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Te Manatū Whakahiato Ora

Children and Young People: Indicators of Wellbeing in New Zealand 2008

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Introduction

Introduction

The *Children and Young People: Indicators of Wellbeing in New Zealand 2008* is the second in a series of Ministry of Social Development (MSD) reports which bring together a set of indicators of the wellbeing of children and young people in New Zealand.

It has its origins in a number of child and youth policy initiatives and obligations, in particular:

- *New Zealand's Agenda for Children: Making life better for children* (2002), which included "enhancing information, research and research collaboration relating to children" as one of its action areas¹
- *Youth Development Strategy Aotearoa: Action for Child and Youth Development* (2002), which included "building knowledge on youth development through information and research" among its goals²
- *Sustainable Development for New Zealand Programme of Action* (2003), which included a goal of developing an investment framework for child and youth development³
- Government's obligation to the United Nations Convention on the Rights of the Child (UNCROC) to report every five years on the circumstances of New Zealand children under 18 years.

The first edition of *Children and Young People: Indicators of Wellbeing in New Zealand* was published in 2004 to inform UNCROC reporting. As the next UNCROC report-back is due at the end of 2008, it is timely to look at the position of New Zealand children and young people today.

Purpose of the children and young people indicators report

The children and young people indicators report has four main aims:

- to provide measures of child and youth wellbeing and monitor them over time
- to compare New Zealand with other countries on measures of child and youth wellbeing
- to present objective statistical information on the wellbeing of New Zealand children and young people that can inform public debate
- to help identify key issues and areas where we need to take action, which can in turn assist planning and decision making.

Indicator reports enable us to examine the current level of wellbeing in New Zealand, how this has changed over time, and how different groups of the population are faring. Government policy, as well as individuals, families, communities, businesses and international factors influence the outcomes we report on. The cross-cutting nature of many social issues means that such reports cannot be used as a tool for evaluating the effectiveness of specific government policies.

¹ Ministry of Social Development (2002) *New Zealand's Agenda for Children: Making life better for children*, pp 8-9.

² Ministry of Youth Affairs (2002) *Youth Development Strategy Aotearoa: Action for child and youth development*.

³ Department of Prime Minister and Cabinet (2003) *Sustainable Development for New Zealand Programme of Action*, p 23.

Child and youth wellbeing

In this report, “wellbeing” refers to those aspects of life that most people agree are important for a person’s happiness, quality of life and welfare.⁴ The Royal Commission on Social Policy (1988) is a useful source of research on what New Zealanders agree constitutes wellbeing and a decent quality of life. The Commission concluded that:

[New Zealanders] have said that they need a sound base of material support including housing, health, education and worthwhile work. A good society is one which allows people to be heard, to have a say in their future, and choices in life ... [they] value an atmosphere of community responsibility and an environment of security. For them, social wellbeing includes that sense of belonging that affirms their dignity and identity and allows them to function in their everyday roles.⁵

The Agenda for Children (2002), developed through a nationwide consultative process, reflected a broad social consensus on what constitutes child wellbeing in its report:

The wellbeing of children matters to us all. How well they do affects how we as a society do. All children need love, protection, support and opportunities to thrive during childhood, to grow up healthy and happy, to acquire the skills they need to form positive relationships, and to fully participate as adults. Children who are nurtured and supported throughout childhood are also more likely to reach their full potential at school, in higher education, in work, in sport or artistic activities and in society. This has positive benefits for individuals and for the whole of society.

Children have the right to be treated as respected citizens, to be valued for who they are, and to have their views considered in matters that affect them. Achieving this requires a change in the way childhood and children are viewed and understood. It means raising the status and profile of children in society. It also means keeping pace with the changes in children’s lives.⁶

Similarly, the Youth Development Strategy Aotearoa (2002) highlighted some commonly understood aspects of wellbeing for young people:

There is a great deal of evidence on what young people need to develop in positive ways. They need to be successful: at school; in relating to friends and partners; and emotionally.

Building a youth development strategy on this information base makes it more likely that all young people will enjoy this success and that fewer will suffer from mental illness, unemployment, addiction, unwanted pregnancy, loneliness or become involved in crime.⁷

⁴ Ministry of Social Development (2008) *The Social Report 2008*, p4

⁵ Royal Commission on Social Policy (1988), Vol II, p 472

⁶ Ministry of Social Development (2002) p 10

⁷ Ministry of Youth Affairs (2002) p 10

A social wellbeing framework

In the Children and Young People indicator report, ten discrete components of wellbeing are identified and referred to as “desired social outcomes”. These are listed in Table IN1 on pages 5 and 6. This framework of 10 social wellbeing outcome domains was developed in consultation with a wide range of government and child-focused non-government agencies (NGOs) and is the same as the framework used in the 2004 edition of this report. It is similar to the social wellbeing framework first established by the *The Social Report 2001*, with adjustments to accommodate the specific focus on children and young people. Each domain reflects a component of social wellbeing that most people hold in common: health, care and support, education, economic security, safety, civil and political rights, justice, cultural identity, social connectedness and environment.

Social indicators

Social indicators are statistics that help us measure progress towards desired social outcomes over time. Some indicators measure an outcome of interest directly (such as unemployment in the Economic Security domain). Others do so indirectly (such as cigarette smoking, known to be a risk factor for later health outcomes).

A key feature that distinguishes social indicators from other kinds of social statistics is that a change in the measure must be able to be interpreted as an improvement or deterioration of some aspect of wellbeing.⁸ They are not simply descriptive statistics, nor are they input measures of social processes or policies. Thus, the number of dental nurses is not a social indicator, whereas the average number of decayed, missing and filled teeth at age 12 is an indicator of child health.

Social indicators may be objective or subjective. Objective social indicators represent social facts independently of personal evaluations (eg the infant mortality rate, the child poverty rate). Subjective social indicators are based on an individual's perception and evaluation of social conditions. Examples of subjective social indicators in this report are “Positive relationships with parents” and “Fear of crime”.

The selection of social indicators will vary over time as more knowledge is gained about the population of interest. Thus, it is useful to supplement a set of social indicators with contextual statistical information. Other factors that can affect the selection of indicators are the availability of new data, the development of more robust measures, and changing social priorities as some outcomes improve.

Indicators in this report

There are 42 indicators in the report, seven more than the 2004 report. The set of indicators, with some proposed changes, was reviewed by experts in government and NGOs prior to the production of the present report. This was done to ensure that the indicators for each domain were the best available, that they were still relevant, robust and reported in the most appropriate domain. As in 2004, indicators have only been considered for inclusion if they meet the selection criteria listed below. Details of changes from the original set of indicators are listed in Appendix 1.

⁸ Noll H (1996)

Criteria for indicator selection

The criteria used to guide the selection of the indicators for the children and young people indicator report are set out in the table below.

Criteria	Description
Relevant	There is broad agreement in New Zealand society that the outcome being measured is a desired outcome for children and young people. There is well-established evidence in the research literature that the indicator is related to child and youth wellbeing. The indicator is based on children and young people rather than families.
Nationally significant	The indicator reflects progress at a national level and is not confined to particular areas or specific groups of children or young people.
Able to be disaggregated	The indicator should be capable of finer breakdown to show variation by age, sex, ethnic group, family status, region and socio-economic status wherever feasible.
Valid	The indicator accurately represents the phenomenon in question and is sensitive to changes over time.
Statistically sound	The indicator is derived from high-quality data and is statistically and methodologically sound.
Replicable	The indicator should be able to be defined and measured consistently over time to enable accurate monitoring of trends.
Interpretable	The indicator should be readily understandable to a broad audience. It should have a clear, normative interpretation so that change clearly represents an improvement or deterioration in what is being measured.
Internationally comparable	Wherever feasible, the measure should be consistent with international indicators to enable comparison.

Data availability and quality

The report uses the most recent data available at the time of publication. For indicators based on annual data, this is generally for the most recent year. For indicators based on mortality data there can be a considerable lag between the year of occurrence and the release of data because of the time it takes to establish cause of death.

Some of the indicators are more robust than others. For example, those based on census data are complete. Results based on sample surveys will include sampling errors and apparent differences over time or between groups may not be statistically significant. In this report, the word “significant” is used only to mean statistically significant. Further information on data quality is included in the technical details for each indicator in Appendix 2.

Disaggregation by age

Where practicable, data has been presented to fit the UNCROC definition of a child (a person under the age of 18 years). However, this is not always possible and there is some overlap with standard definitions of youth that begin at age 15 (eg unemployment, employment, median hourly earnings, suicide, all of which cover ages 15–24 years).

Disaggregation by ethnic group

Two main approaches are used in the presentation of ethnic data: ‘prioritisation’ and ‘total response’. Prioritisation is an output method which reduces the ethnicity of a person who has given multiple responses to a single ethnic group, in a particular order (beginning with Māori). This process ensures that the total number of responses equals the total population, but conceals diversity within, and overlap between, ethnic groups by eliminating multiple ethnicities from the data. Prioritisation has the effect of reducing the count of Pacific peoples in particular, and to a lesser extent, Europeans. The impact is greater for younger age groups because they are more likely to have multiple ethnicities.

While prioritisation is now being phased out of official statistics, it was still the only method available for the majority of indicators assembled for this report. The main method now in use in official statistics is ‘total response’. This output method records all responses and the total number of responses will therefore exceed the population. The output method used for each indicator in this report is noted in the technical details in Appendix 2.

Table IN1 Children and Young People, 2008, outcome domains and indicators

DOMAIN	DESIRED OUTCOMES	INDICATORS
HEALTH	All children and young people enjoy good physical and mental health with access to good-quality health care.	<ul style="list-style-type: none"> • Low birth weight births • Infant mortality • Immunisation • Hearing test failure at school entry • Oral health • Obesity • Physical activity • Cigarette smoking at 14–15 years • Youth suicide
CARE AND SUPPORT	All children and young people enjoy secure attachment to parents and caregivers in a nurturing relationship where they are valued, respected and supported.	<ul style="list-style-type: none"> • Positive relationships with parents • Witnessing violence in the home • Early childbearing
EDUCATION	All children and young people obtain the knowledge and skills to enable them to be full participants in society.	<ul style="list-style-type: none"> • Children of parents without educational qualifications • Participation in early childhood education • School truancy • Reading literacy at age 15 • Mathematical literacy at age 15 • Scientific literacy at age 15 • Retention of students in senior secondary schools • School leavers with higher qualifications • Participation in tertiary education • Tertiary qualification completion

DOMAIN	DESIRED OUTCOMES	INDICATORS
ECONOMIC SECURITY	All children and young people enjoy a secure standard of living that means they can fully participate in society. All young people achieve the transition to economic independence.	<ul style="list-style-type: none"> • Children without a parent in paid work • Children and young people in low-income households • Unemployment • Employment • Median hourly earnings
SAFETY	All children and young people enjoy personal safety, and are free from abuse, victimisation, violence, and avoidable injury and death.	<ul style="list-style-type: none"> • Unintentional injury mortality • Assault mortality • Bullying at school • Criminal victimisation • Fear of crime • Road casualties
CIVIL AND POLITICAL RIGHTS	All children and young people enjoy fundamental human, civil and political rights, free from discrimination and exploitation. Children and young people are given the opportunity to participate in decisions that affect them.	<ul style="list-style-type: none"> • Voter turnout
JUSTICE	All children and young people take growing responsibility for their actions, and have access to fair and equitable treatment within the justice system.	<ul style="list-style-type: none"> • Police apprehensions of 14–16 year olds • Cases proved in the Youth Court
CULTURAL IDENTITY	All children and young people are able to participate in the culture and values important to them and their families and to feel secure with their identity.	<ul style="list-style-type: none"> • Te reo Māori speakers • Language retention
SOCIAL CONNECTEDNESS	All children and young people enjoy friendships and social, cultural and recreational activities that build confidence and security, promote healthy relationships, and encourage civic and social responsibility.	<ul style="list-style-type: none"> • Telephone/mobile access in the home • Internet access in the home
ENVIRONMENT	All children and young people live in, and have access to, healthy natural and built environments.	<ul style="list-style-type: none"> • Children living with a parent who smokes • Household crowding

Structure of the report

A demographic profile of children and young people in New Zealand opens this report. For each of the 10 outcome domains that follow, there is a short introduction and the indicators are then presented in a standard format. The report concludes with a summary section showing trends over time, differences between population groups, and comparisons between New Zealand and other OECD countries. For quick reference, indicator results are also presented in a summary table.

Two appendices (one setting out changes since the 2004 report, the other providing technical details for each of the indicators), provide further information for interested readers.

Future reports

Children and Young People: Indicators of wellbeing in New Zealand is the second in a series of reports planned to coincide with New Zealand's obligation to report to UNCROC every five years on the circumstances of New Zealand children under 18 years.

