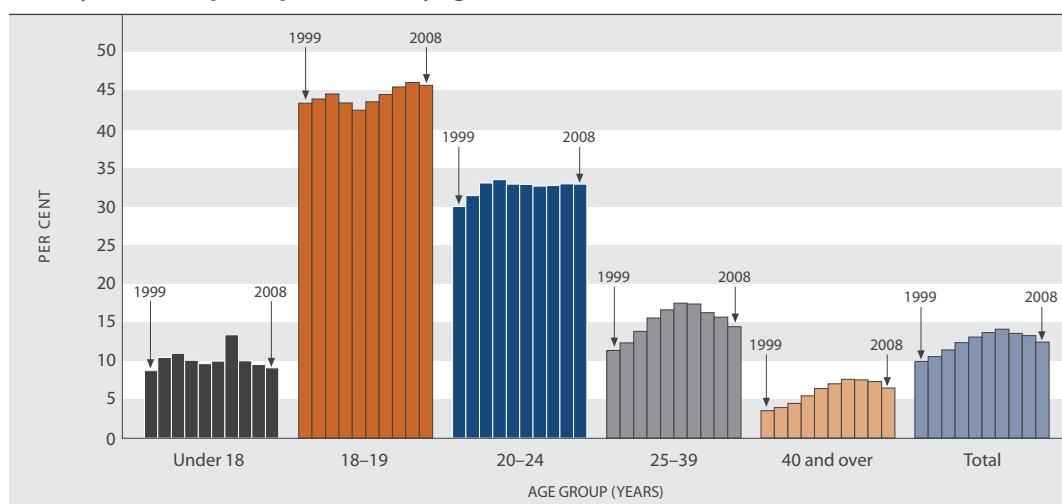
## SEX DIFFERENCES

Females are more likely than males to participate in tertiary study: in 2008, the age-standardised participation rate was 13.6 per cent for females and 11.2 per cent for males. The sex difference widened over the decade to 2004, but narrowed somewhat between 2005 and 2008, as females experienced a greater decline in participation than males over that period. In 2008, females were much more likely than males to be studying for bachelor's degrees (4.2 per cent and 2.7 per cent, respectively) but there was little or no sex difference in enrolments for other qualifications.

## AGE DIFFERENCES

Tertiary education participation is highest among 18–19 year olds (45.7 per cent in 2008), followed by 20–24 year olds (32.9 per cent). Between 2005 and 2008, the tertiary participation rate increased slightly for 18–19 year olds, remained steady for 20–24 year olds and declined for all other age groups, particularly for people aged 25–39 years.

Figure K3.2 Tertiary education participation rate, by age, 1999–2008



Source: Ministry of Education

Note: In the under 18 years age group, the figure for 2005 reflects a large number of enrolments in Levels 1–3 certificate courses at institutes of technology or polytechnics in that year

## ETHNIC DIFFERENCES

In 2008, the age-standardised tertiary education participation rate was highest for Māori at 16.9 per cent. Participation rates were similar for the Asian ethnic group (12.4 per cent), Pacific peoples (11.8 per cent) and Europeans (11.4 per cent).

The Māori age-standardised tertiary education participation rate climbed rapidly from 7.2 per cent in 1998 to just under 20 per cent between 2003 and 2005. All ethnic groups experienced an increase in tertiary education participation in the first half of the 2000s and a fall in participation between 2005 and 2008, with Māori and Asian ethnic groups experiencing the greatest fall. Almost all of the decline in Māori enrolments between 2005 and 2008 was due to fewer Māori taking certificate-level courses.

In the peak tertiary education age group, 18–19 years, the Asian and European ethnic groups had considerably higher participation rates than Māori and Pacific peoples in 2008. In the 20–24 years age group the differences between the ethnic groups were much smaller. At older ages, Māori tertiary education participation rates were considerably higher than those of other ethnic groups.

Table K3.1 Tertiary education participation rates (%), by age and ethnic group, 2008

Age group	European	Māori	Pacific peoples	Asian	Total
Under 18 years	8.5	12.3	7.6	3.5	9.1
18–19 years	45.6	34.0	37.2	47.2	45.7
20–24 years	33.5	28.1	26.8	29.2	32.9
25–39 years	12.5	21.1	15.3	12.8	14.4
40+ years	5.1	14.3	8.0	8.9	6.5

Source: Ministry of Education

In 2008, the Asian ethnic group had the highest rate of participation in bachelor’s degree courses (4.9 per cent), followed by Europeans (3.3 per cent), Pacific peoples (2.9 per cent) and Māori (2.8 per cent). Māori females (3.6 per cent) and Pacific females (3.8 per cent) were more likely than European males (2.6 per cent) to be enrolled in bachelor’s degree courses.

## INTERNATIONAL COMPARISON

There are no robust measures of tertiary education participation across OECD countries. Some indication of New Zealand’s relative standing can be gained from the proportion of people enrolled in education at various ages. In 2006, 29 per cent of 20–29 year olds (the age group that is usually only enrolled in tertiary education) were enrolled in education, placing New Zealand ninth out of 29 countries. This was above the OECD median of 25 per cent. The New Zealand rate was higher than those of the United Kingdom (17 per cent), the United States (23 per cent) and Canada (26 per cent), but below the rate for Australia (33 per cent).<sup>50</sup> At older ages, New Zealand’s participation in education is much higher than the OECD median (nearly three times higher at ages 30–39 years, eight times higher at age 40 years and over).

# Educational attainment of the adult population

## DEFINITION

The proportion of adults aged 25–64 years with an educational attainment of (1) at least upper secondary school level, and (2) bachelor’s degree or higher. At least upper secondary school level includes any formal qualification at NCEA Level 1 (or its predecessor, School Certificate) or higher. Bachelor’s degree or higher includes bachelor’s degrees, postgraduate certificates or diplomas, master’s degrees, and doctorates.

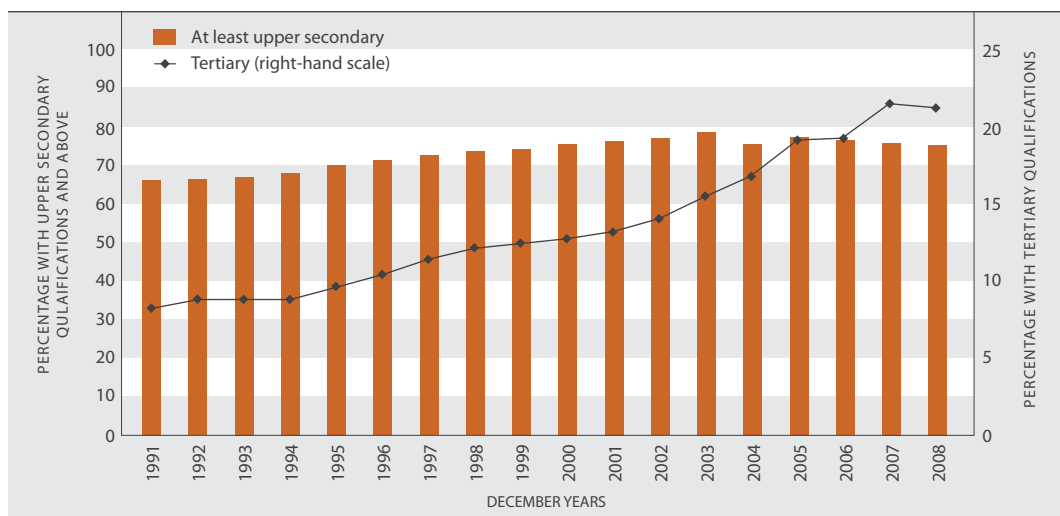
## RELEVANCE

The educational attainment of the adult population is an indicator of the skills available in the economy. The level of formal educational qualifications in the population is a commonly used proxy for the stock of “human capital”, ie the skills available in the population and labour force.

## CURRENT LEVEL AND TRENDS

In the year ended December 2008, 75 per cent of the population aged 25–64 years (1.66 million people) had attained an educational qualification at upper secondary level or above. This was slightly lower than in 2007 (76 per cent) but a substantial increase from 66 per cent in 1991. Over the same period the proportion of adults with a bachelor’s degree or higher qualification rose from 8 per cent to 21 per cent (469,000 people).

Figure K4.1 **Proportion of adults aged 25–64 years with an educational qualification of at least upper secondary level and tertiary level, 1991–2008**



Source: Statistics New Zealand, Household Labour Force Survey

Note: At least secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor’s degree or higher

## AGE AND SEX DIFFERENCES

Younger adults aged 25–34 years are much more likely to have at least upper secondary school qualifications or a bachelor’s degree or higher than adults aged 55–64 years.

Sex differences in educational attainment have narrowed over time. For younger age groups, women are more likely than men to have higher qualifications.

Table K4.1 **Proportion (%) of population aged 25–64 years with higher qualifications, by age and sex, 2008**

	25–34	35–44	45–54	55–64	Total 25–64
<b>At least upper secondary</b>					
Males	78.7	77.4	75.0	71.1	75.8
Females	82.2	76.6	74.6	62.9	74.7
<b>Total</b>	<b>80.5</b>	<b>77.0</b>	<b>74.8</b>	<b>66.9</b>	<b>75.2</b>
<b>Tertiary</b>					
Males	26.6	21.2	19.0	16.8	21.0
Females	31.8	22.4	17.5	12.5	21.4
<b>Total</b>	<b>29.3</b>	<b>21.8</b>	<b>18.2</b>	<b>14.6</b>	<b>21.2</b>

Source: Statistics New Zealand, Household Labour Force Survey, December years

Note: At least secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor's degree or higher

## ETHNIC DIFFERENCES

Māori and Pacific adults are much less likely than adults in the European and Other ethnic groups to have higher qualifications. In the year ended December 2008, 64 per cent of Māori and 49 per cent of Pacific adults aged 25–64 years held at least upper secondary school qualifications, compared with 79 per cent of Europeans. Similarly, just 9 per cent of Māori and 7 per cent of Pacific adults held a tertiary qualification at bachelor's degree level or above, compared with 22 per cent of Europeans. However, while the proportion of adults with a tertiary qualification at bachelor's degree level or above doubled in the decade to 2008, it was around two and a half times higher for Māori and Pacific adults. The Other ethnic group (which includes Asians and, from 2007, the category "New Zealander") has consistently had the highest proportion of adults with a tertiary qualification, almost double that of the total adult population in 2008.

Table K4.2 **Proportion (%) of population aged 25–64 years with higher qualifications, by ethnic group, selected years, 1996–2008**

	European	Māori	Pacific peoples	Other	Total
<b>At least upper secondary</b>					
1996	75.2	48.1	45.3	79.3	71.2
2001	78.7	59.3	65.8	85.1	76.2
2007	80.0	62.6	49.9	72.7	75.7
2008	79.5	63.7	49.2	72.5	75.2
<b>Tertiary</b>					
1996	10.8	2.4	1.9	27.4	10.3
2001	13.1	4.8	5.6	31.9	13.1
2007	21.5	9.2	8.4	39.3	21.4
2008	21.6	9.5	7.2	37.4	21.2

Source: Statistics New Zealand, Household Labour Force Survey, December years

Notes: (1) In this data, Other includes Asian ethnic groups and, from 2007, the category "New Zealander" (2) At least secondary equals NCEA Level 1 (or its predecessor, School Certificate) or higher; tertiary equals bachelor's degree or higher

## INTERNATIONAL COMPARISON

Because of a revision to the International Standard Classification of Education (ISCED 1997) used by the OECD, qualifications such as New Zealand's NCEA Level 1 and School Certificate are no longer counted as "upper secondary education" attainments. In 2006, 69 per cent of New Zealand adults had at least upper secondary level qualifications, similar to the OECD average of 68 per cent.<sup>51</sup> New Zealand ranked 15th highest out of 29 OECD countries. New Zealand ranked ninth equal (with Japan) out of 30 OECD countries in the proportion of adults who had bachelor's degrees or higher, with a rate of 23 per cent (above the OECD average of 19 per cent). Countries that had higher proportions of adults with qualifications at this level included Norway (31 per cent – the highest rate), the United States (30 per cent), and Canada and Australia (each 24 per cent). New Zealand is among the 24 OECD countries in which females aged 25–34 years are more likely than males of that age to have tertiary qualifications at bachelor's degree level or higher.

# Adult literacy skills in English

## DEFINITION

The proportion of the population aged 16–65 years with higher literacy skills in English (defined as skills at Level 3 or above), as measured in the 1996 International Adult Literacy Survey (IALS) and the 2006 Adult Literacy and Life Skills Survey (ALL).

Level 3 is a "suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and college entry".<sup>52</sup> Prose literacy is defined as the ability to read and understand continuous texts (such as news stories, editorials, brochures and instruction manuals). Document literacy is the ability to read and understand discontinuous texts (such as charts, maps, tables, job applications, payroll forms and timetables). Numeracy is the ability to read and process mathematical and numerical information in diverse situations.<sup>53</sup>

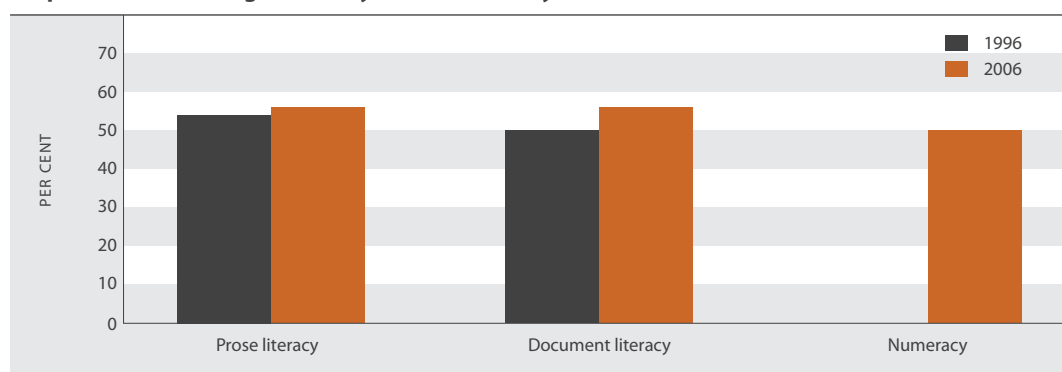
## RELEVANCE

The increasing complexity of our society and the need for a more flexible and highly skilled workforce mean individuals need to understand and apply information of varying difficulty from a range of sources to function effectively at work and in everyday life. The IALS and the ALL surveys were designed to measure adult literacy skills in English by assessing proficiency levels, using test materials derived from specific contexts within countries.

## CURRENT LEVEL AND TRENDS

Results from the second international literacy survey in 2006 showed 56 per cent of New Zealand's population aged 16–65 years had higher prose literacy skills (at Level 3 or above), 57 per cent had higher document literacy skills and 49 per cent had higher numeracy skills. These proportions represent an improvement since 1996, when 53 per cent of adults had prose literacy skills at Level 3 and above and 49 per cent had document literacy skills at these levels. There is no comparable trend data for numeracy.

Figure K5.1 **Proportion of adults aged 16–65 years with literacy skills at Level 3 or above, 1996 and 2006**



Source: Satherley P, Lawes E and Sok S (2008b)

Note: Numeracy was measured in the 2006 survey only

## SEX DIFFERENCES

In 2006, males were more likely than females to have numeracy skills at Level 3 or above, but there was no significant sex difference in higher prose literacy. The picture was mixed for document literacy. Overall, there was no significant sex difference in the proportion of adults with document literacy skills at Level 3 or above. However, among young adults under 25 years, a larger proportion of females than males had these skills. The pattern was reversed at ages 45 years and over, with males more likely than females to have higher document literacy skills.

All of the improvement in higher prose literacy between 1996 and 2006 was due to increases for males (from 49 per cent to 54 per cent). The substantial improvement in document literacy was shared by both sexes: the proportion of adults with skills at Level 3 or above increased from 49 per cent to 56 per cent for females, and from 50 per cent to 58 per cent for males.



Table K5.1 **Proportion (%) of adults with literacy skills at Level 3 or above, by age group and sex, 2006**

Age group	Prose literacy		Document literacy		Numeracy	
	Females	Males	Females	Males	Females	Males
16–24 years	49	44	54	49	40	45
25–34 years	59	56	60	61	49	57
35–44 years	63	56	61	62	52	60
45–54 years	63	61	57	62	45	58
55–65 years	51	52	43	53	34	51
<b>Total</b>	<b>57</b>	<b>54</b>	<b>56</b>	<b>58</b>	<b>45</b>	<b>54</b>

Source: Satherley P and Lawes E (2008a) Figures 4.1, 4.2, 4.3, and customised data

## AGE DIFFERENCES

The proportion of adults with literacy and numeracy skills at Level 3 or above was larger at ages 25–54 years than at younger and older ages in 2006. Improvements in higher prose and document literacy between 1996 and 2006 were entirely due to improvements for adults aged 25–65 years. Young adults aged 16–24 years in 2006 were slightly less likely than their counterparts in 1996 to have higher document literacy, and much less likely to have higher prose literacy. However, on an age cohort basis, those who were 25–34 years in 2006 had improved in prose and document literacy relative to 16–24 year olds in 1996.

Table K5.2 **Proportion (%) of adults with literacy skills at Level 3 or above, by age group, 1996 and 2006**

Age group	Prose literacy		Document literacy		Numeracy
	1996	2006	1996	2006	2006
16–24 years	56	47	55	52	43
25–34 years	52	57	52	60	53
35–44 years	59	60	54	61	55
45–54 years	53	62	47	60	51
55–65 years	42	52	31	48	43
<b>Total</b>	<b>53</b>	<b>56</b>	<b>49</b>	<b>57</b>	<b>49</b>

Sources: Satherley P and Lawes E (2008a) Figures 2.2, 2.4 and 2.6; Satherley P, Lawes E and Sok S (2008b)

Note: Numeracy was measured in the 2006 survey only

## ETHNIC DIFFERENCES

Across all three domains, a clear majority of New Zealand Europeans had literacy skills at Level 3 or above. Compared to Asian adults in 2006, Māori adults had a larger proportion with prose literacy at Level 3 or above but a smaller proportion with higher levels of document literacy and numeracy. Pacific peoples consistently had the smallest proportions with skills at Level 3 or above. In 2006, less than one quarter of Pacific adults had prose or document literacy skills at this level and only 14 per cent had higher numeracy skills. Between 1996 and 2006, the proportions of New Zealand European, Māori and Asian adults with higher prose and document literacy skills increased, while the proportions of Pacific adults with these skills declined.

Table K5.3 **Proportion (%) of adults with literacy skills at Level 3 or above, by ethnic group, 1996 and 2006**

Ethnic group	Prose literacy		Document literacy		Numeracy
	1996	2006	1996	2006	2006
New Zealand European	59	64	55	64	56
Māori	35	37	30	36	25
Pacific peoples	28	21	26	24	14
Asian	28	34	33	43	39
<b>Total</b>	<b>53</b>	<b>56</b>	<b>49</b>	<b>57</b>	<b>49</b>

Source: Satherley P and Lawes E (2008c)

Note: Robust statistics are not available for Other ethnicities because of small numbers

## INTERNATIONAL COMPARISON

Comparable information from the IALS and ALL surveys is available for New Zealand, Australia, the English-speaking part of Canada, and the United States. In 2006, New Zealand had the same proportion of adults with prose and document literacy skills in English at Level 3 or above as Australia (56 per cent), a lower proportion than English-speaking Canada (60 per cent), and a higher proportion than the United States (48 per cent). The proportion of adults with numeracy skills at Level 3 or above was similar for New Zealand (50 per cent), Australia (51 per cent) and Canada (52 per cent), and lower for the United States (42 per cent).<sup>54</sup>

## DESIRED OUTCOMES

Everybody has access to meaningful, rewarding and safe employment. An appropriate balance is maintained between paid work and other aspects of life.

# Paid Work

## INTRODUCTION

Paid work has an important social role. It provides people with incomes to meet their basic needs and to contribute to their material comfort, and it gives them options for how they live their lives. Paid work is also important for the social contact and sense of self-worth or satisfaction it can give people.

The desired outcomes highlight four aspects of paid work: access to work, the financial return from work, the safety of the working environment and the balance between work and other areas of life. Access to work and the financial return from work are related to the performance of the economy. A strong economy creates opportunities for people to work and generates income to increase workers' pay.

For most people, income from paid work is the main factor determining their material standard of living. On average, about two-thirds of total household income is derived directly from labour market income.<sup>55</sup> Income saved during their working life contributes to the standard of living of many retired people.

The social and personal dimensions of paid work are both important. Meeting challenges at work can contribute to a sense of satisfaction and self-worth. Paid work is more likely to be satisfying where people can find employment to match their skills and abilities.

For many people, much of their social contact is through their jobs. People often gain a sense of belonging or identity from their jobs, identifying themselves and others because of the organisation they work for or the type of work they do.

Conversely, unemployment can isolate people from society and cause them to lose self-confidence. Unemployment is associated with poorer mental and physical health, and lower levels of satisfaction with life.<sup>56</sup>

The quality of work is critically important. A meaningful job can enhance people's satisfaction with their work. An unsafe job, on the other hand, places people's wellbeing at risk.

Work can also be stressful. People may be required to work longer hours than they want to or need to. The desired outcomes acknowledge the importance of maintaining a balance between paid work and other aspects of life including spending time with the family, taking part in leisure and recreational activities, and doing unpaid work such as housework and voluntary work. Where that balance lies will differ from person to person.

## INDICATORS

Five indicators are used in this chapter. They are: the unemployment rate, the employment rate, median hourly earnings, workplace injury claims and satisfaction with work-life balance.

Together, these indicators present a picture of people's access to employment, the financial rewards from employment, the safety of employment and the balance between work and other areas of life.

The first indicator is the unemployment rate. The unemployment rate measures the proportion of the total labour force who are without a paid job, who are available for work and who are either actively seeking work or who are about to start a new job. This is a relatively narrow measure of unemployment but it accords closely with the OECD standard measure, allowing international comparisons. Information about long-term unemployment is also provided.

The second indicator is the employment rate. The employment rate provides an alternative picture of people's access to paid work. It is influenced not only by the amount of work available but also by trends in labour force participation. The indicator measures the proportion of the working-age population aged 15–64 years employed for one hour or more a week. Information is provided on the breakdown between full-time and part-time employment. The employment rate complements the unemployment rate as an indicator. The employment rate can be affected by factors including changes in the number of discouraged workers who are not employed but who are not actively seeking work and changes to the working-age population.

Both the unemployment and the employment rates are affected by several factors, including economic conditions, migration flows, people's qualifications and abilities, and their decisions on whether to undertake paid work.

The third indicator measures median hourly earnings from waged and salaried employment. The level of financial return from paid employment independent of the number of hours worked is central to the quality of paid work.

The fourth indicator is the rate of workplace injury claims per 1,000 full-time equivalent employees. Workplace safety is important in its own right, but may also be a proxy for the quality of employment. Jobs should not pose an unreasonable risk to people's lives or physical wellbeing.

The final indicator measures the proportion of the population in paid employment who are satisfied with their work-life balance.

# Unemployment

## DEFINITION

The unemployment rate is the number of people aged 15 years and over who are not employed and who are actively seeking and available for paid work, expressed as a percentage of the total labour force.

The labour force is defined as the population aged 15 years and over who are either employed or unemployed.

## RELEVANCE

This is a key indicator of labour market outcomes and the lack of access to employment. The unemployment rate is an important reflection of overall economic conditions and it gives some sense of the ease with which people are able to move into employment.

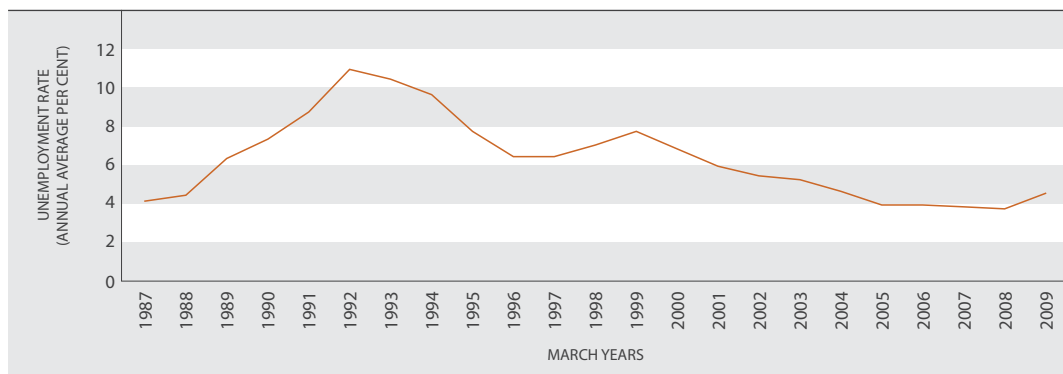
## CURRENT LEVEL AND TRENDS

In the year to March 2009, 4.5 per cent of the labour force (or 103,300 people) were unemployed and actively seeking work, an increase from 3.7 per cent (or 82,600 people) in the year to March 2008. This reflects the economic recession over the year to March 2009.

The unemployment rate reached a peak of 10.9 per cent in the year to March 1992 (184,200 people unemployed), then declined steadily between 1999 and 2008. The 2009 unemployment rate was slightly higher than the rate in the year to March 1987 (4.1 per cent or 69,700 people unemployed).

In the year to March 2009, 16 per cent of the surveyed unemployed who specified their duration of unemployment had been unemployed for a continuous period of six months or more, a decline from 17 per cent in 2008. The 2008 level of long-term unemployment was below that recorded in 1987 (26 per cent) and substantially lower than the peak of 54 per cent in the year ended March 1993.

Figure PW1.1 **Unemployment rate, 1987–2009**



Source: Statistics New Zealand, Household Labour Force Survey

## AGE AND SEX DIFFERENCES

Unemployment rates for different age groups have followed similar trends, but the rates for those aged 15–24 years have consistently been more than twice the rates for those aged 25–64 years.

Unemployment rates were the same for males and females in the year ended March 2009, after being higher for females than for males between 2003 and 2008, and higher for males than for females in the peak years of unemployment.

Table PW1.1 **Unemployment rates (%), by age and sex, selected years, 1987–2009**

Year	15–24	25–44	45–64	Males 15+	Females 15+	Total 15+
1987	7.9	3.3	1.8	3.7	4.8	4.1
1991	15.6	7.3	5.1	9.1	8.1	8.7
1996	12.3	5.5	3.8	6.3	6.4	6.4
2001	13.1	4.9	3.8	6.0	5.7	5.9
2006	9.7	3.1	2.2	3.5	4.2	3.9
2008	9.9	2.9	1.9	3.4	3.9	3.7
2009	12.1	3.5	2.4	4.5	4.5	4.5

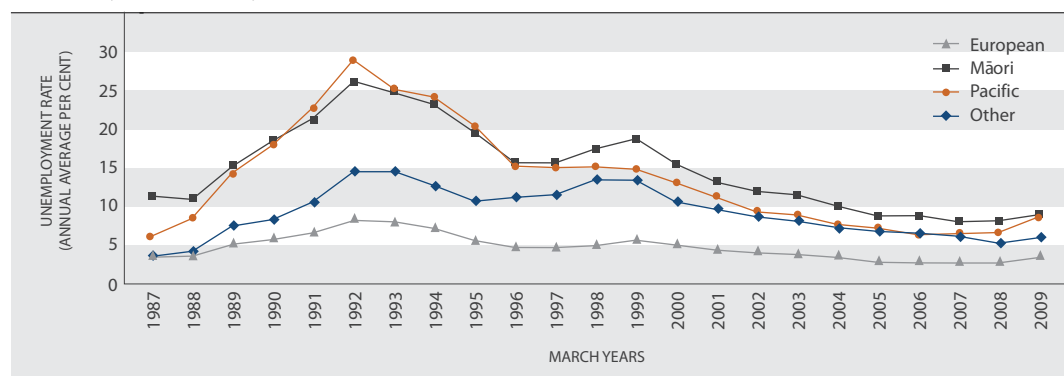
Source: Statistics New Zealand, Household Labour Force Survey

Note: Average for March years

## ETHNIC DIFFERENCES

The Māori unemployment rate rose from 11.2 per cent in the year to March 1987 to a peak of 26.1 per cent in 1992. It fell to a record low of 7.9 per cent in 2007, increased slightly to 8.0 per cent in the year to March 2008, then rose to 8.8 per cent in the year to March 2009. Between 1987 and 1992, the unemployment rate for Pacific peoples rose from 6.1 per cent to 28.8 per cent, the highest rate for any ethnic group. After falling to 6.3 per cent in 2006, the Pacific peoples' unemployment rate increased slightly over the following two years, then rose sharply from 6.5 per cent in the year to March 2008 to 8.5 per cent in the year to March 2009.

The unemployment rate is lowest among people of European ethnicity. Their unemployment rate rose from 3.3 per cent in the year to March 1987 to a peak of 8.1 per cent in 1992, before declining to 3.3 per cent in the year to March 2009 (up from the record low of 2.6 per cent in the years to March 2006–2008). The unemployment rate of the Other ethnic group category (made up mainly of Asians, but includes many recent migrants) increased from 3.5 per cent in the year to March 1987 to peak at 14.4 per cent in 1992 and 1993, fell to 5.2 per cent in the year to March 2008 and increased to 5.9 per cent in the year to March 2009.

Figure PW1.2 **Unemployment rate, by ethnic group, 1987–2009**

Source: Statistics New Zealand, Household Labour Force Survey

Note: Other includes Asian

## INTERNATIONAL COMPARISON

In the year ended December 2008, New Zealand's harmonised unemployment rate of 4.2 per cent was the 10th equal lowest (along with Australia's) out of 30 OECD countries and lower than the OECD average of 6.0 per cent. New Zealand's rate was lower than those of the United Kingdom (5.6 per cent), the United States (5.8 per cent) and Canada (6.1 per cent). Since the mid-1980s, New Zealand's unemployment rate relative to other OECD countries has ranged from one of the lowest (fifth out of 19 countries in 1986 with a rate of 4.2 per cent) to one of the highest (21st out of 25 countries in 1992 with a rate of 10.6 per cent).<sup>57</sup> In 2007, New Zealand had the fifth lowest proportion of people unemployed who had been unemployed for six months or longer.<sup>58</sup>

# Employment

## DEFINITION

The employment rate is the proportion of the population aged 15–64 years who are employed for at least one hour per week.

## RELEVANCE

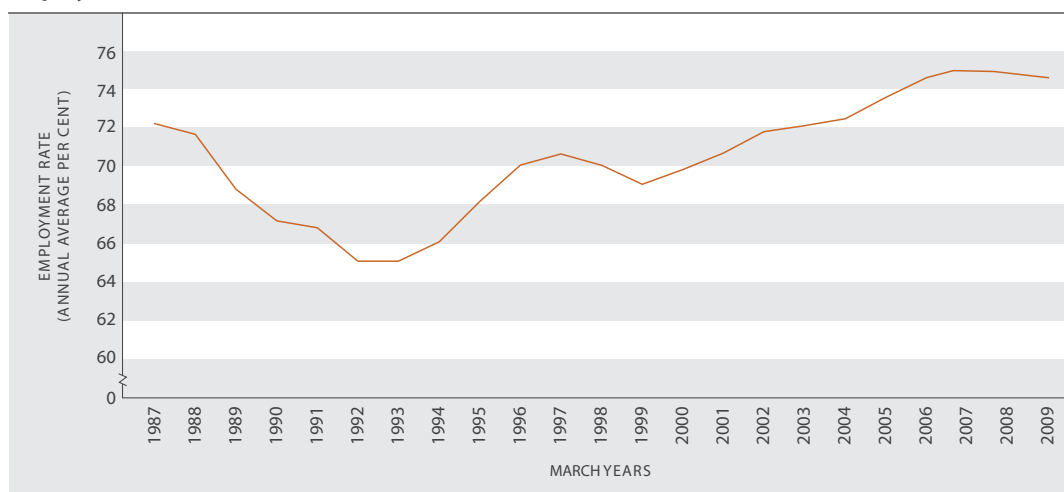
The employment rate is the best available indicator of the prevalence of paid employment. It is affected by trends in both unemployment and labour force participation (the proportion of the working-age population either employed or unemployed).

## CURRENT LEVEL AND TRENDS

In the year ended March 2009, 74.6 per cent of 15–64 year olds (2.112 million people) were employed. This was a decrease from 74.9 per cent in the years ended March 2007 and March 2008, the highest rates recorded and reflects the economic recession over the year to March 2009. Between 1987 and 1992, the employment rate fell from 72.2 per cent to 65.0 per cent but has generally risen since, except during the economic downturn of 1998 and 1999.

The full-time employment rate for 15–64 year olds declined sharply between the years ended March 1987 (60.1 per cent) and March 1992 (51.4 per cent), and had almost recovered to the mid-1980s level by 2009 (58.4 per cent). The part-time employment rate increased over the period, from 12.1 per cent in the year to March 1987 to 16.2 per cent in 2009. Although the part-time rate has almost doubled for men since 1986, women continue to have a higher part-time employment rate than men (23.5 per cent compared with 8.5 per cent in the year ended March 2009).

Figure PW2.1 **Employment rate, 1987–2009**



Source: Statistics New Zealand, Household Labour Force Survey

Note: Based on population aged 15–64 years

## AGE AND SEX DIFFERENCES

The fall in the employment rate between 1987 and 1992 affected all age groups but was most pronounced for young people aged 15–24 years. Youth employment rates have remained relatively low during the period of employment growth since 1992, possibly because more young people are participating in tertiary education and training. Conversely, employment rates for people aged 45–64 years have grown strongly since 1992, driven mainly by the phasing in of the higher age of eligibility for New Zealand Superannuation, rising employment among women, and an increase in the demand for labour.

The employment rate for women is significantly lower than that for men. This is mainly because women spend more time on childcare and other unpaid household work, and are more likely than men to undertake some form of study or training. However, growth in the employment rate between the years ended March 1992 and March 2009 was stronger for women than for men and the sex difference in the employment rate has narrowed from 16 to 12 percentage points over that time.

Table PW2.1 **Employment rate (%), by age and sex, selected years, 1987–2009**

Year	15–24	25–44	45–64	65+	Males 15–64	Females 15–64	Total 15–64
1987	68.3	79.1	65.0	8.8	84.3	60.3	72.2
1991	57.8	74.8	61.6	6.4	75.6	58.2	66.8
1996	59.1	76.3	68.7	6.0	78.4	61.8	70.0
2001	54.2	77.0	72.1	7.7	78.1	63.5	70.6
2006	57.3	80.4	78.0	11.6	81.5	67.9	74.6
2008	57.5	80.4	79.0	14.3	81.6	68.4	74.9
2009	55.6	80.6	78.9	15.6	80.5	68.9	74.6

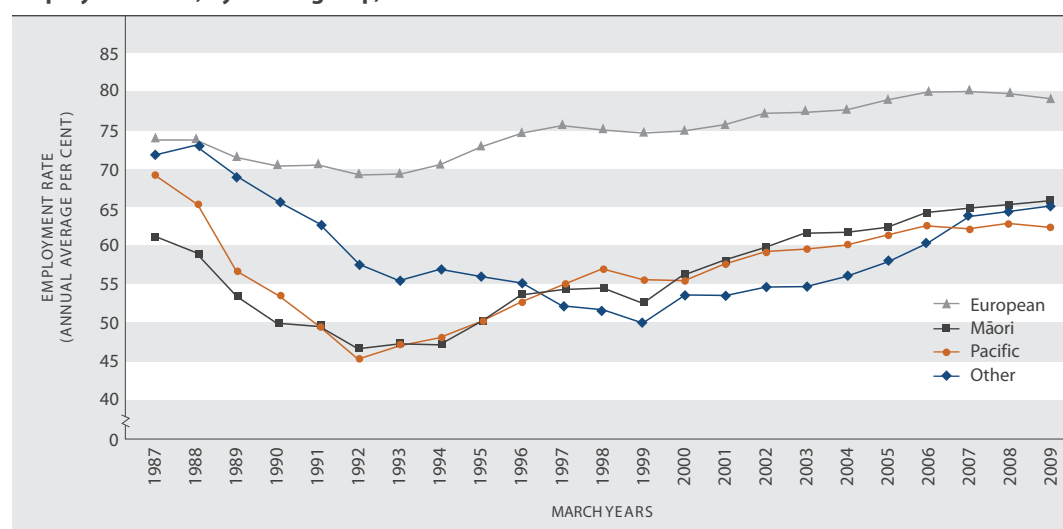
Source: Statistics New Zealand, Household Labour Force Survey  
 Note: Average for March years

## ETHNIC DIFFERENCES

The employment rates for Māori and Pacific peoples showed the steepest fall between 1987 and 1992, but also the strongest recovery as economic conditions improved. In the year to March 2009, the Māori employment rate, at 65.6 per cent, was slightly higher than the rate for the previous year (65.1 per cent) and had surpassed the 1987 level (61.0 per cent). In contrast, the Pacific peoples' employment rate declined slightly between the 2008 and 2009 March years (from 62.8 per cent to 62.4 per cent) and they were still less likely to be employed than in 1987 (69.0 per cent). Pacific peoples have had the lowest employment rate since 2007.

After declining slightly between 1987 and 1992, the European employment rate reached a record high of 79.9 per cent in the year to March 2007, then fell slightly to 79.6 per cent in 2008 and to 79.1 per cent in 2009. The European employment rate had surpassed the level of the mid-1980s (73.8 per cent in 1987) by the mid-1990s. The employment rate for the Other (including Asian) ethnic group, which includes many new migrants, has shown the most change over the period, falling from the second highest in the late-1980s to the lowest over the decade to 2006. Faster growth in employment from 2003 to 2007 saw this group exceed the employment rate of Pacific peoples. The Other employment rate, like that of Māori, has continued to increase, from 64.4 per cent in the year to March 2008 to 65.0 per cent in the year ended March 2009.

Figure PW2.2 **Employment rate, by ethnic group, 1987–2009**



Source: Statistics New Zealand, Household Labour Force Survey  
 Note: Based on population aged 15–64 years

## INTERNATIONAL COMPARISON

In the year to December 2008, New Zealand was ranked seventh highest of 30 OECD countries with an employment rate of 74.7 per cent for people aged 15–64 years. This was well above the OECD average of 66.6 per cent. Iceland had the highest employment rate in 2008 (84.2 per cent). The New Zealand rate in 2008 was higher than those of Canada (73.7 per cent), Australia (73.2 per cent), the United Kingdom (72.7 per cent) and the United States (70.9 per cent). New Zealand had a higher male and female employment rate than the United Kingdom, the United States and Australia in 2008 but had a lower female employment rate than Canada.<sup>59</sup>



# Median hourly earnings

## DEFINITION

Real median hourly earnings from all wages and salaries for employees earning income from wage and salary jobs, as measured by the New Zealand Income Survey.

## RELEVANCE

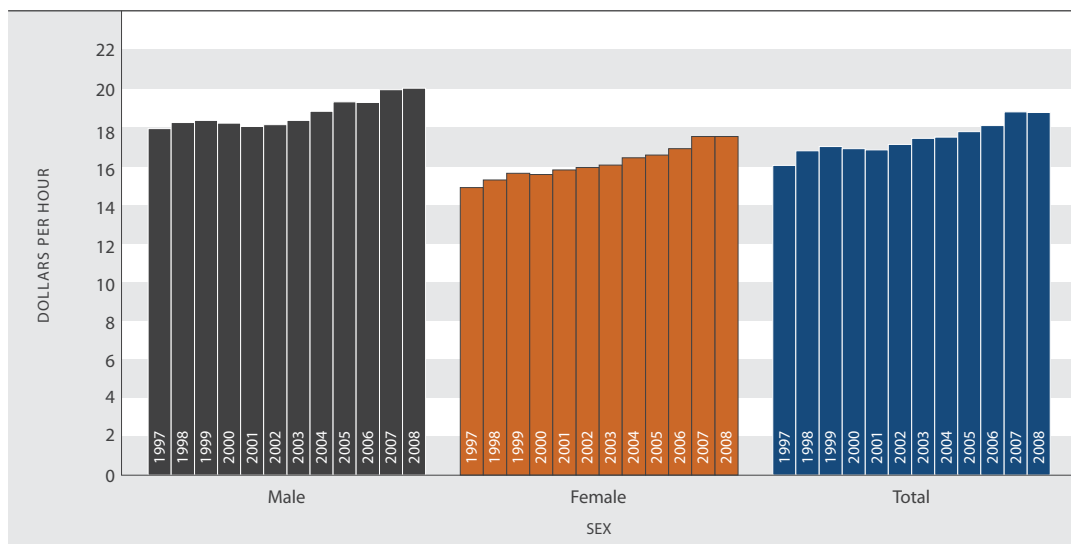
Median hourly earnings from wage and salary jobs is an indicator of the financial return from paid employment, independent of the number of hours worked.

## CURRENT LEVEL AND TRENDS

In June 2008, half of all people employed in wage and salary jobs earned more than \$18.75 an hour. The median hourly wage for male employees was \$20.00, while for female employees it was \$17.50.

Real median hourly earnings increased by \$2.73 an hour or 17 per cent in the 11 years to June 2008. The increase over this period was greater for female employees (18 per cent) than for male employees (12 per cent). The ratio of female to male median hourly earnings was 88 per cent in June 2008. It rose from 83 per cent in June 1997 to 88 per cent in June 2001 but has not risen above that level since.

Figure PW3.1 **Median hourly earnings from wage and salary jobs (in June 2008 dollars), by sex, June 1997–June 2008**



Source: Statistics New Zealand, New Zealand Income Survey

## AGE DIFFERENCES

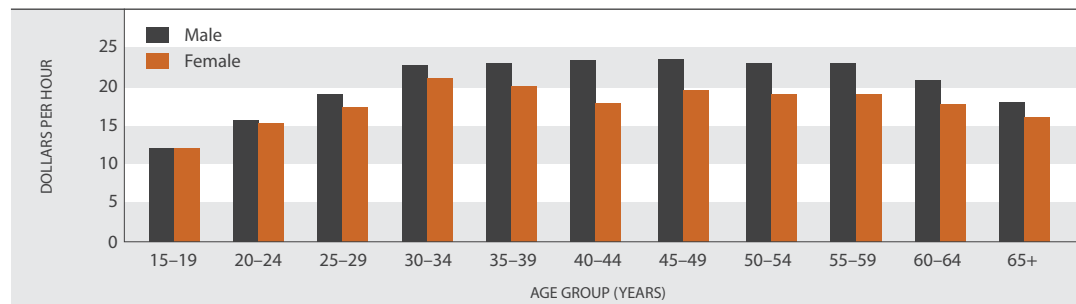
In 2008, median hourly earnings from wage and salary jobs were highest at ages 30–34 years and 35–39 years (\$21.74 and \$21.70 an hour respectively). This compares with \$12.00 an hour for 15–19 year olds. By five-year age groups, the increase in employees’ real median hourly earnings between 1997 and 2008 was largest for those aged 15–19 years (26 per cent) and those aged 60–64 years (24 per cent), and smallest for those aged 40–44 years (10 per cent). Across broad age groups, real median hourly earnings between 2007 and 2008 increased by 11 per cent for those aged 15–24 years, 13 per cent for those aged 25–44 years, 16 per cent for those aged 45–64 years and 17 per cent for those aged 65 years and over.



**SEX DIFFERENCES**

In 2008, there was a difference between the sexes in median hourly earnings for wage and salary earners at all ages over 25 years. The gap was greatest at ages 40–44 years, where the ratio of female to male median earnings for employees was 76 per cent. There was little difference between the earnings of men and women in the under 25 years age groups.

Figure PW3.2 **Median hourly earnings from wage and salary jobs, by age and sex, June 2008**



Source: Statistics New Zealand, New Zealand Income Survey

**ETHNIC DIFFERENCES**

In June 2008, Europeans had the highest median hourly earnings for wage and salary earners at \$19.50 an hour. In comparison, the Other ethnic group (including Asian) had median hourly earnings of \$17.00. The median hourly earnings of Māori and Pacific ethnic groups were the lowest at \$16.74 and \$15.40, respectively. The ratio of Māori to European median hourly earnings was over 85 per cent between 1998 and 2008, with the exception of 2007, when the ratio fell to 81 per cent. The ratio of Pacific peoples to European median hourly earnings varied between 79 per cent and 85 per cent over the same period.

Over the 11 years to June 2008, increases in inflation-adjusted median hourly earnings from wage and salary jobs were highest for Māori (20 per cent), followed by Europeans (17 per cent) and Pacific peoples (14 per cent). Employees from the Other ethnic group (including Asian) experienced the lowest increase in real median hourly earnings from wage and salary jobs (6 per cent).

**REGIONAL DIFFERENCES**

In 2008, workers in Wellington and Auckland had substantially higher earnings than those in other regions. The median hourly wage for wage and salary earners was \$20.14 in Wellington, \$19.89 in Auckland and \$18.23 in Canterbury. Median hourly wages were lowest in Manawatu-Wanganui and Northland (both \$17.00) and in Gisborne-Hawke's Bay (\$17.30). Over the period 1998–2008, real median hourly wages increased most in Nelson/Tasman/Marlborough/West Coast (19 per cent) and in Canterbury and Northland (both 16 per cent). All regions experienced positive growth in real hourly wages over the period.

# Workplace injury claims

## DEFINITION

The number of workplace accident insurance claims reported to the Accident Compensation Corporation (ACC) per 1,000 full-time equivalent employees, excluding those employees who received accident and emergency treatment only.

## RELEVANCE

Safety at work is an important contributor to wellbeing and the risk of work-related accidents or illness can be seen as one component of the quality of work. The best currently available measure of the incidence of workplace injuries comes from the database of claims made to the ACC.