Feedback on this report on indicators of wellbeing for children and young people in New Zealand is welcomed. Comments may be sent to:

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Population overview: a profile of children and young people

Population overview

Number of children and young people

At the time of the 2006 Census, there were 1.05 million children under 18 years and 385,000 young people aged 18–24 years living in New Zealand, a total of 1.44 million people under 25 years. These young New Zealanders made up over a third (36 percent) of the total New Zealand population.

The population under 25 years increased by 7 percent in the 15 years between 1991 and 2006 and is expected to continue growing until 2016, when it will reach just under 1.53 million. It is then expected to fall slightly by 2021 before increasing again to just over 1.53 million by 2026.

While their number may be growing, children and young people represent a steadily shrinking proportion of the New Zealand population: in 1991, 40 percent of New Zealanders were aged under 25 years; by 2026, this share will have fallen to around 31 percent.

Table P1 Historical and projected number of children and young people, by age group, 1991–2026

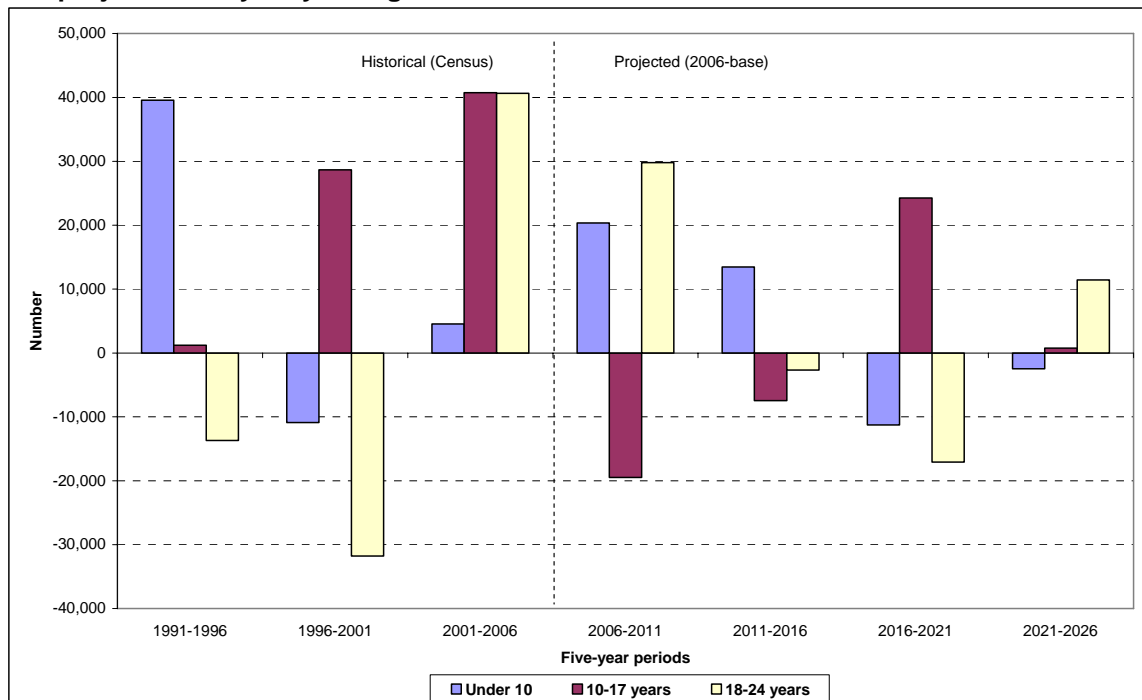
Age group (years)	Historical (Census)				Projected (2006-base)			
	1991	1996	2001	2006	2011	2016	2021	2026
0–4	277,149	279,603	270,801	275,076	308,000	299,240	296,720	296,750
5–9	251,178	288,291	286,200	286,488	290,210	312,450	303,700	301,200
10–14	255,318	264,186	290,739	306,006	296,390	294,960	317,180	308,480
15–17	166,182	158,535	160,641	186,102	187,490	181,470	183,510	192,970
Total under 18	949,827	990,615	1,008,381	1,053,672	1,082,090	1,088,120	1,101,110	1,099,400
18–19	118,806	104,445	104,640	114,099	130,500	122,760	119,340	132,090
20–24	271,095	271,758	239,784	270,975	311,130	316,190	302,550	301,220
Total 18–24	389,901	376,203	344,424	385,074	441,630	438,950	421,890	433,310
Total under 25	1,339,728	1,366,818	1,352,805	1,438,746	1,523,720	1,527,070	1,523,000	1,532,710
Total NZ population	3,373,926	3,618,300	3,737,280	4,027,947	4,393,200	4,588,700	4,770,800	4,939,400
% of total under 25	40	38	36	36	35	33	32	31

Source: Statistics New Zealand, *Census of Population and Dwellings, usually resident population; National population projections (2006-base), Series 5, assuming medium fertility, medium mortality and long-term migration gain of 10,000. Base population for projections is June 2006 population estimates.*

Changes in age groups

Changes in the size of different age groups have been more dramatic than the overall change in the population of children and young people. This will continue over the next decade or so as a result of past fluctuations in annual birth numbers and net migration change. Between 1986 and 1996, the number of children under 10 years increased by almost 65,000, or 13 percent, largely as a result of an increase in births in the late 1980s and early 1990s (the “baby blip”). This produced considerable increases in the 10–17 and 18–24 age groups between 2001 and 2006, with further growth in the 18–24 age group expected between 2006 and 2011. One consequence of this will be the entry of large numbers of young people into the labour market over the next few years. Another increase in births since 2002 will see increases in the 0–10 age group between 2006 and 2016 and in the 10–17 year old population between 2016 and 2021.

Figure P1 **Five-yearly change in the number of children and young people, 1991–2006, and projected five-yearly change to 2026**



Source: Statistics New Zealand, *Census of Population and Dwellings, usually resident population; National population projections (2006-base), assuming medium fertility, medium mortality and long-term net migration gain of 10,000. Base population for projections is June 2006 population estimates.*

Births

The number of children born in New Zealand has increased steadily since 2002. There were 64,044 births registered in New Zealand in the December 2007 year. This was a higher number than the most recent peak of 60,153 in 1990, and the highest number since 1971.

Figure P2 **Number of live births registered, 1962–2007**



Source: Statistics New Zealand, *de facto population 1971–1990, resident population from 1991*

Older mothers

Children born in recent years are likely to have older mothers than did their parents. The median age (half are younger and half older than this age) of New Zealand women giving birth in 2007 was just above 30 years and has been relatively stable since 2002. This represents an increase of five years since the early 1970s.

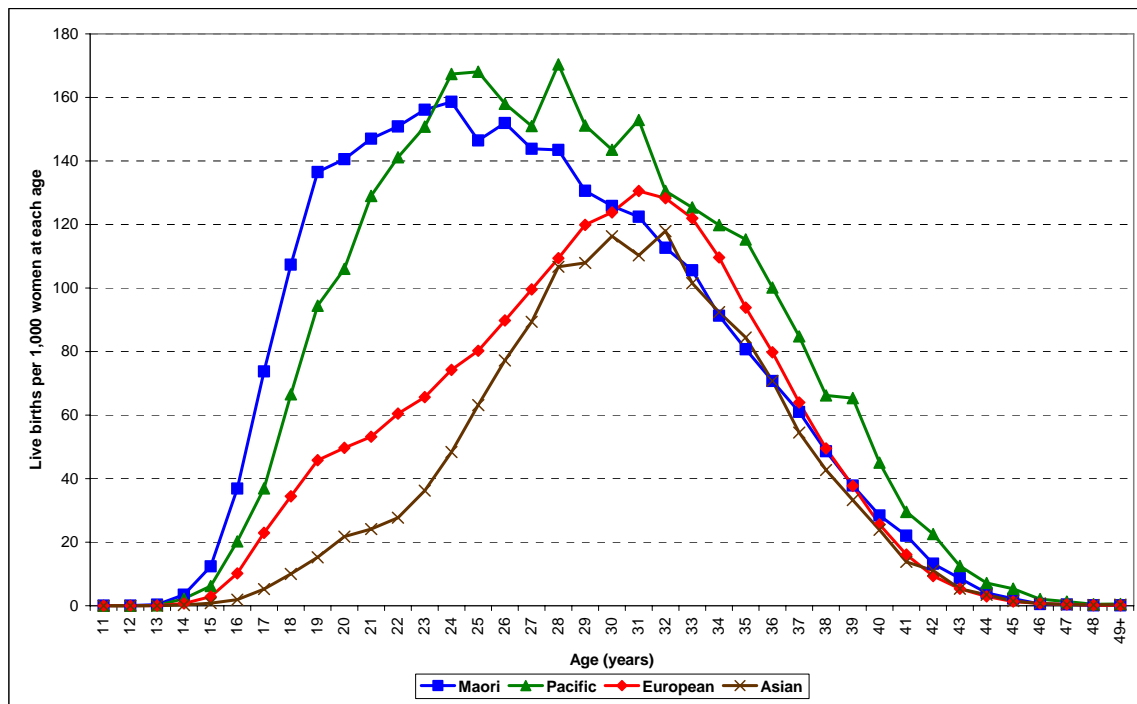
The median age of women giving birth to their first child (based on their current relationship) was 28 years. In the early 1970s, half of all women having their first child (within marriage) were younger than 23.

Age at childbearing varies widely by ethnicity, with European and Asian mothers having the highest median age (31 years in 2006). Pacific and Māori women giving birth are younger, on average, with a median age of 28 years for Pacific mothers and 26 years for Māori mothers in 2006. For Other ethnic groups,⁹ the median age of women giving birth was just over 30 years.

Age-specific fertility rates illustrate the distinct childbearing patterns of the four main ethnic groups.

⁹ The Other ethnic group in the birth data in this section includes the category 'New Zealander'.

Figure P3 **Age-specific fertility rate, by single year of age and ethnic group of mother, 2006**



Source: Statistics New Zealand

Notes: (1) Each birth has been included in every ethnic group specified. For this reason, some births are counted more than once. (2) Births data are based on ethnicity of the mother.

Babies with multiple ethnicities

Newborn children are more likely than their mothers to belong to more than one ethnic group. In 2007, 25 percent of babies registered were identified with more than one ethnic group, compared with 13 percent of their mothers. This suggests that younger generations are becoming increasingly multicultural. Two-thirds of Māori babies and one-half of Pacific babies belonged to multiple ethnic groups, compared with roughly one-third of babies within the European, Asian and Other ethnic groups.¹⁰

Births by urban, rural and deprivation area

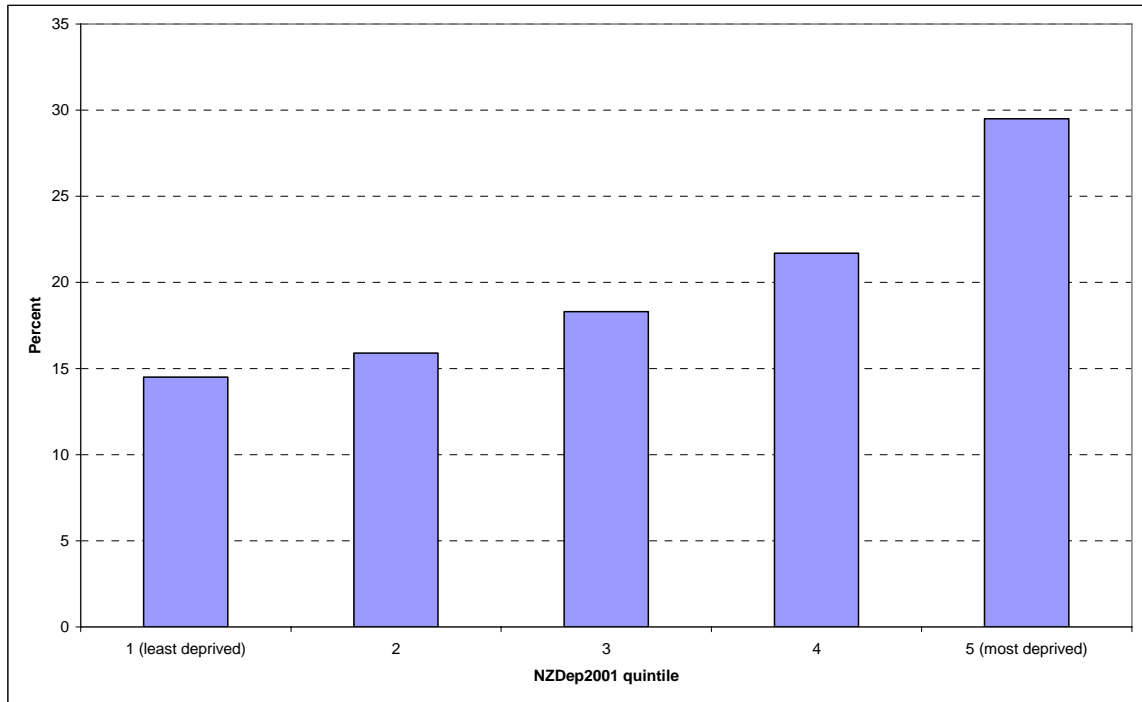
Birth registration data for the years 2005–2007 shows that 87 percent of mothers lived in urban areas, a slight decline from 88 percent in 2004. The majority of mothers (74 percent) lived in main urban areas (population of 30,000 or more).¹¹

Hospital discharge data indicates that mothers of newborn children are over-represented in relatively deprived neighbourhoods. Three in 10 mothers (30 percent) who had a hospital birth in 2005 lived in the most deprived areas (quintile 5), as defined in the New Zealand Index of Deprivation (NZDep2001).