## CURRENT LEVEL AND TRENDS

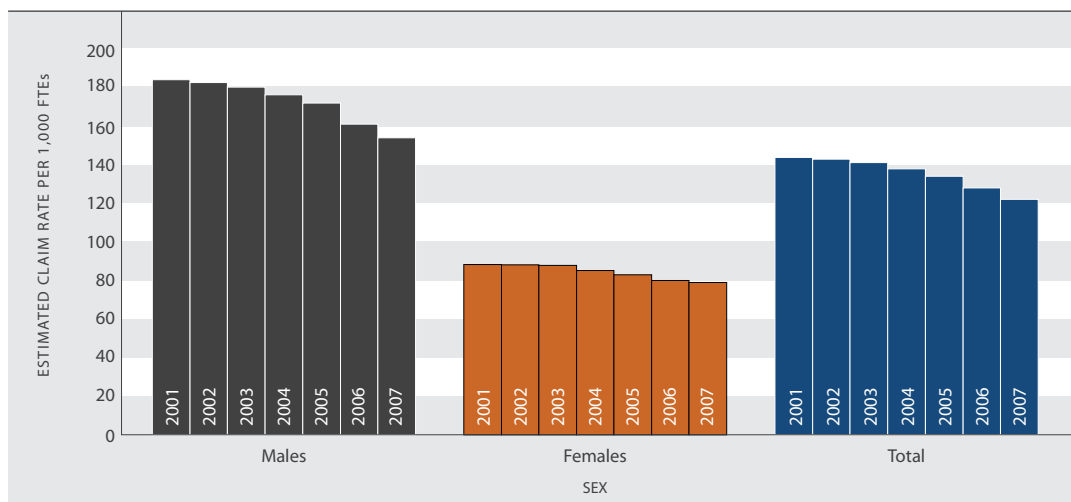
Provisional data for the 2007 calendar year shows 231,300 work-related injury claims had been reported to the ACC by 31 March 2008. This represents a rate of 122 claims per 1,000 full-time equivalent employees (FTEs), lower than the provisional rate for 2006 based on claims reported by 31 March 2007 (126 per 1,000 FTEs).

Using final data for the years 2001 to 2006, the injury claim rate declined from 144<sup>60</sup> per 1,000 to 128 per 1,000 FTEs.

Eighty-four per cent of all claims were for employees and for people who employed others in their own business. The injury claim rate for the self-employed not employing others was much higher than for the rest of the workforce (183 per 1,000 FTEs compared with 115 per 1,000 FTEs).

Injury claims for 2007 reported by March 2008 included 67 work-related fatalities. This is likely to be an underestimation of the final number of fatalities, because some workers may have died later from injuries received in the period. For example, the number of claims for fatal injuries inflicted in 2006 that were recorded by March 2007 was 81; the final number of fatal injury claims for 2006 was 103. Moreover, not all fatal work-related accidents result in a claim to the ACC.

Figure PW4.1 **Estimated injury claim rate per 1,000 full-time equivalent employees, by sex, 2001–2007**



Source: Statistics New Zealand (2008d)

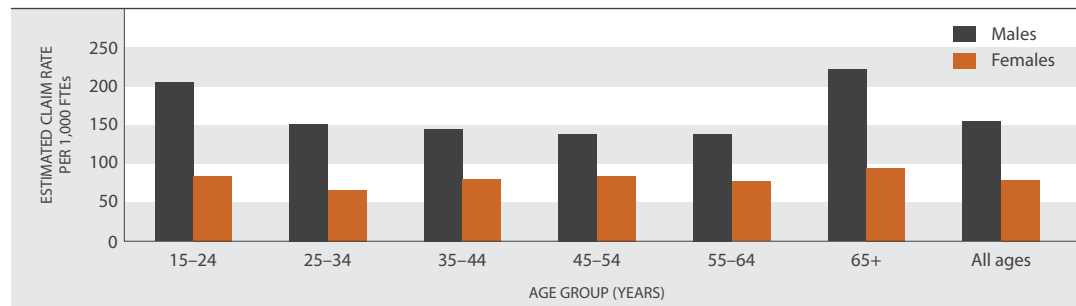
Note: 2007 data is provisional and subject to change

## AGE AND SEX DIFFERENCES

Provisional data for 2007 shows that males were around twice as likely as females to suffer workplace injuries involving a claim to the ACC (154 per 1,000 FTEs for males compared with 79 per 1,000 FTEs for females). This reflects in part a male predominance in relatively dangerous occupations (eg elementary occupations, agriculture and fishing, and plant and machine operating and assembly, where the injury claim rates were 279, 247 and 229 per 1,000 FTEs respectively in 2007).

Although workers aged 65 years and over made only 4 per cent of injury claims, they had the highest injury incidence rate of 177 claims per 1,000 FTEs. The next highest injury incidence rate was recorded for those aged under 25 years (150 per 1,000 FTEs). Age differences in injury claim rates for females were less pronounced than those for males.

Figure PW4.2 **Estimated injury claim rate per 1,000 full-time equivalent employees, by age and sex, 2007**



Source: Statistics New Zealand (2008d)

Note: 2007 data is provisional and subject to change

## ETHNIC DIFFERENCES

Workplace injury claim rates are higher for Māori and Pacific peoples than for other ethnic groups (155 per 1,000 FTEs and 152 per 1,000 FTEs respectively in 2007). This reflects their over-representation in more dangerous occupations. In 2007, the injury claim rate for the Other ethnic group (including Asian) was 121 per 1,000 FTEs. The European ethnic group, which accounts for 75 per cent of all FTEs, had the lowest injury claim rate (111 per 1,000 FTEs).

Table PW4.1 **Workplace injury claims, by ethnicity, 2007**

Ethnic group	Number of claims	Rate per 1,000 FTEs
European	157,400	111
Māori	28,400	155
Pacific peoples	13,100	152
Other (including Asian)	24,000	121
<b>Total</b>	<b>231,300</b>	<b>122</b>

Source: Statistics New Zealand (2008d) Table 2

Notes: (1) Data is provisional (2) Total includes ethnicity not specified

## INDUSTRY DIFFERENCES

The agriculture, forestry and fishing industry group had the highest injury claim rate in 2007, with 150 claims per 1,000 FTEs. There were also relatively high rates in the manufacturing industry (149 claims per 1,000) and the construction industry (141 per 1,000 FTEs). These three industries account for almost half (49 per cent) of all industry-specified injury claims. The lowest injury claim rate was for people working in finance and insurance (18 per 1,000 FTEs).

In 2007, the work-related fatality rate was highest for the construction industry (9 per 1,000 FTEs) followed by transport and storage (7 per 1,000 FTEs).

## REGIONAL DIFFERENCES

The highest work-related injury claim rates in 2007 were in Gisborne/Hawke's Bay, Otago/Southland and the Bay of Plenty (180, 160 and 157 claims per 1,000 FTEs, respectively). Wellington and Auckland had the lowest injury claim rates per 1,000 FTEs (69 and 105, respectively). The variation between figures largely reflects the main industries and occupations in these regions. Auckland, despite its relatively low injury claim rate, had the highest overall number of injury claims at 63,300.

# Satisfaction with work-life balance

## DEFINITION

The proportion of employed people who are “satisfied” or “very satisfied” with their work-life balance, as reported in the Quality of Life Survey.

## RELEVANCE

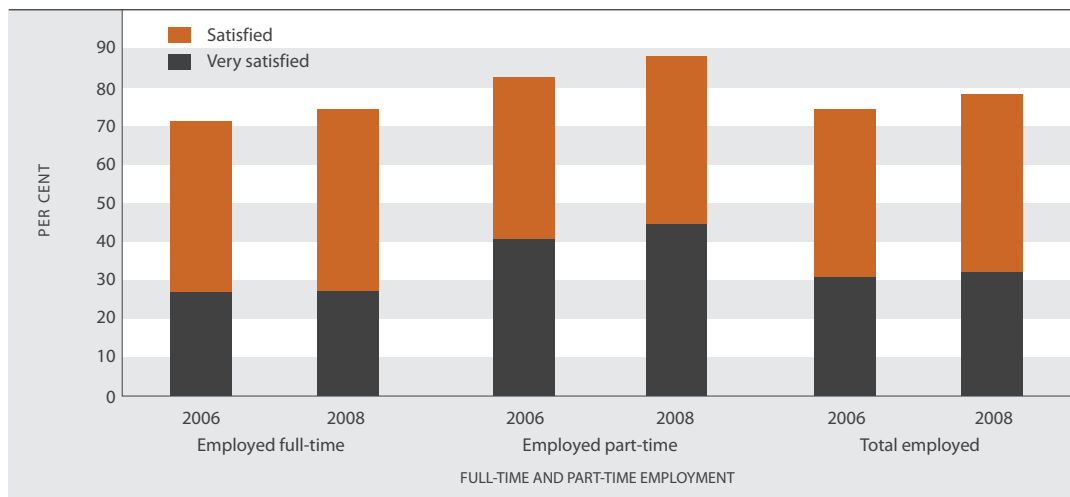
It is important that people find a balance between paid work and other aspects of their lives. When this balance is not found, people may suffer from stress or anxiety. Long working hours or non-standard working hours (eg night shifts) may compromise work-life balance.

## CURRENT LEVEL AND TRENDS

In 2008, 78 per cent of employed New Zealanders were satisfied or very satisfied with their work-life balance. This was similar to the level in 2006 (75 per cent).

People in part-time employment were more likely to be satisfied with their work-life balance than people in full-time employment. In 2008, 88 per cent of people in part-time employment were satisfied or very satisfied with their work-life balance, compared to 74 per cent of those in full-time employment. The equivalent figures for 2006 were 83 per cent and 71 per cent, respectively.

Figure PW5.1 **Proportion of employed people who were satisfied with their work-life balance, by full-time and part-time status, 2006 and 2008**



Source: Quality of Life Survey 2006; Quality of Life Survey 2008

## AGE DIFFERENCES

Employed people aged 65 years and over were the most satisfied (92 per cent) with their work-life balance in 2008. In all age groups, people employed part-time had higher levels of satisfaction than those employed full-time. Those least likely to be satisfied with their work-life balance were full-time employed people aged 35–44 years (71 per cent) and 45–54 years (72 per cent).

Table PW5.1 **Proportion (%) of employed people who were satisfied or very satisfied with their work-life balance, by full-time and part-time status and age, 2008**

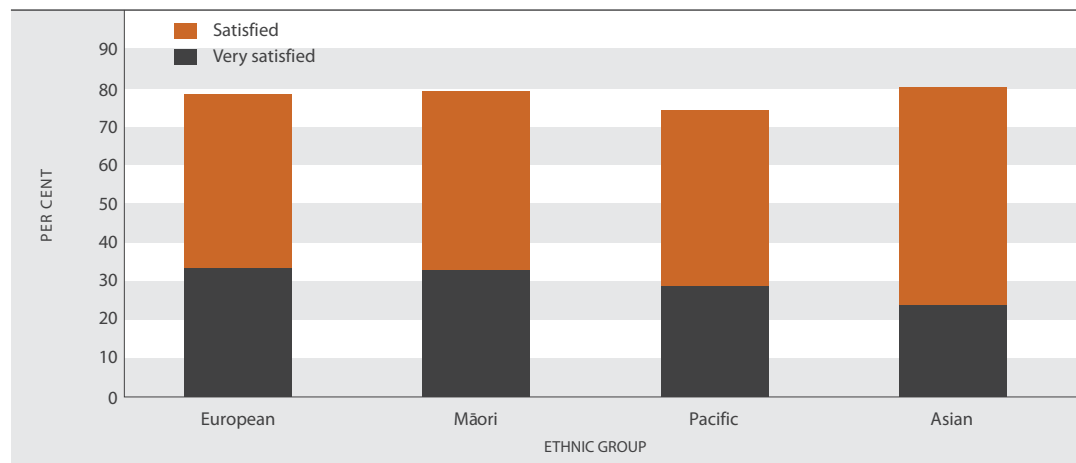
	15–24	25–34	35–44	45–54	55–64	65+
Employed full-time	77	75	71	72	78	85
Employed part-time	85	82	88	87	92	97
<b>Total employed</b>	<b>81</b>	<b>76</b>	<b>75</b>	<b>75</b>	<b>82</b>	<b>92</b>

Source: Quality of Life Survey 2008

**SEX DIFFERENCES** In 2008, employed females (79 per cent) had a similar rate of satisfaction with their work-life balance to that of employed males (77 per cent). There were also similar rates of satisfaction with work-life balance among male and female full-time workers (75 per cent and 72 per cent respectively). Satisfaction with work-life balance was highest for both male and female part-time workers (86 per cent and 89 per cent, respectively).

**ETHNIC DIFFERENCES** There was little difference by ethnicity in the proportion of employed people who were satisfied with their work-life balance in 2008: Asians, 80 per cent; Māori, 79 per cent; Europeans, 78 per cent; and Pacific peoples, 74 per cent.

Figure PW5.2 **Proportion of employed people who were satisfied with their work-life balance, by ethnic group, 2008**



Source: Quality of Life Survey 2008

Note: Robust statistics are not available for other ethnicities because of small numbers

**HOUSEHOLD TYPE DIFFERENCES** Employed people who live in households with children under 18 years have lower levels of satisfaction with their work-life balance (76 per cent) than those not living with children of that age (81 per cent). A lower proportion of full-time employed females who live in households with children under 18 years were satisfied with their work-life balance (67 per cent).

**SOCIO-ECONOMIC DIFFERENCES** Full-time employees with personal incomes of \$30,000 or less were more likely to be satisfied overall with their work-life balance (79 per cent) than those on higher incomes of over \$70,000 (72 per cent). Part-time employees across the personal income scale had high levels of satisfaction with their work-life balance.

**REGIONAL DIFFERENCES** Satisfaction with work-life balance among employed people varies across territorial authorities. In 2008, people in Tauranga (81 per cent) and Manukau (80 per cent) recorded the highest levels of satisfaction, while people in Wellington recorded the lowest (73 per cent).

## DESIRED OUTCOMES

New Zealand is a prosperous society, reflecting the value of both paid and unpaid work. Everybody has access to an adequate income and decent, affordable housing that meets their needs. With an adequate standard of living, people are well-placed to participate fully in society and to exercise choice about how to live their lives.

# Economic Standard of Living

## INTRODUCTION

Economic standard of living concerns the physical circumstances in which people live, the goods and services they are able to consume and the economic resources they have access to. It is concerned with the average level of resources in New Zealand as well as the distribution of those resources across New Zealand society.

Basic necessities such as adequate food, clothing and housing are fundamental to wellbeing. The 1972 Royal Commission on Social Security agreed that a useful standard for adequacy was a level of resources that allowed individuals not just to survive but also to participate. They defined participation as meaning “no-one is ... so poor that they cannot eat the sort of food that New Zealanders usually eat, wear the same sort of clothes, [and] take a moderate part in those activities which the ordinary New Zealander takes part in as a matter of course”.<sup>61</sup>

The desired outcomes statement points to the importance of not only everyone enjoying a decent standard of living, but also of our society being as prosperous as possible. Such prosperity gives people choice over how to live their lives.

## INDICATORS

Five indicators are used in this chapter to provide information on different aspects of economic standards of living. They are: market income per person, income inequality, the population with low incomes, housing affordability and household crowding.

The focus is largely on objective measures of economic living standards. Together, the indicators provide information about overall trends in living standards, levels of hardship and how equitably resources are distributed. All are relevant to the adequacy of people's incomes and their ability to participate in society and make choices about their lives.

Market income per person gives an indication of the average level of income and therefore the overall material quality of life available to New Zealanders. This is an internationally-recognised measure, allowing comparisons between New Zealand and other countries. We also provide an estimate of the economic value of unpaid work.

Income inequality is measured by comparing the incomes of the top 20 per cent of households with the incomes of the bottom 20 per cent. High levels of inequality are associated with lower levels of social cohesion and personal wellbeing, even when less well-off people have adequate incomes to meet their basic needs.

The proportion of the population with low incomes also provides information about how equitably resources are distributed and how many people are likely to be on incomes that do not allow them to participate fully in society.

Housing affordability measures the proportion of the population spending more than 30 per cent of their disposable income on housing. Housing costs have a major impact on overall material living standards.

The final indicator measures the number of people living in overcrowded houses. Housing is a basic need, and this indicator provides a direct measure of the adequacy of housing people can afford.

# Market income per person

## DEFINITION

The total value of goods and services available to New Zealanders, expressed in inflation-adjusted dollars, per head of population, also known as real gross national disposable income (RGNDI) per person.

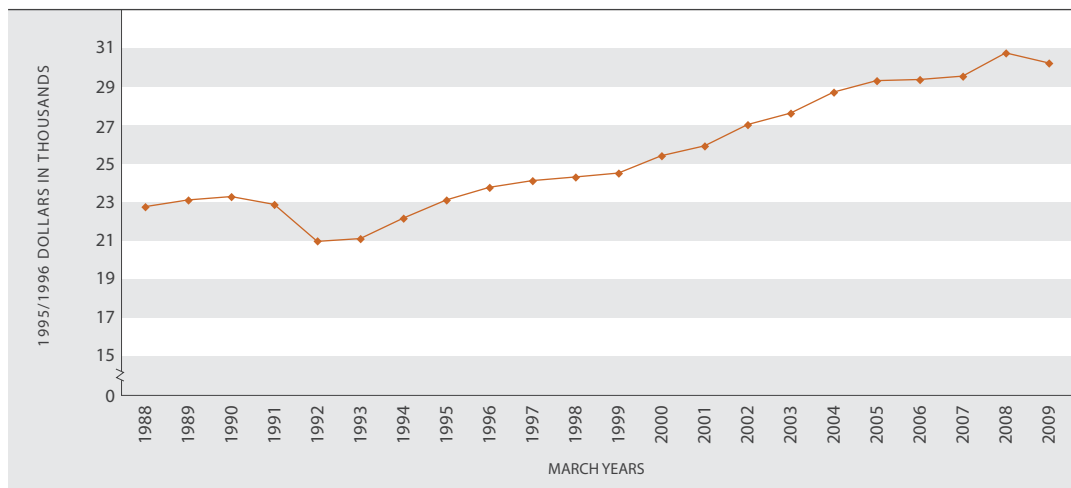
## RELEVANCE

Per person RGNDI measures the average income available to New Zealanders. A nation with a rising per person RGNDI will have a greater capacity to deliver a better standard of living to its population.

## CURRENT LEVEL AND TRENDS

In the year to March 2009, RGNDI per person was \$30,179 in 1995/1996 dollars. This was 1.7 per cent below RGNDI per person for the year ended March 2008 (\$30,708) due to negative economic growth over the year to March 2009. Between 1988 and 1991, RGNDI per person was around \$23,000. It then fell sharply to a low of \$20,940 in 1992. From 1992, RGNDI per person grew continuously, until it fell in 2009. The average annual growth rate over the whole period from 1988 to 2009 was 1.4 per cent.

Figure EC1.1 Real gross national disposable income per person, 1988–2009



Source: Statistics New Zealand



## INTERNATIONAL COMPARISON

While gross domestic product (GDP) per person is the measure most commonly used to compare income levels between countries, gross national income (GNI) per person more closely corresponds to the measure used in this indicator. To facilitate comparison, both measures are expressed in US dollars at current prices and current purchasing power parities (PPPs). New Zealand was ranked 22nd out of 30 OECD countries for GDP per person in 2007 (the same ranking as in the previous six years),<sup>62</sup> and 22nd out of 29 countries for GNI per person in 2006. Using GDP per person, New Zealand was the 18th most prosperous out of 26 countries in 1986 and the ninth most prosperous in 1970. Using GNI per person, the rankings for New Zealand were 19th in 1986 and eighth in 1970.

Between 1986 and 2007, real GDP per person (using US dollars and PPPs for the year 2000) grew by 32 per cent in New Zealand compared with an OECD average of 51 per cent.

## ECONOMIC VALUE OF UNPAID WORK

RGNDI does not take into account the value of unpaid work such as looking after one's own children, cooking meals at home, fixing the car, doing home maintenance, or doing voluntary work in the community. Using data from the 1998/1999 Time Use Survey, the value of unpaid work in 1999 was estimated to be \$39,637 million (1998/1999 dollars), equivalent to 39 per cent of GDP, or \$10,333 per person.<sup>63</sup>

# Income inequality

## DEFINITION

The extent of disparity between high income and low income households.

The measure used is the ratio of the 80th percentile to the 20th percentile of the equivalised disposable household income distribution (ie the ratio of a high household income to a low household income, after adjusting for household size and composition). The higher this ratio, the greater the level of inequality.

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## RELEVANCE

The degree of income inequality is often regarded as an important aspect of the fairness of the society we live in. A high level of income inequality may also be detrimental to the level of social connectedness across society.

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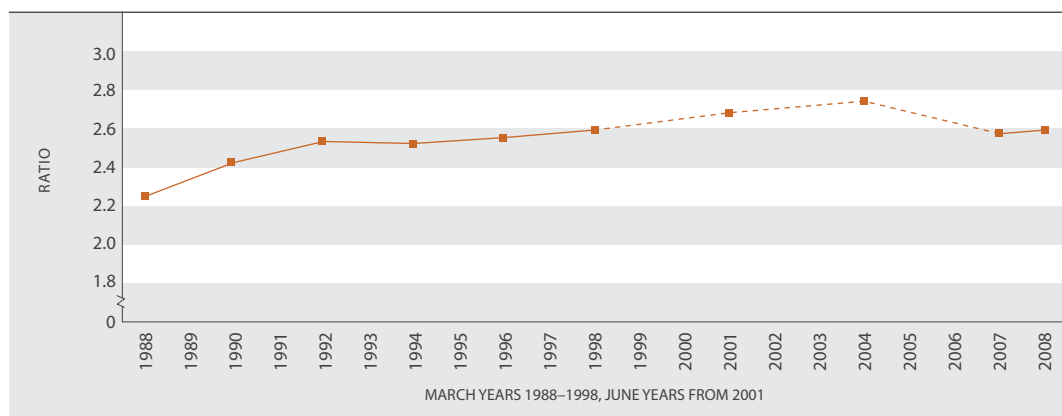
## CURRENT LEVEL AND TRENDS

In 2008, the equivalised disposable income of a household at the 80th percentile was 2.6 times larger than that of a household at the 20th percentile. This was about the same as the ratio in 2007. In 1988, the ratio was 2.2. Income inequality rose between 1988 and 1991, briefly plateaued, then rose again from 1994 to 2004.

Most of the observed increase in income inequality between 1988 and 2004 was due to a larger overall rise in incomes for those in the top 20 per cent of incomes – around a quarter once adjustments for inflation are made. In that period, incomes for those in the bottom 20 per cent of incomes decreased a little. Incomes for the middle 60 per cent climbed more overall for those closer to the top 20 per cent than for those closer to the bottom 20 per cent.

From 2004 to 2008, incomes for households in the low to middle income range rose more quickly than incomes for higher income households. Incomes for the lower 4 deciles grew by 13–17 per cent, while those above the median typically grew by around 8–9 per cent. This was the only period in the last 25 years when the incomes of low to middle income households grew more quickly than those of households above the median.<sup>64</sup>

Figure EC2.1 **Ratio of the 80th percentile of equivalised disposable household income to the 20th percentile of equivalised disposable household income, 1988–2008**



Source: Derived from Statistics New Zealand's Household Economic Survey (1988–2008), by the Ministry of Social Development

Notes: (1) Between 1998 and 2004, the Household Economic Survey was conducted on a three-yearly basis, rather than annually (2) This measure adjusts for household size and composition

## INTERNATIONAL COMPARISON

Comparisons with other OECD countries are available using a different measure, the Gini coefficient.<sup>65</sup> Gini coefficients measure income inequality, with a score of 100 indicating perfect inequality and a score of 0 indicating perfect equality. The most recent OECD comparison (from 2004) gives New Zealand a score of 34, indicating higher inequality than the OECD median of 31 and a ranking of 23rd equal out of 30 countries. New Zealand's Gini score was below that of the United States (38), very close to those of the United Kingdom (34) and Ireland (33), a little above Canada and Japan (32), and a little further above that of Australia (30). Denmark and Sweden had the lowest income inequality with Gini scores of 23.<sup>66</sup> The 2008 Gini score for New Zealand was 34 (33 in 2007).

# Population with low incomes

## DEFINITION

The proportion of the population in households with equivalised disposable income net-of-housing-cost below two thresholds.

Incomes are after deducting tax and housing costs and adjusting for household size and composition. The thresholds are 50 per cent and 60 per cent of the 1998 household disposable income median, with 25 per cent deducted to allow for average housing costs. The thresholds are adjusted for inflation to keep them fixed in real terms.

## RELEVANCE

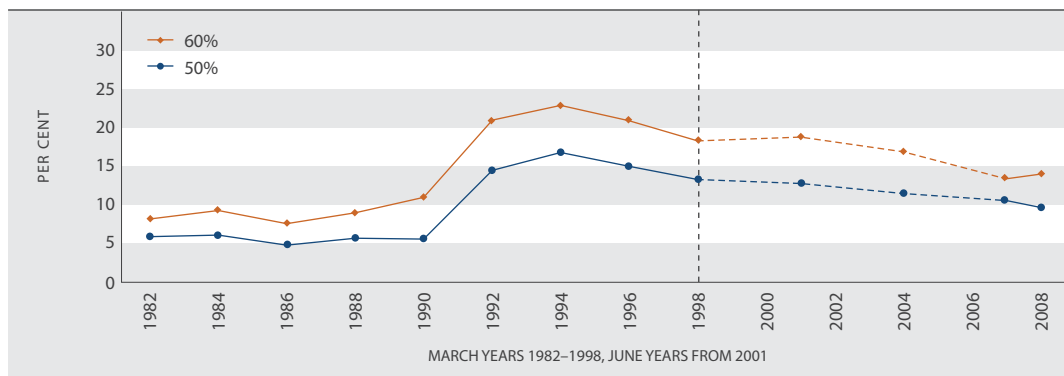
Insufficient economic resources limit people's ability to participate in and belong to their community and wider society. Furthermore, long-lasting low family income in childhood is associated with negative outcomes, such as lower educational attainment and poorer health.

## CURRENT LEVEL AND TRENDS

In the year to June 2008, 14 per cent of the population was living below the 60 per cent threshold. This was similar to the 13 per cent in the previous survey year to June 2007. The proportion of the population with low incomes rose sharply from 1990, reached a peak in the mid-1990s and has generally declined since then. However, in 2008, the proportion was still above what it had been in the 1980s.

The increase in the proportion of the population with low incomes in the early-1990s is attributable to declining household incomes arising from high rates of unemployment and reduced levels of social assistance. The improvement since the mid-1990s reflects more robust economic (and income) growth, the steady decline in unemployment, the increase in housing assistance and the increase in tax credits for families with children. Rates remain higher in 2008 than they were in the 1980s partly because housing costs for low-income households have risen significantly as a proportion of their household incomes.

Figure EC3.1 **Proportion of the population with net-of-housing-cost household incomes below selected thresholds, 1982–2008**



Source: Derived from Statistics New Zealand's Household Economic Survey (1982–2008) by the Ministry of Social Development  
Note: Between 1998 and 2004, the Household Economic Survey was conducted on a three-yearly basis, rather than annually

## AGE AND SEX DIFFERENCES

A lower proportion of older people than younger people are below the 60 per cent threshold, although the difference between younger and older people was much smaller in 2008 than it was a decade earlier. The relatively low rates for New Zealanders aged 65 years and over reflect their high rate of mortgage-free home ownership.

In 2008, 20 per cent of dependent children were in households with incomes below the 60 per cent threshold. This was an increase from 16 per cent in 2007 and reflects the rise in housing costs for households with children. The 2008 rate was considerably lower than the peak rate of 35 per cent in 1994, but it was still above the levels of the mid-1980s (11 per cent). Rates for females aged 15 years and over have generally been a little higher than those for males of that age since 1986.

Table EC3.1 **Proportion (%) of the population in low-income households (60 per cent threshold), by age and sex, selected years, 1986–2008**

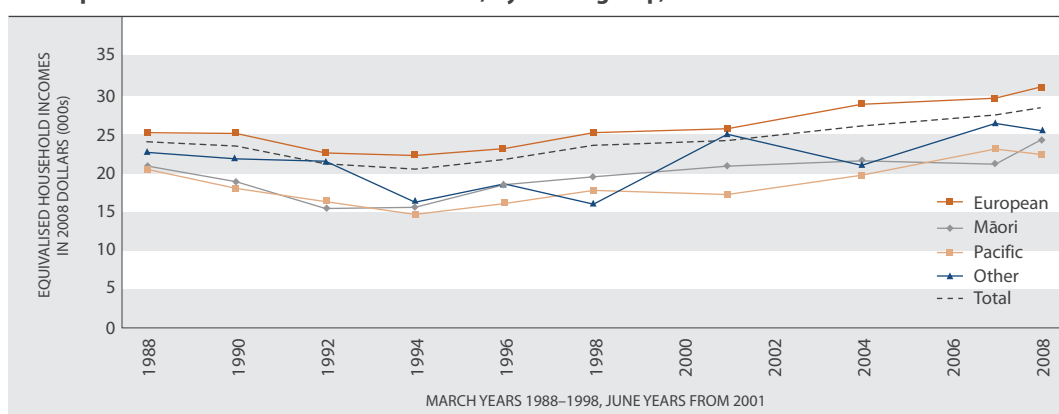
Year	Children					Males 15+	Females 15+	Total
	0–17	18–24	25–44	45–64	65+			
1986	11	5	8	5	4	5	7	8
1990	16	8	12	6	6	8	9	11
1994	35	20	23	15	8	17	20	23
1998	28	16	18	12	9	13	16	18
2001	29	21	18	14	7	14	17	19
2004	23	22	17	13	7	15	15	17
2007	16	17	13	11	8	11	13	13
2008	20	12	13	12	9	11	13	14

Source: Derived from Statistics New Zealand's Household Economic Survey (1986–2008) by the Ministry of Social Development

## ETHNIC DIFFERENCES

Sample sizes in the source data are not large enough to support a reliable time series for proportions below the 60 per cent threshold by ethnic group (see Appendix 2 for more details). Trends in real equivalised median household incomes are less volatile and are used to give an idea of the relativities between ethnic groups. For all ethnic groups, median incomes rose from the low point in 1994 through to 2008, with some volatility evident for smaller ethnic groups.

Figure EC3.2 **Real equivalised median household incomes, by ethnic group, 1988–2008**



Source: Derived from Statistics New Zealand's Household Economic Survey (1988–2008) by the Ministry of Social Development

Notes: (1) Household ethnicity is defined by the presence, within the household, of an adult of a particular ethnic group (2) Between 1998 and 2004, the Household Economic Survey was conducted on a three-yearly basis, rather than annually

## HOUSEHOLD AND FAMILY TYPE DIFFERENCES

Since 2001, the proportion of people in families with dependent children who were below the 60 per cent threshold has declined. Between 2001 and 2008, the rate for those in two-parent families fell from 19 per cent to 13 per cent, while the rate for those in sole-parent families fell from 61 per cent to 39 per cent. Households with three or more children have a higher proportion under the 60 per cent threshold than those with fewer children (22 per cent and 15 per cent respectively in 2008). The proportion of those aged under 65 years in one-person households who were below the threshold increased from around 12 per cent in the late-1980s to 30 per cent in the mid-1990s but fell to 25 per cent in 2008.

## INTERNATIONAL COMPARISON

For international comparisons, a different measure is used. The OECD measure is 50 per cent of median (current year median rather than fixed line) equivalent disposable household income, which does not take into account housing costs. In 2004, 11 per cent of New Zealanders were living in households with incomes below this threshold. The most recent OECD comparison (from 2004) places New Zealand 16th out of 30 OECD countries, and only just above the OECD median (10 per cent). New Zealand's rate is similar to those of Germany, Canada and Australia (11–12 per cent) and well below that of the United States (17 per cent). Sweden and Denmark have the lowest proportions of their populations with low incomes (each 5 per cent). In 2007 and 2008, the New Zealand rate was 12 per cent.<sup>67</sup>

# Housing affordability

## DEFINITION

The proportion of households and the proportion of people within households spending more than 30 per cent of their disposable income on housing.

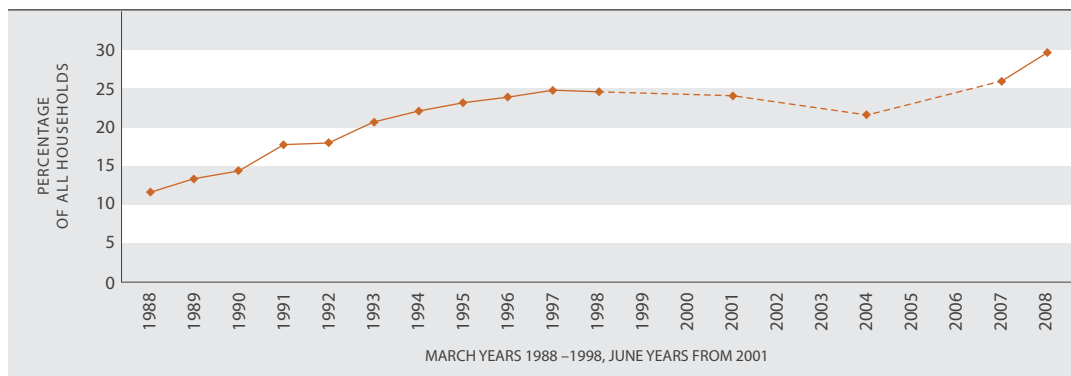
## RELEVANCE

Affordable housing is important for people's standard of living. For lower-income households especially, high housing costs relative to income are often associated with severe financial difficulty, and can leave households with insufficient income to meet other basic needs such as food, clothing, transport, medical care and education. High outgoings-to-income ratios are not as critical for higher-income households, as there is still sufficient income left for basic needs.

## CURRENT LEVEL AND TRENDS

In 2008, 29 per cent of New Zealand households spent more than 30 per cent of their disposable income on housing costs, an increase from 26 per cent in 2007 and 21 per cent in 2004. Since the late-1980s, there has been a substantial increase in the proportion of households spending more than 30 per cent of their income on housing. Between 1988 and 1997, the proportion rose from 11 per cent to 25 per cent of households, before levelling off at 24 per cent in 1998 and 2001.

Figure EC4.1 **Proportion of households with housing cost outgoings-to-income ratio greater than 30 per cent, 1988–2008**



Source: Derived from Statistics New Zealand's Household Economic Survey (1988–2008) by the Ministry of Social Development  
Note: Between 1998 and 2004, the Household Economic Survey was conducted on a three-yearly basis, rather than annually

## SOCIO-ECONOMIC DIFFERENCES

High housing costs relative to household incomes are of more concern for low-income households. The proportion of households in the lowest 20 per cent (lowest quintile) of the equivalised household income distribution spending more than 30 per cent of their income on housing trebled between 1988 and 1994, rising from 16 per cent to a peak of 48 per cent. The rate levelled off at 41–42 per cent over the period 1996–2001, fell to 34 per cent in 2004 and 33 per cent in 2007, then rose steeply to 39 per cent in 2008. The proportion of low-income households spending more than 30 per cent of their income on housing was more than twice as high in 2008 as it was in 1988.

## AGE AND SEX DIFFERENCES

In 2008, 37 per cent of children aged under 18 years lived in households with housing costs exceeding 30 per cent of their disposable income, an increase from 32 per cent in 2007. There was a similar increase for the 25–44 years age group, many of whom are parents living with children.

In 2008, there was no difference between males and females aged 15 years and over in the proportion living in households spending more than 30 per cent of their income on housing (both 27 per cent).

Table EC4.1 **Proportion (%) of the population in households with housing cost outgoings-to-income ratio greater than 30 per cent, selected years, 1988–2008**

	1988	1993	1998	2001	2004	2007	2008
Population aged 15 years and over	10	19	22	21	20	24	27
Males aged 15 years and over	10	19	21	20	20	22	27
Females aged 15 years and over	10	19	23	22	19	25	27
<b>Age groups</b>							
Under 18 years	12	26	33	32	26	32	37
18–24 years	12	25	26	29	28	29	30
25–44 years	15	26	31	28	25	33	39
45–64 years	5	12	14	16	15	19	22
65 years and over	3	4	7	7	6	9	10
<b>Total households</b>	<b>11</b>	<b>21</b>	<b>25</b>	<b>24</b>	<b>21</b>	<b>26</b>	<b>29</b>

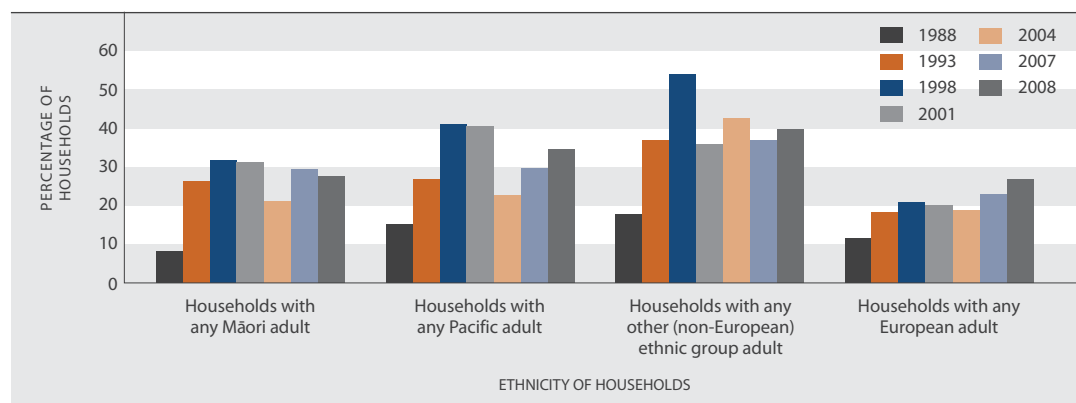
Source: Derived from Statistics New Zealand's Household Economic Survey (1988–2008) by the Ministry of Social Development

Note: Data is for March years in 1988, 1993 and 1998 and for June years from 2001

## ETHNIC DIFFERENCES

Households with housing costs in excess of 30 per cent of income are more common when they include at least one non-European adult.<sup>68</sup> From 2007 to 2008, there was an increase in the proportion of households spending more than 30 per cent of their disposable income on housing for households with at least one European, Pacific or Other ethnic group adult. For households with at least one Māori adult, the proportion increased from 8 per cent in 1988 to a peak of 36 per cent in 1997, fell to 21 per cent in 2004, rose to 29 per cent in 2007, and remained at a similar level in 2008 (28 per cent). For households with at least one Pacific adult, the proportion increased from 15 per cent in 1988 to 48 per cent in 1997, fell to 23 per cent in 2004, rose to 30 per cent in 2007 and increased further to 35 per cent in 2008.

Figure EC4.2 **Proportion of households with housing cost outgoings-to-income ratio greater than 30 per cent, by ethnic group, selected years, 1988–2008**



Source: Derived from Statistics New Zealand's Household Economic Survey (1988–2008) by the Ministry of Social Development

Notes: (1) Data is for March years in 1988, 1993 and 1998 and for June years from 2001 (2) Household ethnicity is defined by the presence, within the household, of an adult of a particular ethnic group. Adults are defined as people aged 18 years and over

# Household crowding

## DEFINITION

The proportion of the population living in crowded housing (ie requiring one or more additional bedrooms, as defined by the Canadian Crowding Index).

The Canadian Crowding Index is a proxy measure to monitor the incidence of “crowding” in the population.

## RELEVANCE

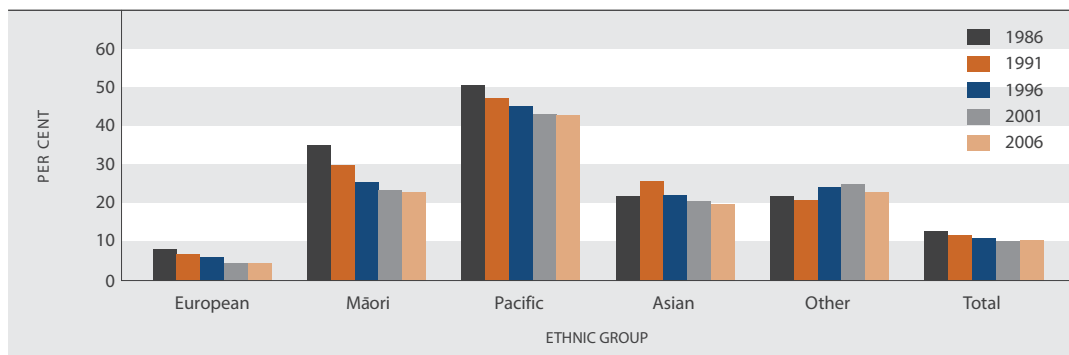
Housing space adequate to the needs and desires of a family is a core component of quality of life. National and international studies show an association between the prevalence of certain infectious diseases and crowding,<sup>69</sup> between crowding and poor educational attainment, and between residential crowding and psychological distress.<sup>70</sup>

## CURRENT LEVEL AND TRENDS

In 2006, 389,600 people, or 10 per cent of the New Zealand resident population, lived in households requiring one or more additional bedrooms to adequately accommodate household members, based on the criteria in the Canadian Crowding Index (see Appendix 2). This was similar to the level of crowding in 2001. The proportion of people in crowded households has reduced since 1986, when 13 per cent of the population were living in crowded conditions (392,700 people).

The Canadian Crowding Index also shows how many people live in houses where two or more bedrooms are required. In 2006, there were 131,100 people or 3.5 per cent of the usually resident population in this situation, compared to 118,700 people (3.9 per cent) in 1986.

Figure EC5.1 **Proportion of population living in households requiring at least one additional bedroom, by ethnic group, 1986–2006<sup>71</sup>**



Source: Statistics New Zealand

## AGE AND SEX DIFFERENCES

Living in a crowded household is more likely to be experienced by younger people than by older people. In 2006, 17 per cent of children under the age of 10 years lived in households requiring at least one more bedroom, compared to 15 per cent of 10–14 year olds. Among the population aged 15 years and over, 9 per cent lived in crowded households but this ranged from 17 per cent of 15–24 year olds, to 10 per cent of 25–44 year olds, 5 per cent of 45–64 year olds and just 3 per cent of those aged 65 years and over.

Between 1986 and 2006 there was little change in the proportion of children under the age of 15 years living in crowded households, defined either as needing one or more additional bedrooms (17 per cent in both years) or as needing at least two more bedrooms (just over 5 per cent in 1986 and just under 6 per cent in 2006).

There is very little difference by sex in the likelihood of living in crowded households.



## ETHNIC DIFFERENCES

Pacific peoples are far more likely to be living in crowded households than other ethnic groups. In 2006, 43 per cent of Pacific peoples lived in households requiring extra bedrooms. Māori and those in the Other ethnic group were the next most likely, with 23 per cent of each group requiring at least one extra bedroom, followed by Asians (20 per cent). Partly reflecting their older age profile, only 4 per cent of European New Zealanders were living in houses that met the definition of crowding used here. The Other ethnic group was the only ethnic group to have an increased incidence of crowding between 1986 and 2006 (from 22 per cent to 23 per cent). One possible explanation for this trend is that recent migrants, common in this ethnic group, are more likely to live in crowded households.<sup>72</sup>

The largest group of those living in households requiring at least one extra bedroom were those who identified as European (32 per cent), followed by Māori (30 per cent), Pacific peoples (27 per cent), Asian (17 per cent) and the Other ethnic group (just 2 per cent).<sup>73</sup> Of those living in more severe crowding situations (households requiring two or more bedrooms), Pacific peoples and Māori made up the largest groups (37 per cent and 32 per cent, respectively).

Cultural attitudes and economic conditions are two primary factors that account for the extreme variation in crowding levels between ethnic groups. The variance in population age structures is also a factor: the Māori and Pacific peoples ethnic groups both have younger age structures than the European population.

## SOCIO-ECONOMIC DIFFERENCES

Unemployed people are more likely to be living in crowded households than people with full-time jobs (20 per cent and 7 per cent, respectively). Seventeen per cent of people who receive income support were living in crowded households in 2006, up slightly from 16 per cent in 2001.<sup>74</sup>

There is a clear correlation between levels of income and levels of crowding: in 2006, 5 per cent of households in the bottom quartile of equivalised household income required one or more bedrooms, compared with less than 1 per cent of those in the top income quartile.

Households in rental accommodation were more likely to be crowded (10 per cent) than those in dwellings owned with a mortgage (4 per cent) or mortgage-free (2 per cent).

## REGIONAL DIFFERENCES

The proportion of people living in crowded households varies considerably across the country. Manukau City has by far the highest proportion, with 25 per cent of people living in households requiring one or more extra bedrooms in 2006. The next highest levels were in Opotiki District (19 per cent), Kawerau District (18 per cent), Porirua City and Auckland City (both 17 per cent). In all of the South Island local authorities, the proportions of people living in crowded households were well below the average, with the lowest being in Waimate (2 per cent).

## DESIRED OUTCOMES

Everybody enjoys civil and political rights. Mechanisms to regulate and arbitrate people's rights in respect of each other are trustworthy.

# Civil and Political Rights

## INTRODUCTION

The enjoyment of civil and political rights is crucial to people's ability to participate in society, make choices about their lives and live with dignity.

Civil and political rights fall into two broad categories. The first requires that people are protected from interference or abuse of power by others. The second requires that society is organised in a way that enables all people to develop to their full potential.<sup>75</sup>

Rights are defined in various international treaties and in domestic legislation. The New Zealand Bill of Rights Act 1990 sets out many of the rights New Zealanders enjoy. These include rights to life and security, voting rights, and rights to freedom of expression, peaceful assembly, association, thought, conscience, religion and belief. They also include rights to freedom from discrimination, and various rights relating to justice and criminal procedures. Other laws, such as the Privacy Act 1993, also provide protection for specific rights.

The relationship between Māori and the Crown is guided by the Treaty of Waitangi.

New Zealand has also signed seven core United Nations treaties. These treaties cover: civil and political rights; economic, social and cultural rights; the elimination of racial discrimination; the elimination of discrimination against women; the rights of children; the rights of disabled persons; and protection against torture and other cruel, inhuman or degrading treatment and punishment.

Civil and political rights are important. At a fundamental level, they protect people's lives and their physical wellbeing (for example, by recognising rights to freedom from torture and arbitrary arrest).

Wellbeing depends on people having a sense of choice or control over their lives, and on being reasonably able to do the things they value. This is only possible if people can exercise the many rights referred to above.<sup>76</sup> People's ability to take part in society, and their senses of belonging and identity, also depend on the exercise of these rights.

INDICATORS

New Zealand is internationally recognised as having an excellent human rights record.<sup>77</sup> The court system is independent and courts can enforce the rights affirmed in the New Zealand Bill of Rights Act 1990, although there is no power to strike down legislation inconsistent with the Act. Other institutions exist to protect people from government power (examples include the Privacy Commissioner and the Ombudsmen) or to help people resolve issues of unlawful discrimination (such as the Human Rights Commission and the Human Rights Review Tribunal). New Zealand regularly reports to the United Nations on its record of protecting rights.

However, the direct measurement of civil and political rights is not a simple matter.

This chapter uses five indicators to show how New Zealand’s formal commitments to civil and political rights are reflected in reality. They are: voter turnout, the representation of women in government, the representation of ethnic groups in government, perceived discrimination and perceived corruption.

A fundamental right in any democracy is the right to vote. Voter turnout figures provide an indication of the confidence the population has in, and the importance the population attaches to, the nation’s political institutions. High voluntary voter turnout rates show people see these institutions as relevant and meaningful to them, and they believe their individual vote is important.

An effective and relevant political system should broadly reflect the society it represents. The second and third indicators measure the proportion of women and the proportion of ethnic groups in elected positions in government.

Equality before the law and freedom from unlawful discrimination are fundamental principles of democratic societies. Under the Human Rights Act 1993, discrimination is prohibited in New Zealand on the following grounds: sex (including pregnancy and childbirth); marital status (including civil unions); religious belief; ethical belief; colour; race; ethnic or national origin; disability; age (from age 16 years); political opinion; employment status; family status; and sexual orientation.<sup>78</sup> Measuring the extent to which New Zealanders actually experience discrimination is problematic. Research suggests a significant proportion of people who experience discrimination will not make a complaint.<sup>79</sup> Perceived discrimination is a subjective measure of people’s views about the level of discrimination against different groups in New Zealand society.

Corruption undermines the democratic process and the rule of law. It is difficult to measure levels of corruption by reference to the number of prosecutions or court cases as this will, to some extent, be driven by the efficient functioning of the justice system. The fifth indicator measures the level of perceived corruption among politicians and public officials.

HEALTH

KNOWLEDGE AND SKILLS

PAID WORK

ECONOMIC STANDARD OF LIVING

CIVIL AND POLITICAL RIGHTS

CULTURAL IDENTITY

LEISURE AND RECREATION

PHYSICAL ENVIRONMENT

SAFETY

SOCIAL CONNECTEDNESS

# Voter turnout

## DEFINITION

**General elections:** The proportion of the estimated voting-age population (aged 18 years and over) who cast a vote in general elections.

**Local authority elections:** The proportion of all enrolled electors (both resident and ratepayer) who cast a vote in contested local authority elections.

## RELEVANCE

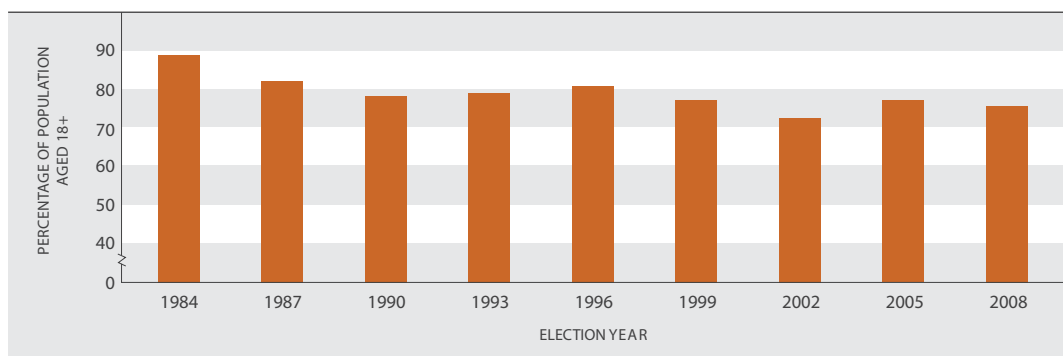
Voter turnout rates are an indicator of the extent to which citizens participate in the political process, and the confidence the population has in, and the importance they attach to, political institutions.

## CURRENT LEVEL AND TRENDS

### 1. General elections

Voter turnout of the eligible population in 2008 was 76 per cent, a slight decline from 77 per cent in 2005. Voter participation in general elections declined sharply from 89 per cent in 1984 to 78 per cent in 1990, increased slightly to 81 per cent in 1996, then declined again to a new low of 72.5 per cent in 2002.

Figure CP1.1 **Proportion of estimated voting-age population who cast votes, 1984–2008**



Sources: Electoral Commission (2002); Electoral Commission (2005); Electoral Commission (2008a)

Note: 1984, 2005 and 2008 figures were calculated by the Ministry of Social Development

## AGE, SEX, ETHNIC AND SOCIO-ECONOMIC DIFFERENCES

Because of the nature of the secret ballot, information on differences in participation rates among various sectors of the New Zealand population is not directly available. Nevertheless, results from New Zealand election surveys over a number of years show non-voters are more likely to be people on lower incomes, younger people and members of Māori or Pacific ethnic groups. There are few differences in voter turnout rates between men and women.

## REGIONAL DIFFERENCES

There are few discernible differences in voter turnout rates between rural and urban voters, although non-voting tends to be lowest in provincial cities.

INTERNATIONAL  
COMPARISON

Using a different definition of voter turnout (the proportion of the registered population who voted), New Zealand was ranked 10th out of 30 OECD countries with a voter turnout rate of 79 per cent in 2008.<sup>80</sup> This was higher than the OECD median of 74 per cent for recent elections. New Zealand's voter turnout rate was lower than that of Australia, where voting is compulsory (95 per cent in 2007), but higher than those of Canada (59 per cent in 2008), the United Kingdom (62 per cent in 2005) and the United States (62 per cent in 2008).

CURRENT LEVEL  
AND TRENDS

## 2. Local authority elections

Voter turnout in the 2007 local authority elections was 44 per cent, down from 46 per cent in 2004.<sup>81</sup> This was the lowest turnout since the restructuring of local government in 1989. Voter turnout peaked at 61 per cent in 1992 and has declined steadily since then, except between 1995 and 1998 when it increased from 53 per cent to 55 per cent.

The drop in turnout between 2004 and 2007 was relatively constant across all types of local authorities, with falls of two or three percentage points.

In 2007, there were 249 elected local authorities in New Zealand: 12 regional councils, 21 district health boards, 16 city councils, 57 district councils and 143 community boards.

Table CP1.1 **Voter turnout (%) in local authority elections, 1989–2007**

	1989	1992	1995	1998	2001	2004	2007
<b>Regional councils</b>	56	52	48	53	49	45	43
<b>District health boards</b>	–	–	–	–	50	46	43
<b>Territorial authorities</b>							
City councils	52	48	49	51	45	43	41
City mayors	50	48	49	51	45	43	41
District councils	67	61	59	61	57	51	49
District mayors	67	61	59	59	56	52	49
<b>Community boards</b>	54	49	50	50	46	42	41

Sources: Department of Internal Affairs (2006) Table 3.3; Department of Internal Affairs (2009) Table 4.3

Notes: (1) DHBs were established in 2001 (2) Trusts are not included because they are not local authorities

The 2007 election results continued the pattern of previous local authority elections, with smaller and South Island communities tending to register a higher voter turnout across all election types. The highest voter turnout in regional council elections was for the West Coast Regional Council (57 per cent), followed by Taranaki (52 per cent). Turnout was lower than the regional council average of 43 per cent in Waikato (37 per cent) and Auckland (38 per cent).

Local authority voter turnout is highest for district councils, especially those in the South Island. In the 2007 district council elections, voter turnout in the South Island was 53 per cent, compared with 47 per cent in the North Island. Smaller local authorities and small district health boards also attracted a higher turnout than larger local authorities. Voter turnout ranged from 54 per cent for small district councils to 39 per cent for large city councils.

# Representation of women in government

## DEFINITION

The proportion of elected Members of Parliament (MPs) and local government bodies who are women.

## RELEVANCE

The representation of women in government can be seen as an indicator of political representation more generally. Representative political institutions engage a wide range of communities in the political process, draw on the talents and skills of the broadest group of people, and provide checks and balances on the use of political power.

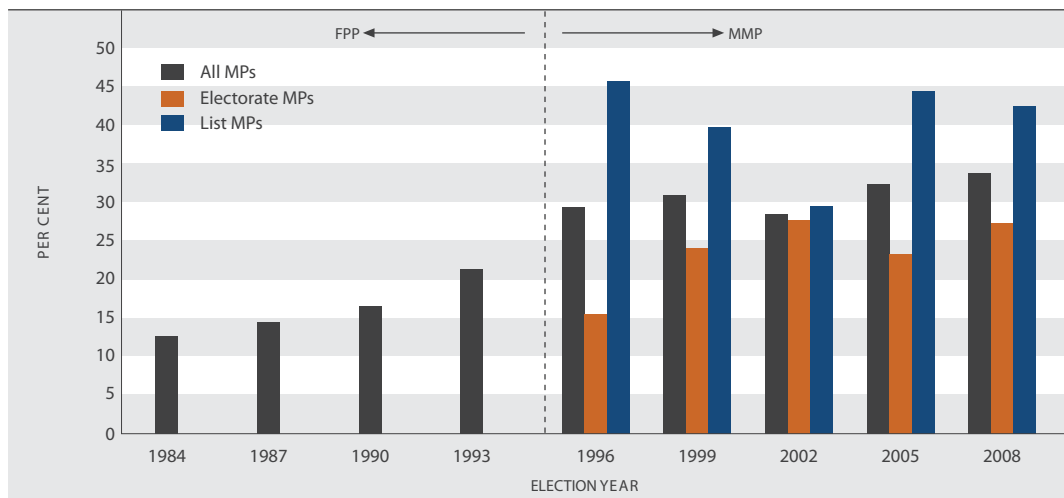
## CURRENT LEVEL AND TRENDS

### 1. General elections

As a result of the 2008 general election, women held 41 of the 122 seats in Parliament, or 34 per cent. This was up from 32 per cent in 2005. Under the first-past-the-post electoral system, women's representation in Parliament increased from 13 per cent in 1984 to 21 per cent in 1993, then rose sharply to 29 per cent in the first mixed-member-proportional election held in 1996. Since then, with the exception of 2002, there have been small increases in the proportion of women in Parliament at each general election. Women were first represented in the New Zealand Parliament in 1933.

In the 2008 general election, women made up a higher proportion of list MPs (42 per cent) than electorate MPs (27 per cent). Female representation has been higher among list MPs than electorate MPs in each general election from 1996 onwards except that of 2002, when the proportions of women in each category were similar.

Figure CP2.1 **Women as a proportion of elected Members of Parliament, 1984–2008**



Sources: Electoral Commission (2002) p 176; Electoral Commission (2006); Wilson and Anderson (2008)

The majority of women elected to Parliament in 2008 were list MPs (54 per cent). List MPs have outnumbered electorate MPs among women elected to Parliament in four of the last five general elections. In contrast, the majority of men elected to Parliament are electorate MPs.

INTERNATIONAL  
COMPARISON

At 34 per cent in 2008, the percentage of women in New Zealand's Parliament is considerably higher than the OECD median of 23 per cent in recent years. New Zealand ranks eighth out of 30 OECD countries. Sweden has the highest proportion of women MPs with 47 per cent, followed by Finland (42 per cent), the Netherlands (41 per cent), Denmark (38 per cent), Spain and Norway (each 36 per cent) and Belgium (35 per cent). New Zealand has considerably higher female representation in national government than Australia (27 per cent), Canada (22 per cent), the United Kingdom (20 per cent) and the United States (17 per cent).<sup>82</sup>

CURRENT LEVEL  
AND TRENDS

## 2. Local authority elections

In the 2007 local government elections, 579 women were elected to local authorities.<sup>83</sup> This represented 32 per cent of elected members. The proportion of women elected increased from 25 per cent in 1989<sup>84</sup> to 31 per cent in 1998 and remained at around that level in the two subsequent elections. In the 1990s and early-2000s, women were more highly represented in local government than in national government, but this trend has been reversed since the 2005 general election.

Female candidates were more likely than male candidates to be elected in each election year from 1989 to 1998, but this was reversed in 2001, when 41 per cent of female candidates and 44 per cent of male candidates were elected. In 2004, the proportions were more even (48 per cent of female and 49 per cent of male candidates elected). In 2007, female candidates were again more likely than male candidates to be elected (50 per cent compared with 46 per cent).

In 2007, women's representation was highest on district health boards (46 per cent), followed by city councils (37 per cent). Between 2004 and 2007, the share of women increased in all types of local authority except community boards and licensing and land trusts.

Table CP2.1 **Proportion (%) of members who were women, by type of local body, 1989–2007**

	1989	1992	1995	1998	2001	2004	2007
Regional councils	22	25	29	28	26	25	27
District health boards	–	–	–	–	44	42	46
City councils	35	35	33	36	39	34	37
District councils	19	23	26	27	26	26	28
Community boards	29	32	33	35	31	32	33

Source: Department of Internal Affairs (2009) Table 7.4

Notes: (1) District councils' 2001 figures revised by the Department of Internal Affairs (2) DHBs were established in 2001 (3) Trusts are not included because they are not local authorities

The number of women elected to city council mayoral positions has remained fairly steady at three or four since 1989. Between 2004 and 2007 the figure fell from four to three out of 16. In contrast, the number of women mayors in district councils increased rapidly from six (out of 59) in 1989 to 15 in 1998, fell sharply to eight in 2001 and rose slightly to 10 in 2004 and 2007.

Table CP2.2 **Women mayors, 1989–2007**

	1989	1992	1995	1998	2001	2004	2007
City councils	4/14	4/15	3/15	4/15	4/15	4/16	3/16
District councils <sup>(1)</sup>	6/59 <sup>(2)</sup>	9/59 <sup>(3)</sup>	12/59	15/59	8/58 <sup>(4)</sup>	10/58 <sup>(5)</sup>	10/57 <sup>(6)</sup>

Source: Department of Internal Affairs (2009) Table 7.5

Notes: (1) Includes Chatham Islands Council (2) Chatham Islands Council did not elect a mayor in 1989 (3) Invercargill has been a city council since 1992 (4) There was no election in Rodney District in 2001 (5) Tauranga became a city council in 2004 (6) Banks Peninsula District was abolished and included in Christchurch City in 2006

# Representation of ethnic groups in government

## DEFINITION

The proportion of elected Members of Parliament (MPs) who identify themselves as of Māori, Pacific peoples or Asian ethnicity.

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## RELEVANCE

The representation of different ethnic groups in government can be seen as an indicator of political representation more generally. Representative political institutions engage a wide range of communities in the political process, draw on the talents and skills of the broadest group of people, and provide checks and balances on the use of political power.

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## CURRENT LEVEL AND TRENDS

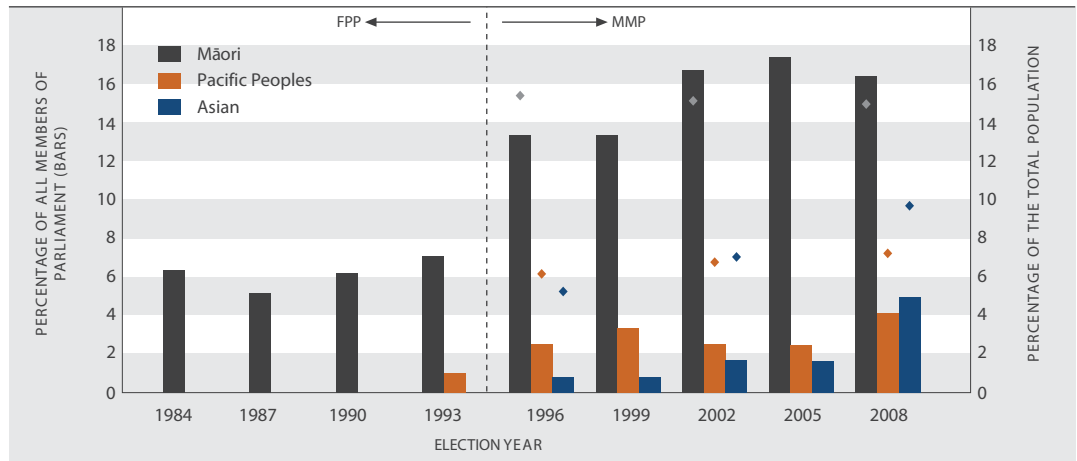
Following the 2008 general election, 31 out of the 122 Members of Parliament (25 per cent) self-identified as being of Māori, Pacific peoples or Asian ethnicity. This was up from 21 per cent in 2005. Under the first-past-the-post electoral system, representation of these ethnic groups in Parliament increased from 6 per cent in 1984 to 8 per cent in 1993, then rose sharply to 17 per cent in the first mixed-member-proportional election held in 1996. There was little change in 1999, but the proportion increased at each subsequent general election.

In 2008, 16 per cent of MPs identified themselves as Māori, down slightly from 17 per cent in 2005. The proportions of MPs identifying as Pacific peoples or Asian in 2008 (4 per cent and 5 per cent respectively) were the highest recorded. Pacific peoples and Asian ethnicities were first represented in Parliament in 1993 and 1996 respectively.

A similar proportion of Māori were elected to Parliament in 2008 as the Māori share of the New Zealand population (16 per cent of MPs identified as Māori compared with 15 per cent of the total population in 2006). The proportion of Pacific peoples in Parliament (4 per cent) was smaller than their share of the population (7 per cent), while the Asian ethnic group had the lowest representation (5 per cent of all MPs compared with 10 per cent of the population).



Figure CP3.1 **Members of Parliament identifying as Māori, Pacific peoples or Asian 1984–2008, and Māori, Pacific peoples or Asian share of the total population**



Source: Wilson and Anderson (2008); Statistics New Zealand, *Estimated National Ethnic Population, 1996, 2001, 2006*

Note: Ethnic group shares of the population for 2002 use 2001 ethnic population estimates; ethnic group shares for 2008 use 2006 ethnic population estimates

The majority of Pacific MPs elected in 2008 were electorate MPs (60 per cent) while the majority of Māori and Asian MPs were list MPs (55 per cent and 83 per cent respectively). Of the nine Māori electorate MPs, seven were elected to the Māori electorate seats.

# Perceived discrimination

## DEFINITION

The proportion of people aged 18 years and over who perceived selected groups as being the targets of “some” or a “great deal” of discrimination, as reported in surveys commissioned by the Human Rights Commission.

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## RELEVANCE

The freedom from unlawful discrimination is a core principle of democratic societies. Surveys on perceived discrimination towards groups of people provide one indication of the level and type of discrimination in New Zealand. As they do not measure actual levels of discrimination, it is not possible to conclude whether levels of discrimination have increased or decreased.

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## CURRENT LEVEL AND TRENDS

In November 2008, 74 per cent of respondents to the Human Rights Commission Survey 2008 thought Asian people were subject to a great deal or some discrimination, the highest proportion for any group. This was followed by people who are overweight (68 per cent), people on welfare (66 per cent) and recent immigrants (65 per cent). The level of perceived discrimination was higher in 2008 than in 2007 for a number of groups. The greatest increases were recorded for Pacific peoples (up by 9 percentage points) and for Asians, people who are overweight and gays and lesbians (each up by 6 percentage points). Over the same period, perceived discrimination decreased slightly for women and older people (by 3 percentage points and 2 percentage points, respectively).

Table CP4.1 **Proportion (%) of survey respondents who perceived selected groups as being subject to a great deal or some discrimination, December 2000–November 2008**

Group	Dec 2000	Dec 2001	Jan 2003	Jan 2004	Feb 2006	Nov 2007	Nov 2008
Asians	73	73	79	78	72	68	74
People who are overweight	72	65	65	68	59	62	68
People on welfare	75	70	68	66	63	62	66
Recent immigrants	–	68	77	72	70	62	65
Refugees	–	68	72	70	63	56	61
Gays and lesbians	74	65	61	58	57	54	60
Pacific peoples	71	65	65	57	54	51	60
People with disabilities	61	55	53	55	53	52	57
Māori	70	62	57	53	51	48	52
Older people	53	48	49	46	44	46	44
Women	50	44	41	38	38	39	36
Men	–	–	–	–	30	29	27
Children and young people	–	–	–	–	–	–	27

Source: Human Rights Commission (2009)

Over half of the survey respondents in 2008 thought refugees, gays and lesbians, Pacific peoples, people with disabilities and Māori were the targets of a great deal or some discrimination. Less than half of respondents thought that older people, women, men and children and young people were discriminated against.

Between December 2001 and November 2008, the perception that different groups were subject to some or a great deal of discrimination fell for 8 of the 11 groups that had comparable data. The largest decline in perceived discrimination between 2001 and 2007 was for Māori (down by 10 percentage points). There were also large declines in perceived discrimination against women and refugees over the same period (down by 8 percentage points and 7 percentage points, respectively).

# Perceived corruption

## DEFINITION

The perceived level of corruption – defined as “the abuse of public office for private gain” – among New Zealand politicians and public officials, on a scale of 0 (highly corrupt) to 10 (highly clean).

A country’s score in the Corruption Perceptions Index is derived by Transparency International from a number of different surveys of business people and country analysts.

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## RELEVANCE

Corruption undermines democracy and the rule of law and threatens domestic and international security. Corruption also has adverse social and economic consequences for a country. The Corruption Perceptions Index is a good proxy indicator of the values and norms that underpin public institutions.

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## CURRENT LEVEL AND TRENDS

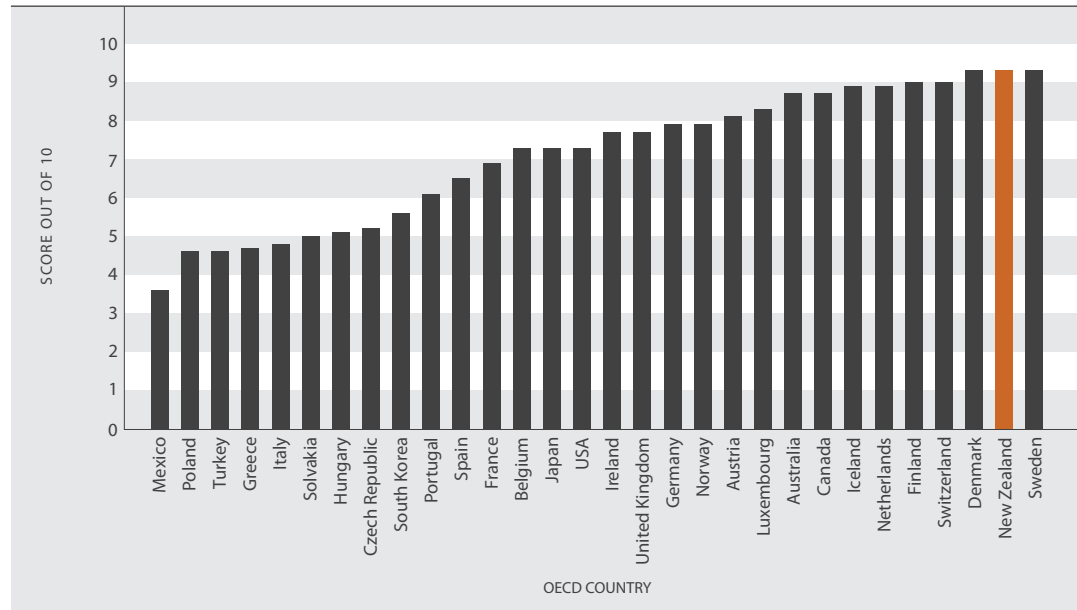
New Zealand’s score in the Corruption Perceptions Index 2008 was 9.3, similar to its scores of 9.4 in 2007 and 9.6 in 2004–2006. Since the index was first developed in 1995, New Zealand has consistently scored well, with more than 9 out of a possible 10 in each period reported.

## INTERNATIONAL COMPARISON

In the Corruption Perceptions Index 2008, New Zealand was ranked first equal with Denmark and Sweden as the least corrupt nations out of 30 OECD countries. Since 1995, New Zealand has consistently been among the top four OECD nations perceived as highly clean.

New Zealand scored higher in the Corruption Perceptions Index than Australia and Canada (eighth equal, 8.7), the United Kingdom (14th equal, 7.7), and the United States (16th equal, 7.3).

Figure CP5.1 **Corruption Perceptions Index scores (0=highly corrupt, 10=highly clean), OECD countries, 2008**



Source: Transparency International (2008)

## DESIRED OUTCOMES

New Zealanders share a strong national identity, have a sense of belonging and value cultural diversity. Everybody is able to pass their cultural traditions on to future generations. Māori culture is valued and protected.

# Cultural Identity

## INTRODUCTION

Culture refers to the customs, practices, languages, values and world views that define social groups such as those based on nationality, ethnicity, region or common interests. Cultural identity is important for people's sense of self and how they relate to others. A strong cultural identity can contribute to people's overall wellbeing.

Cultural identity based on ethnicity is not necessarily exclusive. People may identify themselves as New Zealanders in some circumstances and as part of a particular culture (eg Māori, Chinese or Scottish) in other circumstances. They may also identify with more than one culture.

The desired outcomes recognise it is important for people to feel a sense of national identity and also to be able to belong to particular social or ethnic groups. They recognise New Zealand is a multicultural society, while also acknowledging that Māori culture has a unique place. Under the Treaty of Waitangi, the Crown has an obligation to protect the Māori language.

Defining a national identity is not simple. New Zealand is a diverse nation, made up of many cultural groups, with many different customs and traditions. While people may describe themselves as "New Zealanders", how they define their "New Zealand-ness" will vary from person to person. For example, some people might see a New Zealand identity in aspects of New Zealand history or in New Zealand achievements in sporting, artistic or other endeavours, while others might see it through a sense of national characteristics or traits, or through national symbols and icons. Māori culture may form one aspect of national identity, since it is both unique to New Zealand and a part of our identity in the outside world.

Cultural identity is an important contributor to people's wellbeing. Identifying with a particular culture makes people feel they belong and gives them a sense of security. It also provides access to social networks, which provide support and shared values and aspirations. Social networks can help to break down barriers and build a sense of trust between people. However, strong cultural identity expressed in the wrong way can contribute to barriers between groups. An established cultural identity has also been linked with positive outcomes in areas such as health and education.<sup>85</sup>

A strong national culture or identity, and strength in creative endeavours, can be a source of economic strength and higher material standards of living.

Conversely, members of minority cultures can feel excluded from society if others obstruct, or are intolerant of, their cultural practices.

INDICATORS

Three indicators are used in this report. They are local content programming on New Zealand television, people identifying as Māori who can speak in Māori, and the retention of their first language (other than English and Māori) by identified ethnic groups.

While these indicators cannot provide an exhaustive picture of New Zealand’s cultural identity, they do provide snapshots of the health of particular aspects of it. There is a strong focus on the health of Māori culture.

The first indicator, the amount of New Zealand content programming on television, provides one way of measuring the strength of New Zealanders’ sense of national identity.

The second indicator measures the current health of the Māori language. Language is a central component of culture and a necessary skill for full participation in Māori society.

The final indicator, the proportion of people who can speak the first language (other than English and Māori) of their ethnic group, is an indicator of the degree to which people are able to retain their culture and traditions and to pass them on to subsequent generations.

# Local content programming on New Zealand television

## DEFINITION

The number of hours of local content screened on New Zealand television channels during prime-time (6pm to 10pm), as a proportion of the total prime-time schedule.

Local content is generally defined as material that is both predominantly made in New Zealand and reflective of New Zealand identity and culture. From 2005 the indicator includes information from Māori Television Service and Prime Television, in addition to the core channels of TV One, TV2 and TV3. From 2006 it also includes information from C4.

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## RELEVANCE

Television is the dominant cultural medium for most New Zealanders. The 1998/1999 Time Use Survey indicated that New Zealanders spend almost two hours a day watching television or videos.<sup>86</sup> Ninety-eight per cent of New Zealand households have at least one television set.<sup>87</sup> For many people, television is a major source of news, information and entertainment and strongly influences their sense of local and national identity. A local content measure reflects the extent to which we see our culture reflected through this medium.

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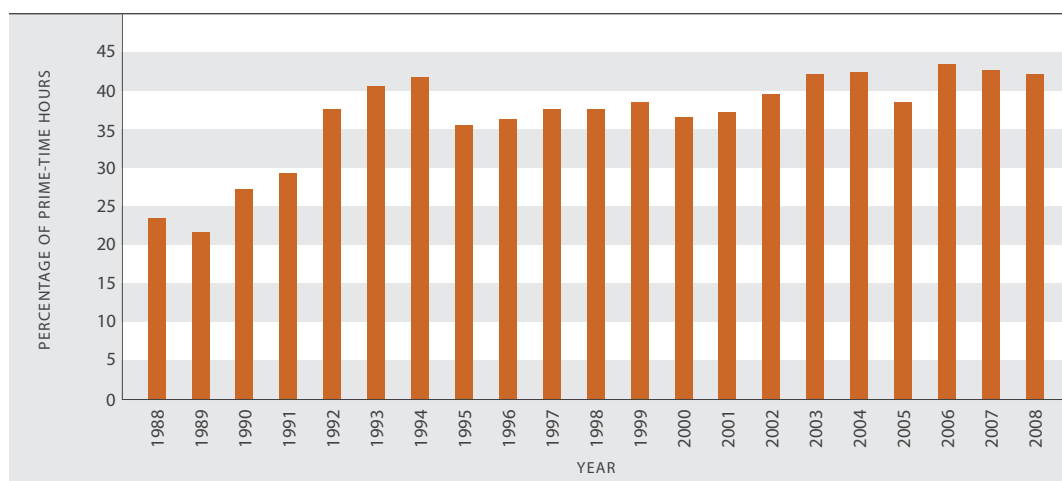
## CURRENT LEVEL AND TRENDS

In 2008, local content on six national free-to-air television channels made up 42 per cent of the prime-time schedule – just under the figure recorded in 2007 (43 per cent). The proportion of local content on the three main free-to-air channels rose from 24 per cent in 1988 to a peak of 42 per cent in 1994, before dropping to 35 per cent in 1995. It reached 42 per cent again in 2003 and 2004. The fall to 38 per cent in 2005 was mainly attributable to the inclusion of Prime Television which had a low level of local content. The subsequent addition of more local sport to Prime Television's schedule and to those of other free-to-air channels, along with the inclusion of C4's local entertainment programming, were important factors behind the increase in 2006.

The percentage of local content in prime-time transmission hours in 2008 differs across the channels: TV One: 58 per cent, TV2: 19 per cent, TV3: 43 per cent, Prime: 15 per cent, Māori Television: 62 per cent, and C4: 57 per cent. Between 2007 and 2008, percentages of local content in prime-time television declined for TV2, TV3, and Prime, increased for TV One and C4, and remained steady for Māori Television.



Figure CI1.1 **Proportion of local content on prime-time television, 1988–2008**



Source: NZ On Air

Notes: (1) Up to 2004, the figures are for prime-time (6pm–10pm) local content on TV One, TV2 and TV3 only (2) Figures from 2005 include Prime Television and Māori Television (2005 Māori Television figure derived by Ministry of Social Development) (3) Figures from 2006 include C4

Four programme types accounted for over three-quarters of the local content hours in 2008: news and current affairs (32 per cent), entertainment (16 per cent), information programmes (15 per cent) and sports (15 per cent). This was similar to the pattern in 2007, although news and current affairs programmes accounted for a greater proportion of local programming in 2008.

Table CI1.1 **Percentage share of total hours of local content, by programme type, selected years, 1988–2008**

Programme type	1988	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
News, current affairs	26	23	21	30	33	29	32	34	31	27	27	32
Information	10	5	8	17	21	18	19	17	15	15	18	15
Sports	24	39	31	20	13	18	14	14	11	17	16	15
Entertainment	14	12	9	7	9	10	8	9	13	17	15	16
Children's	15	13	15	10	8	8	10	8	8	8	8	9
Drama/comedy	2	1	7	6	6	6	6	6	5	6	8	6
Māori	6	3	3	6	6	5	6	6	9	4	3	2
Documentaries	2	3	5	4	4	5	5	6	7	6	6	6
<b>Total New Zealand content hours</b>	<b>2,112</b>	<b>4,249</b>	<b>5,018</b>	<b>6,185</b>	<b>6,190</b>	<b>7,201</b>	<b>6,526</b>	<b>6,423</b>	<b>9,306</b>	<b>10,255</b>	<b>10,784</b>	<b>11,600</b>

Source: NZ On Air

Notes: (1) Information on types of local programmes in prime-time hours was not published before 2005 (2) These figures relate to a 24-hour period up to 2002; from 2003 on, figures relate to 18 hours (6am to midnight) (3) Up to 2004, the figures are for TV One, TV2 and TV3 only; figures from 2005 include Prime Television and Māori Television (2005 Māori Television figure derived by Ministry of Social Development); figures from 2006 include C4

## INTERNATIONAL COMPARISON

International comparisons are difficult due to the inconsistencies in measurement approaches by different countries. However, in 1999, local content accounted for 24 per cent of total transmission time in New Zealand, a smaller proportion than that in 10 other surveyed countries. This was compared to the United States (90 per cent), the United Kingdom (BBC only, 78 per cent), Canada (60 per cent), Norway (56 per cent), Finland (55 per cent), Australia (which mandates a local content transmission quota of 55 per cent on all free-to-air commercial networks) and Ireland (RTE only, 41 per cent).<sup>88</sup> Note this is a measure of total air-time programming rather than prime-time programming, which is the measure this indicator is based on.

# Māori language speakers

## DEFINITION

The number of Māori who reported in the five-yearly population census they could hold a conversation about everyday things in the Māori language (te reo Māori), as a proportion of the Māori population.<sup>89</sup>

## RELEVANCE

Māori language is a central component of Māori culture, and an important aspect of participation and identity. It also forms part of the broader cultural identity and heritage of New Zealand. In 1987, the Māori language was recognised as an official New Zealand language.

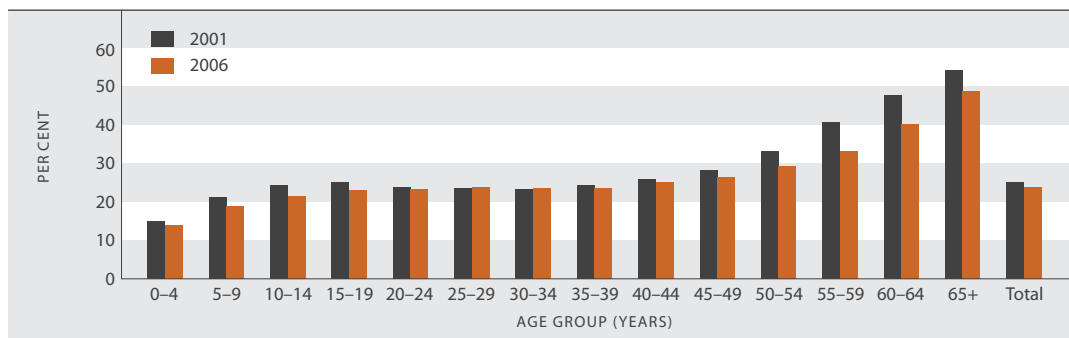
## CURRENT LEVEL AND TRENDS

Almost one-quarter of all Māori (24 per cent, or 131,600 people) reported in the 2006 Census they could hold a conversation in Māori about everyday things. Of the 157,100 people (or 4 per cent of the total New Zealand population) who could speak Māori in 2006, 84 per cent were Māori.

The proportion of Māori who were fluent Māori speakers declined markedly over the last century, particularly following the rapid urbanisation of the Māori population in the 1950s and 1960s. The first national Māori language survey in 1973 estimated the proportion of fluent speakers had fallen to 18 per cent. By the 1996 Census, the proportion of Māori who could hold a conversation in te reo Māori had risen to 25 per cent and was still at that level in 2001. Although around 1,100 more Māori could speak Māori in 2006 than in 2001, the Māori population had grown by a greater number (39,000 people) and so the proportion of Māori language speakers recorded in the 2006 Census declined slightly, from 25 per cent in 2001 to 24 per cent in 2006.

Information is also available from the two surveys on the health of the Māori language, conducted in 2001 and 2006. These surveys show that the proportion of Māori aged 15 years and over with some level of speaking proficiency increased from 42 per cent in 2001 to 51 per cent in 2006. The increase was greatest at the higher proficiency levels, particularly among younger people. In 2006, 14 per cent of Māori aged 15 years and over could speak Māori “well” or “very well”, up from 9 per cent in 2001. The proportion of younger people (those aged 15–24 years and 25–34 years) with a high proficiency in te reo Māori more than doubled. The data is not directly comparable with census data because of differences in the way the information is collected and because the survey is designed to measure proficiency in te reo, rather than simply asking whether people can converse in the language.<sup>90</sup>

Figure C12.1 **Proportion of Māori speakers in the Māori population, by age, 2001 and 2006**



Source: Statistics New Zealand, 2001 and 2006 censuses

**AGE DIFFERENCES** Older Māori are considerably more likely than younger Māori to be able to converse about everyday things in Māori. In the 2006 Census, almost half (49 per cent) of Māori aged 65 years and over and more than one-third (36 per cent) of Māori aged 55–64 years reported being able to converse in the Māori language, compared with less than one-fifth (18 per cent) of Māori aged under 15 years.

The decline of te reo speakers recorded in the census between 2001 and 2006 occurred among young and older Māori, but was most pronounced at ages 55–64 years.

Table CI2.1 **Proportion (%) of Māori speakers in the Māori population, by age group and sex, 2001 and 2006**

	Under 15	15–24	25–44	45–54	55–64	65+	Total
<b>Males</b>							
2001	18.9	22.9	24.5	31.7	45.2	55.3	24.6
2006	17.2	21.5	23.7	28.0	37.8	49.6	23.1
<b>Females</b>							
2001	21.2	26.0	23.7	29.2	42.5	53.5	25.7
2006	18.9	24.5	24.0	27.1	34.3	47.9	24.4
<b>Total</b>							
2001	20.0	24.5	24.1	30.4	43.8	54.3	25.2
2006	18.1	23.0	23.9	27.5	36.0	48.7	23.7

Source: Statistics New Zealand, 2001 and 2006 censuses

**SEX DIFFERENCES** Sex differences in the proportion of Māori language speakers among Māori were also apparent, with females being slightly more likely to be able to converse in Māori than males. However, the difference varied by age. From age 45 years onwards, Māori males were more likely than Māori females to speak Māori. For those younger than 25 years, a higher proportion of females than males could speak Māori.

**ETHNIC DIFFERENCES** After Māori, Pacific peoples had the highest proportion who could speak Māori (4 per cent), followed by Europeans (1.6 per cent), the Other ethnic group (1.1 per cent) and Asians (0.5 per cent).<sup>91</sup> In contrast to Māori, the ability to speak te reo Māori was higher at younger ages than at older ages in these ethnic groups.

**REGIONAL DIFFERENCES** Māori who live in areas with a high proportion of Māori residents are the most likely to be Māori language speakers. In 2006, the regions with the highest proportions of people with conversational Māori skills were Gisborne (32 per cent), the Bay of Plenty (31 per cent), Northland (28 per cent), and Waikato and Hawke's Bay (each 26 per cent).

# Language retention

## DEFINITION

The proportion of people who can speak the “first language” (excluding English) of their ethnic group, for ethnic groups (other than Māori) with an established resident population in New Zealand, as recorded in the 2006 Census.

The ability to speak a first language is defined as being able to hold an everyday conversation in that language. First language refers to a language associated with a given ethnicity, as opposed to the first language of a person. Sign language is not treated as a first language for the purposes of this indicator.

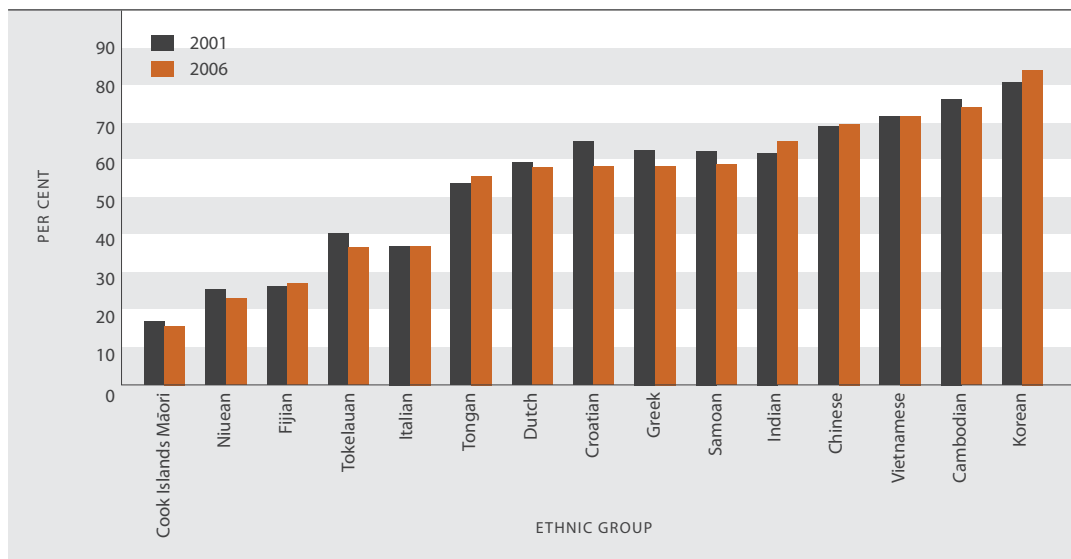
## RELEVANCE

The ability of people to speak the language of their identified ethnicity is an indicator of the ability of ethnic groups to retain and pass on their culture and traditions to future generations. Language is a central component of cultural identity.

## CURRENT LEVEL AND TRENDS

In 2006, the proportion of people who could hold an everyday conversation in the first language of their ethnic group varied widely between ethnic groups, from 16 per cent of Cook Islands Māori to 84 per cent of Koreans. Between 2001 and 2006, most ethnic groups experienced little change in the proportion of people who could speak their first language, although there were slight increases for the Tongan, Indian and Korean ethnic groups and slight decreases for most Pacific and European ethnic groups.

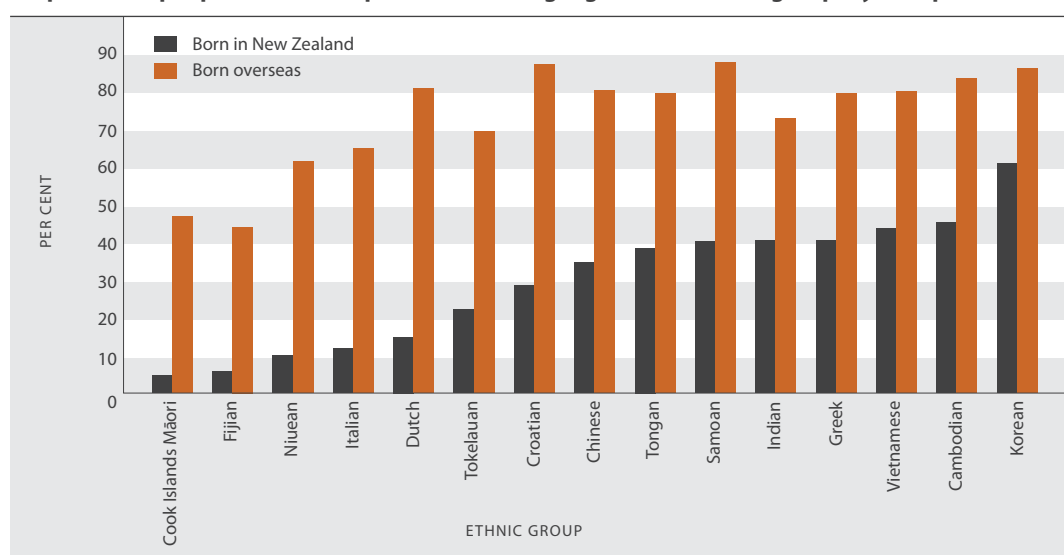
Figure C13.1 **Proportion of people who could speak the first language of their ethnic group, 2001 and 2006**



Source: Statistics New Zealand, *Census of Population and Dwellings*, unpublished data

For all ethnic groups, those who were born in New Zealand were considerably less likely to be able to speak the first language of their ethnic group than those who were born overseas.

Figure CI3.2

**Proportion of people who could speak the first language of their ethnic group, by birthplace, 2006**

Source: Statistics New Zealand, Census of Population and Dwellings, unpublished data

**AGE AND SEX DIFFERENCES**

In all ethnic groups, younger people were less likely than older people to be able to hold an everyday conversation in the first language of their ethnic group.

In Pacific and Asian ethnic groups, females tended to be slightly more likely than males to speak the first language of their ethnic group, but the reverse was true in most European ethnic groups.

Table CI3.1

**Proportion (%) of people in selected ethnic groups who can speak the first language of their ethnic group, by age group and sex, 2006**

	Age (years)			Sex		Total
	0–24	25–49	50+	Male	Female	
<b>Pacific</b>						
Samoan	46	71	88	58	60	59
Cook Islands Māori	6	23	50	15	17	16
Tongan	45	69	79	55	57	56
Niuean	10	34	61	22	24	23
Tokelauan	22	53	77	35	38	37
Fijian	16	35	48	27	27	27
<b>Asian</b>						
Chinese	60	75	83	68	72	70
Indian	53	71	79	63	67	65
Cambodian	63	84	87	71	77	74
Vietnamese	62	80	84	68	75	72
Korean	81	87	89	83	85	84
<b>European</b>						
Dutch	20	62	80	58	58	58
Greek	23	66	86	59	58	58
Croatian	30	62	80	61	56	58
Italian	13	46	67	38	36	37

Source: Statistics New Zealand, Census of Population and Dwellings, unpublished data

## DESIRED OUTCOMES

Everybody is satisfied with their participation in leisure and recreation activities. They have sufficient time to do what they want to do and can access an adequate range of opportunities for leisure and recreation.