¹⁰ Statistics New Zealand (2008a), p 5.

¹¹ Statistics New Zealand, Population Statistics.

Figure P4 Birth mothers by deprivation quintile of place of residence, 2005

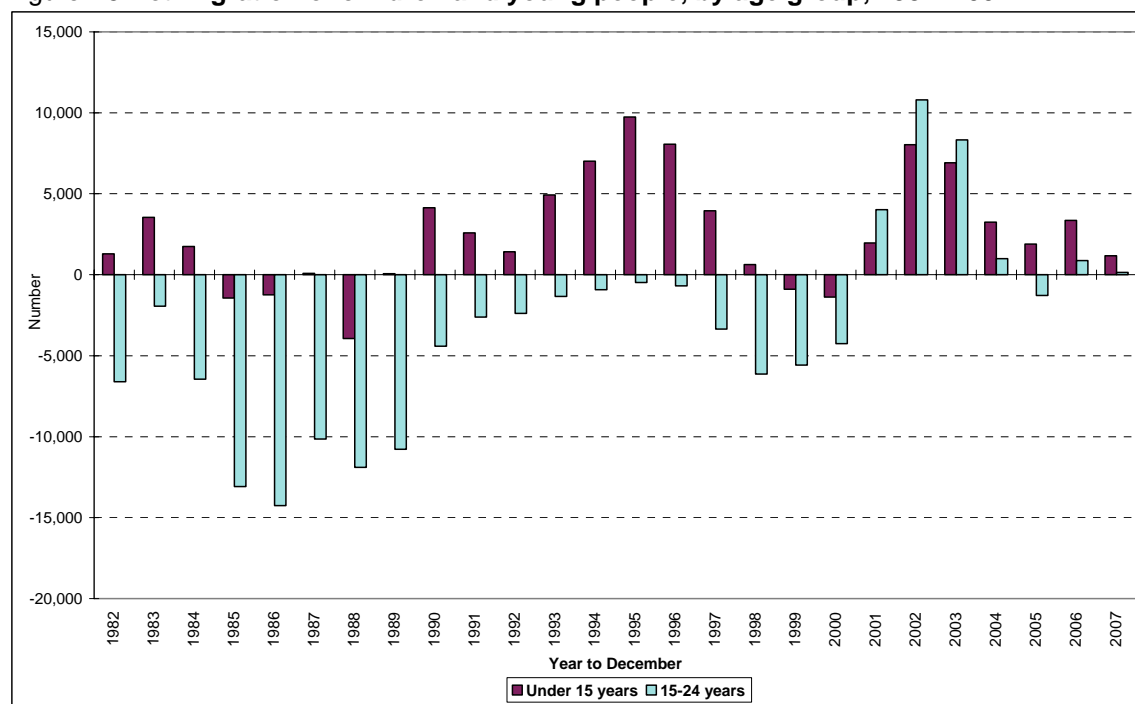


Source: New Zealand Health Information Service (2008), Table 2.5
 Note: Data is for hospital births only.

Migration and population growth

Between 1986 and 2007, New Zealand had a net gain of almost 62,000 children aged under 15 years through migration, most of them during the mid-1990s. Over the same period, the country experienced a net loss of just over 55,000 young people aged 15–24 years. Most of the outflow of 15–24 year olds occurred in the late 1980s, when unemployment was rising. Between 2001 and 2007, there was a net gain from migration of almost 24,000 in this age group. This was largely as a result of a sharp increase up to 2003 in the number of young people – mostly from China and Korea – who came to New Zealand to study for a year or more. These patterns are strongly influenced by changes in migration policy.

Figure P5 Net migration of children and young people, by age group, 1982–2007



Source: Statistics New Zealand, permanent and long-term (PLT) external migration data.
Net migration = PLT arrivals minus PLT departures.

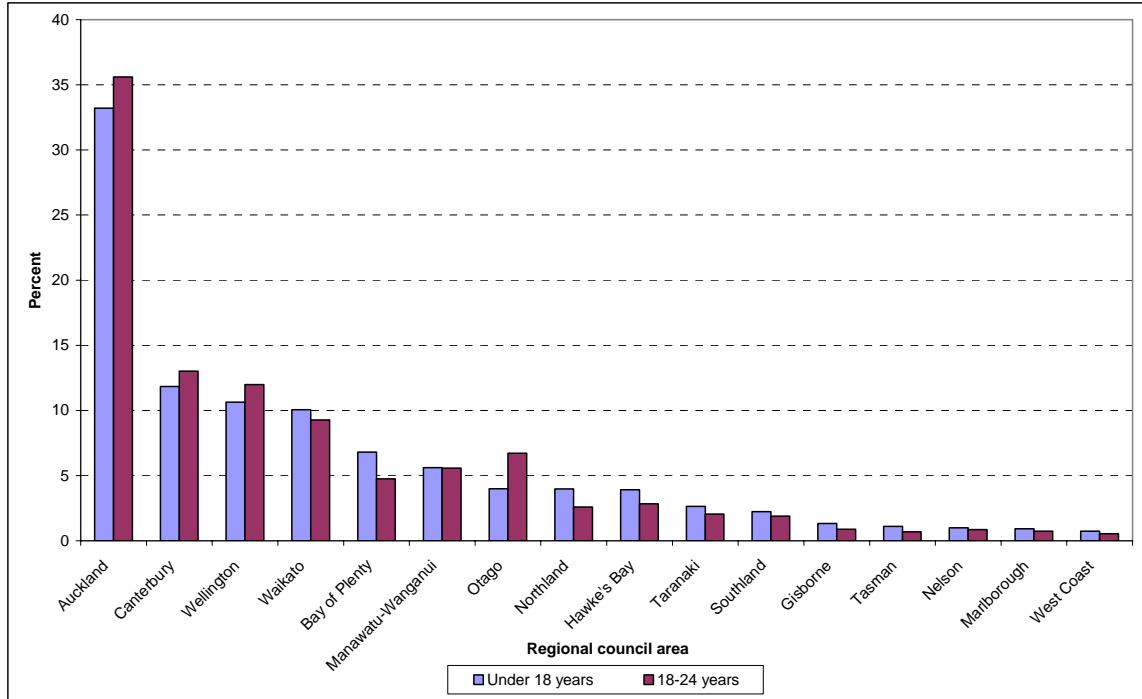
Children and young people born overseas

An increasing proportion of children living in New Zealand were born overseas. At the time of the 2006 Census, 11 percent of children aged under 15 years and 23 percent of 15–24 year olds were recorded as overseas born, an increase from 8 percent and 14 percent, respectively, in 1996. Of the overseas-born population under 25 counted in 2006, the majority (56 percent) were recent arrivals (ie they were not living in New Zealand five years before the Census). The largest groups of recent arrivals were born in Asian countries (30 percent of those under 15 and 60 percent of those aged 15–24). Sizeable groups of recently arrived children aged under 15 years were born in the United Kingdom and Ireland (23 percent), Australia and the Pacific Islands (both 12 percent).

Regional distribution

The Auckland region is home to the largest proportion of children and young people, just over one-third. Another third is fairly evenly distributed between the Canterbury, Wellington and Waikato regions, with the final third spread across the remaining 12 regions. The geographic distribution of 18–24 year olds is similar to that of children under 18 years, except that there are higher proportions living in regions containing large tertiary education institutions.

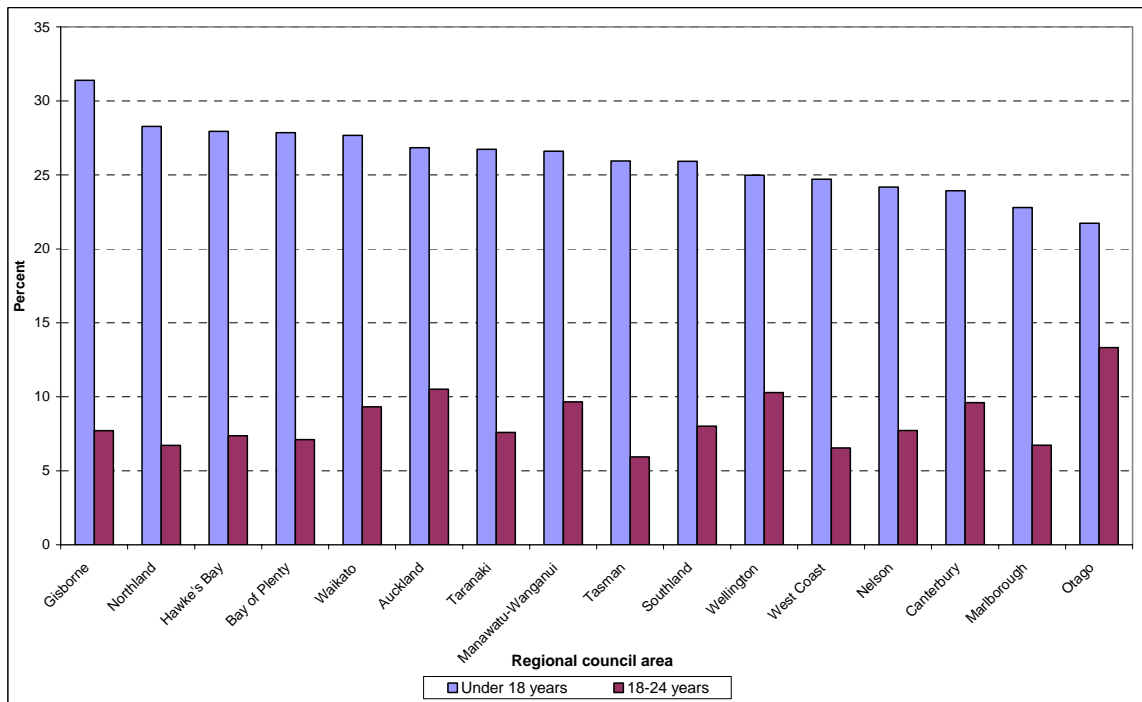
Figure P6 Distribution of children and young people by region, 2006



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

The share of children in the population varies by region. In 2006, the Gisborne region had the highest concentration of children under 18 (31 percent) and Otago the lowest (22 percent). In Otago, Auckland, Wellington and Manawatu-Wanganui, 18–24 year olds made up a higher proportion of the population (10–13 percent) than in New Zealand as a whole (just under 10 percent).

Figure P7 Children and young people as a proportion of total population, by region, 2006



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

Urban–rural distribution

The majority of children and young people live in major urban centres with populations of 30,000 or more – 71 percent of those aged under 18 years and 81 percent of 18–24 year olds in 2006. Another 14 percent and 10 percent, respectively, lived in secondary urban areas (population of 10,000–29,999) or minor urban areas (1,000–9,999). Only 15 percent of children aged under 18 years and 9 percent of 18–24 year olds lived in rural areas in 2006. Overall, children under 18 years (85 percent) are about as urbanised as the population as a whole (86 percent), while 18–24 year olds are more highly urbanised (91 percent).

Children and young people from the European and Māori ethnic groups had the lowest rates of urbanisation while those in the Pacific, Asian and Other ethnic groups were almost wholly concentrated in urban areas, with at least nine out of 10 living in the main urban areas.

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

Age and area of usual residence	European	Māori	Pacific peoples	Asian	Other	Total
0–17 years						
Main urban area (30,000+)	67	64	91	93	91	71
Secondary urban area (10,000 – 29,999)	7	7	3	2	2	6
Minor urban area (1,000 –9,999)	8	13	3	2	3	8
Total urban	82	85	97	98	96	85
Rural (0–999)	18	15	3	2	4	15
Total	100	100	100	100	100	100
18–24 years						
Main urban area	78	71	93	97	92	81
Secondary urban area	5	6	3	1	2	4
Minor urban area	6	11	2	1	4	6
Total urban	89	89	98	99	97	91
Rural	11	11	2	1	3	9
Total	100	100	100	100	100	100

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

Notes: (1) People identified with more than one ethnic group are counted once in each group reported.

(2) Those identified as 'New Zealander' have been included in the European ethnic group.

Sex distribution

Just over half of all newborn babies are male (52 percent in 2007). A slight predominance of males persists among children under 18 (51 percent), a pattern has been stable since 1991. The same pattern holds for 18–19 year olds from 1995, while among 20–24 year olds, the sexes have been evenly distributed throughout the period 1991–2007.

Ethnic distribution

Children and young people are becoming a more ethnically diverse population with declining proportions identifying as European and growing proportions identifying with Asian, Pacific and Other ethnic groups. In the under 18 age group the proportion of Māori changed little between 1996 and 2006, remaining at around 24 percent. The proportion identifying with Pacific ethnic groups increased from 10 percent to 12 percent over this period while those belonging to Asian ethnic groups increased from just over 6 percent to almost 10 percent.

The 18–24 age group shows a similar pattern of increasing diversity. The proportion of Māori in this age group fell slightly from 19 percent to 18 percent between 1996 and 2006. Pacific people increased their representation slightly over this period but the biggest increase was again among the Asian ethnic group which grew from 7 percent to almost 17 percent – partly due to large increases up until 2003 in the number of overseas Asian students studying in New Zealand.¹² Those in Other ethnic groups – mainly from the Middle Eastern, African and Latin American regions – have a small but growing presence in both age groups.

Table P3 **Ethnic distribution of children and young people, 1996–2006**

	1996	2001	2006
0–17 years			
European	77.0	74.3	72.4
Māori	24.1	24.0	23.7
Pacific peoples	10.0	11.0	12.1
Asian	6.3	7.4	9.7
Other	0.7	0.9	1.2
18–24 years			
European	77.9	71.3	67.1
Māori	19.3	18.9	18.1
Pacific peoples	7.6	8.8	8.9
Asian	7.1	11.8	16.7
Other	0.5	0.9	1.3

Source: *Statistics New Zealand, five-year ethnic population estimates*

Notes: (1) People identified with more than one ethnic group are counted once in each group reported.

(2) To maintain consistency over time, those identified as 'New Zealander' in 2006 have been included in the European ethnic group.

The trend of increasing ethnic diversity among children and young people is expected to continue. Medium population projections based on 2006 data suggest that by 2026 the proportion of the population identifying as European will have fallen to 65 percent in the under 18 age group and to 66 percent in the 18–24 age group. In the under 18 age group it is projected that by 2026, 28 percent will be Māori, 18 percent will be of Asian ethnicity and the same proportion (18 percent) will identify with Pacific ethnic groups. Among 18–24 year olds it is projected that 21 percent will be Māori, 17 percent Asian and 14 percent Pacific peoples.

Ethnic diversity varies by region. In 2006, Māori children made up a relatively high proportion of children and young people under the age of 18 in Gisborne (61 percent), Northland (48 percent), Bay of Plenty (42 percent) and Hawke's Bay (36 percent), but less than 20 percent of this age group in South Island regions. In the Auckland region under 18 year olds were more likely to be of Pacific or Asian ethnicity (23 percent and 19 percent respectively) than Māori (17 percent). Among 18–24 year olds in Auckland there were considerably more Asians (29 percent) than Māori (13 percent) or Pacific peoples (16 percent).

¹² Ministry of Education (2007) *International Enrolments in New Zealand 2000-2006*, pp 7-8. Ministry of Education, Wellington.

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 98 percent of children and young people aged 5–24 years could speak English, 5 percent could speak Māori, and 0.7 percent (7,600 people) could converse in New Zealand Sign Language. The equivalent figures for the total population were 96 percent, 4 percent and 0.6 percent (24,090 people), respectively.¹³

In 2006, 82 percent of children aged 5–14 years and 74 percent of young people aged 15–24 years could speak English only, while 17 percent and 24 percent, respectively, could speak English along with at least one other language. Over 9,000 5–14 year olds (1.6 percent) and a similar number of 15–24 year olds (1.8 percent) could not speak English.

Of all age groups, young adults aged 20–24 were the most likely to be able to use New Zealand sign language (0.9 percent), followed by those aged 15–19 and those aged 25–29 (each 0.8 percent). Children aged 10–14 were as likely as adults aged 30–54 to be able to use New Zealand Sign Language (0.7 percent), while children aged 5–9 were much less likely to have this skill (0.4 percent). Overall, children and young people aged from 5–24 years accounted for almost one-third (32 percent) of New Zealand Sign Language speakers.

Children and young people with disabilities

In the 2006 Disability Survey, 10 percent of children aged 0–14 years living in private households (an estimated 90,000 children) had a disability that limited their activities. Around half reported that their disabilities had existed from birth (52 percent of children with disabilities, or 5 percent of all children). Around a quarter (26 percent) had disabilities resulting from disease or illness, while 3 percent reported accident or injury as the cause.

Long-term health problems were common among children with disabilities (39 percent), as were sight and hearing problems (26 percent). Psychiatric or psychological disabilities affected 21 percent of children with disabilities, and intellectual disabilities affected 19 percent. An estimated 5 percent of children had special education needs (41,000 children or 46 percent of children with disability). Boys were more likely than girls to have a disability – 12 percent of boys reported a disability, compared with 9 percent of girls.

The disability rate was highest for Māori children, at 14 percent. In all ethnic groups, boys were more likely than girls to have a disability, with Māori boys having the highest rate (17 percent) and Asian girls the lowest (4 percent).

¹³ More information on speakers of te reo Māori is provided in the Māori language speakers indicator.

Table P4 **Disability rate (%), children aged 0–14 years, by ethnic group and sex, 2006**

	European	Māori	Pacific peoples	Asian	Other	Total
Male	11	17	9	7	13	12
Female	8	12	8	4	8	9
Total	10	14	8	6	11	10

Source: Statistics New Zealand, Disability Survey 2006

Note: (1) Prioritised output for ethnic groups has been used. (2) Children identified as 'New Zealander' are included in Other.

In the age group 15–24 years, 7 percent of people had disabilities (an estimated 33,000 people). Of this group, 42 percent reported that their disabilities had existed since birth, 36 percent that they were the result of disease or illness and 22 percent that they were the result of accident or injury.

Again, the disability rate in this age group was higher for males than females (8 percent compared with 5 percent). It was also highest for Māori at 9 percent, compared with 7 percent for Europeans, 5 percent for Pacific peoples, 3 percent for Asians and 7 percent for Other ethnic groups.

Disability is associated with lower rates of employment. In the 15–24 age group, 48 percent of males and 27 percent of females with disabilities were employed in 2006 compared with 59 percent of males and 61 percent of females without disabilities.

Children's family circumstances

In 2006, there were nearly one million dependent children under 18 living in New Zealand families, an increase of 8 percent since 1986.¹⁴

The last few decades have seen dramatic changes in patterns of family formation, dissolution and reformation which is reflected in the changing family circumstances of dependent children. Growth in the number of children living in one-parent families was rapid in the 1980s but slowed in the 1990s. Between 2001 and 2006, the number of children living in one-parent families fell by 1 percent (the first decline recorded since 1976¹⁵), while the number living in two-parent families grew by 5 percent.

While the majority of dependent children live in two-parent families, the proportion living in one-parent families at the time of the census has grown from 16 percent in 1986 to 27 percent in 2001, falling back slightly to 26 percent in 2006.

¹⁴ For statistical purposes, a dependent child is a child in a family aged under 18 years and not in full-time employment. This definition is from Statistics New Zealand's standard classification.

¹⁵ For 1976 and 1981 data, see Davey, J and Mills, M (1989), Appendix 1, pp 148-150.

Table P5 **Number and distribution of dependent children under 18 years, by family type, 1986–2006**

Census year	Number			Percent		
	One-parent	Two-parent	Total	One-parent	Two-parent	Total
1986	140,550	745,392	885,942	16	84	100
1991	191,415	702,003	893,418	21	79	100
1996	213,378	692,442	905,820	24	76	100
2001	248,394	682,155	930,549	27	73	100
2006	244,733	714,756	959,489	26	74	100
Intercensal change (%)						
1986–1991	36	-6	1			
1991–1996	11	-1	1			
1996–2001	16	-1	3			
2001–2006	-1	5	3			

Source: *Statistics New Zealand, unpublished census data*

Most children living in one-parent families usually live with their mother. Over the 20 years to 2006, the proportion of dependent children living with a sole mother rose from 14 percent to 22 percent, while the proportion living with a sole father doubled from 2 percent to 4 percent. Many children of separated parents spend time in both parents' households but the snapshot taken at the time of the census is unable to capture this information.

Compared with other developed countries, New Zealand has a relatively high proportion of children under 18 living in one-parent families. At 26 percent in 2006, New Zealand ranked second only to the United States (28 percent in 2006), and higher than the United Kingdom (24 percent in 2006), Canada and Australia (each 20 percent in 2006).

Ethnic differences in family structure

The growth of one-parent families in the late 1980s was more pronounced for Māori and Pacific children than it was for European and Asian children. Slower growth over the 1990s in the proportion living in one-parent families was evident for the European, Māori and Pacific ethnic groups. The slight decline between 2001 and 2006 occurred for children of all ethnic groups except Pacific peoples. In 2006, 42 percent of Māori children, 36 percent of Pacific children, 22 percent of European children, 18 percent of Asian children and 27 percent of children from Other ethnic groups were living in one-parent families.

Table P6 Proportion (%) of dependent children under 18 years living with one parent, by ethnic group of child, 1986–2006

Ethnic group of child	1986	1991	1996	2001	2006
European	13	17	20	23	22
Māori	28	39	41	44	42
Pacific peoples	21	30	32	34	36
Asian	11	13	16	20	18
Other	21	23	24	29	27
Total	16	21	24	27	26

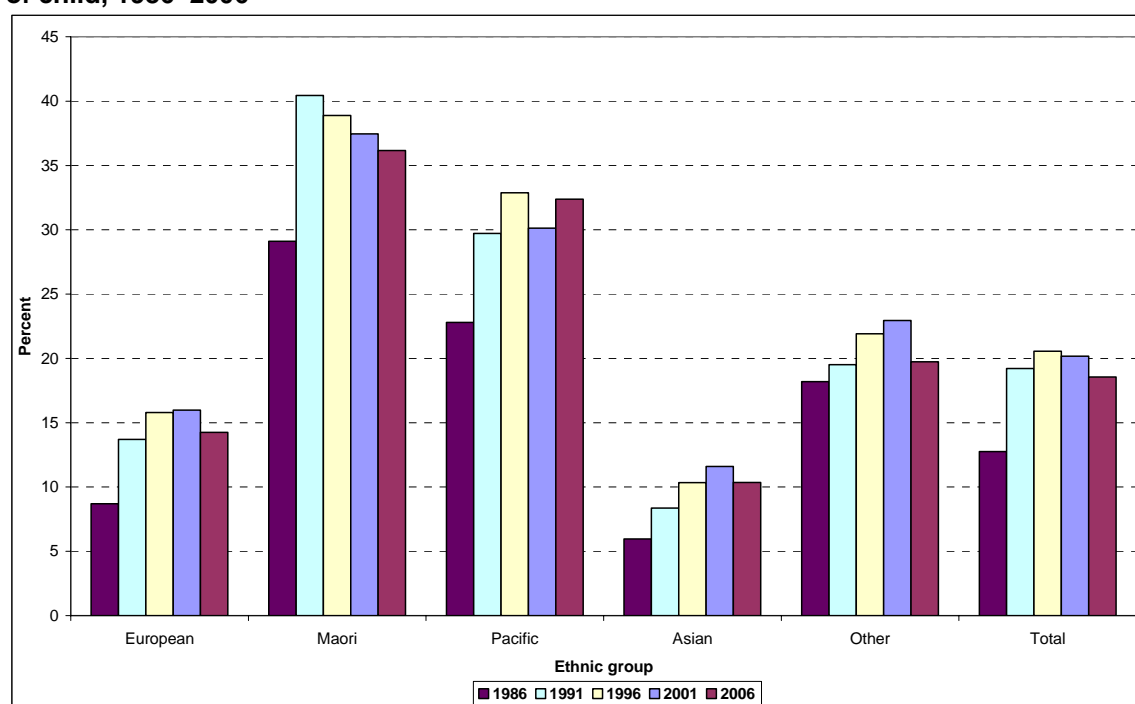
Source: Statistics New Zealand, published and unpublished census data

Notes: (1) Children identified with more than one ethnic group are counted once in each group reported.