# Leisure and Recreation

## INTRODUCTION

Leisure and recreation are both crucial components of a balanced and healthy lifestyle. Leisure time is a time when people can do what they want to do, away from work and other commitments.

Recreation and leisure provide people with a sense of identity. Involvement in leisure-time activities adds meaning to individual and community life and contributes to people's overall quality of life. Recreation can encourage personal growth and self-expression and provide increased learning opportunities, satisfying needs not met in people's non-leisure time.

For many people, participation in leisure and recreation improves their physical and mental health. Recreation often involves a physical activity or sport. Research clearly shows increased physical activity can lead to fewer health problems and higher productivity at work, especially when combined with a balanced diet and a healthy lifestyle.

The benefits for mental health are equally important. Several studies have demonstrated links between regular physical activity and a reduction in the symptoms of mild or moderate depression, stress and anxiety. Passive leisure also has benefits for mental health, by providing an outlet for the mind. It may provide physical rest, tension release and opportunities to enjoy nature and escape from the daily routine.

Participation in leisure and recreation activities can also have social benefits. It creates opportunities for socialisation and contributes to social cohesion by allowing people to connect and network with others. It can also contribute to family bonding when families do things together in their leisure time.

INDICATORS

Three indicators are used in this chapter. They are: satisfaction with leisure time, participation in physical activity and participation in cultural and arts activities. Together, these indicators present a picture of how people feel about their leisure time and also what they do in their leisure time.

The first indicator is satisfaction with leisure time. This measures how people feel about both the quantity and quality of leisure time available to them.

The second indicator measures people’s participation in physical activity. It gives us a sense of how active New Zealanders are. Moderate physical activity can improve a number of health outcomes.

The final indicator measures people’s involvement in cultural and arts activities. Cultural activities contribute to individual growth and provide opportunities for social cohesion and passing on cultural traditions.

# Satisfaction with leisure time

## DEFINITION

The proportion of people aged 15 years and over who are “satisfied” or “very satisfied” with their leisure time as reported in the Quality of Life Survey.

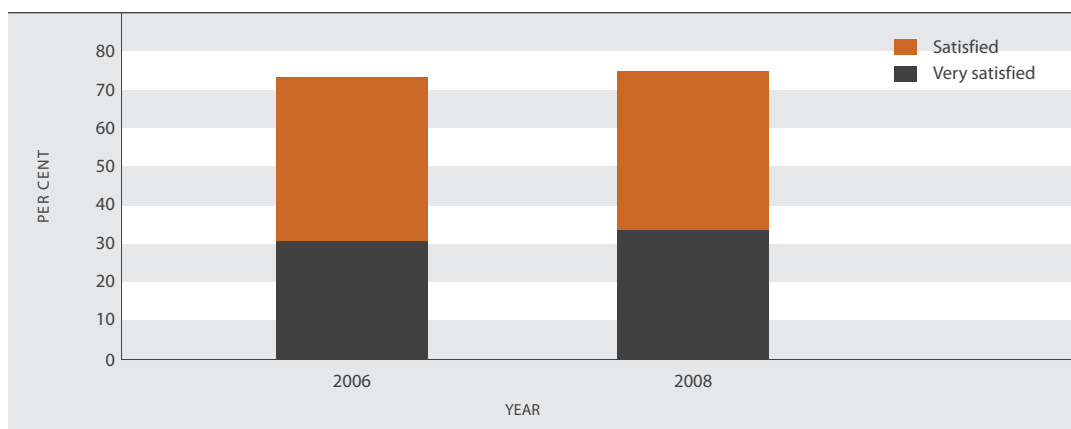
## RELEVANCE

Leisure time is a crucial component of a balanced and healthy lifestyle. It is a time when people can do what they want to, separate from work and other commitments.

## CURRENT LEVEL AND TRENDS

In 2008, three-quarters of New Zealanders (75 per cent) were satisfied overall with their leisure time. Of these, 41 per cent were satisfied and 34 per cent were very satisfied. These results are very similar to those in 2006, when 73 per cent of New Zealanders were satisfied with their leisure time (42 per cent satisfied and 31 per cent very satisfied).

Figure L1.1 **Satisfaction with leisure time, 2006 and 2008**



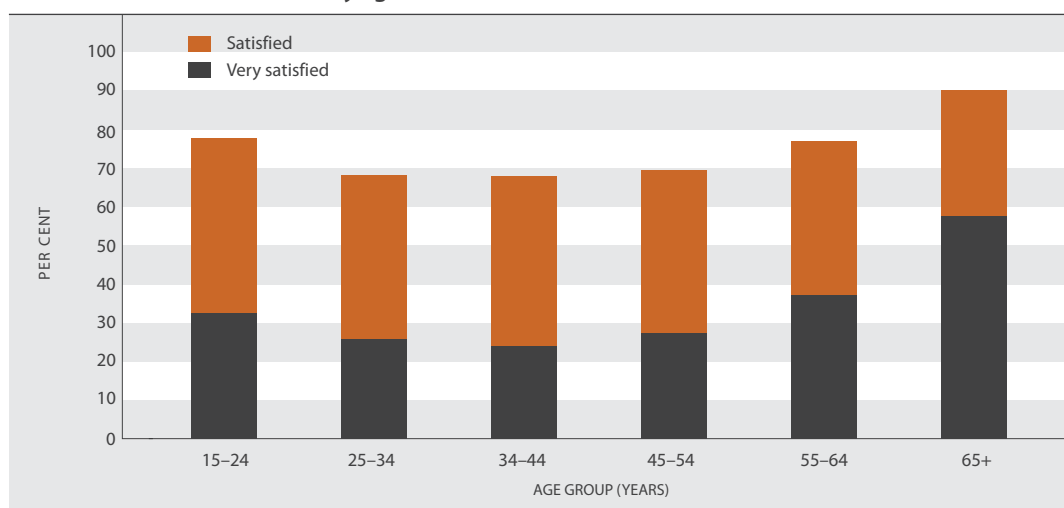
Source: Quality of Life Survey 2006; Quality of Life Survey 2008

## AGE DIFFERENCES

While the majority of New Zealanders were satisfied with their leisure time, those aged 25–34 years (68 per cent), 35–44 years (68 per cent) and 45–54 years (70 per cent) were less satisfied overall. These age groups tend to have larger work and family commitments than other groups, which may impinge on the time available for leisure. In comparison, those aged 15–24 years and those aged 55–64 years were more likely to report being satisfied with their leisure time, with total satisfaction levels of 78 per cent and 77 per cent respectively. People aged 65 years and over reported the highest levels of overall satisfaction with their leisure time (90 per cent).



Figure L1.2 Satisfaction with leisure time, by age, 2008



Source: Quality of Life Survey 2008

### SEX DIFFERENCES

There was little difference between males and females in reported satisfaction with leisure time. Seventy-four per cent of men and 76 per cent of women reported they were satisfied or very satisfied with their leisure time.

### ETHNIC DIFFERENCES

Most New Zealanders, regardless of their ethnicity, were satisfied with their leisure time. In 2008, the European ethnic group (76 per cent), Māori (75 per cent) and Pacific peoples (74 per cent) had similar levels of satisfaction with their leisure time, while people of Asian ethnicity had lower levels of satisfaction (70 per cent).

### HOUSEHOLD TYPE DIFFERENCES

People who live in households with children aged under 18 years had lower levels of satisfaction with their leisure time (68 per cent) than people in households without children of that age (80 per cent).

### SOCIO-ECONOMIC DIFFERENCES

In 2008, satisfaction with leisure time was highest for people with an annual personal income of \$30,000 or less (79 per cent). This reflects the high proportion of people aged 65 years and over and 15-24 years in this income range. People with personal incomes in all income groups above \$30,000 had similar levels of satisfaction with their leisure time (between 73 per cent and 70 per cent).

People employed full-time had lower levels of satisfaction with their leisure time (69 per cent) than people employed part-time (80 per cent), those who were unemployed (77 per cent) or those not in the labour force (85 per cent).

### REGIONAL DIFFERENCES

People who live in Porirua had the highest percentage of people satisfied with their leisure time (80 per cent), while people from Waitakere (70 per cent) and Hamilton (69 per cent) had the lowest levels of satisfaction with their leisure time.

# Participation in physical activity

## DEFINITION

The proportion of the population aged 15 years and over who met physical activity guidelines (ie were physically active for at least 30 minutes a day on five or more days over the last week), as measured by the 2002/2003 and 2006/2007 New Zealand Health Surveys.

## RELEVANCE

Participation in physical activity is a source of enjoyment and has positive benefits for people's physical and mental health. It can also contribute to personal growth and development and is a good way to meet new people.

## CURRENT LEVEL AND TRENDS

In 2006/2007, 51 per cent of New Zealanders aged 15 years and over met physical activity guidelines, reporting they had been physically active for at least 30 minutes a day on five or more days over the last week. In 2002/2003, the proportion was 53 per cent. However, the change between 2002/2003 and 2006/2007 was not statistically significant. The rates used in this section have been adjusted for age.

## SEX AND AGE DIFFERENCES

Males were significantly more likely than females to meet physical activity guidelines. In 2006/2007, 54 per cent of males reported being physically active for at least 30 minutes a day on five or more days in the last week, compared to 47 per cent of females.

Activity levels tend to decline with age. In 2006/2007, the proportion of the population who met physical activity guidelines was highest for age groups under 35 years and lowest for age groups over 65 years. Only for those aged 75 years and over were the proportions significantly lower than the rate for all ages.

Between 2002/2003 and 2006/2007, men in the 35–44 years and 45–54 years age groups recorded a decline in the proportion who met physical activity guidelines, as did women aged 55–64 years.

Table L2.1 **Proportion (%) of the population aged 15 years and over who met physical activity guidelines in the last week, by age and sex, 2002/2003 and 2006/2007**

Age group	Males		Females		Total	
	2002/2003	2006/2007	2002/2003	2006/2007	2002/2003	2006/2007
15–24	63.6	63.4	47.0	47.0	55.3	55.2
25–34	53.2	57.5	51.0	48.7	52.0	52.9
35–44	57.9	52.5	47.7	49.6	52.6	51.0
45–54	59.9	51.6	50.4	51.9	55.1	51.8
55–64	54.8	50.2	57.7	50.3	56.2	50.2
65–74	51.5	51.3	46.3	43.5	48.7	47.2
75+	36.1	40.6	29.8	26.3	32.6	32.4
<b>Total</b>	<b>56.2</b>	<b>54.0</b>	<b>48.4</b>	<b>47.3</b>	<b>52.1</b>	<b>50.5</b>

Source: Ministry of Health, Public Health Intelligence

## ETHNIC DIFFERENCES

Asians aged 15 years and over were significantly less likely than the general population in that age group to have met physical activity guidelines in the previous week. In 2006/2007, the age-standardised rate for Asians was 40 per cent while the rate for all New Zealanders aged 15 years and over was 51 per cent. In each ethnic group other than Pacific peoples, males were significantly more likely than females to have met physical activity guidelines. These patterns were similar in 2002/2003.

Table L2.2 **Proportion (%) of the population aged 15 years and over who met physical activity guidelines in the last week, by ethnic group and sex, 2002/2003 and 2006/2007**

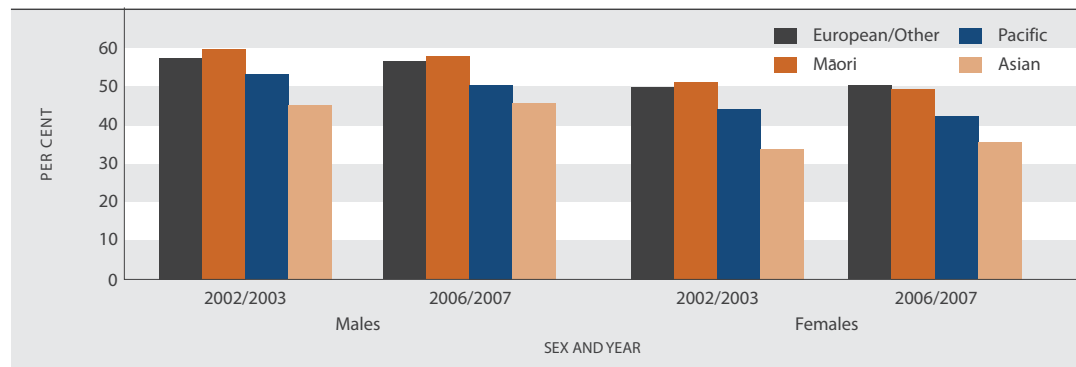
Ethnic group	Males		Females		Total	
	2002/2003	2006/2007	2002/2003	2006/2007	2002/2003	2006/2007
European/Other	57.4	56.6	49.9	50.3	53.5	53.3
Māori	59.7	57.9	51.2	49.4	55.2	53.4
Pacific peoples	53.2	50.4	44.2	42.3	48.5	46.1
Asian	45.3	45.8	33.8	35.6	39.1	40.4
<b>Total</b>	<b>56.7</b>	<b>54.9</b>	<b>48.6</b>	<b>47.9</b>	<b>52.5</b>	<b>51.3</b>

Source: Ministry of Health, Public Health Intelligence

Notes: (1) People who reported more than one ethnic group are counted once in each group reported (2) Age-standardised using WHO world population

Between 2002/2003 and 2006/2007, there were no significant increases in the rate at which the population aged 15 years and over met physical activity guidelines for any ethnic group.

Figure L2.1 **Proportion of the population aged 15 years and over who met physical activity guidelines in the last week, by ethnic group and sex, 2002/2003 and 2006/2007**



Source: Ministry of Health

Notes: (1) People who reported more than one ethnic group are counted once in each group reported (2) Age-standardised using WHO world population

## SOCIO-ECONOMIC DIFFERENCES

In 2006/2007, there was no association between physical activity and the level of neighbourhood deprivation (as measured by NZDep2006 quintiles).

# Participation in cultural and arts activities

## DEFINITION

The proportion of the population aged 15 years and over who had experienced one or more of the cultural activities included in the 2002 Cultural Experiences Survey.

Respondents were asked to report on activities they experienced over either a 12-month period (for goods and services accessed or experienced relatively infrequently) or a four-week recall period (for activities experienced on a more regular basis).

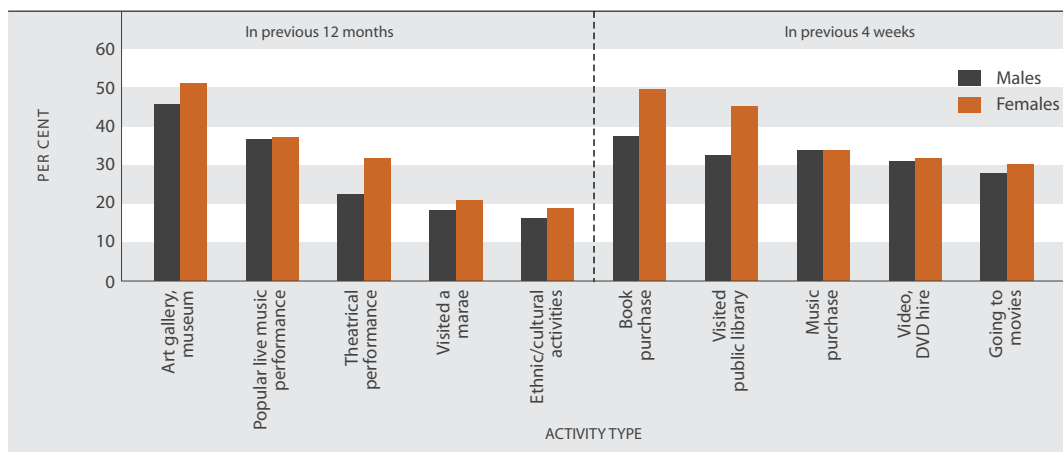
## RELEVANCE

Cultural activities are an integral part of leisure and recreation. People participate in cultural activities for a wide variety of reasons: for enjoyment and entertainment, for personal growth and development, as a means of expression, to learn new skills, to meet new people and to pass on cultural traditions.

## CURRENT LEVEL

Ninety-three per cent or 2.6 million people aged 15 years and over experienced one or more of the cultural activities included in the 2002 Cultural Experiences Survey. The most popular activities (those undertaken in the four weeks before the survey) were purchasing books (43 per cent) and visiting a public library (39 per cent). Of the less popular activities (those experienced over the past year) the most preferred were visiting an art gallery or museum (48 per cent) and attending a popular live music performance (37 per cent). A lack of time and cost were the main barriers to experiencing cultural activities more often, or at all.

Figure L3.1 **Proportion of the population aged 15 years and over who experienced cultural activities, by activity type and sex, 2002**



Source: Statistics New Zealand (2002a)

**AGE DIFFERENCES** Younger people were more likely to experience at least one of the cultural activities than people in older age groups. In 2002, 98 per cent of 15–24 year olds and 96 per cent of 25–44 year olds took part in one or more of the surveyed activities. Participation was lowest among people aged 65 years and over (81 per cent). Popular activities among younger people included hiring a video or DVD (53 per cent) and purchasing music (49 per cent). Older people (65 years and over) were more likely to visit a public library than other age groups, with 46 per cent reporting this activity.

**SEX DIFFERENCES** Women were slightly more likely to experience one or more of the cultural activities included in the survey than men (95 per cent compared with 92 per cent). More women than men purchased a book, visited a library and went to a theatrical performance. There was no difference in the proportion of men and women who purchased music.

**ETHNIC DIFFERENCES** Māori were more likely to have participated in at least one of the cultural activities included in the survey than European or Pacific peoples (Māori 97 per cent, European 93 per cent, Pacific peoples 92 per cent). Popular activities experienced by Māori included visiting a marae (69 per cent) and attending a popular live music performance (40 per cent). European New Zealanders were more likely to report visiting an art gallery or museum than other groups (51 per cent), while Pacific peoples had the highest rate of participation in community-based ethnic or cultural activities (39 per cent).

Table L3.1 **Proportion (%) of the population aged 15 years and over who had participated in cultural activities, by activity type and ethnic group, 2002**

	Māori	Pacific peoples	European
<b>In the previous 12 months</b>			
Art gallery/museum	42	27	51
Popular live music performance	40	27	39
Theatrical performance	18	19	30
Visited a marae	69	22	14
Ethnic/cultural activities	20	39	14
<b>In the previous four weeks</b>			
Book purchase	40	29	45
Visited public library	34	31	39
Music purchase	32	33	34
Video/DVD hire	39	26	31
Going to movies	23	21	30
<b>Any cultural activity</b>	<b>97</b>	<b>92</b>	<b>93</b>

Source: Statistics New Zealand (2002a)

**REGIONAL DIFFERENCES** In 2002, 94 per cent of people living in urban areas experienced one or more of the cultural activities included in the survey, compared to 93 per cent of people living in secondary urban areas and 91 per cent of those living in minor urban and rural areas. The Wellington Regional Council area had the highest proportion of people who experienced at least one of the surveyed activities (97 per cent), while Taranaki had the lowest level of participation (87 per cent).

## DESIRED OUTCOMES

The natural and built environment in which people live is clean, healthy and beautiful. Everybody is able to access natural areas and public spaces.

# Physical Environment

## INTRODUCTION

The physical environment includes land, air, water, plants and animals, buildings and other infrastructure, and all of the natural resources that provide our basic needs and opportunities for social and economic development.

A clean, healthy environment is important for people's physical and emotional wellbeing. At a fundamental level, elements such as clean air and good quality drinking water are vital for people's physical health. Other environmental factors such as noise pollution can cause both physical harm and psychological stress.

The cleanliness and beauty of the environment is also important for people's sense of wellbeing. A healthy environment provides recreational opportunities, allowing people to take part in activities they value. For New Zealanders, the "clean, green" environment is an integral part of their national identity. They see guardianship of the land and other aspects of the physical environment as an important part of social wellbeing.<sup>92</sup> This image is also vital for the health of New Zealand's economy. It is a key contributor in attracting tourists and it underpins the nation's success as an exporter of primary products.

INDICATORS

Two indicators are used in this chapter: air quality and drinking water quality. Because of a lack of adequate data, there is no direct measure of people’s access to natural areas and public spaces.

The two indicators provide an insight into current and future wellbeing. They relate to the health, cleanliness and beauty of the environment. Pollution in the air or water can have significant adverse effects on people’s health, as well as being detrimental to the beauty of the environment.

The first indicator measures the levels of fine particles in the air at certain sites. Fine particles are known to have a harmful effect on people’s health. Prolonged exposure to elevated levels has been linked with the aggravation of existing respiratory and cardiovascular diseases and premature death.

The second indicator measures the percentage of the population receiving drinking water that complies with either the 2000 Drinking-water Standards or the 2005 Drinking-water Standards. Poor-quality drinking water can create health risks from water-borne diseases and contaminants. It is also likely to be associated with poor-quality sewerage infrastructure and electricity supply.

HEALTH

KNOWLEDGE AND SKILLS

PAID WORK

ECONOMIC STANDARD OF LIVING

CIVIL AND POLITICAL RIGHTS

CULTURAL IDENTITY

LEISURE AND RECREATION

PHYSICAL ENVIRONMENT

SAFETY

SOCIAL CONNECTEDNESS

# Air quality

## DEFINITION

The annual average PM<sub>10</sub> levels at selected monitoring sites that meet the ambient air quality guideline for PM<sub>10</sub>.

PM<sub>10</sub> is airborne particulate matter that is smaller than 10 microns in diameter. It is produced by the combustion of wood and fossil fuels (such as petrol), and from some natural sources (such as pollen). The ambient air quality guideline for PM<sub>10</sub> is 20 micrograms per cubic metre (20µg/m<sup>3</sup>), averaged annually.

## RELEVANCE

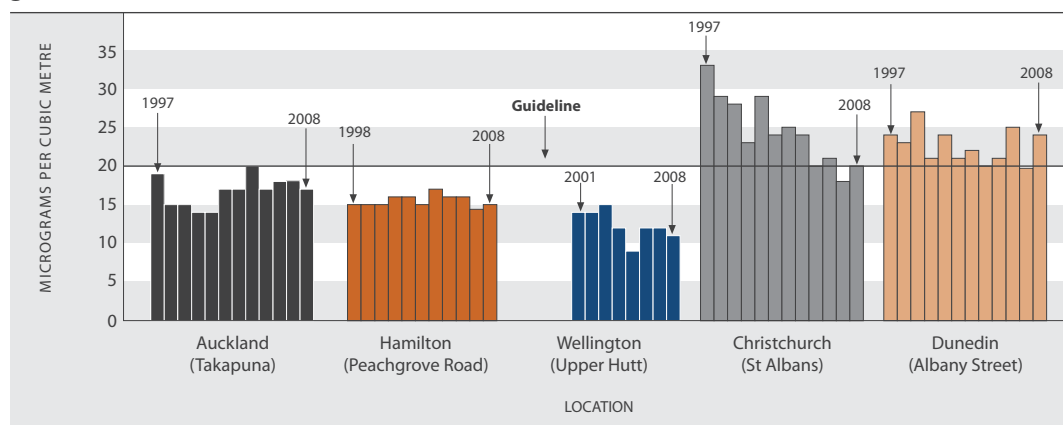
Good air quality is an important component in maintaining the health of our people, plants and animals. Clean air also contributes to the attraction of New Zealand's natural environment to tourists and immigrants. PM<sub>10</sub> is the primary contaminant of concern in New Zealand. Poor air quality is known to adversely affect the health of many people, particularly older people, infants, people with respiratory problems and people with chronic diseases such as heart disease.<sup>93</sup> The health effects associated with this contaminant include increased premature mortality, the aggravation of existing respiratory and cardiovascular diseases, hospital admissions and emergency department visits, school absences, lost work days and restricted activity days.

## CURRENT LEVEL AND TRENDS

Five monitoring sites, one from each of the main centres, have been selected to monitor compliance with the ambient air quality guideline for PM<sub>10</sub>. In 2008, annual average PM<sub>10</sub> levels at four of the five selected monitoring sites met the annual air quality guideline, being at or below 20µg/m<sup>3</sup>. At the Dunedin site, PM<sub>10</sub> levels were above the annual guideline in 2008. In 2007, all five sites met the annual guideline.

Since 1997, the Dunedin and Christchurch sites have exceeded the annual average guideline in most years, although Christchurch has had improving annual results, while Dunedin's annual results have fluctuated. Since 1997, the Auckland site has met the guideline in all years, although in 2004 the PM<sub>10</sub> level was at the annual guideline. The annual average PM<sub>10</sub> levels recorded at the Hamilton and Wellington sites have been consistently below the annual guideline since monitoring started at these sites, in 1998 and 2001 respectively.

Figure EN1.1 **Annual average PM<sub>10</sub> levels, at selected sites, compared to the New Zealand ambient air quality guideline, 1997–2008**



Source: Ministry for the Environment

Notes: (1) 2008 data for Auckland and Wellington is provisional (2) Data is unavailable for Wellington before 2001 and for Hamilton before 1998 (3) Since 2006, the Upper Hutt monitoring method and location differs from that used between 2001–2005



In September 2005, the Ministry for the Environment introduced a new air quality standard that uses a daily measure rather than the annual measure reported above. The national environmental standard for PM<sub>10</sub> is 50 micrograms per cubic metre (50µg/m<sup>3</sup>), averaged daily over 24 hours. The standard can be exceeded on only one day per year. When sufficient time series data is available for this measure, we will expand the reporting against this standard. The standard is monitored by regional councils in “airsheds”, areas within the region where air quality may, or is known to, exceed the standard or may require management in the future. To date, regional and unitary authorities have declared 68 airsheds within New Zealand.

In 2008, the Christchurch airshed exceeded the average daily PM<sub>10</sub> concentration on 18 days, the Dunedin central airshed exceeded it on nine days and the Auckland urban airshed exceeded it on six days. The Wellington and Hamilton City airsheds did not exceed the daily standard on any day in either 2007 or 2008. The number of days the Christchurch airshed exceeded the average daily PM<sub>10</sub> concentration has improved from 27 days in 2006 and 32 days in 2005, despite increasing slightly from 14 days to 18 days between 2007 and 2008. The number of days the Dunedin airshed exceeded the daily guidelines increased from two days in 2007 to nine days in 2008, but this was similar to seven days in 2006. Auckland exceeded the daily guidelines on a similar number of days between 2005 and 2008 (between four days and seven days).

In 2007, out of the 40 monitored airsheds throughout New Zealand, 42 per cent did not exceed the daily standard on more than one day a year. This was an increase from around 30 per cent in 2005 and 2006. The total number of monitored airsheds has also increased from 30 since 2005. Some smaller locations outside the main centres have difficulty meeting the air quality standards for PM<sub>10</sub>. In 2007, Alexandra/Arrowtown, Timaru, Rotorua, Nelson south, Richmond, Reefton and Kaiapoi each exceeded the daily standard on 20 days or more within the year.<sup>94</sup>

In New Zealand, poor air quality resulting from PM<sub>10</sub> emissions is typically associated with urban areas and is a product of domestic home heating (nationally) and vehicle emissions (Auckland). Lesser sources of PM<sub>10</sub> are industrial and agricultural emissions and natural sources of small particles that include dust, pollens and sea salt. Weather conditions and geography also influence air quality. Wind can disperse pollution, temperature inversions (where a layer of warm air stops cold air close to the ground from rising) can trap pollution and the topography of valleys can encourage air pollution to build up.

## INTERNATIONAL COMPARISON

Ambient air quality is particular to one location. It is reasonable to compare particular sites between countries but not to compare countries.

In 2007, the annual average levels of PM<sub>10</sub> were similar between the five main centre New Zealand sites and the 21 sites in the Australian regions of Sydney and Port Phillip (which includes Melbourne). The New Zealand sites had annual average levels of PM<sub>10</sub> ranging from 12–20µg/m<sup>3</sup>, while the sites in the two Australian regions had annual average PM<sub>10</sub> levels ranging from 13–22µg/m<sup>3</sup>.<sup>95</sup>

# Drinking water quality

## DEFINITION

The proportion of the estimated resident population who receive their water from community water supplies whose drinking water complies with either the 2000 or 2005 Drinking-water Standards of New Zealand relating to *E. coli* and *Cryptosporidium*.

## RELEVANCE

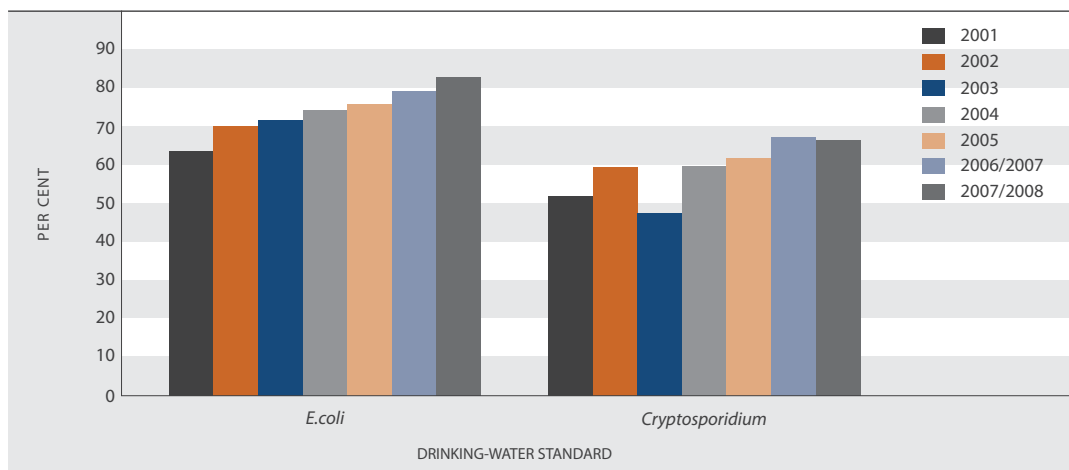
Good quality drinking water is critical for people's health and their quality of life. The health risk to consumers from water-borne diseases in drinking water supplies comes from three main types of microorganisms: bacteria (such as *Campylobacter* and pathogenic *E. coli*), parasites (such as *Giardia* and *Cryptosporidium*) and viruses such as Norovirus. Improvements in this indicator suggest less of the population is at risk of water-borne diseases and other microbiological contaminants. In 2006/2007 there were 27 water-borne disease outbreaks, with untreated or contaminated supplies identified as a contributing factor in most of them.<sup>96</sup>

## CURRENT LEVEL AND TRENDS

Most New Zealanders are supplied with drinking water that complies with the microbiological standards. However, many smaller communities are supplied with microbiologically non-compliant drinking water. In 2007/2008, the proportion of the total population whose drinking water, measured at the tap, complied with the Drinking-water Standards for *E. coli* was 83 per cent. This was an increase from 79 per cent in 2006/2007 and a considerable improvement from 63 per cent in 2001. Most water supplies serving large population areas are fully compliant with the Drinking-water Standards. A common reason for non-compliance is inadequate monitoring rather than proven contamination of drinking water.

Compliance with the Drinking-water Standards for *Cryptosporidium* is assessed at the water treatment plant rather than at the tap. In 2007/2008, the *Cryptosporidium* compliance rate was 66 per cent. This was similar to the 2006/2007 rate of 67 per cent, but an improvement on the 2001 rate of 52 per cent. Compliance rates for *Cryptosporidium* dropped in 2003 to 47 per cent, but recovered to 59 per cent in 2004. The drop in the compliance rate in 2003 was largely due to non-compliance at the Waitakere plant, which has since been resolved.

Figure EN2.1 **Proportion of the population served with water that meets the relevant Drinking-water Standards, 2001–2007/2008**



Source: Environmental Science and Research, customised data

Notes: (1) The measurement of compliance moved from a calendar year to a fiscal year in 2006 (2) These compliance rates may differ from those published by the Ministry of Health due to methodological differences explained in Appendix 2

## REGIONAL DIFFERENCES

The current transition between the 2000 and 2005 Drinking-water Standards is scheduled to take several years to complete, with drinking water suppliers choosing which of these standards to operate under in the meantime. Therefore, some regions will have moved to the 2005 standards while others will still be using the 2000 standards.

There is considerable regional variation in the population served with drinking water that is fully compliant with the 2000 or 2005 Drinking-water Standards for *E. coli* and *Cryptosporidium*. Between 2002 and 2005, less than 5 per cent of the population in the Marlborough region was served with drinking water that fully complied with the Drinking-water Standards for *E. coli*. In 2006/2007 this increased significantly to 75 per cent and remained at that level in 2007/2008. The West Coast and Tasman regions have had compliance rates with *E. coli* standards below 50 per cent since 2004. Compliance was highest in the Nelson (97 per cent), Canterbury (91 per cent) and Auckland (90 per cent) regions.

In 2007/2008, none of the population in the Marlborough and Gisborne regions was supplied with drinking water that fully complied with the Drinking-water Standards for *Cryptosporidium*. None of the population in Marlborough has had drinking water that complied with the standards for *Cryptosporidium* since the data series started in 2001. In 2007/2008, 1 per cent of the population in the West Coast region and 4 per cent of the population in the Tasman region were supplied with fully-compliant drinking water. Compliance with *Cryptosporidium* standards was highest in the Nelson (96 per cent), Auckland (87 per cent) and Wellington (83 per cent) regions.

## INTERNATIONAL COMPARISON

Overall, the quality of New Zealand's drinking water is comparable with other developed countries. New Zealand's water supplies are free of many of the pathogens that result in sickness and death in some parts of the world. However, the annual average incidence of notified cases of *Giardia* infection in New Zealand between 1997 and 2006 was 44.1 cases per 100,000 people, considerably higher than reported rates for other western countries, such as the United Kingdom, with 5.5 cases per 100,000 in 2005.<sup>97</sup> The incidence of notified cryptosporidiosis between 1997 and 2006 was also higher in New Zealand (22.0 cases per 100,000) than in some other western countries, such as Australia (15.8 cases per 100,000 in 2005) and the United Kingdom (8.5 cases per 100,000 in 2005).<sup>98</sup> The contribution of contaminated drinking water to the incidence of giardiasis and cryptosporidiosis is not accurately known.

HEALTH

KNOWLEDGE AND SKILLS

PAID WORK

ECONOMIC STANDARD OF LIVING

CIVIL AND POLITICAL RIGHTS

CULTURAL IDENTITY

LEISURE AND RECREATION

PHYSICAL ENVIRONMENT

SAFETY

SOCIAL CONNECTEDNESS

## DESIRED OUTCOMES

Everybody enjoys physical safety and feels secure. People are free from victimisation, abuse, violence and avoidable injury.

# Safety

## INTRODUCTION

Safety is fundamental: violence and avoidable injuries, at their most extreme, threaten life itself. In other cases, they reduce the quality of life for the victim and other people in various ways.

Both safety and security are important. Safety is freedom from physical or emotional harm, while security is freedom from the threat or fear of harm or danger. The desired outcomes recognise threats come in many forms, ranging from deliberate violence to accidental injury.

Reducing interpersonal violence in families and communities is critical to people's safety. Physical injury causes pain and incapacity, reducing victims' enjoyment of life and their ability to do things that are important to them.

Property crime, such as burglary, also affects people's wellbeing. In addition to the direct losses associated with crime of this sort, evidence suggests the threat of burglary is a more significant worry for many people than the threat of violence.<sup>99</sup>

Psychological effects are often as important as the physical ones. Victims of violence or injury often retain emotional scars long after their physical wounds have healed. They may suffer from depression or face other mental health issues.

Crime affects not only individuals but also society as a whole. The victim's family and friends are likely to suffer grief and anger. They may have to care for someone who is temporarily or permanently incapacitated and who may lose their livelihood. Crime and the fear of crime may also reduce social cohesion within communities.

Crime may restrict people's choices about how to live their lives. For example, they may stay away from certain areas or avoid going out because of a fear of crime.

The costs to society as a whole range from the expense of hospital care and law enforcement to the loss of the victim's input into their work and community. Children who grow up surrounded by violence may themselves become violent adults, perpetuating a negative cycle.

INDICATORS

Four indicators are used in this chapter: assault mortality, criminal victimisation, fear of crime and road casualties. The first three indicators provide a picture of the level and impact of violence in the community.

Assault mortality provides a picture of intentional violence across society. This indicator measures deaths resulting from violence, the tip of the violence pyramid. Young children and youth are particularly vulnerable.

Measuring criminal victimisation from police records is difficult, as many crimes are not reported to the police. This is particularly true of domestic violence, sexual violence and child abuse. The second indicator uses survey results to give a more comprehensive picture of the level of criminal victimisation in society, including the level of violence.

The third indicator is fear of crime. Feeling unsafe causes anxiety and reduces people's options in life. However, there is some evidence fear is not necessarily linked to the actual risk of becoming a crime victim. For example, people may feel unsafe even when the actual likelihood of their being victimised is relatively small.

People should also be able to live in a society free from the risk of avoidable death or injury. The leading cause of avoidable injury and death is motor vehicle crashes. In economic terms, the social cost of motor vehicle crashes has been estimated at \$3.1 billion annually.<sup>100</sup> The final indicator is road casualties.

Workplace accidents are another form of avoidable injury. They are discussed in the chapter on Paid Work.

HEALTH

KNOWLEDGE AND SKILLS

PAID WORK

ECONOMIC STANDARD OF LIVING

CIVIL AND POLITICAL RIGHTS

CULTURAL IDENTITY

LEISURE AND RECREATION

PHYSICAL ENVIRONMENT

SAFETY

SOCIAL CONNECTEDNESS

# Assault mortality

## DEFINITION

The number of people who have died as the result of an assault, per 100,000 population.

## RELEVANCE

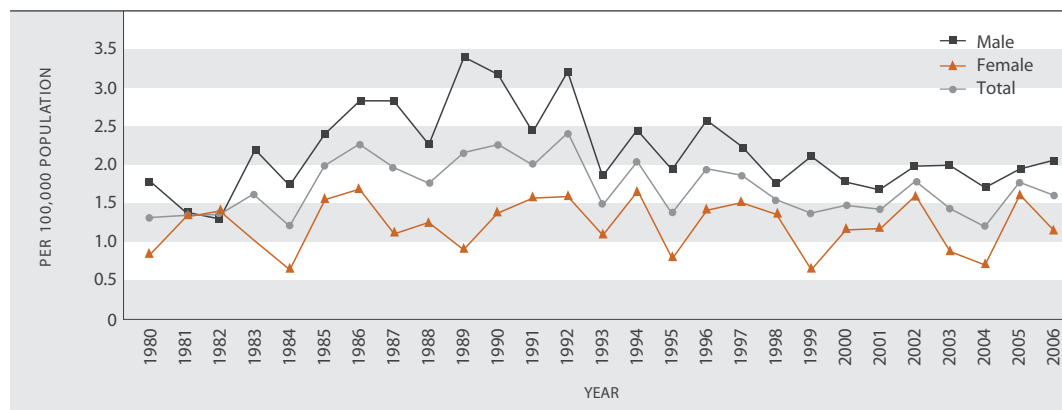
Reducing interpersonal violence in families and communities is critical to social and personal wellbeing. This indicator measures deaths resulting from violence, the tip of the violence pyramid. Young children and youth are particularly vulnerable.

## CURRENT LEVEL AND TRENDS

In the five years to 2006, 307 people died as the result of an assault. This was more than the 284 people in the five-year period 1997–2001, but fewer than the 319 people in 1992–1996, and the 339 people in 1987–1991.

The provisional age-standardised assault mortality rate for the year 2006 was 1.6 per 100,000 population, down from 1.8 per 100,000 in 2005. In the early-1980s, the assault mortality rate was around 1.5 per 100,000. It increased to around 2.0 per 100,000 between 1986 and 1992, falling back to around 1.5 per 100,000. It should be noted that rates based on small numbers are volatile, and trends can be difficult to discern over the short term.

Figure SS1.1 Age-standardised assault mortality rate, by sex, 1980–2006



Source: Ministry of Health

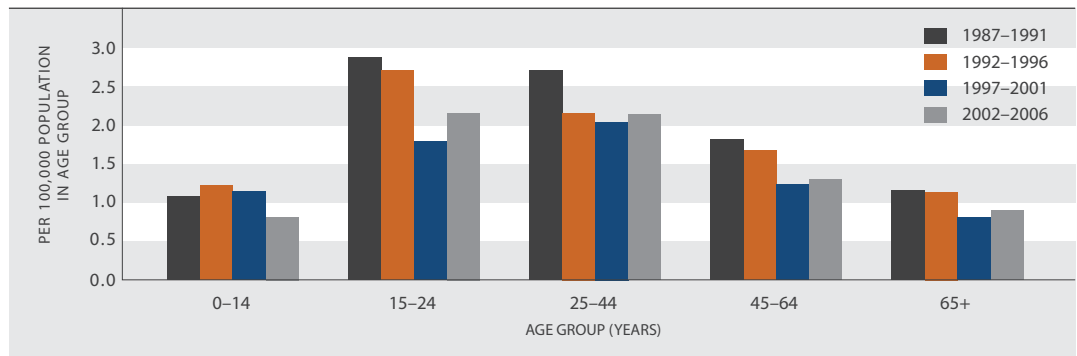
Notes: (1) 2006 data is provisional (2) Age-standardised to the WHO standard world population

## AGE AND SEX DIFFERENCES

Five-year average annual assault death rates for the period 2002–2006 were highest among youth aged 15–24 years (2.2 deaths per 100,000), followed by adults aged 25–44 years (2.1 per 100,000) and those aged 45–64 years (1.3 per 100,000). Children under 15 years and older people aged 65 years and over had the lowest rates (0.8 and 0.9 per 100,000 respectively). For children, the risk of dying from an assault is highest at younger ages. In the five years to 2006, the assault death rate for children under 5 years was 1.8 deaths per 100,000, more than four times higher than the rate for 5–14 year olds (0.4 per 100,000). In all age groups, rates were lower in the period 2002–2006 than they had been in the late-1980s.

Males are more likely than females to die from an assault. The provisional 2006 age-standardised death rate was 2.1 per 100,000 for males, and 1.2 per 100,000 for females. The rise in the assault mortality rate in the late-1980s and early-1990s was the result of an increase in the male rate in that period.

Figure SS1.2 **Five-year average annual assault mortality rate, by age, 1987–1991 to 2002–2006**



Source: Ministry of Health  
 Note: 2006 data is provisional

**ETHNIC DIFFERENCES**

Māori are significantly more likely than non-Māori to die as the result of an assault. In 2006, the age-standardised rate for Māori was 4.7 deaths per 100,000 compared with 1.0 per 100,000 for non-Māori. The age-standardised rate for Māori males (5.7 per 100,000) was higher than the rate for Māori females (3.9 per 100,000).

In the five years from 2002 to 2006, Māori children aged under 15 years died from an assault at an average annual rate of 1.6 per 100,000 children. Over the same period, non-Māori children died at an average annual rate of 0.5 per 100,000 children.

**INTERNATIONAL COMPARISON**

OECD homicide death rates are standardised to the 1980 OECD population and differ from the rates shown in this indicator. The most recent data is for the years 2003–2007. The median homicide death rate for 28 OECD countries over this five-year period was 1.2 per 100,000 for males and 0.7 per 100,000 for females. New Zealand’s homicide death rates in 2005 were higher than the OECD medians for males (1.9 per 100,000) and considerably higher for females (1.6 per 100,000). New Zealand’s male homicide death rate was higher than Australia’s (1.0 per 100,000 males) and the United Kingdom’s (0.5 per 100,000), lower than Canada’s (2.3 deaths per 100,000) and substantially lower than the male homicide death rate in the United States (9.9 per 100,000). New Zealand had a higher female homicide death rate than Canada (0.9 deaths per 100,000 females), Australia (0.6 per 100,000) and the United Kingdom (0.3 per 100,000), but a lower rate than the United States (2.5 per 100,000).<sup>101</sup>

International comparison information for child maltreatment deaths is not available on an annual basis. Results of a 2003 UNICEF study of child maltreatment deaths in rich countries in the 1990s showed that New Zealand had the third highest child maltreatment death rate (1.2 per 100,000 children under the age of 15 years).

HEALTH  
 KNOWLEDGE AND SKILLS  
 PAID WORK  
 ECONOMIC STANDARD OF LIVING  
 CIVIL AND POLITICAL RIGHTS  
 CULTURAL IDENTITY  
 LEISURE AND RECREATION  
 PHYSICAL ENVIRONMENT  
 SAFETY  
 SOCIAL CONNECTEDNESS

# Criminal victimisation

## DEFINITION

The proportion of the population aged 15 years and over who had been victims of one or more incidents of criminal offending in 2005 as measured by the New Zealand Crime and Safety Survey 2006.

## RELEVANCE

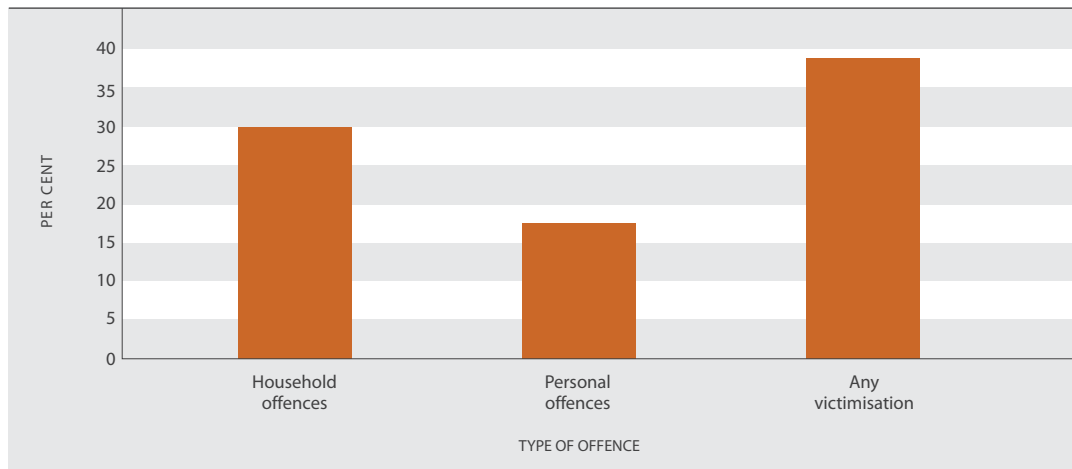
The criminal victimisation rate provides a broad measure of personal safety and wellbeing. Surveys of criminal victimisation generally provide a more comprehensive picture of victimisation than police data, as not all offending is reported to or recorded by the police.

## CURRENT LEVEL

The survey data shows 39 per cent of New Zealanders aged 15 years and over experienced some form of criminal victimisation in 2005. Comparisons with data from earlier surveys are not possible owing to changes in the survey design.<sup>102</sup>

Thirty per cent of households had been victims of some kind of household crime in 2005. The most common offences were burglaries (14 per cent) and vandalism to household property (9 per cent). Over the same period, 18 per cent of individuals had been victims of some type of personal offence, the most common being assaults and threats (both 9 per cent). A relatively small number of people accounted for the majority of victimisations: just 6 per cent of people had been victimised five or more times during the survey period but they experienced 51 per cent of all victimisations.

Figure SS2.1 **Criminal victimisation prevalence rate, by type of victimisation, 2005**



Source: Mayhew and Reilly (2007b) Table 3.1

## AGE AND SEX DIFFERENCES

Young people are more likely than others to be victims of crime, and the likelihood of being victimised decreases with age. Among people in the 15–24 years age group, 55 per cent were victims of either personal or household offences in 2005. This compares with 46 per cent of 25–39 year olds, 37 per cent of 40–59 year olds and 20 per cent of those aged 60 years and over. Young people aged 15–24 years also had the highest rates of victimisation for confrontational offences: 13 per cent were victims of confrontational offences committed by partners, 10 per cent were victimised by people who were well known to them, and 16 per cent by other offenders.



The overall rate of victimisation did not vary by sex, with 39 per cent of both men and women experiencing some form of criminal victimisation in 2005. The pattern of victimisation by age was also similar for both sexes. With confrontational offences, men were as likely as women to have been victimised at least once by a partner (6 per cent compared with 7 per cent for women). However, women experienced more offences than men did (26 incidents per 100 women, compared with 18 incidents per 100 men).<sup>103</sup> Prevalence rates did not differ by sex for offences committed by people well known to the victim (5 per cent for both men and women), but men were more likely than women to be victims of confrontational offences by other offenders (9 per cent compared with 6 per cent).

Women were around twice as likely as men to be the victims of sexual offences (4 per cent compared with 2 per cent), with the highest rate experienced by women aged 15–24 years (12 per cent). Over a third of sexual offences were committed by the victims' current partners.

Table SS2.1 **Criminal victimisation prevalence rate (%), by age and sex, 2005**

Age group	Rate per 100 persons in each group		
	Men	Women	Total
15–24	53	56	55
25–39	44	47	46
40–59	36	37	37
60+	21	19	20
<b>Total</b>	<b>39</b>	<b>39</b>	<b>39</b>

Source: Mayhew and Reilly (2007b) Table C3

## ETHNIC DIFFERENCES

The likelihood of being a victim of crime varies by ethnicity. Among both Māori and Pacific peoples aged 15 years and over, 47 per cent had experienced some form of criminal victimisation in 2005. This compared with 43 per cent of Asians and 37 per cent of Europeans. The high rates for Māori and Pacific peoples are likely to be due, at least in part, to these populations having a high incidence of other risk factors associated with victimisation – for instance they are more likely to be young, to be unemployed, to be sole parents and to live in more socio-economically deprived areas.

Māori had a relatively high rate of victimisation for confrontational offences: 14 per cent for offences committed by partners, and 11 per cent both for offences committed by people well known to them and for offences committed by other offenders. For Māori women, the risk of being assaulted or threatened by a partner was three times the average (18 per cent compared with 6 per cent for all respondents). Comparable figures for Pacific peoples are not reliable owing to the small size of the sample.

## OTHER GROUPS AT RISK

Other groups reporting a high level of victimisation included sole parents with children (60 per cent had experienced some form of criminal victimisation in 2005), students and people living with flatmates (57 per cent and 54 per cent, respectively), people who were single or in de facto relationships (50 per cent and 49 per cent), people who rented their homes either from private landlords or public agencies (49 per cent and 45 per cent), those who were unemployed and/or on benefits (48 per cent), and those who lived in the most deprived fifth of New Zealand areas (45 per cent, compared to 35 per cent of those living in the least deprived neighbourhoods). Many of these characteristics are closely inter-related.

# Fear of crime

## DEFINITION

The proportion of the population aged 15 years and over who said fear of crime had a moderate or high impact on their quality of life (scoring its effect at 4 or higher on a scale from 0–10, where 0 is no effect and 10 is total effect on quality of life), as measured by the New Zealand Crime and Safety Survey 2006.

## RELEVANCE

Anxiety and worries about victimisation detract from wellbeing, and may cause people to alter their behaviour to avoid being victimised. This limits people's options and can reduce their freedom.

## CURRENT LEVEL

In 2005, 40 per cent of New Zealanders said that fear of crime had a moderate or high impact on their quality of life, scoring its effect at 4 or higher on a 0–10 scale. A third (33 per cent) scored its effect at 4–7, while 7 per cent scored it at 8–10. People who had been a victim of any crime were more likely than average to report that fear of crime affected their quality of life.

## AGE AND SEX DIFFERENCES

Women were more likely than men to report that fear of crime had a moderate or high impact on their quality of life, with 45 per cent of females and 34 per cent of males scoring its effect at 4 or above on the impact scale. Thirty-seven per cent of females and 28 per cent of males reported a moderate impact (scoring it at 4–7), while 8 per cent of females and 6 per cent of males reported a high impact on their quality of life (scoring it at 8–10).

People aged 25–39 years were the most likely to report that fear of crime affected their quality of life, while people aged 60 years and over were the least likely to do so. In all age groups, women were more likely than men to say fear of crime had an impact on their quality of life.

Table SS3.1 **Proportion (%) of the population aged 15 years and over who reported that fear of crime had a moderate or high impact on their quality of life, by age and sex, 2005**

Age group	Males			Females		
	High impact (score of 8–10)	Moderate impact (score of 4–7)	Moderate or high impact (score of 4–10)	High impact (score of 8–10)	Moderate impact (score of 4–7)	Moderate or high impact (score of 4–10)
15–24	4	32	36	8	39	47
25–39	8	31	39	10	44	54
40–59	7	27	33	9	34	43
60+	4	24	29	6	31	37

Source: Mayhew and Reilly (2007a) Table B21

Note: Combined scores may not add up because of rounding

## ETHNIC DIFFERENCES

At 60 per cent, Asian people were far more likely than other ethnic groups to report that fear of crime affected their quality of life, either moderately or a great deal. Europeans were the least likely to do so (36 per cent), while Māori and Pacific peoples fell in the middle of the range, at 47 per cent. Asians also had the largest proportion of any group rating the impact of fear of crime on their quality of life as high (18 per cent). In each ethnic group, women were more likely than men to report that fear of crime affected their quality of life.

Table SS3.2 **Proportion (%) of the population aged 15 years and over who reported that fear of crime had a moderate or high impact on their quality of life, by ethnic group, 2005**

	High impact (score of 8–10)	Moderate impact (score of 4–7)	Moderate or high impact (score of 4–10)
European	5	31	36
Māori	10	37	47
Pacific peoples	13	33	47
Asian	18	43	60

Source: Mayhew and Reilly (2007a) Table B21

Note: Combined scores may not add up because of rounding

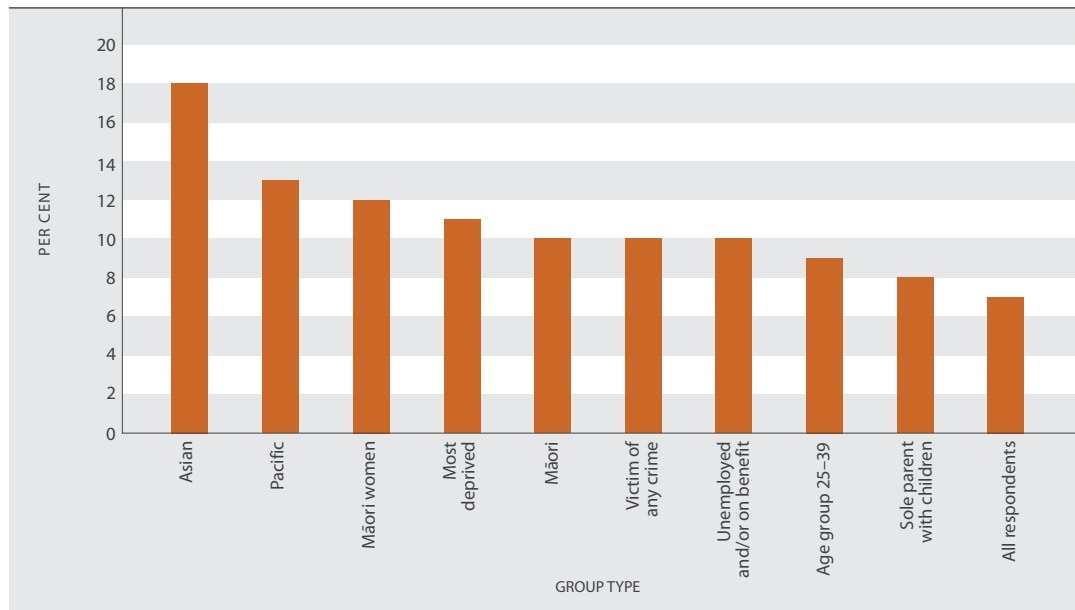
### SOCIO-ECONOMIC DIFFERENCES

People living in the most deprived areas of New Zealand were much more likely to report that fear of crime affected their quality of life (49 per cent) than those living in the least deprived areas (33 per cent). People in deprived areas were more than twice as likely as those in the least deprived areas to score the effect of fear of crime on their quality of life at the high end of the scale (11 per cent and 5 per cent, respectively).

### DIFFERENCES BY HOUSEHOLD COMPOSITION

Among households, sole parents living with their children had the highest proportion reporting that fear of crime affected their quality of life (46 per cent), followed by couples with children (44 per cent). People living alone (38 per cent) and couples without children (34 per cent) were less likely than average to say fear of crime affected their quality of life.

Figure SS3.1 **Groups whose quality of life is highly affected (score of 8–10) by fear of crime, 2005**



Source: Mayhew and Reilly (2007a) Table B21

# Road casualties

## DEFINITION

The number of people killed or injured in motor vehicle crashes as a proportion (per 100,000) of the total population.

## RELEVANCE

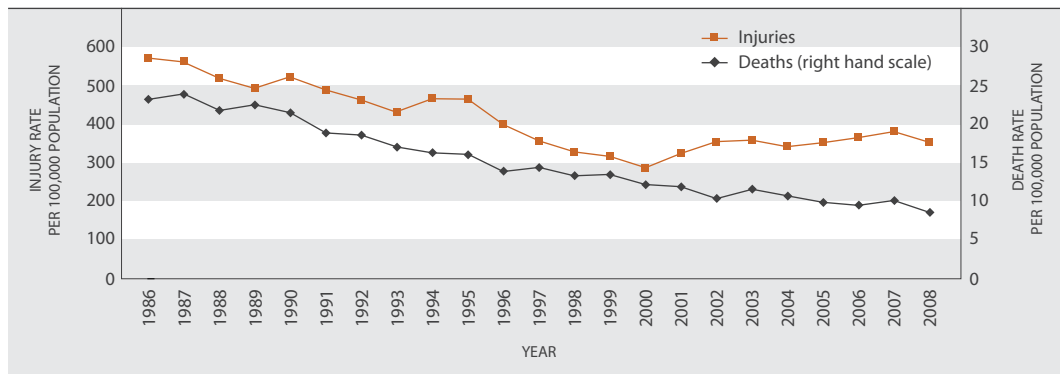
Motor vehicle crashes are a major cause of premature death, especially among younger age groups. Deaths, injuries and disability resulting from motor vehicle crashes inflict considerable pain and suffering on individuals, families and communities, as well as on other road users, emergency service providers, health workers and others.

## CURRENT LEVEL AND TRENDS

In 2008, 365 people died as a result of motor vehicle crashes, a rate of 8.6 deaths per 100,000 population. Provisional reported injury data for 2008 shows a further 15,022 people were injured, a rate of 352 injuries per 100,000 population.<sup>104</sup> In 2007, the death rate was 10.0 per 100,000 and the injury rate was 379 per 100,000. Deaths and injuries from motor vehicle crashes have declined substantially since 1986, when the rates were 23.1 and 570 per 100,000 population, respectively. The number of people killed in motor vehicle crashes was 52 per cent lower in 2008 than it was in 1986. Although the number of people injured has risen since 2000 (partly because of better recording by police), there were 20 per cent fewer people injured in 2008 than in 1986.

There is no conclusive evidence on the reasons for the reduction in road casualties since 1986. Better roads and better vehicles, as well as legislation, enforcement and education aimed at reducing road casualties, may all have contributed to an improvement in drivers' attitudes and behaviour.

Figure SS4.1 Road traffic injury and death rates, 1986–2008



Source: Ministry of Transport

Note: Data for 2002–2006 has been revised using new population estimates

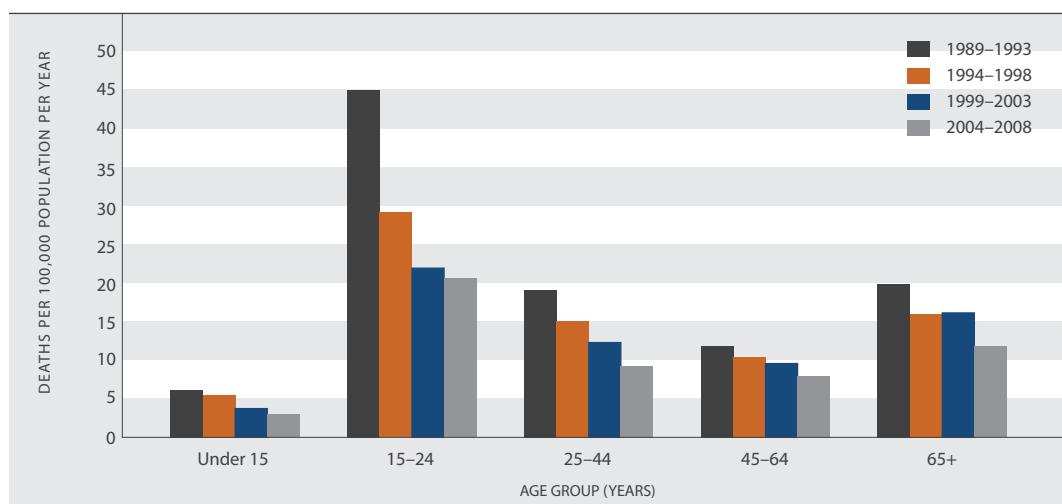
## AGE AND SEX DIFFERENCES

Young people aged 15–24 years are at a far higher risk of death from motor vehicle crashes than any other age group. Death rates for 15–24 year olds are more than double those of the population as a whole. The risk of dying in a crash is relatively low in middle age, then increases at older ages, partly because the very old are more fragile.

The death rate for all age groups has fallen steadily over the period since 1986. The decline has been particularly marked among 15–24 year olds, who had an average annual rate of 21 deaths per 100,000 in the period 2004–2008, a big improvement on the average annual rate of 45 deaths per 100,000 for the 1989–1993 period.

Males are much more likely than females to be killed in motor vehicle crashes. Between 2004 and 2008, the average annual death rate for males was 13 deaths per 100,000 males, while the rate for females was 6 deaths per 100,000 females. For both sexes, this was considerably lower than the average annual rate for the 1989–1993 period (28 deaths per 100,000 for males and 12 per 100,000 for females).

Figure SS4.2 **Five-year average annual road death rates, by age, 1989–1993 to 2004–2008**



Source: Ministry of Transport, rates derived by the Ministry of Social Development

## ETHNIC DIFFERENCES

Māori are much more likely than other ethnic groups to die in motor accidents, with a provisional age-standardised road death rate of 21 per 100,000 population in 2006. In comparison, the provisional road death rate for non-Māori in 2006 was 8 per 100,000.

Table SS4.1 **Land transport accident death rates, by ethnicity, 2000–2006**

Year	Age-standardised rate per 100,000 population		
	Māori	Non-Māori	Total
2000	22	12	13
2001	18	12	13
2002	21	11	12
2003	25	11	13
2004	21	10	12
2005	21	9	11
2006	21	8	10

Source: Ministry of Health, New Zealand Health Information Service

Notes: (1) The injury mortality classification changed in 2000 and, as a result, data from earlier years is not comparable (2) 2006 data is provisional (3) Age-standardised to the WHO standard world population

Māori and Pacific peoples are less likely to drive than Europeans, but when they do they are at a greater risk of injury and death. A 1998 survey showed that, per distance driven, the risk of being hospitalised as a result of a crash was more than three times as high for Māori drivers, and only slightly less than three times as high for Pacific drivers, compared to European drivers.<sup>105</sup>

## INTERNATIONAL COMPARISON

Using the most recent data for the years 2005–2007, New Zealand was ranked 18th out of 27 OECD countries, with a road death rate of 10.0 per 100,000 people. This was slightly higher than the OECD median of 9.2 deaths per 100,000. The Netherlands had the lowest road death rate (4.3 per 100,000), followed by Iceland (4.9 per 100,000) and Switzerland (5.1 per 100,000). The New Zealand road death rate was lower than that of the United States at 14.7 per 100,000, but higher than those of Canada (9.2 per 100,000), Australia (7.7 per 100,000) and the United Kingdom (5.4 per 100,000).<sup>106</sup>

## DESIRED OUTCOMES

People enjoy constructive relationships with others in their families, whānau, communities, iwi and workplaces. Families support and nurture those in need of care. New Zealand is an inclusive society where people are able to access information and support.

# Social Connectedness

## INTRODUCTION

Social connectedness refers to the relationships people have with others.

People are defined by their social roles, whether as partners, parents, children, friends, caregivers, teammates, staff or employers, or a myriad of other roles. Relationships give people support, happiness, contentment and a sense they belong and have a role to play in society.<sup>107</sup> They also mean people have support networks in place they can call on for help during hard times.

Social connectedness also refers to people joining together to achieve shared goals that benefit each other and society as a whole – this may range from working together as part of a business to contributing to their communities through voluntary groups.

One of the most important aspects of social connectedness is the relationship people have with a spouse or a partner. Studies have consistently found having a partner contributes to a person's reported level of wellbeing.<sup>108</sup>

Several studies have demonstrated links between social connectedness and the performance of the economy and positive outcomes for individual health and wellbeing.<sup>109</sup>

Social connectedness is fostered when family relationships are positive, and when people have the skills and opportunities to make friends and to interact constructively with others. Good health, employment, and feeling safe and secure all increase people's chances of developing positive relationships.

INDICATORS

Five indicators are used to measure New Zealand’s levels of social connectedness. These are: telephone and internet access in the home, regular contact with family/friends, trust in others, the proportion of the population experiencing loneliness and contact between young people and their parents.

Together, the five indicators measure the opportunities for and the actual levels of connection between people, both within their immediate social groups and within the wider community. Access to the internet is significant. It improves people’s ability to access information and, as a consequence, it provides more opportunities for people to participate in society. Both the telephone and the internet enable people to keep in touch without seeing each other face to face. This means social connectedness can be maintained when people are in different cities or even in different countries. It also means new social networks can be opened up across geographical boundaries between people who may never have met.

For most people, social networks centre on family and friends. The second indicator measures the proportion of people who keep in touch with family and friends by having them over for a meal at least once a month.

Trust in others, the third indicator, measures the extent to which people expect others to act fairly and honestly towards them. High levels of trust enhance wellbeing by facilitating co-operative behaviour among people who otherwise do not know each other. Trust also enhances people’s ability to develop positive relationships with others.

The fourth indicator measures levels of loneliness. Feelings of isolation and loneliness undermine overall wellbeing and can be detrimental to people’s physical and emotional health, resulting in stress, anxiety or depression.

The final indicator, the proportion of young people who report getting enough time each week with their parents, is a measure of the extent to which people in need of care and nurturing receive that support.

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PHYSICAL ENVIRONMENT

SAFETY

SOCIAL CONNECTEDNESS

# Telephone and internet access in the home

## DEFINITION

The proportion of the population with telephone access (either landline or cellphone) and internet access in the home.

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## RELEVANCE

Access to a telephone and access to communication via the internet helps to maintain social connectedness. It enables social contact with friends and family in the absence of frequent face-to-face contact. The telephone also ensures an adequate line of communication in times of need and emergency.

The internet is an important means of accessing a wide range of information and services. People who are unable to access information technologies or who are without the skills to use them run the risk of being excluded from possible social, educational, cultural and economic benefits. This may have adverse effects on their educational outcomes and employment prospects.

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## CURRENT LEVEL AND TRENDS

In 2006, 98 per cent of New Zealand residents lived in households with telephones, an increase from 96 per cent in 2001. The 2006 Census, for the first time, collected information separately on cellphones and landline telephones. It showed that 79 per cent of people lived in households with cellphones available in the dwelling all or most of the time, while 92 per cent lived in households with landline telephones.

At the 2006 Census, 66 per cent of people lived in households with access to the internet, a considerable increase from 43 per cent in 2001.

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## AGE AND SEX DIFFERENCES

There are only minor differences in telephone access by age and sex. Access increases slightly with age, with those aged 45 years and over being the most likely to have telephones in the household (99 per cent). However, the gaps between younger and older people narrowed between 2001 and 2006.

Similarly, there are only minor age differences in the level of internet access up to the age of 65 years but the level falls considerably for people aged over 65 years. In 2006, between 68 per cent and 71 per cent of age groups below 65 years lived in households with internet access, compared with just 39 per cent of those aged 65 years and over. However, between 2001 and 2006 those aged 65 years and over experienced a proportionately greater increase in internet access than younger people.

There is very little difference in telephone or internet access between the sexes, although women are slightly more likely than men to have telephone access and slight less likely to have internet access. These differences are more pronounced at older ages, particularly in the case of the internet. In 2006, 45 per cent of males and 35 per cent of females aged 65 years and over had internet access.



Table SC1.1 **Proportion (%) of the population with telephone and internet access in the home, by population characteristics, 2001 and 2006**

	Telephone access		Internet access	
	2001	2006	2001	2006
<b>Age</b>				
0–14 years	94.6	97.6	45.6	69.1
15–24 years	95.3	97.6	47.5	68.0
25–44 years	96.1	98.0	47.0	70.8
45–64 years	97.7	98.6	45.6	70.9
65 years and over	98.4	98.9	16.4	39.2
<b>Total</b>	<b>96.3</b>	<b>98.1</b>	<b>42.9</b>	<b>66.4</b>
<b>Sex</b>				
Male	96.0	97.9	44.1	67.2
Female	96.5	98.3	41.8	65.5
<b>Ethnicity</b>				
European	98.1	98.9	45.5	70.4
Māori	88.3	94.4	25.3	46.7
Pacific peoples	87.0	95.1	20.4	37.7
Asian	97.8	98.7	61.5	77.4
Other	97.3	98.5	55.6	72.9
<b>Family type</b>				
One parent with dependent children	87.3	95.1	27.9	50.3
Two parents with dependent children	96.5	99.1	54.9	79.3
All families with dependent children	93.8	98.0	47.0	71.2

Source: Statistics New Zealand, Census of Population and Dwellings, 2001 and 2006

## ETHNIC DIFFERENCES

Māori and Pacific peoples have the lowest levels of household access to telephones and the internet. However, they experienced by far the greatest increases in both these areas between 2001 and 2006.

Access to telephones increased from 88 per cent to 94 per cent among Māori and from 87 per cent to 95 per cent among Pacific peoples between 2001 and 2006. Telephone access for European, Asian and other ethnic groups increased slightly over this period, reaching 99 per cent in 2006. In 2006, the difference in telephone access between Māori and Pacific peoples and the total population was larger for landline telephones than for cellphones.

Between 2001 and 2006 access to the internet increased from 25 per cent to 47 per cent among Māori and from 20 per cent to 38 per cent among Pacific peoples. These levels were still well below those of Asians (77 per cent), the Other ethnic group (73 per cent) and Europeans (70 per cent) in 2006.

## DIFFERENCES BY FAMILY TYPE

Among families with dependent children, 98 per cent had telephone access and 71 per cent had internet access in their homes in 2006. One-parent families were less likely than two-parent families to have access to either telephones or the internet, but they experienced proportionately greater increases in access between 2001 and 2006. In 2006, 95 per cent of one-parent families and 99 per cent of two-parent families had access to telephones while 50 per cent of one-parent families and 79 per cent of two-parent families had access to the internet.

## INTERNATIONAL COMPARISON

International comparisons show the proportion of households with internet access, rather than the proportion of people living in households with internet access. By this measure, New Zealand compares relatively favourably with other countries, ranking 13th out of 30 OECD countries surveyed between 2005 and 2007. With 65 per cent of households having internet access in 2006, New Zealand's figure is higher than the OECD median of 62 per cent. New Zealand's figure is similar to that of Australia (64 per cent in 2006), lower than those of the United Kingdom (67 per cent in 2007) and Canada (68 per cent in 2006), but higher than that of the United States (62 per cent in 2007).<sup>110</sup>

# Regular contact with family/friends

## DEFINITION

The proportion of the population who had family or friends over for a meal at least once a month, as measured by the New Zealand Living Standards Surveys.

**RELEVANCE** The extent to which people are in regular contact with family and friends is an important reflection of social connectedness.

**CURRENT LEVEL AND TRENDS** Seventy per cent of adults aged 18 years and over had friends or family over for a meal at least once a month in 2004. This was about the same level as in 2000 when 69 per cent had family or friends over for a meal.

Table SC2.1 **Proportion (%) of the population having family/friends over for a meal, by population characteristics, 2000 and 2004**

	Have family/friends over for a meal	
	2000	2004
<b>Population estimates</b>		
Total population aged 18 years and over	68.6	70.0
<b>Age groupings</b>		
Adults aged 18–64 years	70.0	71.1
Adults 65 years and over	60.2	63.7
<b>Economic family ethnicity</b>		
Māori economic family	70.2	73.3
Pacific economic family	79.5	69.9
European economic family	65.8	65.8
Other ethnic group economic family	68.2	78.0
<b>Families with dependent children</b>		
One-parent with dependent children	64.8	64.8
Two-parent with dependent children	70.8	73.4
All families with dependent children	69.1	70.8
<b>Family employment/income status</b>		
18–64 year olds, main income earner in full-time employment	69.4	72.4
18–64 year olds, main income earner not in full-time employment	67.7	62.9
65 year olds and over, with employment or other income (above New Zealand Superannuation)	75.3	79.7
65 year olds and over, with little or no other income (above New Zealand Superannuation)	56.5	61.8

Sources: Ministry of Social Development (2003a); Ministry of Social Development (2006)

**AGE AND SOCIO-ECONOMIC DIFFERENCES**

People aged 65 years and over who had employment income or other income in addition to New Zealand Superannuation were the group most likely to have friends or family over for a meal (80 per cent). In contrast, those in the same age group with little income above New Zealand Superannuation were the least likely to have people over for a meal (62 per cent). Similarly, among adults aged under 65 years, families where the main earner in the family was not in full-time employment were less likely than those with the main earner in full-time employment to have people over for dinner (63 per cent compared with 72 per cent).

**ETHNIC DIFFERENCES**

According to the 2004 New Zealand Living Standards Survey, people living in Other ethnic group economic families were the most likely to have friends or family over for a meal at least once a month (78 per cent). Māori were also slightly more likely than average to do this (73 per cent). Those living in European families had below-average levels of having people over for a meal (66 per cent), while Pacific families had average levels (70 per cent). Between 2000 and 2004, the biggest increase in the proportion of families having friends or family over for a meal was among Other ethnic group families (up 10 percentage points) and the biggest decrease was among Pacific families (down 10 percentage points).

**DIFFERENCES BY FAMILY TYPE**

Sole-parent families were less likely than two-parent families to have friends or family over for a meal (65 per cent compared to 73 per cent). Two-parent families were slightly more likely to have friends or family over for a meal in 2004 than in 2000, but there was no change for sole-parent families.

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# Trust in others

## DEFINITION

The proportion of the population aged 15 years and over reporting that people can “almost always” or “usually” be trusted, in the Quality of Life Survey.

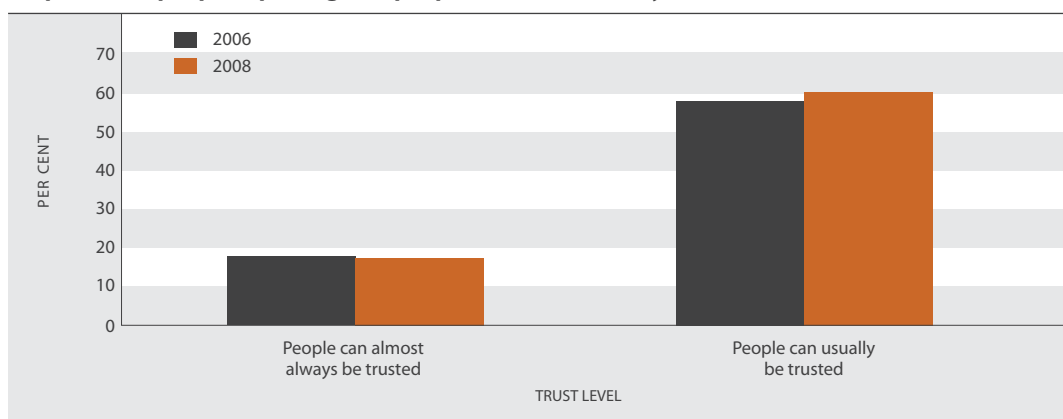
## RELEVANCE

Trust in others is an important indicator of how people feel about members of their community. High levels of trust facilitate co-operative behaviour among people and contribute to people’s ability to develop positive relationships with others.

## CURRENT LEVEL AND TRENDS

In 2008, 78 per cent of New Zealanders aged 15 years and over said that people can be trusted, a similar proportion to that recorded 2006 (76 per cent). Those who said that people can usually be trusted made up the largest group (60 per cent), while those who said that people can almost always be trusted made up 17 per cent. The corresponding figures for 2006 were 58 per cent and 18 per cent, respectively.

Figure SC3.1 **Proportion of people reporting that people can be trusted, by level of trust, 2006 and 2008**



Source: Quality of Life Survey 2006; Quality of Life Survey 2008

## AGE AND SEX DIFFERENCES

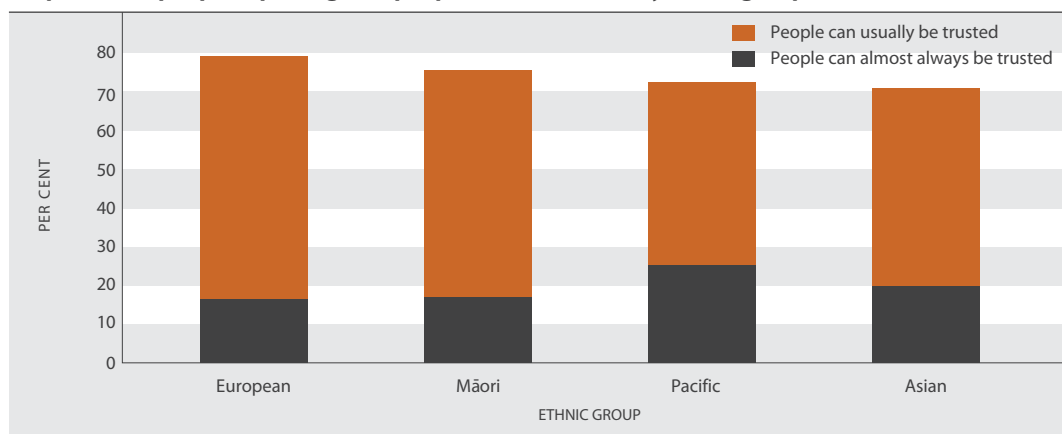
The proportion of New Zealanders aged 15 years and over reporting that people can be trusted was similar for males (78 per cent) and females (77 per cent). Eighteen per cent of males and 17 per cent of females agreed that people can almost always be trusted, while 60 per cent of both males and females responded that people can usually be trusted.

Young adults aged 15–24 years (74 per cent) were slightly less likely than people aged 25 years and over (78 per cent) to report that people can be trusted.

## ETHNIC DIFFERENCES

People of European ethnicity reported a slightly higher level of trust in people (79 per cent) than Māori (75 per cent). Pacific peoples (72 per cent) and those of Asian ethnicity (71 per cent) had the lowest proportions who said that people could be trusted.

Figure SC3.2 **Proportion of people reporting that people can be trusted, by ethnic group and level of trust, 2008**

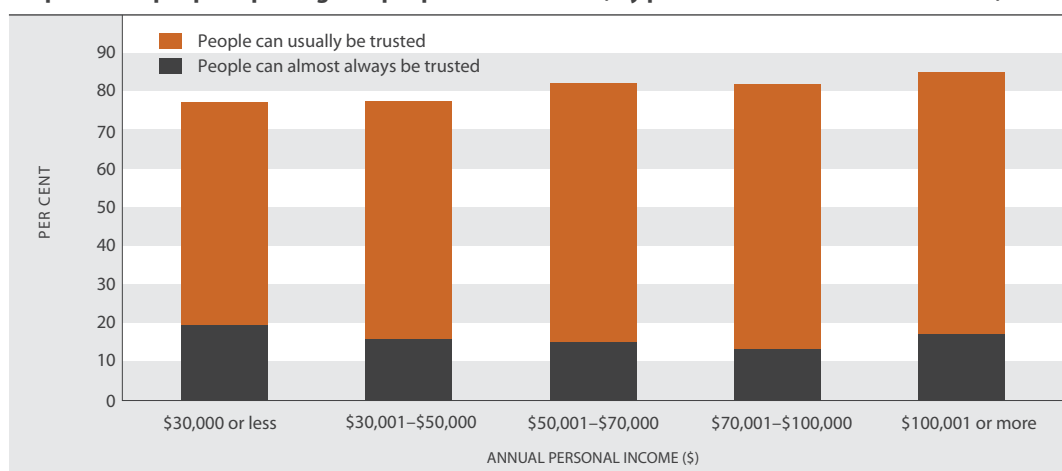


Source: Quality of Life Survey 2008

**SOCIO-ECONOMIC DIFFERENCES**

Across all income levels, a large majority of New Zealanders indicated that people can be trusted. Overall levels of reported trust increased with personal income levels. People with incomes over \$100,000 reported the highest overall level of trust (84 per cent), while people with incomes of \$30,000 or less reported the lowest level (76 per cent).

Figure SC3.3 **Proportion of people reporting that people can be trusted, by personal income and level of trust, 2008**



Source: Quality of Life Survey 2008

**REGIONAL DIFFERENCES**

Across all New Zealand's big cities, a large majority of New Zealanders indicated that people can be trusted. Reported levels of trust were highest in Wellington (87 per cent) and lowest in Manukau (68 per cent).

**INTERNATIONAL COMPARISON**

New Zealanders' level of trust in other people in 2006 compared well with those of people in European Union countries in 2005, and to that of people in Canada in 2003. Out of 25 OECD countries for which there was data, New Zealand had the sixth highest reported level of trust in other people<sup>111</sup>

New Zealand's reported level of trust in other people (76 per cent in 2006) was above the median of 56 per cent for these 25 OECD countries. Norway had the highest reported level of trust in people (87 per cent) followed by Denmark and Sweden (both 84 per cent). Canada (53 per cent) and the United Kingdom (55 per cent) reported lower levels of trust in other people than New Zealand.

# Loneliness

## DEFINITION

The proportion of people aged 15 years and over who reported feeling isolated or lonely “sometimes”, “most of the time” or “always” during the previous 12 months, in the Quality of Life Survey.

## RELEVANCE

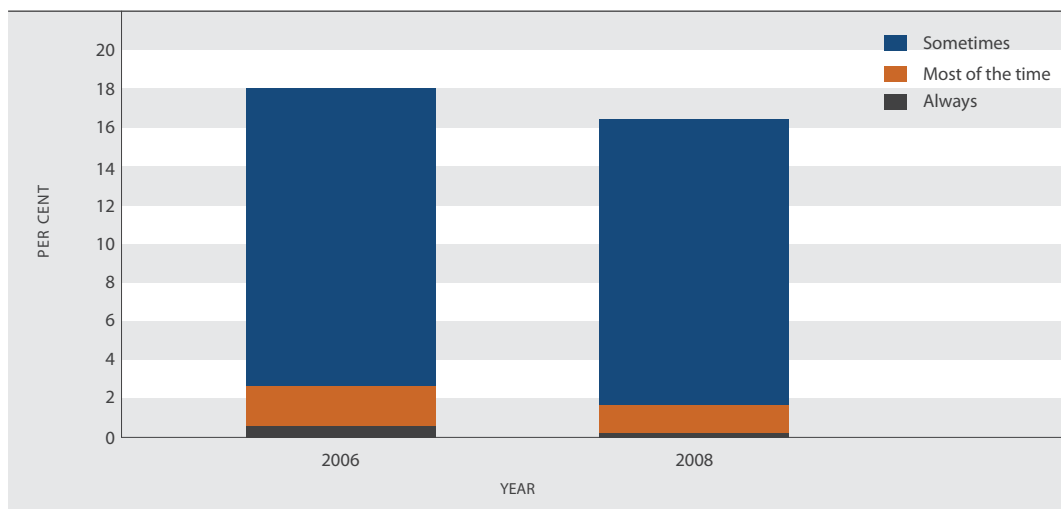
Social contact is fundamentally important to people: humans are social creatures. Self-assessed loneliness is a proxy indicator of whether people are happy with the amount and quality of social contact they have. As well as being an undesirable state in itself, loneliness may also contribute to poor outcomes in other areas, including adverse health problems such as stress, anxiety or depression.

## CURRENT LEVEL AND TRENDS

In 2008, 16 per cent of New Zealanders reported feeling lonely during the last 12 months. Fifteen per cent said they felt lonely sometimes, while fewer than 2 per cent said they were lonely most of the time or that they always felt lonely. In 2006, 18 per cent of New Zealanders reported feeling lonely, similar to the level in 2008.

Feelings of isolation or loneliness are strongly associated with self-rated health and overall life satisfaction. Those who rated their health as “excellent” or “very good” were far less likely to have felt lonely in the past 12 months (10 per cent and 14 per cent, respectively), than those who rated their health as “poor” (43 per cent) or who were dissatisfied with their life (61 per cent).

Figure SC4.1 **Proportion of people experiencing loneliness, 2006 and 2008**

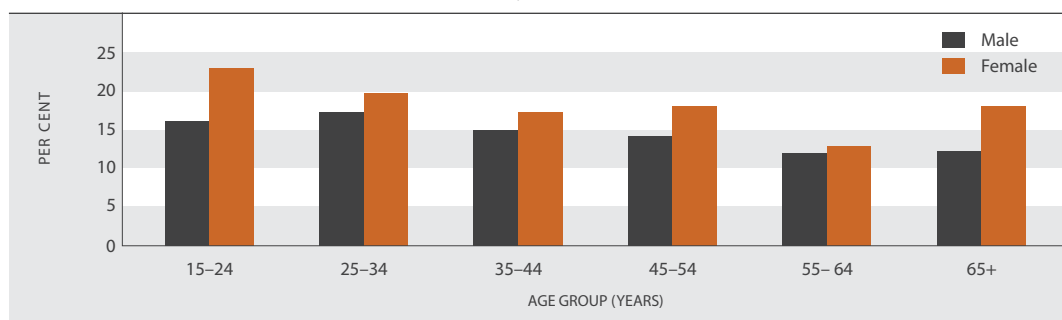


Source: Quality of Life Survey 2006; Quality of Life Survey 2008

## AGE AND SEX DIFFERENCES

In 2008, females (18 per cent) were more likely than males (14 per cent) to have reported feeling lonely sometimes, most of the time, or always, during the last 12 months. This was the case across all age groups, particularly among those aged 15–24 years and 65 years and over.

Loneliness is most prevalent among females aged 15–24 years (23 per cent), followed by females aged 25–34 years (20 per cent). Levels of loneliness were lowest among males aged 55–64 years, males aged 65 years and over (both 12 per cent) and females aged 55–64 years (13 per cent).

Figure SC4.2 **Proportion of people experiencing loneliness, by age and sex, 2008**

Source: Quality of Life Survey 2008

**ETHNIC DIFFERENCES**

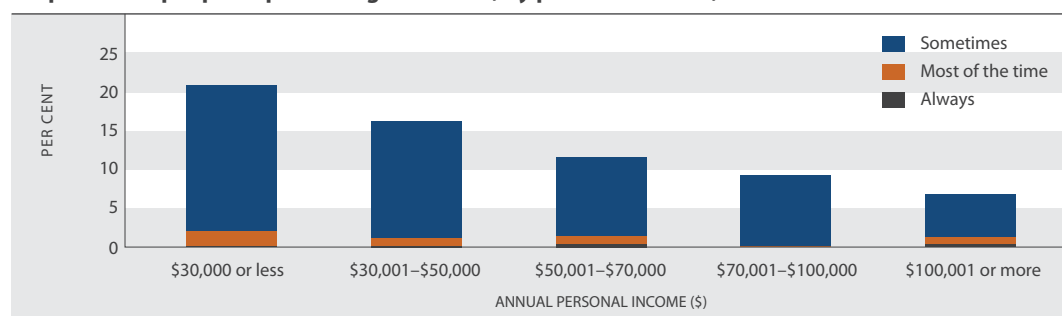
Europeans reported the lowest rate of loneliness with 15 per cent reporting they had felt isolated or lonely in the last 12 months. In comparison, 18 per cent of Māori, 23 per cent of Pacific peoples and 24 per cent of Asian peoples reported having felt isolated or lonely in the past year.

**HOUSEHOLD TYPE DIFFERENCES**

People who live in one-person households and one-parent-with-children (aged under 18 years) households reported higher levels of loneliness (both 30 per cent) than other household types. People in couple-only households had the lowest level of loneliness among household types (9 per cent).

**SOCIO-ECONOMIC DIFFERENCES**

Reported loneliness declines as personal income rises. People with personal incomes of \$30,000 or less reported higher rates of loneliness than those with higher incomes. Twenty-one per cent of people with incomes of \$30,000 or less reported having felt isolated or lonely in the past 12 months, compared with 9 per cent of those with personal incomes between \$70,000 and \$100,000, and 7 per cent of those with personal incomes over \$100,000.

Figure SC4.3 **Proportion of people experiencing loneliness, by personal income, 2008**

Source: Quality of Life Survey 2008

**REGIONAL DIFFERENCES**

People living in Rodney had the lowest reported level of loneliness (12 per cent). The cities of Manukau, Hamilton, Tauranga, Auckland and Waitakere had the highest levels of loneliness, with between 19 per cent and 20 per cent of people reporting they felt lonely sometimes, most of the time or always.

# Contact between young people and their parents

## DEFINITION

The proportion of secondary school students aged 12–18 years who said they get enough time with Mum and/or Dad (or someone who acts as Mum and/or Dad), most of the time, as reported in the Youth2000 and Youth'07 Surveys.

## RELEVANCE

Healthy relationships are built through both the quantity and quality of time spent together. Having a close and caring relationship with a parent is one of the most important predictors of good health and wellbeing for young people.<sup>112</sup>

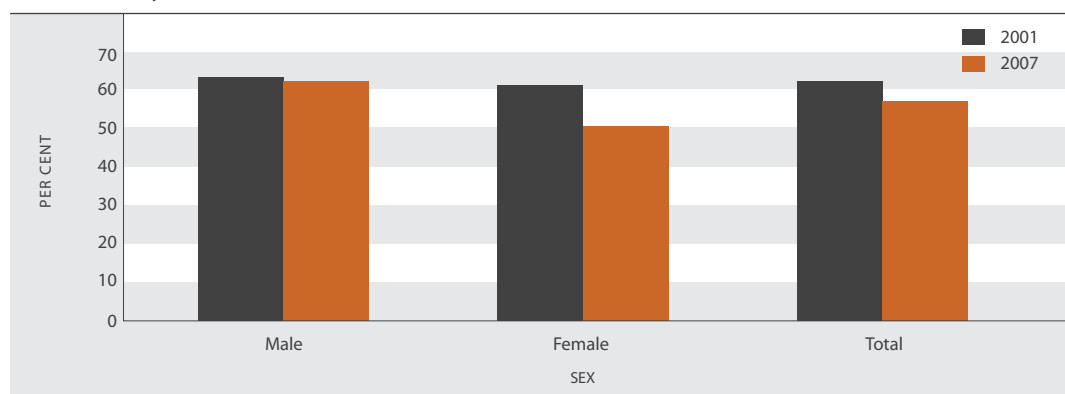
## CURRENT LEVEL AND TRENDS

In 2007, 57 per cent of secondary school students reported that they get enough time with at least one parent most of the time. This was a smaller proportion than in 2001 (62 per cent).<sup>113</sup>

About half of the students (46 per cent) felt they get enough time with their mothers most of the time, while fewer students (39 per cent) felt they get enough time with their fathers.

Of those students who did not get enough time with their parents, the most common reason reported was that the parent was at work. Seventy-two per cent of students who lacked time with their fathers gave this reason, as did 62 per cent of those who lacked time with their mothers. Other common reasons were that the parent was busy with housework, other children or family members (particularly mothers), and that the parent was out or not living with them (particularly fathers).