(2) To maintain consistency over time, children identified as 'New Zealander' in 2006 have been included in the European ethnic group.

An indication of the proportion of children starting life in a one-parent family can be obtained from the family circumstances of children aged under one year. The proportion of babies under one year living with a sole mother increased sharply between 1986 and 1991 (from 13 percent to 19 percent), peaked at 21 percent in 1996, then fell back slightly to just under 19 percent in 2006. Māori babies under one year are the most likely to be living with a sole mother (36 percent in 2006), but the proportion has fallen from a peak of 40 percent in 1991.

Figure P8: Proportion of infants under 1 year living with a sole mother, by ethnic group of child, 1986–2006



Source: Statistics New Zealand, unpublished census data

Notes: (1) Children identified with more than one ethnic group are counted once in each group reported.

(2) To maintain consistency over time, children identified as 'New Zealander' in 2006 have been included in the European ethnic group.

Longitudinal studies give a better indication than point-in-time measures of the time children spend in a one-parent family during the course of their childhood. For example, the Christchurch Health and Development Study found that 36 percent of children born in Christchurch in 1977 had spent a period of time in a one-parent family by the age of 16. The majority (79 percent) of children who had spent time in a one-parent family had done so as a result of parental separation and divorce.¹⁶

Census data also shows that a majority of children in one-parent families have a previously-married parent. A small group (10 percent) has a currently-married parent whose spouse lives elsewhere – categorised as “married (not separated)” - and are therefore not, strictly speaking, the children of sole parents. However, the proportion of children with a never-married sole parent almost doubled between 1986 and 2006, from 22 percent to 43 percent. Given increases in de facto partnerships, delayed marriage and re-partnering, legal marital status at census date may be an increasingly poor guide to family history. Moreover, a number of never-married sole parents will have separated from a de facto spouse or cohabiting partner, a group that has also grown in the last 20 years. Children whose parents were cohabiting made up 17 percent of children in two-parent families in 2006, compared to just 5 percent in 1986.

Table P7 Distribution (%) of dependent children by parental legal or social marital status, 1986, 1996, 2006

	1986	1996	2006
Children in one-parent families			
Never-married parent	22	41	43
Married or previously-married parent	78	59	57
<i>Married (not separated)</i>	5	8	10
<i>Separated</i>	38	26	23
<i>Divorced</i>	24	20	19
<i>Widowed</i>	11	5	4
Total	100	100	100
Children in two-parent families			
Parents legally married	95	87	83
Parents cohabiting	5	13	17
Total	100	100	100

Source: Statistics New Zealand, unpublished census data

Note: (1) The table shows parental legal or social marital status at the time of the census. There is no data for never-married sole parents who had previously cohabited.

Birth registration data provides some evidence that the vast majority of children (93 percent) have a father who acknowledges them at the time of their birth. The proportion of births for which father's details were recorded (an action requiring the father's signature) has remained largely unchanged over the past 25 years. Just 7 percent of births in 2005 did not have a father's signature, the same proportion as recorded in 1980.¹⁷

¹⁶ Fergusson DM (1998), p158.

¹⁷ Statistics New Zealand, Population Statistics, unpublished data.

The latest birth data registration form collects information about the parent's relationship status. Of the 64,000 births in 2007, 53 percent of mothers were legally married or in a civil union, 29 percent were in a de facto (cohabiting) relationship, and 18 percent were in neither a legal nor a de facto relationship.¹⁸

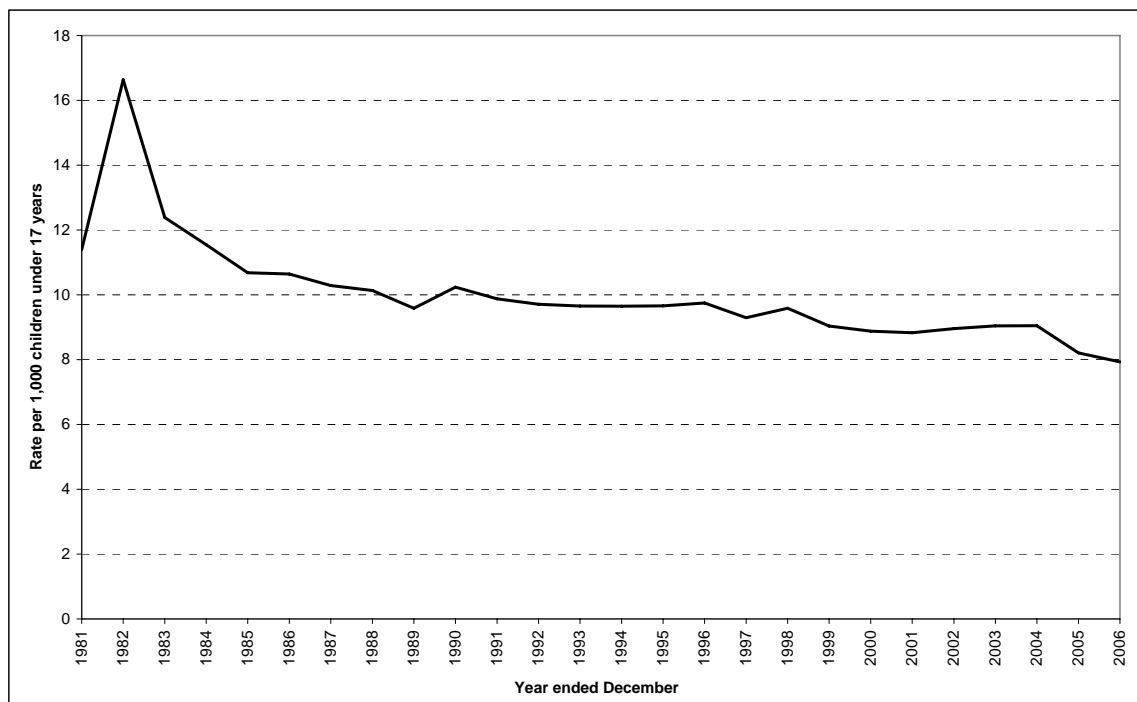
Children involved in divorce

It is difficult to measure the rate at which couples with children separate because there are no records kept of changes in living arrangements. Divorce statistics are an inadequate measure of family change because they exclude the breakdown of relationships between cohabiting couples. Moreover, dissolutions are generally not recorded until some time after separation.

Just under half (45 percent) of all marriages that dissolved in 2007 involved people with children under 17 years. The number of children involved totalled 7,824 in 2007, a rate of 7.7 per 1,000 children under 17 years. The rate at which children were involved in divorce peaked at 16.6 in 1982, the first year after the Family Proceedings Act 1980 came into effect, introducing "no fault" divorce. By the end of the 1980s, the rate had fallen to around 10 per 1,000, followed by a more gradual decline to 9.0 per 1,000 by 1999 and to 7.9 per 1,000 by 2006.

Children aged 10–16 years are more likely than younger children to experience their parents' divorce. In 2007, the rate for 10–16 year olds was 9.6 per 1,000, compared with 6.2 per 1,000 children aged under 10 years.¹⁹

Figure P9 Proportion of children whose parents divorced during the year, 1981–2007



Source: Statistics New Zealand

¹⁸ Statistics New Zealand, Population Statistics, unpublished data. The Civil Union Act came into force in April 2005. In 2007, 0.03 percent of children were born to mothers in civil unions.

¹⁹ Ethnicity data is not collected when people apply for a marriage certificate or make an application for a marriage dissolution. The only information collected about children involved in divorce is the number aged 0–9 years and 10–17 years.

Children living in step or blended families

There is little New Zealand information on children living in step or blended families. Indicative findings from the 1995 New Zealand Women: Family, Education and Employment survey were that one in five children had lived in a blended family before they reached 17 years of age. In this survey, blended families were defined as those where a woman entered a new partnership in which one or both partners had children from previous unions.

Māori children (29 percent) were more likely than non-Māori children (18 percent) to have lived in a blended family. There were also differences among children by the level of their mothers' educational qualifications, with 18 percent of children whose mothers had no qualifications having lived in a blended family, compared with 13 percent of those whose mothers had a secondary qualification, and just 6 percent of those whose mothers had university-level qualifications.²⁰

Parental employment

Dependent children in two-parent families

Since the mid-1990s, the most common parental employment arrangement for children in two-parent families is one where both parents are employed full-time (for at least 30 hours a week). In 2006, one-third (33 percent) of dependent children aged under 18 years were living with two parents who were both employed full-time. This was an increase from 30 percent in 2001. The trend for earlier years is available for children under 15: the proportion with both parents employed full-time was 20 percent in 1981, 25 percent in 1986, 23 percent in 1991 and 26 percent in 1996.²¹

The second most common arrangement is where the father is employed full-time and the mother employed part-time. In 2006, 28 percent of dependent children had a father employed full-time and a mother employed part-time. This is very much a European pattern. For European children in 2006, it was slightly more common than having both parents employed full-time.

The third most common arrangement is where the father is employed full-time and the mother is not employed. Almost one in four dependent children living in two-parent families in 2006 had parents with this arrangement (24 percent). The proportion was slightly higher than average for Pacific children (28 percent). This may reflect their larger average family size: mothers with larger numbers of children are less likely to be employed. The single-earner couple was the most common arrangement overall until the mid-1980s. In 1981, 44 percent of children under 15 living in two-parent families had a full-time employed father and a mother with no paid job. The proportion fell slightly to 42 percent in 1986, then sharply to 27 percent in 1991, as more partnered mothers remained in, or re-entered, the paid workforce.

Asian children living in two-parent families are more likely than average to have both parents employed full-time, but they are also more likely to have neither parent employed. This polarisation may reflect the diversity of a group that includes many recent migrants.

²⁰ Dharmalingam, A, Pool, I, Sceats, J and Mackay, R (2004), pp 72-74.

²¹ Statistics New Zealand (1998) p56; Statistics New Zealand (1995) p34. The figures are for children aged under 15 years.

Pacific, Asian and Māori children were much more likely than European children to live in families without a parent in employment, whether in one or two-parent families.

Table P8 **Dependent children under 18 years living in two-parent and one-parent families, by parental employment status and ethnic group of child, 2006**

Family type and parental employment status	European	Māori	Pacific peoples	Asian	Total
Children in two-parent families					
Both parents full-time	32	34	34	38	33
Father full-time, mother part-time	33	21	13	15	28
Father full-time, mother not employed	25	25	28	25	24
Father part-time or not employed, mother employed	6	9	11	9	7
Father part-time, mother not employed	1	2	2	3	1
Neither parent employed	3	8	12	11	6
Total	100	100	100	100	100
Children in one-parent families					
<i>Father only families</i>					
Father full-time	64	47	51	54	58
Father part-time	8	7	7	8	8
Father not employed	28	46	42	38	34
Total	100	100	100	100	100
<i>Mother only families</i>					
Mother full-time	30	22	24	25	28
Mother part-time	24	17	14	15	20
Mother not employed	46	61	62	60	52
Total	100	100	100	100	100
<i>All one-parent families</i>					
Parent full-time	35	26	27	29	32
Parent part-time	22	16	13	14	18
Parent not employed	44	59	60	57	49
Total	100	100	100	100	100

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

Notes:

- (1) Total includes only those cases in which the labour force status of both parents was recorded.
- (2) People identified with more than one ethnic group are counted once in each group reported.
- (3) Those identified as 'New Zealander' have been included in the European ethnic group.
- (4) Dependent children are defined in the Census as those who are aged under 18 years and are not in full-time employment.
- (5) Percentages do not necessarily add up to 100 because of rounding.

Dependent children in one-parent families

Just over half (51 percent) of all dependent children living with one parent in 2006 had an employed parent, an increase from 46 percent in 2001. European children (56 percent) were the most likely to have an employed parent, while Pacific children (40 percent), Māori children (41 percent) and Asian children (43 percent) were less likely than average to do so. The increase in parental employment between 2001 and 2006 was evident for all ethnic groups.

The proportion of dependent children with a sole parent employed full-time increased by 5 percentage points between 2001 and 2006 (from 27 percent to 32 percent). The increase occurred across all ethnic groups but was strongest for European and Asian children. For the minority of children living with a sole father, the increase in parental full-time employment was greatest for Asian, Māori and Pacific children over the five years to 2006.

Children living with a sole father are more likely to have an employed parent than children living with a sole mother. In part, this is because those living with sole fathers are older. Well over half (57 percent) of dependent children living with a sole father in 2006 were aged 10 or older, compared with less than half (45 percent) of those living with a sole mother.

Children's family incomes

The number of parents a child lives with and the number of parents employed have important implications for children's family income. In 2006, the median family income of dependent children in two-parent families (\$69,900) was almost three times as large as the median family income of those in one-parent families (\$23,800). For children in one-parent families, those who usually lived with their father (\$31,900) had higher median family incomes than those who usually lived with their mother (\$23,000). The pattern was the same for children of all ethnic groups.

Table P9 **Median family incomes of dependent children, by family type and ethnic group of child, 2006**

Ethnicity of child	Family type				
	One-parent (father)	One-parent (mother)	One-parent (total)	Two-parent	Total
European	\$36,186	\$24,300	\$25,200	\$75,600	\$63,900
Māori	\$25,200	\$21,100	\$21,500	\$61,100	\$40,700
Pacific peoples	\$27,100	\$21,000	\$21,600	\$57,300	\$41,800
Asian	\$26,600	\$20,900	\$21,600	\$55,400	\$47,500
Other	\$24,000	\$21,300	\$21,500	\$54,500	\$41,500
Total	\$31,900	\$23,000	\$23,800	\$69,900	\$58,300

Source: *Statistics New Zealand, unpublished census data*

Notes: (1) Children identified with more than one ethnic group are counted once in each group reported. (2) Children identified as 'New Zealander' have been included in the European ethnic group.

Living arrangements of young people aged 15–24

The majority of young people live with their parents but this proportion declines markedly with age. In 2006, 79 percent of young adults aged 15–19 lived with their parents or people in a parent role, compared with 32 percent of those aged 20–24. In both age groups males were more likely than females to live with their parents. Among 15–19 year olds 81 percent of males and 76 percent of females lived with their parents, while in the 20–24 age groups 37 percent of males and 27 percent of females did so.

The likelihood of young people living with their parents varies by ethnicity. In both age groups, Māori were the least likely to live with their parents in 2006 (73 percent of 15–19 year olds and 28 percent of 20–24 year olds) while Pacific people were the most likely to do so (82 percent of 15–19 year olds and 45 percent of 20–24 year olds).

Table P10 Proportion of young people living with parents, 2006

Age and ethnicity	Male	Female	Total
15–19 years			
European	84	77	81
Māori	76	69	73
Pacific peoples	83	80	82
Asian	76	74	75
Other	80	81	81
Total	81	76	79
20–24 years			
European	37	25	31
Māori	36	21	28
Pacific peoples	50	40	45
Asian	32	28	30
Other	43	35	39
Total	37	27	32

Source: Statistics New Zealand, *Census of Population and Dwellings 2006*, unpublished data

Notes: (1) People identified with more than one ethnic group are counted once in each group reported.

(2) Those identified as 'New Zealander' have been included in the European ethnic group.

The proportion of young people living with their parents increased during the 1980s²² but the trend appears to have levelled off since 1991. In 2006, 56 percent of 15–24 year olds lived with their parents, compared with 57 percent in 1991. Over that period, the proportion living with their parents increased in the 15–19 age group but decreased in the 20–24 age group.

Table P11 Proportion (%) of young people living with their parents, 1981–2006

Census year	15–19 years	20–24 years	15–24 years
1981	71	28	51
1986	77	31	54
1991	77	36	57
1996	76	35	55
2001	76	32	55
2006	79	32	56

Source: 1981, 1991: Statistics New Zealand (1994) p 59-60;

1986, 1996, 2001, 2006: Statistics New Zealand, unpublished census data

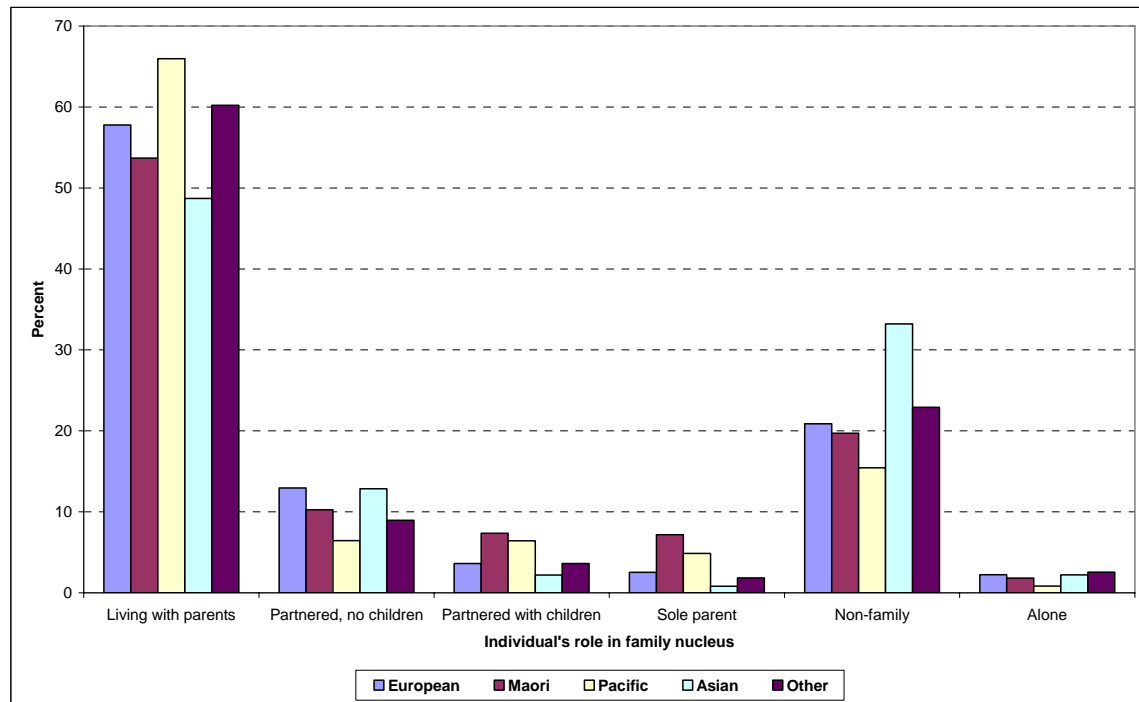
The largest group of young people not living with their parents in 2006 lived in a non-family situation (for instance, with flatmates). This was the case for 14 percent of 15–19 year olds and 32 percent of 20–24 year olds. Some had formed families of their own by their early twenties: 21 percent of those aged 20–24 lived as a couple with no children, 7 percent as a parent in a two-parent family, and 5 percent were sole parents. Among 15–19 year olds, these proportions were far smaller (4 percent, 1 percent and 1 percent, respectively). A small proportion of young people lived alone (1 percent of 15–19 year olds; 4 percent of 20–24 year olds).

Asian young people were the most likely to be living in a non-family situation. This is likely to reflect the high proportion of international students in this group. Along with Europeans, they were also the most likely to be living in a couple with no children. Māori and Pacific young people were the most likely to be living with their own children, either in a couple or as a sole parent.

²² Statistics New Zealand (1994) p 59-60.

In each ethnic group, females were more likely than males to have formed families of their own, living with a partner (with or without children), or as a sole parent.

Figure P10 **Living arrangements of young people aged 15–24 years, by ethnic group, 2006**



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

Notes: (1) People identified with more than one ethnic group are counted once in each group reported. (2) Those identified as 'New Zealander' have been included in the European ethnic group.

Young people living in same-sex couples

The 2006 Census recorded 1,300 young people aged 15–24 years living with a same-sex partner, representing 1.6 percent of all 15–24 year olds living with a partner. In comparison, 0.9 percent of people aged 25–44 and 0.5 percent of people aged 45 and over living in couples lived with a same-sex partner. Although young people were more likely than older people to live with a same-sex partner, they made up only a small proportion (11 percent) of all people living in same-sex couples.

According to Statistics New Zealand, it is likely that these figures understate the number of same-sex couples who live together because of inconsistencies in the way people answered the census question. There is no census data for couples who live in separate households, either for opposite-sex or same-sex couples.

In the Youth2000 survey conducted in 2001, 0.7 percent of secondary school students aged 12–18 years (68 students) reported that they were sexually attracted to the same sex, while a further 3.1 percent (277 students) said they were attracted to both sexes. Most students (92.2 percent) reported that they were exclusively attracted to the opposite sex, 2.3 percent were not sure and 1.7 percent said they were sexually attracted to neither sex.

Housing tenure

The majority of children and young people under the age of 18 live in dwellings which are owned by residents of the dwelling – either with or without a mortgage or in a family trust. Between 2001 and 2006 there was a slight fall in the proportion living in homes owned by residents, from 64 percent to 62 percent. The figures vary considerably by ethnicity, with 70 percent of Europeans under the age of 18 living in dwellings owned by residents in 2006, compared with 63 percent of Asians, 42 percent of Māori, 33 percent of Pacific peoples and 36 percent of those from Other ethnic groups. Those in European, Māori and Pacific ethnic groups all experienced a decline in levels of home ownership between 2001 and 2006.

Young people aged 18–24 are much less likely than those in the younger age group to live in homes owned by residents, reflecting the fact that many in this age group have left their parental home but not yet bought homes of their own. In 2006, 45 percent of 18–24 year olds lived in dwellings which were owned by someone in the residence, the same as the 2001 figure. Again there were considerable differences by ethnicity, with Asians (49 percent) and Europeans (47 percent) being much more likely than those belonging to Māori, Pacific and Other ethnic groups to live in homes owned by residents.

Table P12 **Proportion of children and young people living in dwellings owned or partly owned by usual residents, by ethnicity and age, 2001 and 2006**

Ethnic group	0–17 years		18–24 years	
	2001	2006	2001	2006
European	71	70	46	47
Māori	45	42	35	35
Pacific peoples	35	33	37	36
Asian	63	63	56	49
Other	33	36	28	30
Total	64	62	45	45

Source: Statistics New Zealand, Census of Population and Dwellings 2001 and 2006, unpublished data
 Notes: (1) 2006 figures include dwellings held in a family trust by usual residents. This category was not available before 2006, which affects the comparability of the 2001 and 2006 data. (2) People identified with more than one ethnic group are counted once in each group reported. (3) Those identified as 'New Zealander' have been included in the European ethnic group.

Household size

In 2006, the majority of children and young people under the age of 18 lived in households consisting of four or five usual residents (57 percent). The remainder of this age group were divided almost evenly between those who lived in households of one to three usual residents (21 percent) and those in households of six or more (22 percent). These figures were unchanged since 2001. Those in the European ethnic group were the most likely to live in smaller households consisting of either one to three or four to five people. Those belonging to Pacific ethnic groups were by far the most likely to live in large households, with over half (51 percent) living in households of six or more residents. Māori children were also more likely than those from European, Asian or Other ethnic groups to live in households of six or more. There was little change in the distribution of ethnic groups by household size between 2001 and 2006.

Among 18–24 year olds, it was most common for people to live in households consisting of between one and three usual residents (45 percent). Another 39 percent lived in households of four or five people and 15 percent in households of six or more. Europeans were the most likely to live in households of one to three people (51 percent), while those belonging to Asian ethnic groups were the most likely to live in four or five-person households (43 percent). Again, Pacific people were by far the most likely to live in large households, with 44 percent living in households of six or more people – more than double the proportion of any other ethnic group. Between 2001 and 2006 most ethnic groups – with the exception of those in the Other category – experienced a slight decline in the proportion living in one to three person households and a slight increase in those living in households with six or more residents.

Table P13 Number of usual residents in household, for children and young people, by age and ethnicity, 2006

Age and ethnic group	1–3 usual residents	4–5 usual residents	6 or more usual residents
0–17 years			
European	23	62	15
Māori	22	48	31
Pacific peoples	12	37	51
Asian	21	57	22
Other	20	53	27
Total	21	57	22
18–24 years			
European	51	40	9
Māori	42	36	22
Pacific peoples	23	33	44
Asian	37	43	20
Other	39	40	21
Total	45	39	15

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

Notes: (1) People identified with more than one ethnic group are counted once in each group reported.

(2) Those identified as 'New Zealander' have been included in the European ethnic group.

Access to private transport

The vast majority of children and young people live in households with access to a motor vehicle, but the level of access varies by ethnic group. In 2006, 9 percent of Māori children under 18, 8 percent of Pacific children, and 7 percent of children from Other ethnic groups lived in a household with no motor vehicle. The comparable proportion for both European and Asian children was 3 percent. Among 18–24 year olds similar proportions of the non-European ethnic groups were without access to motor vehicles – 10 percent of Māori, 8 percent of Pacific peoples, 9 percent of Asians and 10 percent of those from Other ethnic groups. This compared with 5 percent of European young people of that age.

Health

Low birth weight births
Infant mortality
Immunisation
Hearing test failure at school entry
Oral health
Obesity
Physical activity
Cigarette smoking at 14–15 years
Youth suicide

Health

Desired outcomes

All children and young people enjoy good physical and mental health with access to good-quality health care.