Figure SC5.1 **Proportion of secondary school students who said they get enough time with their parent(s) most of the time, by sex, 2001 and 2007**



Source: Adolescent Health Research Group (2003, 2008b)



**AGE DIFFERENCES** Younger students were more likely than older students to report that most of the time they get enough time with their Mum and most of the time they get enough time with their Dad. These differences remain after adjusting for sex, ethnicity and socio-economic differences. Across all age groups, students were more likely to report that they get enough time with Mum than with Dad.

Table SC5.1 **Proportion (%) of secondary school students who get enough time with their mother or father most of the time, by age, 2007 (with 95% confidence intervals below)**

Parent	Age of student					Total 12–18 years
	12–13 years	14 years	15 years	16 years	17–18 years	
Mother	48.7	47.3	47.1	42.7	44.4	46.2
	46.3–51.0	44.8–49.8	44.7–49.4	39.8–45.6	42.0–46.8	44.8–47.6
Father	43.5	40.7	38.4	35.6	36.0	39.0
	41.4–45.5	38.2–43.2	36.0–40.9	32.9–38.3	32.9–39.0	37.6–40.4

Source: Adolescent Health Group (2008b) pp 43, 45

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant

**SEX DIFFERENCES** In 2007, more male students (62 per cent) than female students (50 per cent) reported that most of the time they get enough time with at least one parent. This difference remains after adjusting for age, ethnicity and socio-economic differences. In 2001, there was no significant difference by sex.

The proportion of female students reporting they get enough time with their parents fell between 2001 and 2007 (from 61 per cent to 50 per cent), but there was very little change for male students over this period.

Both males and females were more likely to state they get enough time with Mum than with Dad.

## ETHNIC DIFFERENCES

Sixty-one per cent of New Zealand European students reported that most of the time they get enough time with Mum and/or Dad. Fewer Māori students (51 per cent), Pacific students (49 per cent) and Asian students (51 per cent) reported that most of the time they get enough time with Mum and/or Dad. These differences remain after adjusting for age, sex and socio-economic differences.

# Summary

In this section, we look at changes in social indicators for New Zealanders since the mid-1990s. Using the 34 indicators with new information in this report, we summarise these changes and compare New Zealand's outcomes with those of other OECD countries. We show how different population groups have fared: Māori, Pacific peoples, Asian and Other ethnicities. We also describe differences by sex and socio-economic group.

## CHANGES OVER TIME

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**Social outcomes in New Zealand have improved since the mid-1990s** Overall, New Zealanders generally have good outcomes for the measures in this report. Most of the indicators show positive trends since the mid-1990s, or the latest year for which data is available. A small number of these indicators show improvements since the mid-1990s, but little change or slight declines in the most recent years. Three indicators – obesity, housing affordability and voter turnout – show a deterioration since the mid-1990s.

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**Better health outcomes compared with the mid-1990s** Four of the six indicators in the Health domain show positive trends since the mid-1990s. Both health expectancy and life expectancy have improved, and the proportion of the population who smoke cigarettes has fallen, although there was little change between 2006 and 2008. Fewer young people are taking up smoking: daily smoking rates for 14–15 year olds more than halved over the decade to 2008. The suicide death rate has also improved since the mid-1990s, but was no better in 2006 than it was in the mid-1980s. On the other hand, the prevalence of obesity among adults increased between 1996/1997 and 2006/2007 and there was no change in the proportion of drinkers with a potentially hazardous drinking pattern over that time.

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**Progress in education participation and achievement** Trends in education participation and achievement are largely positive. Participation in early childhood education at ages 3 and 4 years has continued to increase. In tertiary education, participation was higher in 2008 than it was in the mid-1990s but has declined since 2005, largely because of falling enrolments in certificate-level courses and among people aged 25 years and over. Since the introduction of the National Certificate of Educational Achievement (NCEA) in 2003, the proportion of school leavers gaining NCEA Level 2 or above has improved. The proportion of adults with a bachelor's degree or higher qualification has almost doubled since the mid-1990s but showed no change between 2007 and 2008. Adult literacy in English (prose and document literacy skills at Level 3 or above) improved over the decade to 2006, for people aged 25–65 years.

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**Improved Paid Work outcomes but impact of recession showing** While all the indicators in the Paid Work domain with long-term trend data show improvement from the mid-1990s, two reflect the impact of the economic recession over the year to March 2009. The unemployment rate increased in the year to March 2009 although it remained considerably lower than it was a decade earlier. Similarly, the employment rate worsened in the year to March 2009, falling slightly after reaching historically high levels in 2007 and 2008. Real median hourly earnings increased by 17 per cent in the decade to 2007, but there was no change in the latest year. The rate of workplace injury claims fell over the decade. The proportion of employed New Zealanders reporting satisfaction with their work-life balance was similar in 2006 and 2008.

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**Mixed outcomes in the Economic Standard of Living domain** Several indicators in the Economic Standard of Living domain show a stalling or reversal of improving trends in the latest year. Market income per person fell slightly in the year to March 2009, reflecting the recession, although it remained considerably higher than it was in the mid-1990s. Income inequality increased between 1994 and 2004 but had decreased by 2007. In 2008, the income inequality ratio was about the same as in the previous year, and similar to the ratio of a decade ago.

The proportion of the population with low incomes improved considerably between the mid-1990s and 2007, but changed little in the year to June 2008. Housing affordability, measured by the proportion of households spending more than 30 per cent of their disposable income on housing, worsened in both 2007 and 2008, reversing an improvement from 1997 to 2004. For households in the lowest 20 per cent of the income distribution, housing affordability continued to improve between 2004 and 2007 and although it worsened in 2008, it was still better than it had been a decade earlier. Household crowding improved between 1996 and 2006.

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Some improvement in Civil and Political Rights outcomes

In the Civil and Political Rights domain, outcomes have generally improved or remained stable. While voter turnout in general elections has declined since the mid-1990s, there was little difference in turnout between the 2005 and 2008 elections. The outcome of the 2008 election saw further increases in the proportion of women and ethnic groups represented in Parliament. The perception that various groups are subject to discrimination fell for most groups compared between 2001 and 2008. However, in the latest year there was an increase in the proportion of people reporting that Pacific peoples, Asians, people who are overweight, and gays and lesbians were subject to discrimination. New Zealand's score for perceived corruption remains highly favourable, with little change since the mid-1990s.

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Cultural Identity outcomes are mixed

The proportion of local content programmes broadcast on television during prime-time hours was higher in 2008 than it was in the mid-1990s, but has fallen slightly since 2006. The proportion of Māori who can speak Māori declined slightly between 2001 and 2006 although the total number of Māori who can do so increased over this period. Between 2001 and 2006, most ethnic groups experienced little change in the proportion of people who could speak the first language of their ethnic group.

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No change in the Leisure and Recreation domain

The proportion of New Zealanders aged 15 years and over who met the guidelines for being physically active was similar in 2002/2003 and 2006/2007, at around one half. There was no change between 2006 and 2008 in the proportion of people who were satisfied with their leisure time.

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Physical Environment indicators have generally improved

There was an improvement in compliance with the Drinking-water Standards for *E. coli* and *Cryptosporidium* between 2001 and 2007/2008. Four of the five major cities averaged particulate matter (PM<sub>10</sub>) levels that met the annual air quality guidelines in 2008.

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Safety outcomes have improved since the mid-1990s

Motor vehicle accident death rates were lower in 2008 than in 2007, continuing the steady improvement of the past 20 years. While the motor vehicle accident injury rate increased between 2000 and 2007, it fell slightly in 2008 and was lower than the rate in the period 1995–1997.

Trends in assault mortality are more difficult to discern because the rates are based on small numbers. Across all ages, the provisional assault mortality rate for 2006 was lower than the rate in 2005, and lower than the rates in the mid-1990s. The child assault death rate for the period 2002–2006 was lower than the rate for the two previous five-year periods.

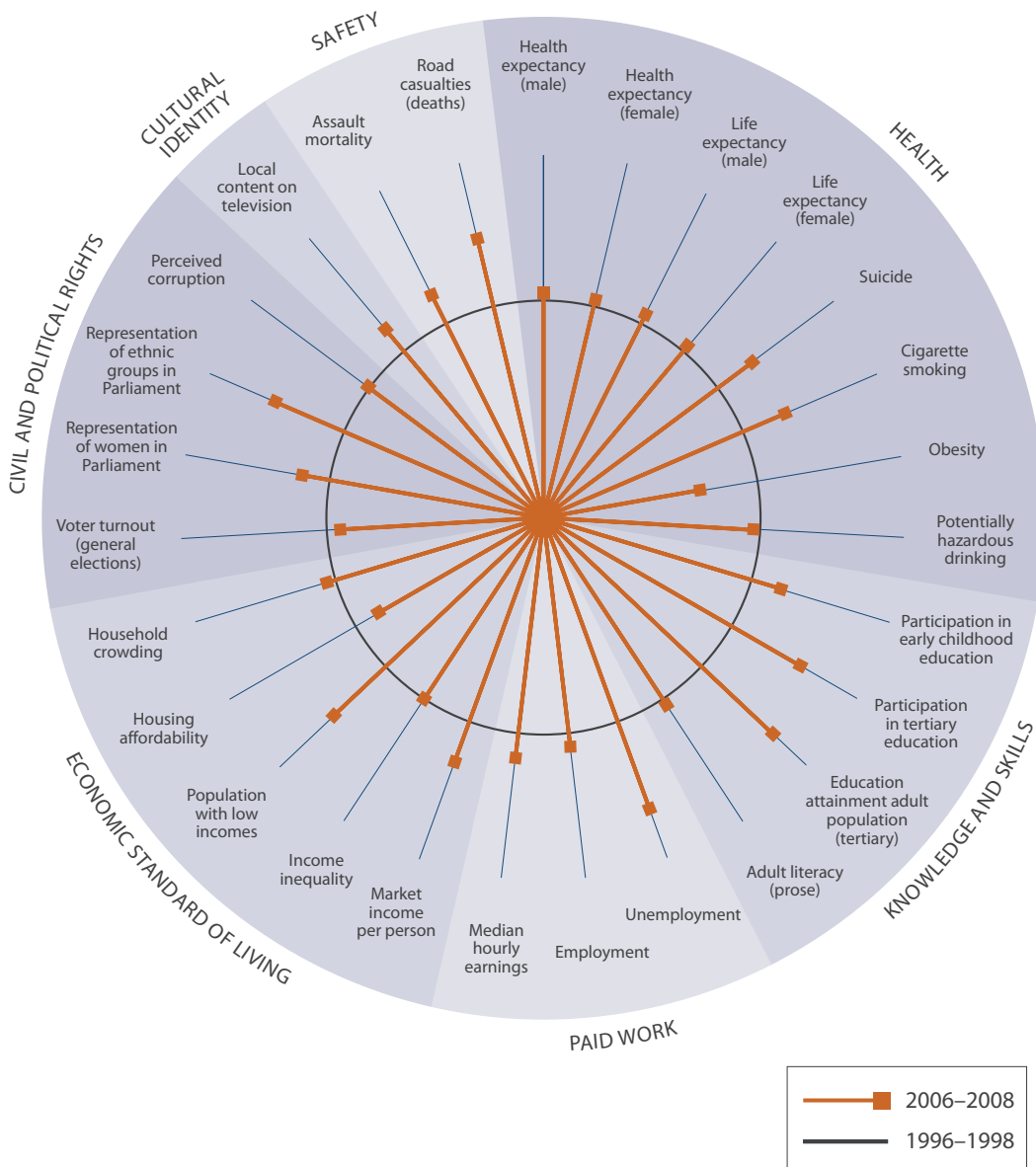
There is no trend information for criminal victimisation or fear of crime because of changes in the survey design. In 2005, 40 per cent of New Zealanders aged 15 years and over said fear of crime had a moderate or high impact on their quality of life and 39 per cent of New Zealanders reported experiencing some form of criminal victimisation.

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There have been some improvements in the Social Connectedness domain

There was a large improvement in the proportion of people with access to the internet at home between 2001 and 2006. Over the same period, the proportion of people with access to a telephone in their home increased slightly, to 98 per cent. Adults in 2004 were as likely to have had friends or family over for a meal at least once a month as adults in 2000. There was no change between 2006 and 2008 in the proportion of people who said they believed people can be trusted, and in the proportion who reported having felt lonely during the past 12 months. There was a decline between 2001 and 2007 in the proportion of secondary school students who reported that most weeks they were able to spend enough time with either their Mum or Dad.

Figure SU1 **Changes in social indicators, 1996–1998 to 2006–2008**



### Interpreting “Changes in social indicators, 1996–1998 to 2006–2008”

The circle ○ represents average outcomes for each indicator between 1996 and 1998, and the spokes —■ represent outcomes between 2006 and 2008. Where possible, the data is averaged over the three years in these two time periods. Where a spoke falls outside the circle, this means outcomes have improved over the decade; the further from the circle it falls, the larger the improvement. Where a spoke falls within the circle, outcomes in this area have deteriorated over the

decade; the further the spoke is from the circle, the more pronounced the deterioration. An important limitation on this style of presentation is that we cannot directly compare the size of changes for different indicators. Also, the absence of trend data for some indicators limits the number of indicators we can display. Most of the latest data is from 2006–2008, with the exception of suicide and assault mortality (both 2004–2006).

## NEW ZEALAND COMPARED TO OECD COUNTRIES

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### New Zealand compares favourably to other OECD countries

For many indicators, New Zealand compares very well with other countries. New Zealand's outcomes are better than, or similar to, the OECD median for around two-thirds of the 21 indicators for which there is internationally-comparable data.

New Zealand performs very well in the Civil and Political Rights domain. We are ranked first equal with Denmark and Sweden as the least corrupt of 30 OECD countries in 2008, and we are in the top third of those countries for the proportion of women in Parliament and for voter turnout.

Paid work is another area in which New Zealand performs strongly, with a relatively high employment rate, the seventh highest in 2008, and a relatively low unemployment rate, the 10th lowest (along with Australia), in 2008.

We also perform very well in the Social Connectedness area, with New Zealanders having a higher level of trust in others and a higher level of households with internet access than the OECD median.

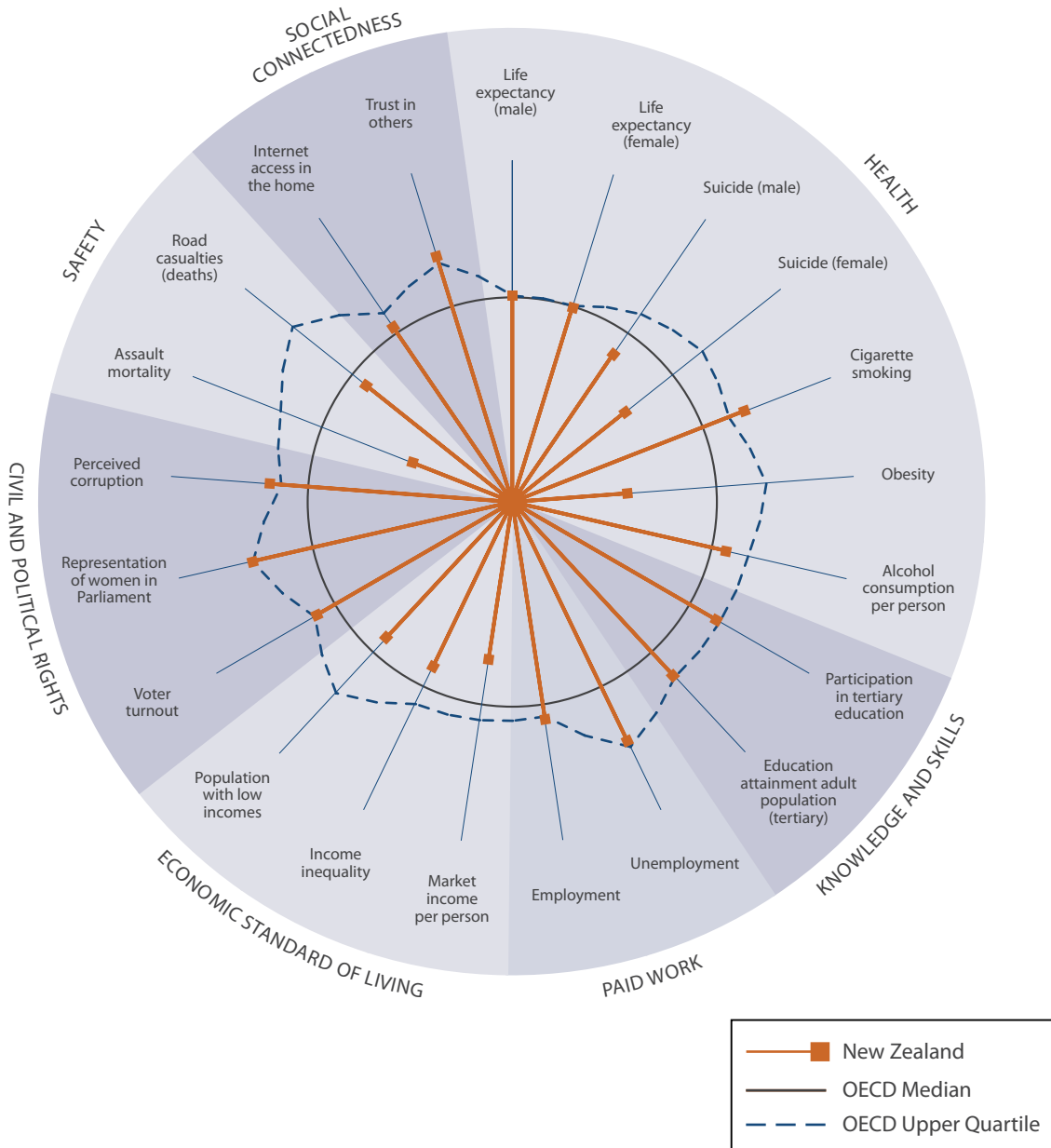
In the area of Knowledge and Skills, New Zealand is above the OECD median for the proportion of adults who have a bachelor's degree or higher, and for participation in tertiary education among 20–29 year olds. The proportion of New Zealand adults with prose and document literacy and numeracy skills in English at Level 3 or above is similar to the proportions in Australia and English-speaking Canada, and higher than the proportion in the United States.

In the Health domain, New Zealand's results are mixed. Our life expectancy is similar to the OECD median, although there is a relatively narrow range of outcomes across the OECD for this indicator. New Zealand's rates of cigarette smoking and alcohol consumption are slightly better than the OECD median. Among the countries that use actual measurements of obesity rather than self-reporting, our obesity rate is similar to those of Australia and the United Kingdom and lower than that of the United States. We have relatively high suicide death rates, particularly for youth.

New Zealand does not perform well in the Safety domain. Our road death rate was slightly higher than the OECD median in 2007, while data from 2003–2007 showed our homicide death rate was worse than the OECD median.

Our Economic Standard of Living results tend to be lower than those in many OECD countries. In 2004, New Zealand was near the middle of the OECD for population with low incomes and was higher than the OECD median for income inequality. In 2008, New Zealand was below the OECD median for market income per person.

Figure SU2 **Social indicators in New Zealand, relative to the OECD**



### Interpreting “Social indicators in New Zealand relative to the OECD”

This figure shows New Zealand relative to the OECD for 21 social indicators. The circle ○ represents the OECD median for each indicator, and the spokes —■— represent New Zealand’s outcomes relative to the OECD median. The irregularly shaped line outside the OECD median circle - - - represents outcomes of the OECD upper quartile relative to the OECD median. Where a spoke falls inside the circle, outcomes in New Zealand are worse than the OECD median. Where the spoke falls outside the circle, outcomes in New Zealand are better than the OECD median. Where a spoke falls past the irregularly shaped line, New Zealand

is in the top quarter of OECD outcomes. For each indicator, the most recent data has been used where possible. Most of the data is for years between 2005 and 2008, but the population with low incomes and income inequality data is for 2004 and the assault mortality data is for 2003–2005. **SOME CAUTION IS REQUIRED WITH THIS DATA:** international comparisons are difficult to interpret because of the different methods countries use to collect, classify and record social data. There were too few countries for Adult Literacy to include this indicator in the figure.

## CHANGES IN SOCIAL INDICATORS FOR SELECTED POPULATION GROUPS

In this section, we look at changes in social indicators over time for various population groups in New Zealand, and we compare their outcomes with those of the total New Zealand population. As in the first section of this summary, we focus on changes since the mid-1990s where possible, as well as on more recent changes.

It is important to note that comparisons are for population group averages: there is much variation within groups. For example, the risk of poor outcomes often varies by age: younger people have higher rates of unemployment, potentially hazardous drinking, suicide death and road transport accident death, and they have lower incomes than people in older age groups. For Māori and Pacific peoples, poor outcomes relative to those of the total New Zealand population may be partly attributable to the younger age structure of these ethnic groups. This should be kept in mind when comparing outcomes between groups for indicators where the data has not been age standardised.

### MĀORI

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#### Most indicators for Māori have improved since the mid-1990s

Most of the indicators for which we have time series data show improvements for Māori since the mid-1990s. In several instances, improvements have been greater for Māori than for the total population, including life expectancy, participation in tertiary education, employment and median hourly earnings. Despite improvements in these areas and others, average outcomes for Māori tend to be poorer than average outcomes for the total population.

Life expectancy at birth improved more for Māori than for non-Māori between 1995–1997 and 2005–2007. While this reduced the gap in life expectancy between Māori and non-Māori, it remains large.

Since 1996, suicide death rates have shown no obvious trend for Māori, although the small numbers of Māori suicide deaths make it hard to ascertain trends. The suicide death rate is higher for Māori than for non-Māori.

Smoking remains high among Māori, particularly Māori women, who have the highest cigarette smoking rate of any ethnic group in New Zealand.

In the Knowledge and Skills domain, outcomes for Māori have improved strongly in recent years. The increase in participation in early childhood education between 2000 and 2008 was greater for Māori children than for all school entrants, reducing the participation gap. Between 2003 and 2007, Māori students showed the greatest improvement in the proportion of students leaving school with a qualification at NCEA Level 2 or above, but they have the lowest level of educational attainment at this level. Māori have had the highest participation rate in tertiary education of any ethnic group since 2001. Māori tertiary education participation is higher than average at older age groups and in Levels 1–3 certificate courses. The proportion of Māori adults with tertiary qualifications at bachelor's degree level or above has more than trebled since the mid-1990s. Despite this substantial improvement, Māori are around half as likely as adults in general to have tertiary qualifications at degree level. Improvements in prose and document literacy in English between 1996 and 2006 were similar for Māori adults and adults in the total population. Māori are less likely than average to have literacy or numeracy skills at Level 3 or above.



The unemployment rate for Māori has halved since the mid-1990s, falling to a record low in 2007 but increasing in the year to March 2009. It is still the highest unemployment rate of any ethnic group. The employment rate for Māori increased strongly over the past decade and reached a record high in the year to March 2009, although it remained considerably below the average for the total population.

The real median hourly earnings of Māori increased by 20 per cent between June 1997 and June 2008, the highest percentage increase of any ethnic group. The ratio of Māori to European median hourly earnings was over 85 per cent for most years between 1998 and 2008. Māori have a higher rate of workplace injury claims than any other ethnic group. This is likely to reflect the relatively greater representation of Māori in more dangerous industries and occupations. Employed Māori were about as likely as employees generally to be satisfied with their work-life balance in 2008.

In the Economic Standard of Living domain, median household incomes for Māori improved over the decade to 2008. The proportion of households with at least one Māori adult spending more than 30 per cent of their disposable income on housing was a little lower in 2008 than in 1998.

Māori representation in Parliament declined between the 2005 and 2008 general elections, but remains higher than the representation of Pacific peoples and Asian ethnic groups and is similar to the Māori share of the total population.

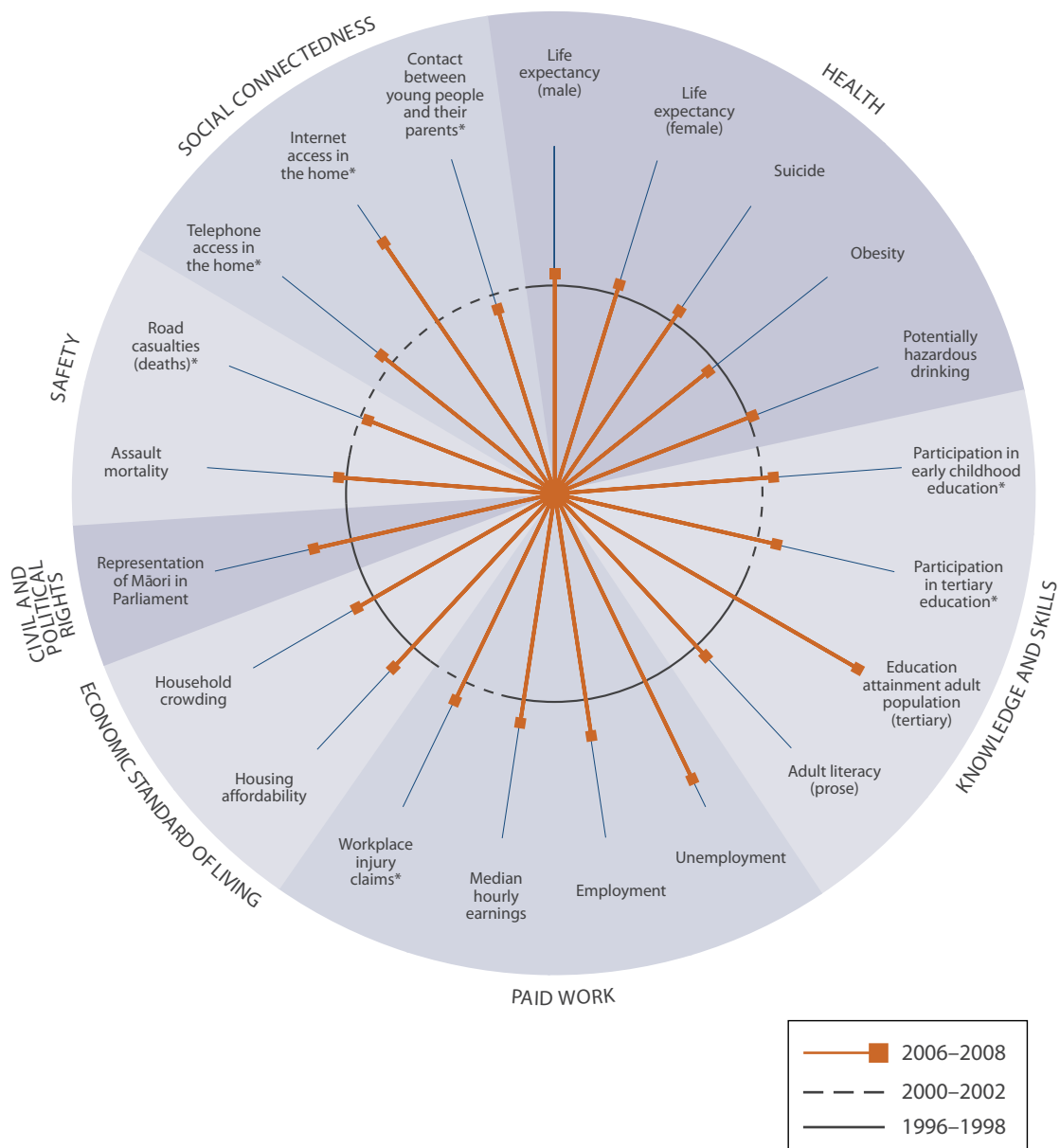
The proportion of Māori who were satisfied with their leisure time was similar to the population average.

Māori continue to have poorer outcomes in the Safety domain. The assault mortality rate for Māori has fluctuated since 1996, with no clear trend. In 2006 Māori adults and children remained considerably more likely than non-Māori to die from an assault or intentional injury. The rate of death from motor vehicle accidents has changed little for Māori since 2000, while the rate for non-Māori has declined. In 2006, Māori were around two and a half times as likely as non-Māori to die in motor vehicle accidents.

In 2008, Māori reported a slightly lower than average level of trust in people and a higher than average level of loneliness. In 2007, Māori secondary school students were less likely than students overall to report that most of the time they get enough time with Mum and/or Dad.



Figure SU3 **Social indicators for Māori, 1996–1998 or 2000–2002 to 2006–2008**



### Interpreting “Changes in social indicators for Māori”

The circle represents average outcomes for Māori against each indicator between 1996 and 1998, or 2000 and 2002. Indicators with an asterisk \* do not have data from the mid-1990s to 2006–2008. Therefore, the circle ○ represents 2000–2002 rather than 1996–1998 for these seven indicators. The spokes —■ represent the most recent outcomes, averaged where possible, over the most recent three years, 2006–2008. Where a spoke falls outside the circle this means the outcome for Māori is better now than it was in the earlier time period. The further the spoke is from the circle, the

greater the improvement. Where a spoke falls inside the circle, the outcome for Māori is worse now than it was in the earlier time period. The further the spoke is from the circle the more pronounced this effect. An important limitation on this style of presentation is that we cannot directly compare the size of changes for different indicators. Most of the latest data is from 2006–2008, with the exception of suicide, assault mortality and road casualties (all 2004–2006) and life expectancy (2005–2007).

## PACIFIC PEOPLES

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Most indicators for Pacific peoples have improved since the mid-1990s

Pacific peoples, like Māori, have seen improvements in social indicators since the mid-1990s. While a number of these gains have been greater than those for the total New Zealand population, Pacific peoples' outcomes overall are poor compared to those of the total population.

Only one of the health indicators has new information for Pacific peoples. As in previous years, Pacific peoples had the second highest cigarette smoking rate, after Māori, in 2008.

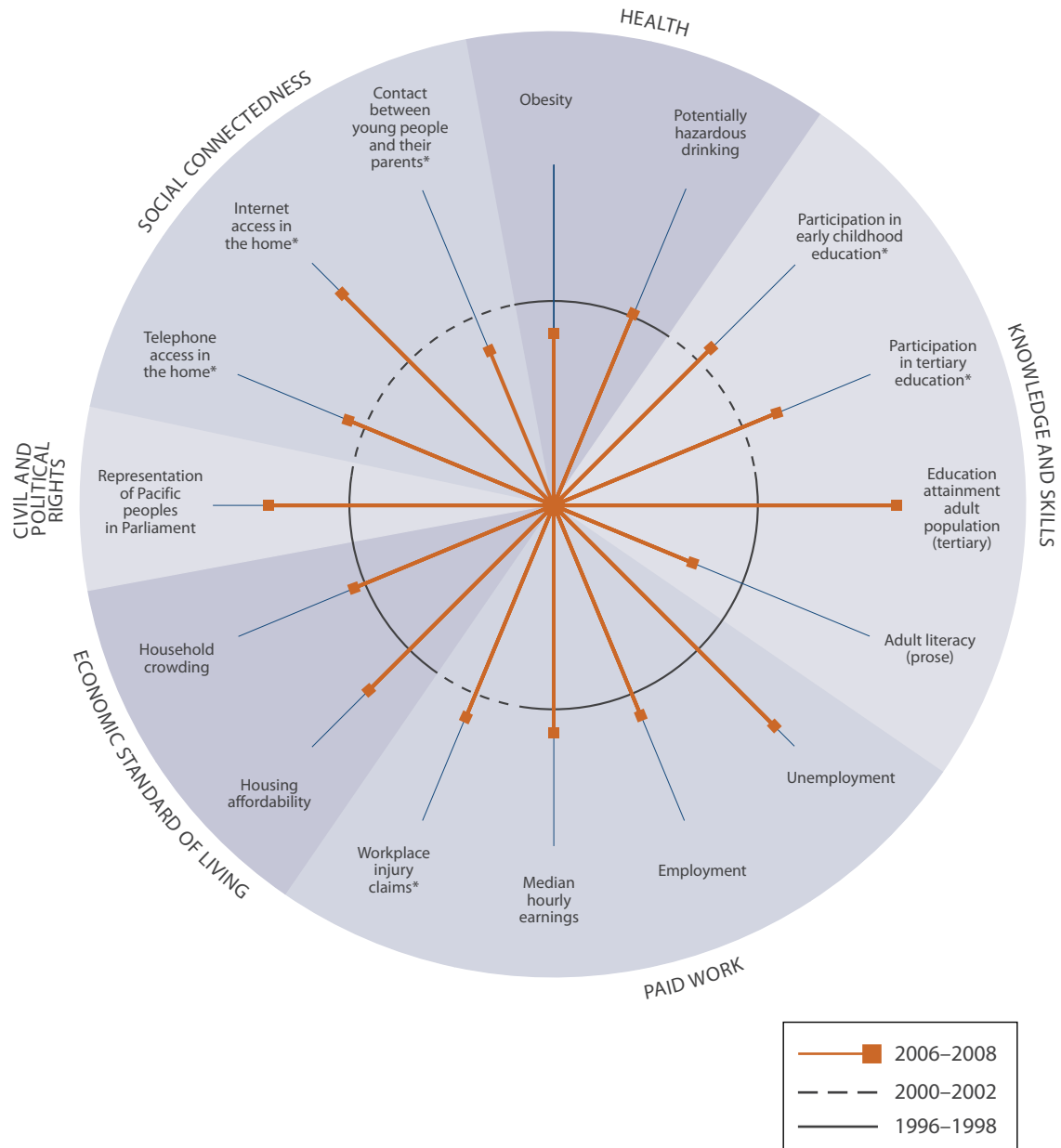
There have been considerable gains in educational participation for Pacific peoples over the past decade. The proportion of children who attended early childhood education before starting primary school increased at a faster rate for Pacific children than for all school entrants between 2000 and 2008. However, Pacific children continue to have the lowest participation rate at this level of education. Pacific peoples also had the largest increase in tertiary education participation between 2001 and 2008. In the latest year their overall participation rate was similar to that of Europeans, although higher proportions of Pacific students were enrolled in Levels 1–3 certificates. Education outcomes have also improved. The proportion of Pacific students leaving school with a qualification at NCEA Level 2 or above increased between 2003 and 2007 but was lower than the average for all students. The proportion of Pacific peoples with tertiary qualifications in 2008 had increased more than threefold since the mid-1990s. Despite this substantial improvement, Pacific peoples were around a third as likely as adults in general to have tertiary qualifications at degree level in 2008. The proportion of Pacific adults with prose and document literacy in English at Level 3 or above declined between 1996 and 2006, against an upward trend for the total population. Pacific adults in 2006 were around half as likely as adults in general to have prose and document literacy skills in English at Level 3 or above, and around a third as likely to have numeracy skills at these levels.

All three indicators in the Paid Work domain for which there is data for Pacific peoples show a strong improvement since the mid-1990s. The unemployment rate for Pacific peoples fell markedly from the mid-1990s to 2006, but increased in the year to March 2009. The employment rate for Pacific peoples improved at a faster than average rate over the decade but fell slightly in the year to March 2009. The real median hourly earnings of Pacific peoples increased by 14 per cent between 1997 and 2008, compared to 17 per cent for the total population. Pacific peoples reported a lower than average level of satisfaction with their work-life balance in 2008. Pacific peoples have the second highest rate of workplace injury after Māori.

Median household incomes for Pacific peoples generally improved over the decade to 2008. The trend in housing affordability followed a similar pattern of improvement over the decade, but deterioration in the latest year. The proportion of households with at least one Pacific adult spending more than 30 per cent of their disposable income on housing was lower in 2008 than in 1998.

In 2008, Pacific adults reported lower than average levels of trust in others, and higher than average levels of loneliness. Pacific secondary school students were less likely than students on average to report that they got enough time with one or both of their parents.

Figure SU4 Social indicators for Pacific people, 1996–1998 or 2000–2002 to 2006–2008



### Interpreting “Changes in social indicators for Pacific peoples”

The circle ○ represents average outcomes for Pacific peoples against each indicator between 1996 and 1998, or 2000 and 2002. Indicators with an asterisk \* do not have data from the mid-1990s to 2006–2008. Therefore, the circle represents 2000–2002 rather than 1996–1998 for these six indicators. The spokes —■ represent the most recent outcomes, averaged where possible, over the most recent three years, 2006–2008. Where a spoke falls outside the circle this means

the outcome for Pacific peoples is better now than it was in the earlier time period. The further the spoke is from the circle, the greater the improvement. Where a spoke falls inside the circle, the outcome for Pacific peoples is worse now than it was in the earlier time period. The further the spoke is from the circle the more pronounced this effect. An important limitation on this style of presentation is that we cannot directly compare the size of changes for different indicators.

### Outcomes for Asian and other ethnicities are mixed

A small number of indicators in this report include information for ethnic groups other than European, Māori and Pacific peoples. Some surveys report separate data for Asian people, and larger surveys sometimes provide a further breakdown for smaller groups, referred to collectively as the “Other ethnic group”. In other cases, data for Asian and the smaller ethnic groups are combined into a single category. We refer to the latter as “Other (including Asian)” in this section. This inconsistency between data sources should be taken into account when assessing outcomes for these population groups. The diverse and changing make-up of the Other ethnic group category probably contributes to the mixed outcomes evident for these ethnic groups.

In the Health domain, Asians aged 15–64 years had the lowest cigarette smoking rate of all ethnic groups in 2008, around half that of the total population in that age group.

Participation in early childhood education grew faster for Asian children and children from the Other ethnic group, than for all children between 2000 and 2008. In 2008, these children were about as likely as children in general to have attended an early childhood education service before going to primary school. The proportion of Asian school leavers with a qualification at NCEA Level 2 or above increased from 2003 to 2007 and was consistently highest. For school leavers in the Other ethnic group, the improvement was greater but the proportion with NCEA Level 2 or above remained close to the average for all students. Asians aged 15 years and over had the second highest tertiary education participation rate in 2008 (after Māori), and the highest participation rate for degree level qualifications. A high proportion of adults from the Other (including Asian) ethnic group have tertiary qualifications at bachelor’s degree level or higher, almost double that of all adults aged 25–64 years in 2008. The proportion of Asian adults with prose and document literacy skills in English at Level 3 or above increased between 1996 and 2006 but remained lower than the average for all adults. The proportion of Asian adults with numeracy skills in English at these levels was also lower than average in 2006.

The unemployment rate for the Other (including Asian) ethnic group has fallen substantially since the mid-1990s but increased slightly in the year to March 2009. It remains considerably higher than the rate for the total labour force. Growth in the employment rate for this group has been faster than average since the mid-1990s, and continued to increase in the year to March 2009.

Median hourly earnings for wage and salary earners in the Other (including Asian) category ranked second after those of Europeans in 2008. Between 1997 and 2008, this group experienced the lowest percentage increase in real median hourly earnings from wage and salary jobs (6 per cent). The rate of work-related injury claims for the Other (including Asian) ethnic group in 2007 was similar to rate for all full-time equivalent employees for that year.

Median household incomes for the Other ethnic group improved between the mid-1990s and 2008. While the long-run trend is positive, robust comparisons between survey years are not possible. The proportion of households with at least one adult from the Other ethnic group spending more than 30 per cent of their disposable income on housing was better in 2008 than in 1998, but similar to the 2001 level.

Asian people were again the group most likely to be perceived as being subject to a great deal or some discrimination in 2008 and the proportion of people perceiving Asians as being in this situation increased between 2007 and 2008.

In 2008, people of the Asian ethnic group reported lower than average levels of trust in others, and were more likely than people in general to report having felt isolated or lonely in the past 12 months. Asian secondary school students were less likely than all secondary school students to report they got enough time with one or more of their parents.

## SEX DIFFERENCES

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Females generally fare better than males in the Health and Knowledge and Skills domains, but findings are mixed in other domains

Sex differences vary between and within the domains in this report. Outcomes are generally better for females than for males in the Health and Knowledge and Skills domains, but are mixed in other domains such as Paid Work and Safety. In some areas, sex differences have narrowed in recent years.

For most of the indicators in the Health domain, females had better outcomes than males. On average, females live longer than males, but the sex difference in life expectancy is decreasing, reflecting greater gains for males since the mid-1980s. There is a marked sex difference in the suicide death rate: in 2006, the rate for males was almost three times that for females. The male suicide death rate increased sharply in the late-1980s but has declined since the mid-1990s, while the female rate has been relatively stable over the last 20 years. Females have a higher rate of hospitalisation from intentional self-harm than males. There was no significant difference in obesity rates between the sexes in 2006/2007. Obesity rates have increased more for males than for females since the mid-1990s. Cigarette smoking rates for females and males have generally been similar since the mid-1980s, but in 2008 the age-standardised rate was higher for males than for females. In 2006/2007, male drinkers were more than twice as likely as female drinkers to have a potentially hazardous drinking pattern, as they were in 1996/1997 and 2002/2003.

In the Knowledge and Skills domain, most indicators continue to be better for females than for males, although differences have narrowed in recent years. There is little sex difference in participation in early childhood education, but females are more likely than males to leave school with higher qualifications and to participate in tertiary education. Female school leavers are more likely than male school leavers to have gained qualifications at NCEA Level 2 or above. The sex difference in tertiary participation widened over the decade to 2004 but has since narrowed as the decline in enrolments between 2005 and 2008 was greater for females than for males. For the adult population aged 25–64 years, sex differences in educational attainment have narrowed over time as a result of greater improvements for females, particularly at younger ages. While there was no sex difference overall in 2008, in the 25–34 years age group, women were more likely than men to have a tertiary degree. The opposite was the case in the 55–64 years age group. In adult literacy in English, there was no significant sex difference in prose literacy at Level 3 or above in 2006 but all of the improvement in higher prose literacy over the previous decade was due to increases for males. Males were significantly more likely than females to have skills in numeracy at Level 3 or above. There was no sex difference in document literacy for all adults aged 16–65 years. However, among adults under 25 years, a higher proportion of females than males had higher document skills, while at ages 45 years and over the pattern was reversed.

Findings are mixed in the Paid Work domain. Unemployment rates were similar for males and females in the year to March 2009, having been higher for females than for males between 2003 and 2008 and higher for males than for females during the peak years of unemployment. Men are more likely to be employed than women, although faster employment growth among females between the mid-1990s and 2009 has narrowed the employment rate gap. Among wage and salary earners, males earn more, on average, than females. The ratio of female to male median hourly earnings was 88 per cent in 2008, similar to the ratio in 2001. Males are almost twice as likely as females to suffer workplace injuries involving a claim to ACC, reflecting in part the high proportions of males in more dangerous industries and occupations. Employed males and females have similar rates of satisfaction with their work-life balance, with part-time workers of both sexes having higher levels of satisfaction than full-time workers.

Between 1998 and 2008, females were slightly more likely than males to be living in households with low incomes. The pattern over time was less clear for housing affordability. In 2008 there was no difference by sex in the proportion of people aged 15 years and over living in households that were spending more than 30 per cent of their disposable income on housing. There is very little difference by sex in the likelihood of living in crowded households.

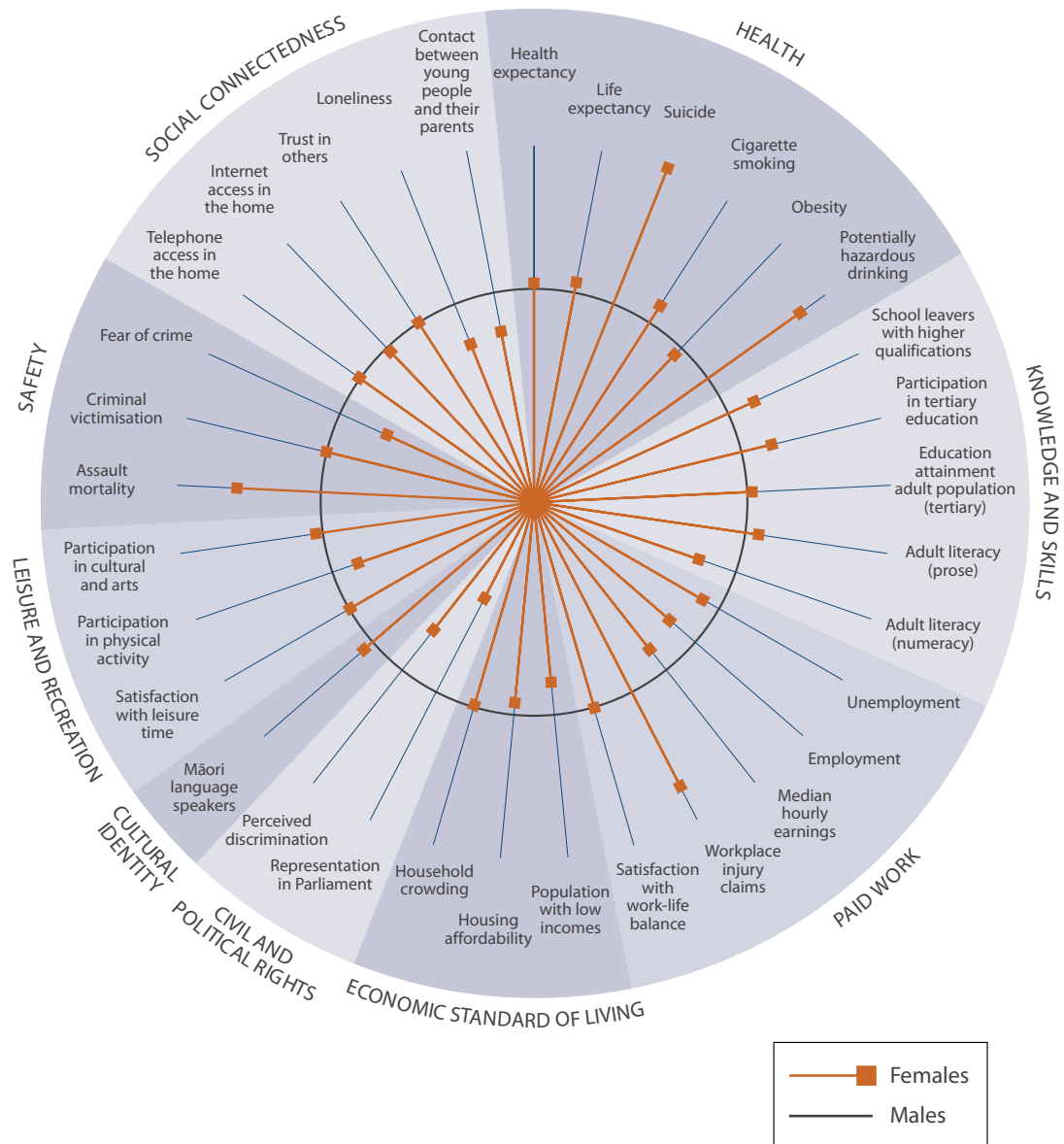
There are fewer female than male Members of Parliament, although the proportion increased in the 2008 general election. Similarly, female representation in local authorities is lower than that of males, but it increased in the 2007 elections. Women are more likely than men to be perceived as a group subject to discrimination.