Introduction

The World Health Organization (WHO) defines health broadly:

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

All societies recognise that good health is critical to wellbeing. Positive health and life outcomes for children, particularly in the first years of life, increase their likelihood of successful participation in society throughout their youth and adulthood.

A range of factors affect health outcomes. These include genetic predisposition, lifestyle, the physical and social environment and the availability of health and disability support services. There is a well-established link between socio-economic position and health outcomes: children from poor families have higher rates of illness, injury and death than other children. A clean and safe environment, adequate income, good housing, affordable nutritious food, education and social support within families and communities all contribute towards good health.

The desired outcome for health is consistent with Article 24 of the United Nations Convention on the Rights of the Child (UNCROC), which recognises “the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health”. Article 23 of UNCROC states that a mentally or physically disabled child ‘should enjoy a full and decent life’, in conditions that ensure dignity, promote self-reliance and facilitate the child’s active participation in the community’.

Definitions of health differ between cultures. For example, the Māori word ‘Hauora’ has a broader meaning than physical well-being, and includes wairua (spiritual), whanau (family) and hinengaro (mental) aspects, as well as important cultural elements such as land, environment, language and extended family. Many Pacific people also believe that spiritual wellbeing is essential to health.²³

Indicators

There are nine indicators in the Health domain. Five of these focus on the early years of childhood, where improvements in outcomes are likely to have the greatest impact on later health and wellbeing.

Low birth weight births and the infant mortality rate are well-established indicators of infant health outcomes. Children born with a low birth weight have a greater risk of poor health or death in infancy. The risk of death during the first year of life is higher than at any other point during childhood. Both the proportion of low birth weight births and the infant mortality rate reflect the impact of economic and social conditions on the health of mothers and newborns as well as the effectiveness of health systems.

²³ Human Rights Commission (2004), National Health Committee (1998), Public Health Advisory Committee (2003), Durie M (1994)

Immunisation is an indicator of access to, and use of, preventive health care. High levels of immunisation coverage of young children are needed to prevent the spread of diseases which can have a substantial and long-lasting impact on health.

Monitoring the proportion of children who fail the hearing test at school entry shows where remedial health care is needed at a crucial time in children's lives. Hearing loss in early childhood can interfere with the development of speech and language, potentially affecting later social and economic outcomes.

Oral health is not just about having good teeth: it is critical to good health and wellbeing for children and in adulthood and most dental disease is preventable. The indicator includes two measures of oral health. The first—caries free at age 5—is a good measure of the prevalence of dental disease at school entry. The second measure—the average number of decayed, missing and filled teeth at around age 12—gives an indication of disease severity at the end of the period covered by the school dental service.

Obesity in childhood is a biological risk factor for adult obesity, which is associated with a wide range of serious adult health conditions. Obesity is related to lifestyle factors such as low levels of physical activity and the ready availability of highly processed and energy-dense foods and drinks. This indicator focuses on children aged 5–14 years.

Physical activity is protective against a number of serious health conditions. It can also help lower blood pressure and minimise excessive weight gain that carries a risk of future health problems. This indicator shows the proportion of young people aged 15–24 years who met physical activity guidelines.

Cigarette smoking at 14–15 years is also a future-oriented indicator. Because of the addictive properties of tobacco, smoking in young people is a major influence on levels of smoking among adults. Tobacco smoking is by far the leading single cause of preventable deaths in New Zealand.

Suicide is a leading cause of death among young people in New Zealand and an indicator of mental health in the youth population. This indicator includes two measures: the proportion of young people aged 15–24 who died by suicide, and the proportion of young people of that age who were hospitalised for self-harm.

Low birth weight births

Definition

The number of children who weighed less than 2,500 grams at birth, per 100 live births.

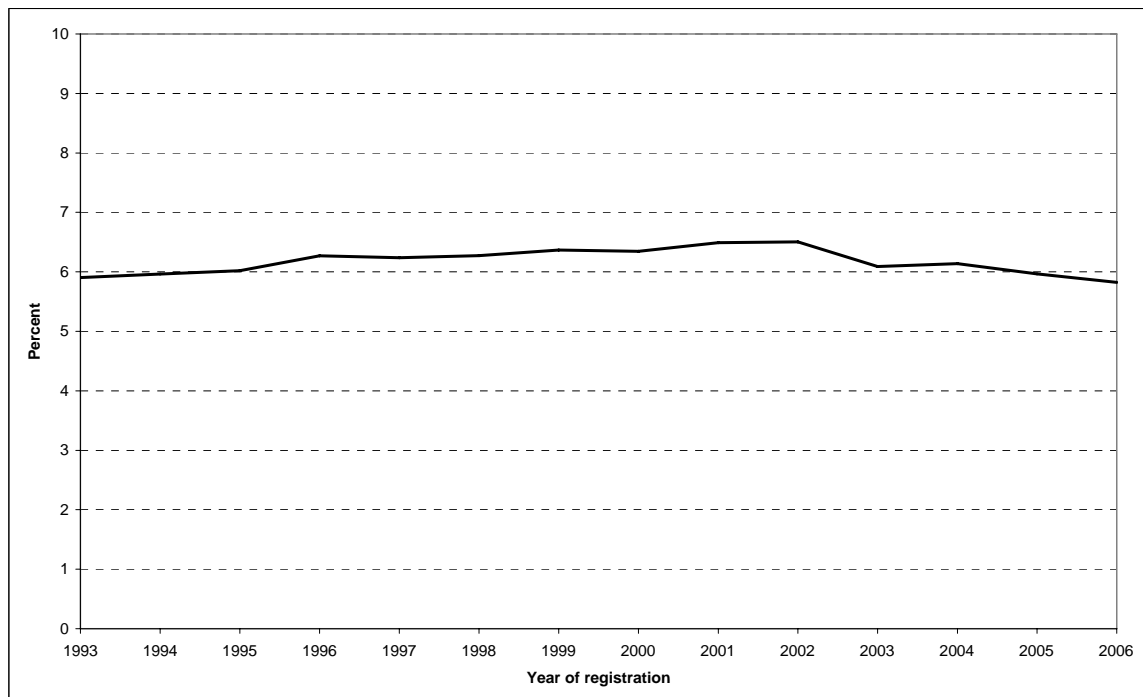
Relevance

Babies are born with a low birth weight either because they have failed to grow adequately before birth (small for gestational age), or because they are delivered pre-term (less than 37 weeks' gestation). Outcomes differ depending on the cause. Low birth weight infants have a greater risk of poor health or death, require a longer period of hospitalisation after birth, and are more likely to develop significant disabilities (UNICEF and WHO, 2004). Risk factors for low birth weight include low parental socio-economic status, increased maternal age and multiple fertility, harmful behaviours like smoking, excessive alcohol consumption and poor nutrition, as well as a poor level of pre-natal care.²⁴

Current level and trends

In 2006, there were 3,505 births registered with a birth weight of less than 2,500 grams, accounting for 5.8 percent of all live births registered in that year. The proportion of low birth weight births increased between 1993 and 2002 (from 5.9 percent to 6.5 percent), but has since declined and in 2006 it was just under the level recorded in 1993.

Figure H1.1 Low birth weight births as a proportion of all live births, 1993–2006



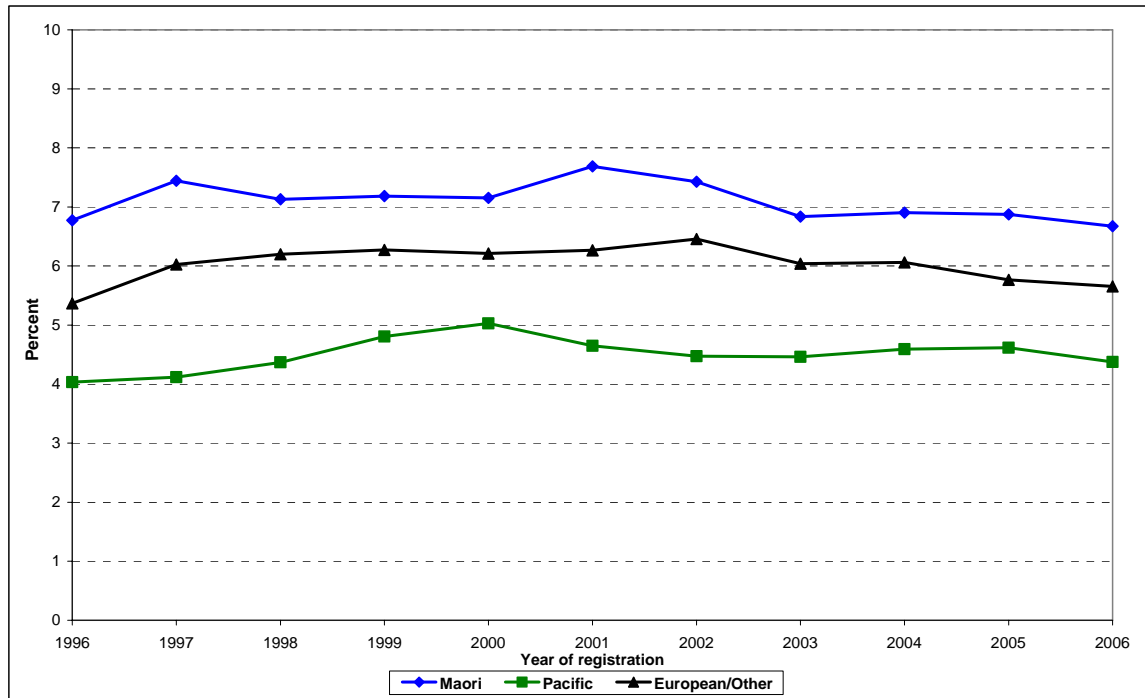
Source: Ministry of Health, New Zealand Health Information Service

²⁴ OECD (2007b), p 36

Ethnic differences

A relatively high proportion of Māori babies have a low birth weight. In 2006, 6.7 percent of Māori babies registered weighed less than 2,500 grams, compared with 4.4 percent of Pacific babies and 5.7 percent of babies of Other (mainly European) ethnic groups. While all three ethnic groups recorded a slight decline in the proportion of low birth weight births between 2002 to 2006, only for Māori was the level below what it had been in 1996.

Figure H1.2 Low birth weight births as a proportion of all live births, by ethnic group, 1996–2006



Source: Ministry of Health, New Zealand Health Information Service

Socio-economic differences

Mothers living in the most deprived areas (deciles 9–10 of the New Zealand Deprivation Index) are more likely to have a low birth weight birth. Of births registered in 2002–2006, the proportion that were born small for gestational age varied from 7.7 percent in the most deprived areas to 4.9 percent in the least deprived areas. The proportion born pre-term varied from 6.2 percent in the most deprived areas to 5.3 percent in the least deprived areas.²⁵

²⁵ Craig E, Jackson C, Han Y, NZCYES Steering Committee (2007), Table 36, p 199.

Regional differences

In 2006, the West Coast district health board (DHB) area had the highest proportion of low birth weight births registered (7.3 percent), followed by Taranaki and Northland (each 7.0 percent), Southland (6.9 percent), Whanganui (6.5 percent), MidCentral (6.4 percent), Lakes and Wairarapa (each 6.3 percent). The DHBs recording the lowest proportions of low birth weight births were South Canterbury (3.1 percent), Nelson-Marlborough (4.4 percent) and Capital and Coast (4.8 percent).

International comparison

In a comparison of the prevalence of low birth weight births in 30 OECD countries in 2005, New Zealand ranked 10th lowest with a rate of 6.1 percent, lower than the OECD median of 6.8 percent. The New Zealand rate was above that in Canada (5.9 percent) but lower than the rates in Australia (6.4 percent), the United Kingdom (7.5 percent) and the United States (8.1 percent). As average birth weight varies by ethnic group, comparisons between countries with different ethnic distributions may be difficult to interpret.

Infant mortality

Definition

The annual number of deaths of infants aged less than one year, per 1,000 live births in that year. Infant deaths consist of early neonatal deaths (those occurring within seven days of birth), late neonatal deaths (after seven days and before 28 days) and post-neonatal deaths (after 28 days and before one year).

Relevance

The infant mortality rate reflects the effect of economic and social conditions on the health of mothers and newborns as well as the effectiveness of health systems. Around two-thirds of the deaths that occur during the first year of life are neonatal deaths (ie, during the first four weeks). Congenital malformations, prematurity and other conditions arising during pregnancy are the principal factors contributing to neonatal mortality in developed countries. For deaths beyond a month (post-neonatal mortality), there tends to be a greater range of causes, the most common being SIDS (Sudden Infant Death Syndrome), birth defects, infections and accidents.²⁶

Current level and trends

Provisional data for 2006 indicates that there were 308 infant deaths in that year, a rate of 5.1 per 1,000 live births.