In 2006/2007, males were significantly more likely than females to meet physical activity guidelines. There was no change in physical activity levels for either sex from the previous survey in 2002/2003. In 2008, there was very little difference between the sexes in reported satisfaction with leisure time. Women were slightly more likely than men to experience one or more of the cultural activities included in the 2002 Cultural Experiences Survey.

In the Safety domain, males and females were equally likely to experience some form of criminal victimisation in 2005. With confrontational offences, men were as likely as women to have been victimised at least once by a partner, but women experienced more offences than men did. Females were twice as likely as males to be the victims of sexual offences, while males were more likely to be the victims of confrontational offences by people they did not know. Women were more likely than men to report that fear of crime impacted on their quality of life. Males are more likely than females to die from an assault or intentional injury and they are more likely to be injured or killed in motor vehicle accidents. Although road accident deaths have declined substantially for both sexes, the male road accident death rate remained double that of females in 2008.

In the Social Connectedness domain, men and women reported a similar level of trust in others in 2008, but women were more likely than men to have felt lonely during the past 12 months. There is little difference between men and women in having access to the internet and a telephone in their homes, except at older ages, where women were less likely than men to have internet access. Among secondary school students, females were less likely than males to report that most of the time they get enough time with at least one parent, and this sex difference increased between 2001 and 2007.

Figure SU5 Social indicators for females relative to males, 2006–2008



### Interpreting “Social indicators for females relative to males, 2006–2008”

The circle ○ represents average outcomes for males. The spokes —■ represent average outcomes for females. Where a spoke falls outside the circle, the outcome for females is better than for males. The further the spoke is from the circle, the better the outcome for females relative to males. Where a spoke falls inside the circle, the outcome for females is worse than for males. One important limitation on this style

of presentation is that we cannot directly compare the size of changes for different indicators. Where possible, the data represents three-yearly averages. Most of the data is from 2006–2008 except for suicide and assault mortality (both 2004–2006), criminal victimisation and fear of crime (both 2005) and participation in cultural and arts activities (2002).



## SOCIO-ECONOMIC DIFFERENCES

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People living in deprived areas generally experience poorer outcomes, particularly in health

We include information on differences by socio-economic status for 15 of the indicators in this report. Two different area-based measures of socio-economic difference are used: the New Zealand Index of Deprivation (NZDep), and the Ministry of Education's school decile index.<sup>114</sup> For some indicators, measures of socio-economic difference are based on the distribution of individual or household incomes.

Health-related outcomes tend to worsen with rising levels of neighbourhood deprivation. Life expectancy at birth is considerably lower for people living in NZDep2006 decile 10 areas (the most deprived 10th of small areas in New Zealand) than for those living in decile 1 areas (the least deprived 10th). In 2005–2007, the difference was 8.8 years for males and 5.9 years for females.

The prevalence of cigarette smoking in 2008 was almost three times higher for people living in the most deprived fifth of areas than for those living in the least deprived fifth. In 2006/2007, the prevalence of obesity and potentially hazardous drinking were both significantly higher in NZDep2006 quintile 5 areas (the most deprived fifth) than in all other areas (quintiles 1–4). On the other hand, there was no association between the proportion of people who met physical activity guidelines and the level of neighbourhood deprivation.

Year 1 students in schools drawn from low socio-economic communities are less likely to have attended early childhood education than Year 1 students in schools drawn from high socio-economic communities. School leavers from low decile schools are less likely to have a qualification at NCEA Level 2 or above than those leaving high decile schools.

Housing affordability varies widely by household income level. In 2008, households in the lowest fifth of household incomes (adjusted for household size and composition) were 2.6 times as likely as those in the highest fifth to spend more than 30 per cent of their disposable income on housing, up from 2.3 times in 2007. Housing affordability deteriorated for all household income quintiles between 2007 and 2008. Over the decade to 2008, the proportion of households in the lowest quintile spending more than 30 per cent of their incomes on housing declined slightly, while the proportions in all other quintiles increased.

In 2006, households in the lowest fifth of household incomes (adjusted for household size and composition) were five times more likely to be crowded than households in the highest fifth.

In 2005, people living in the most deprived areas of New Zealand (NZDep quintile 5) were more likely than people living in the least deprived areas to report being victims of crime. They were also more likely to report that fear of crime affected their quality of life.

Some indicators show an association with levels of personal income, although there is no clear pattern. In 2008, full-time employees with personal incomes of \$30,000 or less had the highest level of satisfaction with work-life balance across the income scale. Satisfaction with leisure time was also highest for people in this income group, although in this case the proportion included people of retirement age and students. In the same year, people with incomes over \$100,000 reported the highest overall level of trust and the lowest level of loneliness.



## SUMMARY TABLE OF INDICATORS

Indicators	Current level of updated indicators (most recent year) and the change from the previous result ☺ better ☹ same ⊗ worse ⊖ not updated ⊕ not comparable	Longer-term change	Variation within the population	Comparison with the OECD
<b>HEALTH</b>				
Health expectancy	☺ Males 67.4 years Females 69.2 years (2006)	Improved, faster for males than for females	Lower for males and Māori	No comparison available
Life expectancy	☺ Males 78.2 years Females 82.2 years (2006–2008)	Improved, faster for males than for females	Lower for males, Māori and those living in deprived areas	Average
Suicide	☺ 12.2 deaths per 100,000 (age-standardised rate for all ages) (2006) ⊗ Youth 15–24 years, 19.7 deaths per 100,000 (2006)	Improved since 1998, similar to the 1986 level	Suicide deaths higher for males, youth, young adults and Māori; attempted suicide higher for females	Higher than average for all ages, particularly for youth
Cigarette smoking	☺ 23 per cent of population aged 15–64 years (2008) ☹ 21 per cent of population aged 15 years and over (2008)	15–64 years population: improved slightly between 2006 and 2008 15 years and over population: improved to 1991, steady to 2003, improved to 2007	Higher rates among younger adults, Māori, Pacific peoples and those living in deprived areas	Good for males, poor for females
Obesity	⊖ 25 per cent of population aged 15 years and over (age-standardised rate) (2006/2007) 8 per cent of children aged 5–14 years (2006/2007)	Increased since 1997 but no statistically significant increase in age-adjusted rate between 2002/2003 and 2006/2007	Higher for Pacific peoples, Māori, and people in deprived areas	Poor
Potentially hazardous drinking	⊖ 22.9 per cent of drinkers aged 15 years and over (2006/2007)	Similar to levels in 1996/1997 and 2002/2003	Higher among males, young people, Māori and Pacific peoples	Alcohol consumption average
<b>KNOWLEDGE AND SKILLS</b>				
Participation in early childhood education	☺ “Apparent” participation rate (licensed services): 93 per cent for 3 year olds and 99 per cent for 4 year olds (2008)	Improved	Māori and Pacific rates lower than European	No robust comparison available
School leavers with higher qualifications	⊖ 66 per cent of school leavers with NCEA Level 2 or above (2007)	No comparable longer-term trend available	Proportions lower for males, Māori and Pacific school leavers	No comparison available
Participation in tertiary education	⊗ 12.5 per cent of population aged 15 years and over enrolled in tertiary education institutions (age-standardised rate) (2008)	Improved	Lower rates for males, higher for Māori at ages under 18 years and over 25 years	No direct comparison available for total population aged 15 years and over, good for 20–29 year olds
Educational attainment of the adult population	☺ 75 per cent of the population aged 25–64 years with at least an upper secondary qualification (2008) ☹ 21 per cent of the population aged 25–64 years with tertiary (bachelor’s degree+) qualifications (2008)	Improved	Proportions lower for older people, women, Māori and Pacific peoples; Other adults (including Asians) had the highest proportion with tertiary qualifications	Average for upper secondary, good for tertiary
Adult literacy in English	☺ 56 per cent of 16–65 year olds with higher prose literacy skills (Level 3+); ☺ 57 per cent with higher document skills; ⊖ 49 per cent with higher numeracy skills (2006)	Improvement since 1996 for prose and document literacy; no trend data for numeracy	Proportions lower for youngest and oldest age groups and ethnic groups other than New Zealand European	Similar to Australia, Canada, higher than United States

Indicators	Current level of updated indicators (most recent year) and the change from the previous result ☺ better ☹ same ☹ worse ⓪ not updated ⊖ not comparable	Longer-term change	Variation within the population	Comparison with the OECD
<b>PAID WORK</b>				
Unemployment	☹ 4.5 per cent of the labour force (year to March 2009)	Improved since 1998 to mid-1980s levels	Higher rates for young people, Māori, Pacific peoples and Other ethnic groups	Good
Employment	☹ 74.6 per cent of the population aged 15–64 years (year to March 2009)	Improved since 1998 to above mid-1980s levels	Lower rates for young people, women, Māori, Pacific peoples and Other ethnic groups	Very good
Median hourly earnings	☺ \$18.75 an hour for wage and salary earners (\$20.00 for males; \$17.50 for females) (2008)	Improved	Lower for Māori, Pacific peoples, youth and females over 30 years	No comparison available
Workplace injury claims	☺ 122 claims per 1,000 full-time equivalent employees (2007, provisional)	Improved since 2001	Higher rates for men, Māori and Pacific peoples	No comparison available
Satisfaction with work-life balance	☺ 78 per cent of employed people said they were satisfied with their work-life balance (2008)	Steady	Full-time employed people and people aged 35–54 years are less likely to be satisfied with their work-life balance	No comparison available
<b>ECONOMIC STANDARD OF LIVING</b>				
Market income per person	☹ RGNDI of \$30,179 per person (in constant 1995/1996 dollars) (year to March 2009)	Improved since mid-1990s	Not measured	Below average
Income inequality	☺ The equivalised disposable income of a household at the 80th percentile was 2.6 times larger than the income of a household at the 20th percentile (2008)	Around the same as the mid-1990s	Not relevant	Higher inequality than OECD median (around 2004)
Population with low incomes	☺ 14 per cent of population lives in households with incomes below 60 per cent of the median (2008)	Improved considerably since mid-1990s	Higher rates for children, sole-parent families and large families	Average
Housing affordability	☹ 29 per cent of households spend more than 30 per cent of income on housing (2008)	Improved from 1998 to 2004 but worsened between 2004 and 2008	Higher proportions among low-income households, Pacific peoples and Other ethnic groups	No comparison available
Household crowding	⓪ 10 per cent of individuals live in households requiring one or more additional bedrooms (2006)	Improved	More common among families with young children, youth, people in rental housing, Māori and Pacific peoples and in Manukau City	No comparison available
<b>CIVIL AND POLITICAL RIGHTS</b>				
Voter turnout (general elections)	☺ 76 per cent of the population eligible to vote (2008)	Fallen	Non-voters more likely to be on lower incomes, younger people, Māori or Pacific peoples	Above average for general election
Voter turnout (local authority elections)	⓪ 44 per cent of enrolled electors (2007)	Fallen		
Representation of women in government	☺ 34 per cent of seats in Parliament (2008 general election) ⓪ 32 per cent of elected members (2007 local authority elections)	Improved Improved	Not relevant	Very good for central government
Representation of ethnic groups in government	☺ 25 per cent of MPs identified as Māori, Pacific peoples or Asian	Improved	Pacific peoples and Asians under-represented	No comparison available
Perceived discrimination	☹ Asians most common group perceived to be subject to discrimination (2008)	Improved	Since 2001, perceptions of discrimination lower for 8 out of 11 groups	No comparison available
Perceived corruption	☺ New Zealand ranked first equal as least corrupt nation with a Corruption Perceptions Index score of 9.3 (2008)	Steady	Not relevant	Very good

Indicators	Current level of updated indicators (most recent year) and the change from the previous result ☺ better ☹ same ☹ worse ⓪ not updated ⊖ not comparable	Longer-term change	Variation within the population	Comparison with the OECD
<b>CULTURAL IDENTITY</b>				
Local content programming on New Zealand television	☺ 42 per cent of the prime-time schedule (2008)	Improved	Not relevant	Below average
Māori language speakers	⓪ 24 per cent of Māori report ability to converse in Māori (2006)	Slightly lower in 2006 than in 2001	Speakers more likely to be older	Not relevant
Language retention	⓪ Varied from 16 per cent of Cook Islands Māori to 84 per cent of Koreans (2006)	Little change for most ethnic groups	Not relevant	No comparison available
<b>LEISURE AND RECREATION</b>				
Satisfaction with leisure time	☺ 75 per cent of the population aged 15 years and over are satisfied overall with their leisure time (2008)	Steady	Those aged 25–54 years and Asians report lower satisfaction rates	No comparison available
Participation in physical activity	⓪ 51 per cent of the population aged 15 years and over were physically active (age-standardised rate) (2006/2007)	Steady	Women, Asians and older people were less likely to be physically active than men and young people	No comparison available
Participation in cultural and arts activities	⓪ 93 per cent of the population aged 15 years and over took part in cultural activities (2001/2002)	No trend available	Higher participation rates among young people and Māori	No comparison available
<b>PHYSICAL ENVIRONMENT</b>				
Air quality	☺ Auckland below guideline (2008) ☺ Hamilton below guideline (2008) ☺ Wellington below guideline (2008) ☺ Christchurch at guideline (2008) ☹ Dunedin above guideline (2008)	Fluctuating Steady Improved Improved Fluctuating, but improving overall	Not reported	Similar to sites in the Australian regions of Port Phillip (including Melbourne) and Sydney
Drinking water quality	☺ <i>E. coli</i> compliance 83 per cent (2007/2008) ☺ <i>Cryptosporidium</i> compliance 66 per cent (2007/2008)	Improved Improved	Not reported Not reported	No comparison available No comparison available
<b>SAFETY</b>				
Assault mortality	☺ All ages: Age-standardised rate of 1.6 deaths per 100,000 people (2006, provisional) ☺ Children under 15 years: five-year average annual rate of 0.8 deaths per 100,000 (2002–2006)	Improved since early 1990s Improved	Highest among males, youth aged 15–24 years and Māori	Homicide death rates higher than median for males and considerable higher for females
Criminal victimisation	⓪ 39 per cent of population aged 15 years and over were victims of criminal offending, either as individuals or members of households (2005)	No trend available	Young people, Māori and Pacific peoples more likely to have been a victim of crime	No reliable comparison available
Fear of crime	⓪ 40 per cent of adults said that fear of crime had a moderate or high impact on their quality of life (2005)	No trend available	Fear higher among females, Asians, Māori, Pacific peoples and those in socio-economically deprived areas	No comparison available
Road casualties	☺ 8.6 deaths per 100,000 population (2008) ☺ 352 injuries per 100,000 population (2008, provisional)	Improved Improved since mid-1980s	High rates among men, young people, Māori and those aged 65 years and over	Average for road deaths

Indicators	Current level of updated indicators (most recent year) and the change from the previous result ☺ better ☹ same ☹ worse ⓪ not updated ⊖ not comparable	Longer-term change	Variation within the population	Comparison with the OECD
<b>SOCIAL CONNECTEDNESS</b>				
Telephone and internet access in the home	⓪ Telephone 98 per cent (2006) ⓪ Internet access 66 per cent (2006)	Big improvement for internet access	Access less likely among Māori and Pacific families, families with unemployed adults and sole-parent families	Above average for internet
Regular contact with family/friends	⓪ 70 per cent of adults had family or friends over for dinner at least once a month in the previous year (2004)	Steady	Sharing a meal at home less common among those not in full-time employment	No comparison available
Trust in others	☺ 78 per cent of people aged 15 years and over reported that people can be trusted (2008)	Steady	Māori, Pacific peoples, Asians and those with incomes less than \$30,000 reported lower levels of trust	Good
Loneliness	☺ 16 per cent of people aged 15 years and over reported having felt lonely in the past 12 months (2008)	Steady	Pacific peoples, Asians, females and people who rated their health as poor reported higher levels of loneliness	No comparison available
Contact between young people and their parents	☹ 57 per cent of secondary school students said they spent enough time with their Mum and/or Dad (2007)	Fallen	Māori, Pacific and Asian students more likely to report not getting enough time with their Mum and/or Dad	No comparison available

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# Changes to *The Social Report 2009*

No changes have been made to the outcome domains used in this year's edition of the social report. Changes have been made to a small number of indicators used in the report. These are detailed in Table AP1.

Table AP1 **Changes to the indicators in *The Social Report 2009***

OUTCOME DOMAIN	CHANGE
HEALTH	Provisional 2006 data in the health expectancy indicator has been replaced with final 2006 data.
KNOWLEDGE AND SKILLS	An indicator on adult literacy skills in English was published in the social report from 2001 to 2006, but it was not included in 2007 or 2008 because the 1996 data was quite old. The indicator has been reinstated in this edition because there is new 2006 data available from the 10-yearly survey.
PAID WORK	The unemployment and employment indicators in this edition are based on March years, rather than on December years. This change was made to capture more recent data.
ECONOMIC STANDARD OF LIVING	The market income per person indicator in this edition of the social report is based on March years, rather than on December years, and includes data up to March 2009.
CIVIL AND POLITICAL RIGHTS	A new indicator on the representation of ethnic groups in government has been added to the Civil and Political Rights domain. It is now feasible because time series data is available. The new indicator complements the indicator on the representation of women in government.

# Technical details

## PEOPLE

In this section we provide detailed information about the data used in the indicators.

We note any data limitations and we provide data sources. For the People section, which uses a wide range of descriptive statistics, we include data sources only. Further information on specific data issues is available in the Endnotes.

### Data sources:

**Population size and growth:** Statistics New Zealand, *National Population Estimates Information Release; Census of Population and Dwellings; National Population Projections, 2006(base), mid-range Series 5, assuming medium fertility, medium mortality, long-term annual net migration gain of 10,000, Series 2 (low fertility), assuming medium mortality and net migration gain of 10,000, Series 6 (high migration), assuming medium fertility and mortality; External Migration Information Release, Infoshare series VTB032AA (natural increase) and EMI008AA (net migration).*

**Overseas-born:** Statistics New Zealand (2007) *QuickStats About Culture and Identity: 2006 Census, Tables 6, 7, 12, 13.*

**Fertility:** Statistics New Zealand (2009) *Birth Tables: Age-specific fertility rates for the total and Māori populations; Age-specific fertility rates for the major ethnic groups, 2001 and 2006. International comparison for total fertility rate (TFR) and teenage (under 20 years) fertility rate – Australia: Australian Bureau of Statistics (2008) Births, Australia, 2007, Table 9; Canada: Statistics Canada (2008) Births, 2006; European Commission, Eurostat, Population and Social Conditions, Demography, Total fertility rate (updated 26 August 2008); Denmark: Statistics Denmark, StatBank, Population and elections, Births and Deaths, Table FOD3: Fertility rates by age (accessed 11 March 2009); Finland: Statistics Finland, Population, Births, Total fertility rate (updated 22 April 2009); France: INSEE (2008) Demographic Report 2008, Table 3 (TFR, metropolitan France); Japan: Statistics Bureau (2008) Japan Statistical Yearbook, 2008, Table 2-24 (15–19 years fertility rate), Statistical Handbook of Japan, 2008, Table 2.4 (TFR); Netherlands: Statistics Netherlands, Statline web database, Birth: Birth order, age mother and fertility rates (updated 28 August 2008); Norway: Statistics Norway (2009) Population Statistics, Births 2008, Table 3; Scotland: General Register Office for Scotland (2008) Annual Review 2007, Figure 1.12 (15–19 years fertility rate), Figure 1.14 (TFR); Sweden: Statistics Sweden, Summary of Population Statistics 1960–2008, Total fertility rate (updated 13 May 2009); Switzerland: Swiss Federal Statistics Office (2008) Indicators of fertility in Switzerland, Total fertility rate (accessed 11 March 2008); UK: United Kingdom Office for National Statistics (2009) Health Statistics Quarterly, 40, Table 3.1; US: United States Department of Health and Human Services, Centers for Disease Control and Prevention (2009) "Births: Final Data for 2006", National Vital Statistics Report, Volume 57 No 7, January 7, 2009, p 8 (TFR), Table 8 p 42 (15–19 years fertility rate).*

**Geographic and ethnic distribution of the population:** Statistics New Zealand (2002) 2001 Census: Regional Summary, Table 2; Statistics New Zealand (2006) 2006 Census: Regional Summary, Tables 1, 2; Statistics New Zealand (2008) National Ethnic Population Projections: 2006(base)–2026; Urban/rural distribution: Statistics New Zealand, 2006 Census, unpublished data.

**Age and sex structure of the population:** Statistics New Zealand (2009) National Population Estimates, by single year of age, mean for the year ended December 2008. Median age by ethnic group; Statistics New Zealand, Projected Population Characteristics, 2006(base)–2061 (Table Builder); Statistics New Zealand (2008) National Ethnic Population Projections: 2006(base)–2026, Information Release, 2 April, Tables 3a, 3e, 3m, 3p.

**Household structure:** Statistics New Zealand (1998) 1996 Census: Families and Households, Table 1; Statistics New Zealand (2002) 2001 Census of Population and Dwellings: National Summary, Table 36; Statistics New Zealand (2006) 2006 Census, Classification Counts, Table 55.

**Housing tenure:** Statistics New Zealand (2002) 2001 Census: National Summary, Tables 20, 41; Statistics New Zealand (2006) QuickStats About New Zealand's Population and Dwellings, 2006 Census; and unpublished 2006 Census data.

**Families with dependent children:** Sources for Table P4: Families with dependent children, by family type, 1976–2006: Statistics New Zealand, 1976, 1981, 1986, unpublished census data; 1991 Census: New Zealanders at Home, Tables 16, 17; 1996 Census: Families and Households, Tables 16, 21, 26; 2001 Census: Families and Households, Tables 13, 24; 2006 Census, unpublished data. International comparison for families with dependent children: UK: United Kingdom Office for National Statistics (2008) General Social Survey 2006, Table 3.6, Family type, and marital status of lone parents: 1971 to 2006 (families with dependent children under 18); US: United States Census Bureau (2007) Current Population Survey Reports, 2006 March CPS, America's Families and Living Arrangements, Table FG7, Family groups with own children under 18; Australia: Australian Bureau of Statistics, unpublished data from the 2006 Census (families with dependent children under 18); Canada: Statistics Canada (2007) 2006 Census, Cat. No 97-553-XCB2006022, Families with children under 18.

**Official languages:** Statistics New Zealand (2007) QuickStats About Culture and Identity, 2006 Census, Tables 6, 15, 17, 18, 19, 22, 23.

**People with disability:** Statistics New Zealand (2007) 2006 Disability Survey, Information Release, data downloaded from Table Builder on Statistics New Zealand website, [www.stats.govt.nz](http://www.stats.govt.nz), and unpublished customised data.

**Same-sex couples:** Statistics New Zealand (2002) 2001 Census: Families and Households, Tables 7, 11; Statistics New Zealand (2006) 2006 Census: Classification Counts, Table 63. Note: The number of adults has been derived by multiplying the number of couples by two. Information on the sexual orientation of secondary school students from Adolescent Health Research Group (2008), Youth'07: The Health and Wellbeing of Secondary School Students in New Zealand. Initial Findings p 28.



## HEALTH

### H1 HEALTH EXPECTANCY

**Definition/formulae:** The total number of years a newborn can expect to live without any self-reported functional limitation requiring the assistance of another person or a complex assistive device.

The 2006 figures were estimated by Sullivan's method using life tables supplied by Statistics New Zealand and disability rates from the 2006 Post-Censal Disability Survey (supplied by support need level by Statistics New Zealand).

**Limitations of data:** The ability to monitor health expectancy on a regular basis depends on the availability of mortality and disability data (the latter from the post-census disability survey). Both variables are required by narrow age group (at least 10-year age groups), sex and ethnicity, and the disability prevalence data is required by support need level. Hence both mortality and disability data is subject to smoothing before it can be used in the Sullivan life table. Comparability of the disability data over time cannot be guaranteed, even though efforts are made to ensure the comparability of the disability survey from wave to wave.

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**Data source:** Ministry of Health.

### H2 LIFE EXPECTANCY

**Definition/formulae:** The expected number of years a person would live if they were subject throughout their lives to the current age-specific mortality rates.

**Note:** Ethnic-specific estimates from the Ministry of Health for the period 1980–1982 to 1995–1997 have been adjusted for undercounting in the ethnic mortality statistics by linking census to mortality records. The figures differ from those published by Statistics New Zealand for the same period.

The analysis associating life expectancy with levels of deprivation is based on the NZDep2006, a small-area index of deprivation based on a principal-component analysis of nine socio-economic variables from the 2006 Census. The index has been converted to a scale ranging from 1 to 10, where 1 represents the least deprived 10 per cent of small areas, and 10 represents the most deprived 10 per cent. The small areas are about the size of a census meshblock and have populations of approximately 100 people.

In the international comparison section, New Zealand's ranking in 1960/1961 is based on complete period life table data for 1960–1962 (the 1961 figure in the OECD data). In addition, Canada and Italy are included in the comparison, using 1961 data. For all other countries, 1960 data is used. As a result of these changes, New Zealand's ranking is slightly different from that shown in social reports from 2004 to 2007.

**Limitations of data:** Available annually only for the total population. Official Māori/non-Māori data is available five-yearly only, based on a three-year period around census years.

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**Data sources:** Statistics New Zealand (2009) *New Zealand Abridged Life Tables: 2006–2008*; Statistics New Zealand (2009) *New Zealand Life Tables: 2005–07, Table 2.01, and unpublished data for life expectancy by deprivation decile*; Statistics New Zealand (2009) *Births and Deaths: December 2008 quarter, Information Release*; Ministry of Health (ethnic-specific data for 1985–1987, 1990–1992); Ministry of Health (1999) *Our Health, Our Future: Hauora Pakari, Koiora Roa, The Health of New Zealanders 1999, Chapter 2*; OECD (2009) *OECD Factbook 2009, Quality of Life, Health, Life expectancy*.

### H3 SUICIDE

**Definition/formulae:** The number of suicide deaths per 100,000 population, for the population aged 5 years and over.

Age-standardised to the World Health Organization standard population.

*Note:* The figures for 2006 are provisional and subject to revision.

**Limitations of data:** Because suicide is a relatively rare event in statistical terms, rates of suicide death can vary markedly from year to year. Any interpretation of trends requires an examination of rates over several years. Deaths by suicide are subject to a coroner's inquiry and can only be officially deemed suicide once an inquest is complete. This means there can be a considerable delay in the publication of the final statistics.

Data on the rates of suicide death for geographical regions and cities may be of little value for reporting comparisons because of the low numbers, and hence highly variable suicide rates. For example, where populations are small, the suicide death rate can be greatly inflated by one or two deaths.

Data on intentional self-harm is available only for those admitted to hospital as inpatients or day patients for self-inflicted injury. Those cared for in hospital but not admitted and those cared for by primary or community care services are not reported. Therefore, the actual rate of attempted suicide is likely to be much higher than that reported in official statistics.

Comparability over time is affected by a change in the population concept in 1991 (from de facto to resident). Because of a change in the ethnicity classification in 1995, comparable data is available only from 1996 onwards. Ethnic-specific mortality data is subject to some uncertainty due to the differences in collection across different providers. Ethnic-specific data in New Zealand is also subject to uncertainty because of the small numbers in non-European ethnic groups. The small numbers tend to distort the rates used to compare populations.

A comparison of international trends in suicide death is problematic due to the different methods used to classify suicide. The New Zealand age-standardised rate in the international comparison data has been calculated in a manner consistent with the international figures available, and may differ slightly from the rates presented elsewhere (Ministry of Health (2008d) p 26).

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**Data sources:** Ministry of Health (2008) *Suicide Facts: Deaths and Intentional Self-harm Hospitalisations: 2006*; Ministry of Health, Information Directorate (unpublished tables); Ministry of Health (2006) *Suicide Facts: Provisional 2003 All-ages Statistics*; Beautrais (2000) *Restricting Access to Means of Suicide in New Zealand: A Report Prepared for the Ministry of Health on Methods of Suicide in New Zealand*; World Health Organization (2004).

### H4 CIGARETTE SMOKING

**Definition/formulae:** The proportion of the population aged 15 years and over who ever smoke any ready-made cigarettes or roll-your-own tobacco cigarettes. From 2006, "ever smoke" is defined as those who have ever smoked at least 100 cigarettes and currently smoke at least once a month.

The historic rates are all crude rates. Up until 2005, information on smoking prevalence was collected from quarterly surveys conducted by ACNielsen Ltd and reported by the Ministry of Health. In 2006 the data came from the New Zealand Tobacco Use Survey (NZTUS) which was run for the first time in the first quarter of 2006 and again in 2008. The 2006/2007 data comes from the New Zealand Health Survey conducted by the Ministry of Health. Data presented here may differ from previous reports, as data from the 2006 NZTUS and the 2006/2007 New Zealand Health Survey has been re-analysed using the same methodology.

In Figure H4.1, data for 1996 and 2006 comes from the Census of Population and Dwellings, in which regular smokers are defined as people who, at the time of the census, were regular smokers of one or more cigarettes per day.

Age-standardised rates use the WHO world standard population.

**Limitations of data:** The international comparison is affected by differences in the collection and classification of the data.

The classification of ethnicity information changed from 1997 onwards. Therefore, ethnic-specific data before and after 1997 may not be comparable.

The 2003 data was collected from people aged 18 years and over and adjusted for the expected proportion of smokers aged 15–24 years.

For Figure H4.1, the proportion of current smokers aged 15 years and over in 2008 has been estimated using the 2008 NZTUS data for 15–64 year olds and an estimate (adjusted for gender and ethnic group) based on the 2006/2007 New Zealand Health Survey for those aged 65 years and over.

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**Data sources:** Ministry of Health (2009) *Tobacco Trends 2008: A brief update of tobacco use in New Zealand*; Ministry of Health (2008) *A Portrait of Health 2008*. Paynter J (2008) *National Year 10 ASH Snapshot Survey, 1999–2007: Trends in tobacco use by students aged 14–15 years, Table 3a*; OECD (2009) *OECD Health Data 2009, June 2009, Non-medical determinants of health, Tobacco consumption: percentage of daily smokers among adult population*; Statistics New Zealand (2009) *Alcohol and Tobacco Available for Consumption, Year Ended December 2008, Information Release*; Statistics New Zealand, *Infoshare series SEPA.SBC3AD and SEPA.SBC3BD*; estimated resident population, mean for the year ended 31 December (provisional).

## H5 OBESITY

**Definition/formulae:** The proportion of the population aged 15 years and over who were obese in the 1997 National Nutrition Survey and the 2002/2003 and 2006/2007 New Zealand Health Surveys; and the proportion of children aged 5–14 years who were obese in the 2002 National Children's Nutrition Survey and the 2006/2007 New Zealand Health Survey.

Body mass index (BMI) is a measure of weight adjusted for height, and is calculated by dividing weight in kilograms by height in metres squared ( $\text{kg}/\text{m}^2$ ). For all adults aged 18 years and over, the World Health Organization defines obesity as having a BMI greater than or equal to  $30 \text{ kg}/\text{m}^2$  (WHO 2000). For participants under 18 years, BMI cut-off points developed by the International Taskforce on Obesity (IOTF) have been used to define obesity (Cole et al 2000). The IOTF BMI cut-off points are sex and age-specific, and have been designed to coincide with the WHO BMI cut-off points for overweight and obesity. In compliance with international practice, the same cut-off points have been used for all ethnic groups (Ministry of Health, 2008, A Portrait of Health, pp 104, 105).

Data presented here may differ from previous reports, as data from the 1997 National Nutrition Survey and the 2002/2003 New Zealand Health Survey has been re-analysed using the same methodology. In past surveys, higher BMI cut-off points were used to classify Māori and Pacific peoples aged 18 years and over as obese (greater than or equal to  $32 \text{ kg}/\text{m}^2$ ). When international BMI cut-off points are adopted for all adults aged 18 years and over, the proportion of Māori and Pacific adults classified as obese is approximately 11 percentage points higher, and the proportion of all adults classified as obese is 2 percentage points higher. For more information about BMI calculations using the New Zealand Health Survey, see Ministry of Health (2008) Body Size Technical Report: Measurements and classifications in the 2006/07 New Zealand Health Survey.

**Limitations of data:** BMI cut-offs are intended to identify populations at increased risk of poor health conditions associated with excess body fat, not to measure body fatness as such.

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**Data sources:** Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey; OECD (2009) OECD Health Data 2009, June 2009, Non-medical determinants of health, Body weight and composition, Overweight or obese population.

## H6 POTENTIALLY HAZARDOUS DRINKING

**Definition/formulae:** Potentially hazardous drinking is defined as the proportion of the population aged 15 years and over who drink alcohol, who scored eight or more on the Alcohol Use Disorders Identification Test (AUDIT). AUDIT is a 10-item questionnaire covering alcohol consumption, alcohol-related problems and abnormal drinking behaviour. It was developed by the World Health Organization as a screening tool for health professionals to identify people at risk of developing alcohol problems. Each question is scored from zero to four, so the questionnaire has a maximum score of 40. Potentially hazardous drinking is defined as an established pattern of drinking that carries a high risk of future damage to physical or mental health, but has not yet resulted in significant adverse affects. It is commonly identified from an AUDIT score of eight or more.

Information on hazardous drinking is based on the 1996/1997, 2002/2003 and 2006/2007 New Zealand Health Surveys.

**Limitations of data:** The information is self-reported and information from a sample survey is subject to sampling error. This has been minimised where possible and all differences commented on have been found to be significant using 95 per cent confidence intervals. Data presented here may differ from previous reports on potentially hazardous drinking, as data from the 1996/1997 and 2002/2003 New Zealand Health Surveys has been re-analysed using the same methodology as that used for the 2006/2007 New Zealand Health Survey. See Methodology report for the 2006/2007 New Zealand Health Survey (Ministry of Health 2008) for further information on the analysis of the New Zealand Health Surveys.

As men and women have been assigned the same cut-off score, this may underestimate potentially hazardous drinking in women, who generally have lower alcohol tolerance than men (Alcohol Advisory Council of New Zealand 2008).

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**Data sources:** Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey; OECD (2009) OECD Health Data 2009, June 2009, Non-medical determinants of health, Alcohol consumption.



## KNOWLEDGE AND SKILLS

### K1 PARTICIPATION IN EARLY CHILDHOOD EDUCATION

**Definition/formulae:** The number of enrolments of children aged 3 and 4 years in licensed early childhood education services as a proportion of all 3 and 4 year olds.

Over 90 per cent of early childhood education (ECE) enrolments of children aged 3 and 4 years are in licensed services. Licensed services include kindergartens, playcentres, education and care services, te kōhanga reo, home-based services and the Correspondence School. The measure overestimates participation because children enrolled in more than one early childhood service will be double-counted. The measure is therefore termed the “apparent” participation rate. Information from an alternative measure which avoids double counting – the proportion of Year 1 students who participated in early childhood education – is also included.

**Limitations of data:** Rates of participation are only “apparent” because children may be enrolled in more than one ECE service. The rates may therefore be inflated. The measure does not provide information on the length of participation or on the quality of the programmes, both of which are relevant to positive educational outcomes.

The indicator has changed to include licensed services only. This is because of inconsistencies over time in the licence-exempt data. As a result of this change, apparent participation rates are slightly lower than those published in previous social reports. In 2008, 94 per cent of early childhood education enrolments of children aged 3 and 4 years were in licensed services.

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**Data sources:** Ministry of Education: *Number of Enrolments in Licensed Early Childhood Education Services by Age (1997–2008)*; *Number of Enrolments in Licensed Early Childhood Education Service by Age, Gender and Type of Service (2008)*; *Percentage of Year 1 students who attended early childhood education services, 2000–2008*; Ministry of Education (various years) *Education Statistics of New Zealand, Education Statistics News Sheet, Volume 10 No 1, March 2001*.

### K2 SCHOOL LEAVERS WITH HIGHER QUALIFICATIONS

**Definition/formulae:** The proportion of secondary school leavers who left school with a qualification at National Certificate of Educational Achievement (NCEA) Level 2 or above.

In Figure K2.1, the data up to 2002 includes school leavers with:

- National Certificate Level 4
- A or B Bursary/National Certificate Level 3
- Entrance Qualification/42 or more credits National Certificate Level 3 or above/Accelerated Christian Education Certificate or overseas award at Year 13 Level
- Higher School Certificate/14–41 credits National Certificate Level 3 or above
- National Certificate Level 2/1–13 credits National Certificate Level 3 or above.

The data for 2003 also includes leavers who attained NCEA Level 2.

The data for 2005 and 2006 includes qualifications at NCEA Level 2 or above.

**Limitations of data:** School leaver data collection was changed as a result of the introduction of NCEA in 2002. A direct comparison cannot be made between rates up to and including 2002 with rates for 2003 on, due to the change in the qualification structure. Previous qualifications, such as School Certificate, were awarded to students if they had completed the assessment and met attendance requirements, independent of the grade awarded. The new qualification structure is designed to award students credits when they have met achievement rather than participation criteria.

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**Data sources:** Ministry of Education (various years) *Education Statistics of New Zealand*; Ministry of Education, *Education Counts website, Indicators, Education and Learning, Qualifications, School leavers with NCEA Level 2 or above*, [www.educationcounts.govt.nz/indicators/education\\_and\\_learning\\_outcomes/qualifications/1781](http://www.educationcounts.govt.nz/indicators/education_and_learning_outcomes/qualifications/1781); unpublished data from the Ministry of Education.

### K3 PARTICIPATION IN TERTIARY EDUCATION

**Definition/formulae:** Participation in tertiary education is calculated by the number of students aged 15 years and over enrolled with a tertiary education provider (see below) in formal qualifications (or programmes of study) of greater than 0.03 equivalent full-time tertiary study at any time during the year. The data excludes all non-formal learning, on-the-job industry training and private training establishments that did not receive tuition subsidies. Domestic students only are included.

Modern Apprenticeship students and other industry trainees who are doing courses that fit into the above definition are included in the statistics (typically, doing block courses at a polytechnic). If their learning is totally on the job, they will not be included.

Community education courses are excluded from the statistics.

Public tertiary education institutions include: universities, polytechnics and wānanga. Formerly, they also included colleges of education but these were disestablished between 1992 and 2006. Private tertiary education providers include: private providers receiving a tuition subsidy and private providers receiving a grant as a result of a decision by the Minister of Education.

**Limitations of data:** Age-standardised rates have been used in this report in the current level and trends, and sex and ethnic group differences sections. In previous reports, age-standardised rates were reported only for ethnic group differences.

The data in this report relates to students enrolled at any time during the year (from 1994). In social reports up to 2006, it related to students enrolled at 31 July in each year.

Changes in the number of institutions, the status of institutions, and the types of courses offered affect comparisons over time.

Students who were enrolled in more than one qualification level have been counted in each level. Consequently, the sum of the students in each level may not add to the total number of students.

Students who identify with more than one ethnic group have been counted in each group. Consequently, the sum of the students in each ethnic group may not add to the total number of students.

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**Data sources:** Ministry of Education, Education Counts website, Statistics, Tertiary, Participation, Provider-based enrolments, Table ENR.7, Participation Rates, Tables PPN.1, PPN.2, PPN.5, PPN.7, downloaded from [www.educationcounts.govt.nz](http://www.educationcounts.govt.nz) on 4 June 2009, and backdated data from Ministry of Education; OECD (2008) Education at a Glance 2008, Table C2.1.

### K4 EDUCATIONAL ATTAINMENT OF THE ADULT POPULATION

**Definition/formulae:** The proportion of adults aged 25–64 years with an educational attainment of (1) at least upper secondary school level, and (2) bachelor's degree or higher. At least upper secondary school level includes any formal qualification at NCEA Level 1 (or its predecessor, School Certificate) or higher. Bachelor's degree or higher includes bachelor's degrees, postgraduate certificates or diplomas, master's degrees, and doctorates.

**Note:** This definition differs from previous editions of the social report where "upper secondary school level" was defined as Level 3 and above of the International Standard Classification of Education (ISCED 1997). Because of a revision to this classification, qualifications such as New Zealand's NCEA Level 1 and School Certificate are not counted as "upper secondary education" attainment in the OECD's indicator report, Education at a Glance, 2008, the source of data for the international differences section in this report. The figure reported for the proportion of New Zealand adults with at least upper secondary level qualifications in 2006 (69 percent) is lower than the figures reported in previous editions of Education at a Glance and The Social Report.

**Limitations of data:** As a result of a change to the 2005 New Zealand standard classification of ethnicity in the December 2007 quarter of the Household Labour Force Survey, the category "New Zealander" is included in the Other ethnic group in the data for that quarter. Previously "New Zealander" was included in the European ethnic group.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census. This requires a revision of historical data. The latest revision was in April 2009.

The international comparison of the adult population with "at least upper secondary education" should be viewed with caution. There are substantial differences in the typical duration of ISCED Level 3 programmes between countries, ranging from two to five years of secondary schooling. The tertiary-type A (bachelor's degree and above) comparison is more robust.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey, unpublished tables; OECD (2008) Education at a Glance 2008, Tables A1.2a, A1.2b, A1.2c (at least upper secondary education) and A1.3a, A1.3b, A1.3c (tertiary-type A and advanced research programmes), downloaded 11 May 2009, via Statlink on p 42 of the online edition of Education at a Glance 2008, [www.oecd.org/dataoecd/23/46/41284038.pdf](http://www.oecd.org/dataoecd/23/46/41284038.pdf)

## K5 ADULT LITERACY SKILLS IN ENGLISH

**Definition/formulae:** The proportion of the population aged 16–65 years with higher literacy skills in English (defined as skills at Level 3 or above), as measured in the 1996 International Adult Literacy Survey (IALS) and the 2006 Adult Literacy and Life Skills Survey (ALL). Prose and document literacy were measured in both surveys; numeracy was measured in the ALL survey only.

The achievement attained in each of the literacy domains is grouped into one of five "skill levels". Level 1 represents the lowest ability range and level 5 the highest. Level 3 is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and university entry. Like the higher levels, it requires the ability to integrate several sources of information and solve more complex problems.

**Limitations of data:** It should be noted that the survey measures literacy in English. Those who most frequently spoke a language other than English in the home had substantially lower English literacy skills than those who most frequently spoke English. The reported statistics from the IALS survey for Pacific peoples and Asians are less robust.

For the international comparisons, the timing of the surveys is not consistent between countries. The first international adult literacy survey was conducted in 1994/1995; the New Zealand survey took place in 1996. Not all countries participated in the ALLS survey, which was conducted in New Zealand in 2006.

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**Data sources:** Satherley P, Lawes E and Sok S (2008) *The Adult Literacy and Life Skills (ALL) Survey: Overview and International Comparisons*; Satherley P and Lawes E (2008) *The Adult Literacy and Life Skills (ALL) Survey: Age and Literacy*; Satherley P, Lawes E and Sok S (2008) *The Adult Literacy and Life Skills (ALL) Survey: Education, Work and Literacy*; Satherley P and Lawes E (2008d) *The Adult Literacy and Life Skills (ALL) Survey: Gender, Ethnicity and Literacy*; and customised unpublished data.

## PAID WORK

### PW1 UNEMPLOYMENT

**Definition/formulae:** The unemployment rate is the number of people aged 15 years and over who are not employed and who are actively seeking and available for paid work, expressed as a percentage of the total labour force.

The labour force is defined as the population aged 15 years and over who are either employed or unemployed.

The unemployed are defined in the Household Labour Force Survey as those who are without a paid job (or unpaid work in a relative's business) and who have actively sought work in the four weeks before the survey, who are available to take work or have a new job to start within the next four weeks. "Actively seeking" includes any actions such as contacting an employer, asking friends and relatives and contacting an employment agency or Work and Income but excludes those who have only checked newspaper advertisements.

Harmonised unemployment rates used for international comparisons are seasonally-adjusted rates and conform with standard International Labour Organization guidelines for comparability. Harmonised unemployment rates were previously termed "standardised unemployment rates".

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. The definition of the unemployed excludes some people who regard themselves as unemployed, including the "discouraged unemployed" – those not meeting the "actively seeking work" criterion. This group is classified in the "not in the labour force" category. The unemployment rate also excludes those who have part-time employment but who are seeking to work more hours.

The unemployment rate is not specifically a measure of youth who are inactive or at risk of poor transitions into work or higher education.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census, requiring a revision of historical data. In April 2009, the Household Labour Force Survey (HLFS) was revised back to the start of the survey (March 1986). As a result, some figures published in this report may not match figures published in earlier editions of the social report.

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**Data sources:** Statistics New Zealand (2009) *Household Labour Force Survey*; OECD *Frequently Requested Statistics, Harmonised Unemployment Rate*, downloaded from [www.oecd.org](http://www.oecd.org) on 20 April 2009; OECD (2008) *OECD Employment Outlook 2008, Statistical Annex, Table G p 355*.

## PW2 EMPLOYMENT

**Definition/formulae:** The employment rate is the proportion of the population aged 15–64 years employed for at least one hour per week. The employed are those who worked for pay or profit for one hour or more in the week before the survey or who worked unpaid in a relative's business or who have a job but did not work that week because of leave, sickness or industrial disputes.

The indicator relates to the population aged 15–64 years, rather than to those aged 15 years and over. As well as capturing the main working ages, restricting the subject population to ages 15–64 years helps adjust for differences in age structure between males and females, between ethnic groups, and between populations in different countries.

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. The definition of employment includes those working one hour or more a week, so this will include some people who are likely to regard their status as closer to unemployment than to employment. For example, people on the unemployment benefit and searching for work but working a few hours a week will be counted as employed.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census, requiring a revision of historical data. In April 2009, the Household Labour Force Survey (HLFS) was revised back to the start of the survey (March 1986). As a result, some figures published in this report may not match figures published in earlier editions of the social report.

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**Data sources:** Statistics New Zealand (2009) Household Labour Force Survey. OECD (2009) OECD Stats Extract, Dataset: Labour Force Status by sex and age – indicators, downloaded from <http://stats.oecd.org/WBOS/index.aspx> on 27 May 2009.

## PW3 MEDIAN HOURLY EARNINGS

**Definition/formulae:** Median hourly earnings for employees earning income from wage and salary jobs as measured by the New Zealand Income Survey, an annual supplement to the Household Labour Force Survey.

**Limitations of data:** The final data set consists of approximately 28,000 valid person records including 4,000 imputed person records. Hourly earnings relate to the number of hours usually worked and the usual income rather than to the number of hours actually worked and the actual income. Proxy interviewing may be used to collect data on income under certain circumstances. Estimates from sample surveys are subject to error.

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**Data sources:** Statistics New Zealand (2009) New Zealand Income Survey, Hot Off the Press, June 1997 quarter to June 2003 quarter (revised), June 2004 quarter to June 2008 quarter Table 10; and unpublished data derived by the Ministry of Social Development.

## PW4 WORKPLACE INJURY CLAIMS

**Definition/formulae:** The number of work-related accident claims reported to the ACC per 1,000 full-time equivalent employees (one part-time employee = 0.5 full-time employee).

Full-time equivalent employee data is as estimated by Statistics New Zealand's Household Labour Force Survey.

**Limitations of data:** The data does not include workplace accidents where no claim was made to the ACC. In some cases, there are also delays from when the accident happened to when the claim is reported to the ACC. For example, there were 240,500 injuries reported for the 2003 calendar year by March 2004, and 246,600 for the same year by March 2005, an increase of 3 per cent.

Information on workplace injuries for 2005, 2006 and 2007 is based on a new set of indicators developed by Statistics New Zealand. Comparable figures are available for 2001–2004 but information from these years is not directly comparable with previous figures on workplace injuries. The data for 2002–2004 was revised by Statistics New Zealand in 2006.

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**Data sources:** Statistics New Zealand (2008) Injury Statistics – Work-related Claims: 2007, Information Release; Statistics New Zealand (2004): Injury Statistics 2003: Claims for Work-related Injuries, Information Release.

## PW5 SATISFACTION WITH WORK-LIFE BALANCE

**Definition/formulae:** The proportion of employed people who are “satisfied” or “very satisfied” with their work-life balance according to the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009); Quality of Life Project (2007). The survey was commissioned by 12 of New Zealand’s cities and districts, in partnership with the Ministry of Social Development, to monitor trends in wellbeing. The total (national) sample size in the 2008 survey was 8,155, which has a maximum margin of error of +/- 1.1 per cent at the 95 per cent confidence interval. Interviews were conducted to meet gender, ethnicity, age and ward/region quotas to ensure the sample was representative of the New Zealand population as a whole. The response rate was 37 per cent.

## ECONOMIC STANDARD OF LIVING

### EC1 MARKET INCOME PER PERSON

**Definition/formulae:** Real Gross National Disposable Income (RGNDI) measures the real purchasing power of national disposable income. It takes into account changes in the terms of trade and real gains from net investment and transfer income with the rest of the world. GNDI is Gross National Income (GNI), plus net international transfers. Real Gross Domestic Product (GDP) per person (as used in the OECD comparisons) is real income produced inside the New Zealand economic boundary, excluding the international transfers included in GNDI.

**Derivation of RGNDI:** In the published tables, RGNDI is calculated as follows:

Chain-volume gross domestic product (production-based measure), plus

Real trading gain/loss, plus

Real total net investment income, plus

Real total net transfers.

Real trading gain/loss is defined as current price exports deflated by an imports implicit price index less the chain-volume measure of exports. Real total net investment income equals investment income credits less investment income debits, both deflated by an imports implicit price index. Real net transfers equals transfers credits less transfers debits, both deflated by an imports implicit price index.

**Limitations of data:** Major limitations to the use of RGNDI as an indicator of wellbeing include its failure to include non-marketed (and, therefore, non-priced) activities (barring the exception of imputed rentals on owner-occupied dwellings). RGNDI provides no information on income distribution. Finally, evidence suggests monetary measures have a very weak cross-sectional and a limited time series correlation with self-assessed measures of wellbeing.

There is a discontinuity between 1991 and 1992 due to a change of population series from de facto population to resident population.

**Note:** The use of real GDP for OECD comparisons may overstate New Zealand’s relative position because of New Zealand’s growing and high per capita net external debt.

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**Data sources:** Statistics New Zealand, Real GNDI per capita (Infoshare series SNC039AA); Statistics New Zealand (2001) Measuring Unpaid Work in New Zealand 1999, Table 1 p 15, Table 4 p 17; OECD, Gross domestic product (expenditure approach), Table HCPC, per head at current prices and current PPPs (US dollars), and Table HVPVOB, per head at the price levels and PPPs of 2000 (US dollars), downloaded from OECD Stat on 29 April 2009; OECD (2009) OECD Factbook 2009: Economic, Environmental and Social Statistics, Gross national income per capita, time series table via Statlink on p 39.



## EC2 INCOME INEQUALITY

**Definition/formulae:** The ratio of the 80th percentile of equivalised disposable household income to the 20th percentile of equivalised disposable household income, when individuals are ranked by their household incomes. This indicator takes into account household size and composition. For international comparisons, we have compared Gini coefficients.

Adjustment for family size was made by means of a per capita equivalisation process based on the 1988 Revised Jensen Equivalence Scale.

**Limitations of data:** International comparisons have been made with data from years around 2004.

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**Data sources:** *Statistics New Zealand Household Economic Survey (Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the Ministry of Social Development.); Perry B (2009) Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008. Source for international comparisons: OECD (2008) Growing Unequal: income distribution and poverty in OECD countries.*

## EC3 POPULATION WITH LOW INCOMES

**Definition/formulae:** The income measure used is equivalised disposable household income after deducting housing costs. Equivalised disposable household income is the total income from all sources for all individuals in the household, after deducting tax, adding tax credits and adjusting for household size and composition.

The adjustment for household size and composition is based on the 1988 Revised Jensen Equivalence Scale.

Housing costs is the sum of annualised accommodation expenditure (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of a private dwelling, boarding house and student accommodation not paid with formal fees). In this indicator the Accommodation Supplement is counted as income.

Individuals are ranked by their household's equivalised disposable income (after deducting housing costs).

The two low-income thresholds used are of the "fixed line" type, set at 50 per cent and 60 per cent of the 1998 median household disposable income, less 25 per cent to allow for average housing costs. The two thresholds are held constant in real terms by an adjustment using the CPI. (See Perry (2008) for further details – especially Appendices 4 and 5.)

Individuals are grouped according to selected individual, family or household characteristics for the different analyses. For this indicator, family means one- or two-parent families with dependent children, whether living in a separate household or with others in a wider household.

In 2007 and 2008, the Other ethnic group includes the category "New Zealander".

The methodology used to calculate the figures used in the international comparison section follows that used by the OECD: the income concept is equivalised household disposable income; the equivalence scale is the square root scale (ie equivalence scale elasticity = 0.5); equivalent household income is attributed to all individuals in the household; individuals are ranked by their attributed equivalent disposable income to get the median for that year; the threshold is set at 50 per cent of this (contemporary) median, a "moving line" approach. There is no adjustment for housing costs.

*Note:* The data in Table EC3.1 is for March years in 1986–1998, and June years in 2001, 2004, 2007 and 2008. In this table, children refers to dependent children, aged under 18 years and not in full-time employment.

**Limitations of data:** The equivalised disposable income measure (whether before or after deducting housing costs) is taken as an indicator of a household's access to economic resources or of its potential living standards, all else being equal. The measure is an imperfect indicator of actual living standards, which are influenced by factors other than current income and housing cost. People with the same current income level can have different standards of living as a result of their different net assets, the extent to which they receive assistance from others, and the extent to which they have atypical expenditure commitments (eg unusually high medical costs, debt repayments, transport costs and electricity costs). People who experience a lengthy period of very low income are likely to have different life outcomes to those who experience only a transient episode.

Since 1994 the trend for those of Other ethnicity has been volatile, but up to 2004 the trends for Māori and Pacific peoples have moved in the expected positive direction and were consistent with information from other data sources. Reporting by ethnicity in these circumstances was considered to be justified. The volatility of the trend for those of Other ethnicity was explained in a footnote. Analysis of the 2007 Household Economic Survey data showed a very large improvement for Pacific peoples and for those in the Other ethnic grouping compared with 2004, while for Māori there was no measurable change. These results did not align with the information sources used for a cross-check. The Ministry of Social Development considered it would be misleading to report these improvements, as the small overall sample numbers for these groups and the decreasing numbers below the low-income threshold combine to increase the sampling error to unacceptable levels. The population with low incomes indicator, therefore, does not include a breakdown by ethnicity. Instead, it includes trends in median household incomes that show less volatility while still giving an idea of the relativities between ethnic groups.

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**Data sources:** Statistics New Zealand Household Economic Survey (Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the Ministry of Social Development; see Perry B (2009) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008*). Source for international comparisons: OECD (2008) *Growing Unequal: income distribution and poverty in OECD countries*.

**Definition/formulae:** The proportion of households and the proportion of people within households with housing cost outgoings-to-income ratio greater than 30 per cent of disposable income.

Household incomes have been equivalised using the 1988 Revised Jensen Equivalence Scale.

Housing costs are the sum of annualised accommodation expenditure (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of a private dwelling, boarding house and student accommodation not paid with formal fees). In this indicator the Accommodation Supplement is counted as income.

**Limitations of data:** Measures of housing affordability do not shed light on the issues of housing quality, suitability or sustainability; nor do they explain why affordability problems may exist, or the extent to which inadequate housing is occupied to avoid affordability problems. Furthermore, marginally-housed families are often hidden from official statistics and are not counted among those with an affordability problem.

Household ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The figures for households defined in this way are not mutually exclusive. In 2007 and 2008, the Other ethnic group includes the category "New Zealander".

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**Data source:** Derived from the Statistics New Zealand Household Economic Survey by the Ministry of Social Development. Perry B (2009) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008, Table C2 p 45*.

## EC5 HOUSEHOLD CROWDING

**Definition/formulae:** The Canadian National Occupancy standard sets the bedroom requirements of a household according to the following compositional criteria:

- There should be no more than two people per bedroom
- Parents or couples share a bedroom
- Children under 5 years, either of the same or of the opposite sex, may reasonably share a bedroom
- Children under 18 years of the same sex may reasonably share a bedroom
- A child aged 5–17 years should not share a bedroom with a child aged under 5 years of the opposite sex
- Single adults 18 years and over and any unpaired children require a separate bedroom.

**Limitations of data:** There is no contemporary official statistic or index of household crowding in New Zealand. There are many frameworks or models used in many countries for analysing the incidence of crowding. It is unlikely any single measure of crowding could adequately summarise such a complex and multi-faceted issue as crowding.

There is no definitive evidence crowding leads to negative social outcomes, but there are associations between living in crowded circumstances and negative outcomes. The mechanisms by which these outcomes result are not clear.

The Canadian Crowding Index is not an objective index of crowding. The extent to which household members will perceive themselves as living in crowded circumstances is dependent on many factors including social and cultural expectations. Furthermore, it cannot be assumed households requiring one or more additional bedrooms (based on the Canadian index) will suffer negative social outcomes.

The Canadian Crowding Index is used here as it is sensitive to both household size and composition. The measure sets a bedroom requirement for households based on precise criteria.

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**Data sources:** Statistics New Zealand (1998) *New Zealand Now: Housing*, pp 56–63; Statistics New Zealand, unpublished data from the 1986, 1991, 1996, 2001 and 2006 population censuses.

## CIVIL AND POLITICAL RIGHTS

### CP1 VOTER TURNOUT

**Definition/formulae:** The total number of votes cast is divided by the estimated number of people who would have been eligible to vote (voting-age population) on election day, and expressed as a percentage. To be eligible to vote, a person must be at least 18 years old and meet residential and certain other criteria.

**Limitations of data:** The voting-age population is based on population estimates that are subject to revision. The 1984 figure is based on the estimated de facto population aged 18 years and over, as at 30 June 1984.

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**Data sources:** Electoral Commission (2008) [www.electionresults.govt.nz](http://www.electionresults.govt.nz); Department of Internal Affairs (2006) *Local Authority Election Statistics 2004*, and unpublished data for 2007; Inter-Parliamentary Union (2009) *PARLINE Database*, Last election.

### CP2 REPRESENTATION OF WOMEN IN GOVERNMENT

**Definition/formulae:** The proportion of elected members of parliament and local government bodies who are women.

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**Data sources:** Electoral Commission (2002) *The New Zealand Electoral Compendium*, 3rd edition; Department of Internal Affairs (2006) *Local Authority Election Statistics 2004*, and unpublished data for 2007; Wilson J and Anderson G (2008) *Final Results for the 2008 New Zealand General Election*; Inter-Parliamentary Union (2009) *Women in National Parliaments, Situation as of 31 March 2009*.



### CP3 REPRESENTATION OF ETHNIC GROUPS IN GOVERNMENT

**Definition/formulae:** The proportion of elected Members of Parliament (MPs) who identify themselves as being of Māori, Pacific peoples or Asian ethnicity.

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**Data sources:** Election New Zealand (2008) *Māori, Pacific and Asian MPs 1990–2005*; Wilson J and Anderson G (2008) *Final Results for the 2008 New Zealand General Election*; Statistics New Zealand (2007) *Estimated National Ethnic Population by Age and Sex at 30 June 1996, 2001 and 2006*.

### CP4 PERCEIVED DISCRIMINATION

**Definition/formulae:** The proportion of people aged 18 years and over who perceived selected groups as being the targets of discrimination (ie subject to “some discrimination” or “a great deal of discrimination”).

**Limitations of data:** Surveys on perceived discrimination do not measure actual levels of discrimination against groups.

The margin of error for a 50 per cent figure at the 95 per cent confidence level is 3.6 per cent.

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**Data source:** Human Rights Commission (2009) *Treaty of Waitangi, Personal/Group Discrimination and Disabilities: Omnibus Results, December 2008*.

### CP5 PERCEIVED CORRUPTION

**Definition/formulae:** The perceived level of corruption – defined as “the abuse of public office for private gain” – among New Zealand politicians and public officials, on a scale of 0 (highly corrupt) to 10 (highly clean). A country’s score in the Corruption Perceptions Index is derived by Transparency International from a number of different surveys of business people and country analysts.

The Corruption Perceptions Index (CPI) gathers data from sources that span the last two years. For the CPI 2008, this includes surveys from 2008 and 2007. The 2008 index is calculated using data from 13 sources originating from 11 independent institutions. All the sources measure the overall extent of corruption (frequency and/or size of bribes) in the public and political sectors and all the sources provide a ranking of countries, ie include an assessment of multiple countries. The New Zealand data for the CPI 2008 was drawn from six surveys: Economist Intelligence Unit (2008), Global Insights (2008), World Competitiveness Report of the Institute for Management Development (2008 and 2007), Merchant International Group (2007) and the Global Competitiveness Report of the World Economic Forum (2007). New Zealand’s overall score of 9.3 was within a confidence range of 9.2–9.5.

**Limitations of data:** The Corruption Perceptions Index score is a subjective measure; there is no hard empirical data on levels of corruption that can be used for cross-country comparison. The index was not designed to provide comparisons over time, since each year the surveys included in the index vary. The index is a relative measure: New Zealand’s ranking depends not only on perceptions of corruption in New Zealand but also on perceptions of corruption in the other countries surveyed. If comparisons with earlier years are made, they should be based on a country’s score, not its rank.

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**Data source:** Transparency International (2008) *Transparency International Corruption Perceptions Index 2008*, [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi)

## CULTURAL IDENTITY

### CI1 LOCAL CONTENT PROGRAMMING ON NEW ZEALAND TELEVISION

**Definition/formulae:** The hours of local content broadcast on TV One, TV2 and TV3 (to 2004), Prime Television, Māori Television (from 2005) and C4 (from 2006) in prime-time, expressed as a percentage of the total prime-time schedule. TV3 commenced in November 1989. New Zealand content programming includes first runs and repeats across all six channels.

**Limitations of data:** The number of local content hours broadcast on other free-to-air or pay channels is not included in the data presented here. Up until 2002 the hours data in Table CI1.1 was measured over 24 hours; from 2003 on it was measured over 18 hours (6am to midnight).

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**Data sources:** *NZ On Air (2009) Local Content, New Zealand Television, 2008 [7 May 2009]; NZ On Air (1999) Local Content and Diversity: Television in Ten Countries.*

### CI2 MĀORI LANGUAGE SPEAKERS

**Definition/formulae:** Māori language speakers as a proportion of the Māori ethnic group. Māori language speakers are defined as those able to hold a conversation about everyday things in Māori.

**Limitations of data:** The data relies on self-assessment rather than on measuring the actual level of fluency in the population. The census data comes from a single question about conversational language ability. More detailed information on the level of fluency among Māori language speakers is available from two nationwide surveys done in 2001 and 2006. This data is not directly comparable with the census data because of differences in the samples and methodology. For example, the Māori language surveys used face-to-face interviews, asked a range of questions about language skill, and asked respondents to place themselves on a five-category proficiency scale.

**Note:** The data behind Figure CI2.1 has been revised using published data. The graph in the 2008 social report, which was based on figures derived from customised data, was incorrect.

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**Data sources:** *Statistics New Zealand (2002) 2001 Census of Population and Dwellings: National Summary, Table 13a; Statistics New Zealand (2006) QuickStats About New Zealand's Population and Dwellings, National Highlights: 2006 Census, Tables 1, 9, 10; Statistics New Zealand (2007) QuickStats About Māori: 2006 Census, Tables 9, 10; Statistics New Zealand (2007) QuickStats About Culture and Identity: 2006 Census, Table 19; and unpublished data from the 2006 Census; Te Puni Kōkiri (2001) Provisional results of the 2001 Survey of the Health of the Māori Language; Te Puni Kōkiri (2007) The Māori Language Survey Fact Sheet.*

### CI3 LANGUAGE RETENTION

**Definition/formulae:** The proportion of people who can speak the "first language" (excluding English) of their ethnic group, for ethnic groups (other than Māori) with an established resident population in New Zealand, as recorded in the 2006 Census. The ability to speak a language is defined as being able to hold an everyday conversation in that language. "First language" refers to an indigenous language associated with a given ethnicity rather than the first language of an individual.

**Limitations of data:** While a direct link can usually be made between a language and an ethnic group, this is not always the case. Some ethnicities are associated with several languages and one language can span several ethnicities. Because both the ethnic group and language spoken census variables allow more than one response, there may be some individuals who appear in more than one ethnic group category.

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**Data source:** *Statistics New Zealand, unpublished data from the Census of Population and Dwellings, 2001, 2006.*

## LEISURE AND RECREATION

### L1 SATISFACTION WITH LEISURE TIME

**Definition/formulae:** The proportion of people aged 15 years and over who are “satisfied” or “very satisfied” with their leisure time, according to the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009); Quality of Life Project (2007). For more information see PW5 Satisfaction with work-life balance.

### L2 PARTICIPATION IN PHYSICAL ACTIVITY

**Definition/formulae:** The proportion of the population aged 15 years and over who met physical activity guidelines (ie were physically active for at least 30 minutes a day on five or more days over the last week), as measured by the 2002/2003 and 2006/2007 New Zealand Health Surveys.

**Limitations of the data:** Survey estimates are subject to sampling error and small differences between groups may not be statistically significant. This has been minimised where possible and all differences commented on have been found to be significant using 95 per cent confidence intervals and t-tests where these overlap. Data presented here may differ from previous reports, as data from the 2002/2003 New Zealand Health Survey has been re-analysed using the same methodology as that used for the 2006/2007 New Zealand Health Survey. See Methodology report for the 2006/2007 New Zealand Health Survey (Ministry of Health 2008) for further information on the analysis of the New Zealand Health Surveys.

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**Data source:** Ministry of Health, unpublished data from the 2002/2003 and 2006/2007 New Zealand Health Surveys.

### L3 PARTICIPATION IN CULTURAL AND ARTS ACTIVITIES

**Definition/formulae:** The proportion of the population aged 15 years and over who experienced a cultural activity as measured in the 2002 Cultural Experiences Survey. Respondents were asked to report on activities they experienced over either a 12-month period (for goods and services accessed or experienced relatively infrequently) or a four-week recall period (for activities experienced on a more regular basis). The survey was undertaken as a supplement to the 2002 March-quarter Household Labour Force Survey.

**Limitations of data:** This was an ad hoc survey, and is not comparable with the indicator in The Social Report 2001. The focus of this survey was on experience/consumption; it did not include participation such as acting or performing.

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**Data source:** Statistics New Zealand (2002) 2002 Cultural Experiences Survey.

## PHYSICAL ENVIRONMENT

### EN1 AIR QUALITY

**Definition/formulae:** The level of ambient concentrations of PM<sub>10</sub> averaged annually are reported for five major urban centres in New Zealand. These levels are compared with the government's PM10 guideline value of 20µg/m<sup>3</sup> (micrograms per cubic metre). PM<sub>10</sub> is particulate matter that is less than 10 microns in diameter. A new air quality standard based on average daily PM10 concentrations was introduced in 2005. This national environmental standard for PM<sub>10</sub> is 50 micrograms per cubic metre (50µg/m<sup>3</sup>), averaged daily over 24 hours (midnight to midnight). The standard can be exceeded on only one day a year. The standard is monitored by regional councils in "airsheds", areas within the region where air quality may, or is known to, exceed the standards or may require management in the future. The Ministry for the Environment's website contains information on airsheds including maps of airsheds within each region (<http://www.mfe.govt.nz/state/reporting/air/nes/index.html>).

**Limitations of data:** Annual average PM<sub>10</sub> data is reported only at specific sites in the five major cities. The data, being so location-specific, cannot be compared with an OECD median. In September 2005, the new air quality standards based on daily PM<sub>10</sub> concentrations were introduced. When sufficient time series data is available for this measure, we will expand the reporting against this standard. Any data used in this report that may be subject to volatile loss has been adjusted by a regionally-determined factor, where available.

The 2007 Dunedin average is based on an incomplete year of data. Data was not collected from 1 January 2007 until 23 March 2007 due to maintenance issues with the instrument.

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**Data sources:** Ministry for the Environment, data collated from regional councils; Ministry for the Environment (2009) *Air Quality (Particulate Matter – PM<sub>10</sub>) Environmental Report Card, February 2009*; Ministry for the Environment (2008) *Environment New Zealand 2007*; Department of Environment and Climate Change, New South Wales Government (2008) *Quarterly Air Quality Monitoring Reports*, <http://www.environment.nsw.gov.au/air/dataareports.htm#quarterlies>; Environment Protection Authority Victoria (2008) *Victoria's Air Quality 2007 – Air Monitoring Data*, <http://www.epa.vic.gov.au/air/monitoring/docs/vic-airquality2007-datatable-updated-dec08.pdf>

### EN2 DRINKING WATER QUALITY

**Definition/formulae:** The 2000 and 2005 Drinking-water Standards for New Zealand (DWSNZ:2000 and DWSNZ:2005) require that the water must receive adequate protozoa treatment and *E. coli* must not be detected in more than a specified proportion of 100 ml samples of water leaving a treatment plant. Adequate monitoring and the use of a registered laboratory are required to demonstrate full compliance with this standard. The indicator is the percentage of the estimated resident population receiving their water from community water supplies whose drinking water complies with either the 2000 or 2005 Drinking-water Standards of New Zealand relating to *E. coli* and *Cryptosporidium*. There is a transition period as the new DWSNZ:2005 is phased in. This transition is scheduled to take several years to complete and drinking water suppliers may elect which of the two standards to operate under. Compliance is assessed against the standard the supplier has chosen to comply with at this time. This approach is in line with the Health (Drinking Water) Amendment Act 2007. Section 14(3) of this Act allows suppliers to opt to comply with either the 2000 or 2005 Drinking Water Standards, to ease the transition for those suppliers who are more comfortable with the 2000 standards. Compliance is measured at the treatment plant for *Cryptosporidium* and at the tap for *E. coli*.

For the *Cryptosporidium* measure, the approach followed for the social report differs from that used by the Ministry of Health (MoH). The MoH measure is an estimate based on all treatment plants supplying each distribution zone. The measure used in the social report is based on the worst result from the various treatment plants supplying a distribution zone. The first approach double counts populations where a distribution zone is supplied by multiple plants; the later approach avoids this by measuring only one plant. The approach followed in the social report will become the standard measure when the transition to DWSNZ:2005 is completed.

The *E. coli* compliance results reported in the social report may also differ from those reported by MoH, as their results are based on district health board regions, while the social report results are based on regional council areas. When aggregating results from different geographic areas, sometimes there can be small discrepancies due to different population counts.

**Limitations of data:** Drinking water rated not fully compliant may be the result of failing one of the two microbiological criteria, of failing to adequately demonstrate compliance by using a non-registered laboratory, or of no or inadequate monitoring.

The measurement of compliance moved from a calendar year to the fiscal year in 2006. For this reason the data points jump from the 2005 calendar year to the 2006/2007 fiscal year. This change, combined with the transition in standards, will result in some lack of data continuity across these periods.

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**Data source:** Environmental Science and Research, customised data.

## SAFETY

### SS1 ASSAULT MORTALITY

**Definition/formulae:** The number of people who have died as a result of an assault, per 100,000 population.

The data was drawn from the following International Classification of Diseases codes: ICD-9, E960–E969 (up to 1999); ICD-10, X85–Y09 (from 2000).

**Limitations of data:** Because of the changes in the classification of ethnicity in death-registration data in September 1995, ethnicity data for 1996 and later years is not comparable with data from before 1996.

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**Data sources:** Ministry of Health, *Deaths from homicide and injury purposely inflicted by other persons (Assault mortality data in ICD-10), 1948–2006*; UNICEF (2003) "A League Table of Child Maltreatment Deaths in Rich Nations", *Innocenti Report Card No 5, Table 1(a) p 4*; OECD (2009) *OECD Health Data 2009, Health Status, Mortality, Causes of Mortality, Assault, Deaths per 100,000 males/females (standardised rates)*.

## SS2 CRIMINAL VICTIMISATION

**Definition/formulae:** The proportion of the population aged 15 years and over who had been victims of one or more incidents of criminal offending in 2005 as measured by the New Zealand Crime and Safety Survey 2006 (NZCASS). The survey covers people in private households. It does not cover commercial victimisation, “victimless” crimes (such as drug or alcohol abuse), or crimes against people younger than 15 years.

**Limitations of data:** Changes in survey design limit the comparisons that can be made between NZCASS and the two earlier surveys, the 1996 and 2001 New Zealand National Survey of Crime Victims.

The overall response rate in the 2006 NZCASS was 59 per cent in the main sample and 56 per cent in the Māori booster sample. The respective figures in the 2001 survey were 65 per cent and 57 per cent and in the 1996 survey, 56 per cent and 66 per cent. In the authors’ view, it is difficult to say how the small drop in the response rate in the 2006 NZCASS has affected risk estimates (Mayhew and Reilly (2007b) p 23).

Victimisation surveys are subject to a number of methodological limitations such as selective recounting and differences between groups in willingness to report offences, particularly offences of a sexual or domestic nature where the offender is known. There are also limitations in asking people to remember victimisation incidents and to locate them accurately in time.

A victimisation survey will give a higher count of crime because it counts unreported crime. A third of all NZCASS offences became known to the police. Offences regarded as serious were more likely to be reported, but there was a wide variation between offence types, with 84 per cent of vehicle thefts being reported compared with 9 per cent of sexual offences (Mayhew and Reilly (2007b) p 35).

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**Data source:** Mayhew and Reilly (2007) *New Zealand Crime and Safety Survey 2006: Key Findings*.

## SS3 FEAR OF CRIME

**Definition/formulae:** The proportion of people who reported that fear of crime had a moderate or high impact on their quality of life (scoring its effect at 4 or higher on a scale from 0–10, where 0 is no effect and 10 is total effect), as measured by the New Zealand Crime and Safety Survey 2006 (NZCASS).

The data comes from the survey question “How much is your own quality of life affected by fear of crime, on a scale from 0 to 10, where 0 is no effect and 10 is total effect on your quality of life?” The overall response rate in the 2006 NZCASS was 59 per cent in the main sample and 56 per cent in the Māori booster sample.

**Limitations of data:** The question elicits a subjective assessment of the extent to which fear of crime affects respondents’ quality of life, which is also subjectively defined. While the question demonstrates an ability to differentiate between groups, it is not a reliable measure of the actual status of respondents. Also, although the results reflect people’s perceptions of their own situation in a general and ongoing way, they may be influenced by significant events and subject to fluctuation over time.

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**Data source:** Mayhew and Reilly (2007) *Community Safety: Findings from the New Zealand Crime and Safety Survey 2006*.



## SS4 ROAD CASUALTIES

**Definition/formulae:** The number of deaths caused by motor vehicle crashes per 100,000 population. The number of persons injured as a result of motor vehicle crashes as reported to the police, per 100,000 population. Pedestrians or cyclists killed or injured by motor vehicles are included.

The data was drawn from the following International Classification of Diseases codes: ICD-9, 810–819 (1996–1999); ICD-10, V01–V89 (2000).

**Limitations of data:** The collection of ethnicity data changed during 1995 for both mortality and hospitalisation data. For mortality data, the basis of ethnicity has changed from a biological concept to a concept of self-identification; in mid-1995 hospitalisation data recorded multiple ethnic groups, whereas previously only one ethnic group could be recorded. Consequently, a comparison of 1996 ethnic-specific data with previous years is misleading: 1996 is the start of a new time series for ethnic-specific data.

Because of a revision of the International Classification of Diseases, rates for 2000 are not comparable with rates for 1996–1999.

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**Data sources:** Ministry of Transport; Land Transport New Zealand; New Zealand Health Information Service; New Zealand Travel Surveys; Statistics New Zealand; International Road Traffic and Accident Database (OECD), issued November 2008. Road casualty data comes from two main sources: injury data from the traffic crash reports completed by police officers who attend the fatal and injury crashes; and mortality and hospitalisation data from the New Zealand Health Information Service (NZHIS). Ethnic-specific rates of death or hospitalisation are only available from NZHIS. The New Zealand Travel Survey 1997/1998 was based on a sample of approximately 14,000 people and the survey report compared results from a similar survey conducted in 1989/1990.

## SOCIAL CONNECTEDNESS

### SC1 TELEPHONE AND INTERNET ACCESS IN THE HOME

**Definition/formulae:** The number of people living in households with access to telephones (either landlines or cellphones) and the internet, as a percentage of the total population.

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**Data sources:** Statistics New Zealand, *Census of Population and Dwellings, 2001 and 2006, unpublished data*; OECD (September 2008) *Key ICT Indicators, Table 6b, households with access to the Internet, 2000–2007*, [http://www.oecd.org/document/23/0,3343,en\\_2649\\_34449\\_33987543\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/23/0,3343,en_2649_34449_33987543_1_1_1_1,00.html)

### SC2 REGULAR CONTACT WITH FAMILY/FRIENDS

**Definition/formulae:** The proportion of the population who had family or friends over for a meal at least once a month, as measured by the 2000 and 2004 New Zealand Living Standards Surveys.

The 2000 survey was in two parts: one of 3,060 people aged 65 years and over and the other of 3,682 working-age adults (18–64 years). Both surveys involved face-to-face interviews with nationwide representative samples. The 2004 survey was a nationally representative sample of 4,989 respondents answering on behalf of their economic family.

Family ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The figures for families defined in this way are not mutually exclusive.

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**Data sources:** Ministry of Social Development 2004, and revised 2000, *Living Standards Surveys, unpublished analysis results produced by the Ministry of Social Development*.

### SC3 TRUST IN OTHERS

**Definition/formulae:** The proportion of the population reporting that people can “almost always” or “usually” be trusted, in the Quality of Life Surveys conducted in 2006 and 2008.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data sources:** Quality of Life Project (2009) Quality of Life Survey 2008 (data analysis by the Ministry of Social Development); Quality of Life Project (2007); European Commission (2005) Social Values, Science and Technology, Special Eurobarometer 225, QB8, p 156; Statistics Canada (2004) 2003 General Social Survey on Social Engagement, cycle 17: an overview of findings, Table 3 p 51. For more information see PWS Satisfaction with work-life balance.

### SC4 LONELINESS

**Definition/formulae:** The proportion of the population who are lonely “sometimes”, “most of the time”, or “always”, as reported in the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009) Quality of Life Survey 2008 (data analysis by the Ministry of Social Development); Quality of Life Project (2007). For more information see PWS Satisfaction with work-life balance.

### SC5 CONTACT BETWEEN YOUNG PEOPLE AND THEIR PARENTS

**Definition/formulae:** The proportion of secondary school students aged 12–18 years who said they get enough time with Mum and/or Dad (or someone who acts as Mum and/or Dad), most of the time, as reported in the Youth2000 and Youth’07 surveys.

**Limitations of data:** Estimates from sample surveys are subject to error. The achieved sample size for the Youth’07 survey was 9,107 students, representing 3.4 per cent of the total 2007 New Zealand secondary school roll.

Questions asked in Youth’07 and Youth2000 (undertaken in 2001) differ slightly. In 2001 students were asked: “Most weeks do you get to spend enough time with your Dad (or someone who acts as your Dad)?” In 2007 students were asked: “Do you spend enough time with him (your Dad or someone who acts as your Dad)?” Both surveys had the same response options.

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**Data source:** Adolescent Health Research Group (2008) Youth’07: The Health and Wellbeing of Secondary School Students in New Zealand. Initial Findings, p 15; Adolescent Health Research Group (2008) Youth’07: The Health and Wellbeing of Secondary School Students in New Zealand. Technical Report, tables on pp 43–46, 48.



# Endnotes

## INTRODUCTION

- 1 *Economic Development Indicators 2007* is available at: <http://www.med.govt.nz/upload/53549/Indicators-Report-2007.pdf>
- 2 *Environment New Zealand 2007* is available at: <http://www.mfe.govt.nz/publications/ser/enz07-dec07/>
- 3 *Measuring New Zealand's Progress Using a Sustainable Development Approach: 2008* is available at: <http://www.stats.govt.nz/Publications/NationalAccounts/sustainable-development.aspx>

## PEOPLE

- 4 Statistics New Zealand (2009d)
- 5 Statistics New Zealand (2007d)
- 6 Statistics New Zealand (2008e) p 7
- 7 Statistics New Zealand (2009a) p 6
- 8 These figures are from 2006-based medium population projections (Series 5), assuming medium fertility, medium mortality and a long-term annual net migration gain of 10,000.
- 9 These figures are from 2006-based medium population projections (Series 6), assuming medium fertility, medium mortality, medium inter-ethnic mobility and medium long-term annual net migration of -3,000 for the European or Other population (from 2010), -3,000 for the Māori population (from 2010), 12,000 for the Asian population (from 2010) and 500 for Pacific peoples (from 2008).
- 10 Comparability between 2001 and 2006 data may be affected by a change in the census question. Before 2006, the census asked whether anyone who lived in the dwelling owned it with or without a mortgage. The 2006 Census included an additional question on whether any of the occupants held the dwelling in a family trust. People who did hold the dwelling in a trust in 2006 have been counted as owning the dwelling. In previous years, some people in this category may have simply said they did not own the dwelling and would not have been counted as homeowners. Consequently, the actual decline in home ownership between 2001 and 2006 may have been slightly greater than the census figures indicate.

- 11 The family data relates to families within households. In official statistics, a family is defined as two or more people living in the same household who comprise either a couple, with or without children, or one parent and their children. The children do not have partners or children of their own living in the same household. People who were temporarily away from home on census night are included as part of the family. There is no data available on parents and children who live in different households.
- 12 More information on speakers of te reo Māori is provided in the Māori language speakers indicator.
- 13 Disability is defined as any perceived limitation in activity resulting from a long-term condition or health problem; lasting or expected to last six months or more and not completely eliminated by an assistive device. See Statistics New Zealand (2007a) p 26
- 14 Statistics New Zealand (2007a)
- 15 These employment rates are for people in households.
- 16 Adolescent Health Research Group (2008a) p 28

## HEALTH

- 17 Howden-Chapman and Tobias (2000)
- 18 Ministry of Health (1999b) p 351
- 19 Ministry of Health (2007a)
- 20 Babor et al (2001)
- 21 Conner et al (2005)
- 22 OECD (2009b)
- 23 2005 figures have been revised; 2006 data is provisional
- 24 Age-standardised to the World Health Organization standard world population.
- 25 Ministry of Health (2006b) p 14
- 26 These countries have been selected because they are considered to have a reliable data collection process, and because they are the countries most often used in comparisons with New Zealand on health measures. The suicide data in Figure SU2 is based on 28 OECD countries from OECD (2009c).

- 27 The international rates are annual rates recalculated by the New Zealand Health Information Service to enable geographic comparisons of data collected by the World Health Organization. These rates are therefore different to those used elsewhere in this chapter.
- 28 World Health Organization (2004)
- 29 Ministry of Health (1999b) p 344
- 30 Ministry of Health (2006c) Table C2 p 39
- 31 Ministry of Health (2009b) Data tables, Prevalence data, Age-standardised rates by gender and NZDep2006 quintile for current smokers.
- 32 OECD (2009c)
- 33 OECD (2009c)
- 34 The World Health Organization defines obesity as having a BMI greater than or equal to 30 kg/m<sup>2</sup> (WHO 2000). In compliance with international practice, the same cut-off points have been used for all ethnic groups (Ministry of Health (2008c) pp 104, 105)
- 35 Cole et al (2000)
- 36 Ministry of Health (2008c) p 104
- 37 Rates for 1997 and 2002/2003 were revised by Public Health Intelligence, Ministry of Health.
- 38 The rate for 2002 was revised by Public Health Intelligence, Ministry of Health.
- 39 Ministry of Health (2004c) p 36
- 40 OECD (2009c)
- 41 Babor et al (2001)
- 42 Conner et al (2005)
- 43 Age-standardised rates have been used for comparison over time.
- 44 OECD (2009c)

#### KNOWLEDGE AND SKILLS

- 45 See, for example, Wylie (1999)
- 46 OECD (2007b)
- 47 Wylie (1999); Boocock (1995); Wylie et al (2001); Wylie et al (2004)
- 48 OECD (2007b)
- 49 Due to methodological changes in the allocation of attainment levels in 2004, the percentage of leavers with qualifications higher than NCEA Level 2 in 2004 is not comparable with other years and has been omitted.
- 50 OECD (2008a). The OECD data used here also includes international students. This group is not included in the analysis in this section.

- 51 OECD (2008a). The figure reported for the proportion of New Zealand adults with at least upper secondary level qualifications in 2006 (69 per cent) is lower than the figures reported in previous editions of Education at a Glance. This is due to a revision in ISCED classifications used by the OECD. The removal of School Certificate as an ISCED 3 classification by the OECD accounts for most of this change.
- 52 Ministry of Education (2001b)
- 53 Satherley P, Lawes E and Sok S (2008b) pp 7, 9, 11
- 54 Satherley P, Lawes E and Sok S (2008b) pp 16, 18, 21

#### PAID WORK

- 55 This includes wages and other payments to employees and entrepreneurial income. 1999 Statistics New Zealand data, cited in Department of Labour (1999)
- 56 Wilson (1999)
- 57 OECD Stats extract, Harmonised unemployment rate, accessed 20 April 2009
- 58 OECD (2008d) Statistical Annex, Table G p 355
- 59 OECD Stats extract, Labour force status by sex and age, accessed 27 May 2009
- 60 In The Social Report 2008, this figure was incorrectly shown as 143.

#### ECONOMIC STANDARD OF LIVING

- 61 Royal Commission on Social Security in New Zealand (1972)
- 62 Between 2000 and 2004, New Zealand ranked 21st on real GDP per capita. A major revision of national accounts in Greece lifted real GDP per capita in that country, lowering New Zealand's ranking from 21st to 22nd in subsequent years. See OECD (2007a) Economic Survey of Greece, Chapter 1.
- 63 Statistics New Zealand (2001b) Table 1 p 15, Table 4 p 17. Per person value calculated by the Ministry of Social Development.
- 64 Perry B (2009) p 49
- 65 For a description of the Gini coefficient, see Statistics New Zealand (1999) p 118
- 66 OECD (2008b) Table 1.A2.4
- 67 OECD (2008b) Annex Table 5.A2.1
- 68 While the data is robust enough to give a general indication of relativities between ethnic groups, the relatively small sample sizes for the non-European ethnic groups can lead to some volatility in trends for each group separately. Robust data is not available for low-income households by ethnicity.

- 69 Baker et al (2000)
- 70 Evans (2003)
- 71 The trend in household crowding for the total population cannot be inferred from the trends for the ethnic groupings because some census respondents did not provide ethnicity data.
- 72 Statistics New Zealand (2003) p 33
- 73 Percentages do not add to 100 as some people identified with more than one ethnic group.
- 74 Persons who received income support in the 12 months before the census. Excludes those who received ACC or New Zealand Superannuation.

#### CIVIL AND POLITICAL RIGHTS

- 75 Ministry of Foreign Affairs and Trade (1998)
- 76 The 1988 Royal Commission on Social Policy found that New Zealanders felt wellbeing was strongly associated with the ability to make choices and to not have choices imposed on them. Royal Commission on Social Policy (1988)
- 77 For example, see the section on New Zealand in the United States State Department Bureau of Democracy, Human Rights and Labour (2003) Country Reports on Human Rights Practices
- 78 Human Rights Act 1993, Part 2, section 21. Reprint as at 1 October 2008.
- 79 Marsh and Sahin-Dikmen (2002) pp 40, 41
- 80 Inter-Parliamentary Union, PARLINE database, Last election
- 81 From 1989, overall turnout data is based on mayoral election turnout only. See Department of Internal Affairs (2006) p 17.
- 82 Inter-Parliamentary Union, Women in National Parliaments
- 83 These figures exclude Trusts, which are not local authorities. See Department of Internal Affairs (2009) p 10.
- 84 The 1989 elections were the first to be held following a major restructuring of local government.

#### CULTURAL IDENTITY

- 85 Durie et al (2002); Durie (1999)
- 86 Statistics New Zealand (2001a)
- 87 ACNielsen (2005)
- 88 NZ On Air (1999) p 3
- 89 All those who identified as Māori in the census are counted as part of the Māori ethnic group in this indicator.

- 90 “Very well” means being able to talk about almost anything in Māori. “Well” means being able to talk about many things in Māori. “Fairly well” refers to being able to talk about some things in Māori. “Not very well” refers to only being able to talk about simple/basic things in Māori.
- 91 The census ethnicity question is a multiple-response question and the high proportion of Pacific peoples who can speak Māori may reflect the high proportion of people who identified with both ethnic groups in the last census. This is also the case for the European ethnic group. In this section, “New Zealanders” have been included with the European ethnic group, using customised data that counts individuals once only.

#### PHYSICAL ENVIRONMENT

- 92 The 1988 Royal Commission on Social Policy identified “guardianship of the physical resource” as a major part of the “safe prospect” aspect of social wellbeing.
- 93 Fisher et al (2007)
- 94 Ministry for the Environment (2009)
- 95 Department of Environment and Climate Change, New South Wales Government (2008); Environment Protection Authority Victoria (2008)
- 96 Ministry of Health (2009a) p 6
- 97 Baker et al (2009b)
- 98 Baker et al (2009a)

#### SAFETY

- 99 Morris et al (2003) pp 222–224
- 100 National Road Safety Committee (2000)
- 101 OECD (2009c)
- 102 Mayhew and Reilly (2007b) pp 24–26
- 103 Mayhew and Reilly (2007b) p 54. The incidence figure for men for this type of offence [confrontational offences committed by partners] has a relative standard error between 15 per cent and 25 per cent and should be viewed with caution.
- 104 The 2007 injury and death data has been revised.
- 105 Land Transport Safety Authority (2000)
- 106 OECD (2008c) International Road Traffic and Accident Database (accessed 2 March 2009)

## SOCIAL CONNECTEDNESS

- 107 Spellerberg (2001)
- 108 Donovan and Halpern (2002) p 27
- 109 Noll and Berger-Schmitt (2000)
- 110 OECD (2008f)
- 111 Statistics Canada (2004); European Commission (2005)
- 112 Adolescent Health Group (2008a) p 14
- 113 Questions asked in Youth'07 and Youth2000 (undertaken in 2001) differ slightly. In 2001 students were asked: "Most weeks do you get to spend enough time with your Dad (or someone who acts as your Dad)?" In 2007 students were asked: "Do you get to spend enough time with him (your Dad or someone who acts as your Dad)?" Both surveys had the same response options.

## SUMMARY

114 NZDep gives a deprivation score to each small area of New Zealand, using socio-economic information from the five-yearly population census. Scores range from 1–10, where 1 equals the 10th of areas with the least deprived scores and 10 equals the 10th of areas with the most deprived scores. The range of scores can also be expressed as fifths (quintiles). This index is used for several indicators in the Health and Safety domains. <http://www.uow.otago.ac.nz/academic/dph/research/NZDep/NZDep2006%20research%20report%2004%20September%202007.pdf>, pp 8, 16

The school decile index is based on census information about the community from which a school draws its students. Decile 1 schools are the 10th of schools with the highest proportion of students from low socio-economic communities, while decile 10 schools are the 10th of schools with the lowest proportion of students from such areas. A school's decile does not indicate the overall socio-economic mix of the school.

<http://www.minedu.govt.nz/educationSectors/Schools/SchoolOperations/Resourcing/OperationalFunding/Deciles/HowTheDecileIsCalculated.aspx>





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