The total infant death rate more than halved in the decade to 1998, falling from 10.9 per 1,000 in 1988 to 5.4 per 1,000 in 1998. The rate fluctuated at around 6 per 1,000 between 1999 and 2004, falling to 5.0 per 1,000 in 2005. Over that period, the neonatal death rate remained stable while the post-neonatal death rate declined.²⁷

²⁶ OECD (2007b), p 34.

²⁷ New Zealand Health Information Service (2007), p20

Figure H2.1 Infant mortality rate, 1987–2006



Source: Ministry of Health, New Zealand Health Information Service

Note: 2005 and 2006 data is provisional

Sex and ethnic differences

Male infants are slightly more likely than female infants to die in their first year of life. This is partly because females have a biological survival advantage during the neonatal period.²⁸ In the period 2001–2006, rates were higher for males than for females by an average of 1.2 per 1,000 live births.²⁹

Infant mortality rates among Māori and Pacific people are relatively high, at 6.7 and 6.9 deaths per 1,000 live births respectively in 2005, compared with 3.9 per 1,000 among Other (mainly European) infants. The Māori infant mortality rate in 2005 was 42 percent lower than the Māori rate in 1996 (11.6 per 1,000). Over the same period, the infant mortality rate for Pacific peoples fluctuated between 6–10 per 1,000.

²⁸ Christensen K et al. (2001)

²⁹ New Zealand Health Information Service, unpublished data.

Table H2.1 **Infant mortality rate, by ethnic group, 1996–2005**

Year	Rate per 1,000 live births			
	Māori	Pacific	Other	Total
1996	11.6	7.3	5.3	7.3
1997	10.7	8.8	4.7	6.8
1998	7.2	7.5	4.1	5.4
1999	8.7	6.4	4.4	5.8
2000	8.5	10.2	4.6	6.3
2001	8.6	6.7	4.0	5.6
2002	8.9	7.7	4.7	6.2
2003	7.5	6.7	4.2	5.4
2004	7.4	8.7	4.7	5.9
2005	6.7	6.9	3.9	5.0

Source: Ministry of Health, New Zealand Health Information Service

Note: Figures for 2005 are provisional

Socio-economic differences

Infant mortality rates generally increase with increasing levels of neighbourhood socio-economic deprivation. Between 1997 and 2004 there was a difference of around 5 infant deaths per 1,000 live births between those from areas in the most deprived and the least deprived quintiles in New Zealand.³⁰

Age of mother

There is an association between maternal age and infant death rates, with infant mortality being higher among children born to younger mothers. In 2004 there were 10.5 infant deaths per 1,000 live births to mothers under the age of 20 years, and 7.1 per 1,000 for mothers aged 20 to 24 years. For infants with mothers in older age groups the rates were about four or five deaths per 1,000 live births.³¹

Regional differences

District health board (DHB) areas with infant mortality rates considerably higher than the national average of 5.9 per 1,000 in 2000–2004 included Whanganui (8.8), Taranaki (7.9), Northland (7.8), Counties-Manukau and Lakes (both 7.6 per 1,000). The DHBs with the lowest rates over that period were Capital and Coast (4.3) and Canterbury (4.4).³²

International comparison

In 2006, New Zealand's infant mortality rate (5.1 per 1,000) was higher than the OECD median of 3.8 per 1,000. New Zealand ranked 22nd out of 30 OECD countries. Iceland had the lowest rate (1.4 per 1,000) and Turkey the highest (22.6 per 1,000). New Zealand's infant mortality rate was similar to those of the United Kingdom (5.0 per 1,000) and Canada (5.4 per 1,000 in 2005), a little higher than that of Australia (4.7 per 1,000), but lower than the rate in the United States (6.9 per 1,000 in 2005).

³⁰ New Zealand Health Information Service (2007), Figure 11.

³¹ New Zealand Health Information Service (2007), Figure 9 and Table B7.

³² Craig E et al. (2007), Table 45 p 209.

Immunisation

Definition

Immunisation coverage is the proportion of children who are fully immunised against vaccine-preventable diseases at the age of two years, as measured by the National Childhood Immunisation Register (NIR).

Relevance

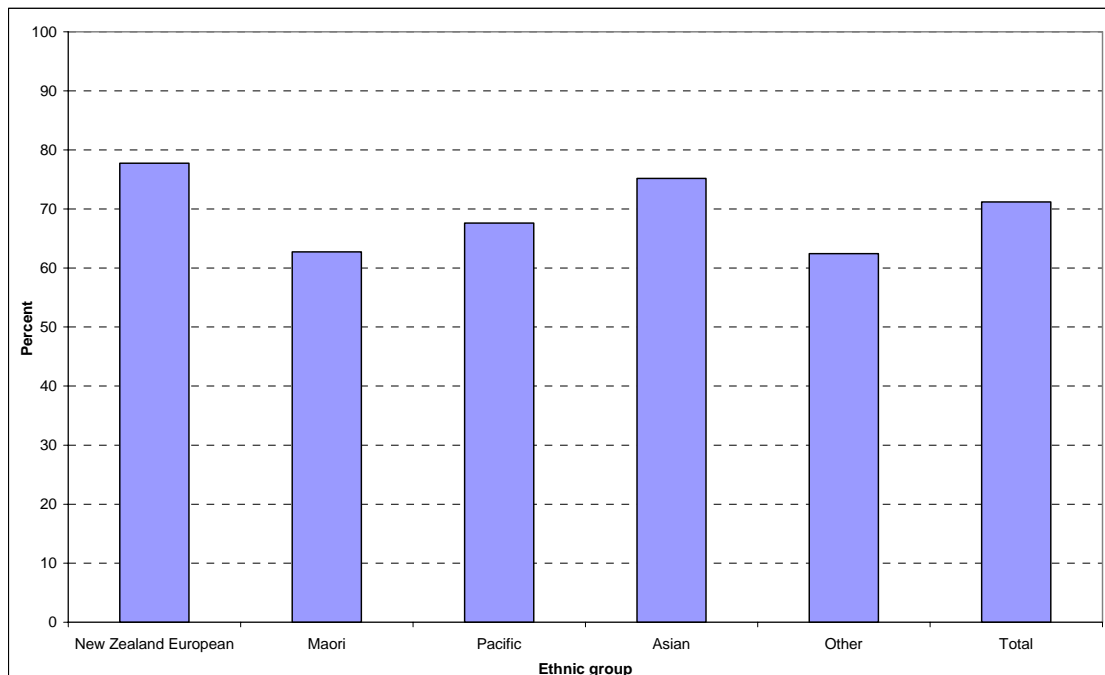
Vaccine-preventable diseases such as measles, rubella, whooping cough and hepatitis B have a significant impact on the health of children. Achieving high immunisation coverage levels of children plays a crucial role in preventing the spread of such diseases.

The National Immunisation Register (NIR) was rolled-out to DHBs throughout 2005, as a tool to help improve immunisation coverage. The NIR now identifies the immunisation status of all New Zealand children aged 0–2 years and provides information on population level immunisation coverage. The 2005 Childhood Immunisation Coverage survey provided information about immunisation coverage prior to NIR data becoming available.

Current level and trends

In 2007, 71 percent of children were fully immunised at age two. This is lower than the 77 percent recorded by the National Childhood Immunisation Coverage Survey 2005 but considerably higher than the level recorded the last time a similar survey was carried out in 1991/92, when 60 percent of children were fully immunised at age two. However, it is below the target level of 95 percent required to prevent the outbreak of diseases such as measles.

Figure H3.1 Proportion of children fully immunised at age two years, by ethnic group, 2007



Source: Ministry of Health (2008a)

Note: Prioritised ethnic data is used in this graph.

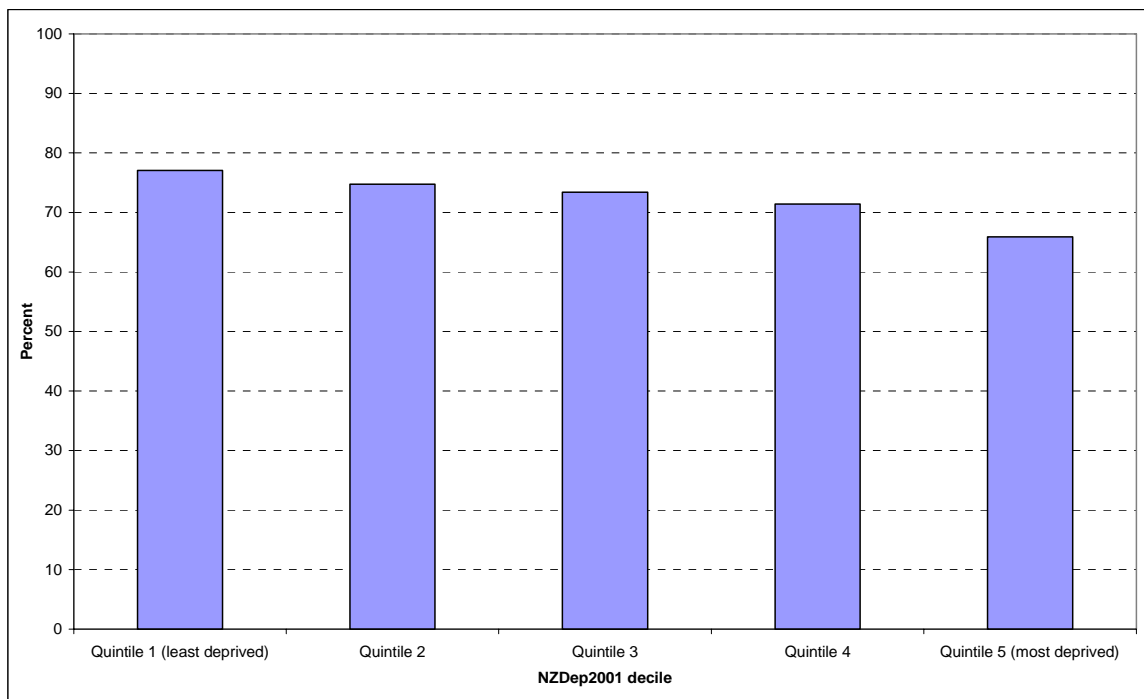
Ethnic differences³³

Māori children are less likely than children of other major ethnic groups to be fully immunised by age two. In 2007, 63 percent of Māori children were fully immunised at age two, compared with 68 percent of Pacific children, 75 percent of Asian children and 78 percent of New Zealand European children. The coverage rate for children of Other ethnic groups was lowest at 62 percent.

Socio-economic differences

Children living in more socio-economically deprived areas are less likely than others to be fully immunised at age two. In 2007, 66 percent of children who lived in decile 9 and 10 areas (the most deprived areas) were fully immunised at age two, compared with 71 percent of those in deciles 7–8, 73 percent of those in deciles 5–6, 75 percent of those in deciles 3–4, and 77 percent of those in deciles 1–2 (the least deprived areas).

Figure H3.2 **Proportion of children fully immunised at age two years, by deprivation index, 2007**



Source: Ministry of Health (2008a)

Note: Deprivation index based on 2001 census is used in this graph.

³³ Prioritised ethnic data is used in this section.

Regional differences

There was some difference in immunisation coverage between the district health board (DHB) areas. The Southland DHB area had the highest immunisation coverage in 2007, with 91 percent of children fully immunised at age two, while Otago, Canterbury, Whanganui and Hawke's Bay all had rates of 80 percent or higher. The lowest rate of immunisation was recorded in Bay of Plenty (62 percent), while Northland, Lakes and Counties-Manukau DHBs also had rates below 70 percent.

International comparison

New Zealand children have relatively low immunisation coverage compared to children in other OECD countries. Of the five main vaccinations completed by around age two, New Zealand's rate was higher than the OECD average only for HepB3, the third dose of Hepatitis B vaccine.

Table H3.1 Immunisation coverage rate (%), by vaccine type, New Zealand compared to selected OECD countries, 2006

	DTP3 Diphtheria, tetanus, pertussis	HepB3 Hepatitis B	Hib3 Haemophilus influenzae type B	MCV Measles- containing vaccine	Pol3 Polio
New Zealand	89	87	80	82	89
Australia	92	94	94	94	92
Canada (1)	94	14	94	94	94
United Kingdom	92	..	92	85	92
United States	96	92	94	93	92
OECD mean	95	84	91	93	95
OECD median	97	92	94	95	97
No. of OECD countries	30	19	27	30	30
New Zealand rank	28th	12th	26th	29th	28th

Source: WHO/UNICEF coverage estimates for 1980–2006, as of August 2007, update of January 2008.

Note: (1) Canada: Hepatitis B is offered at Grade 4 (some children may need this during infancy).

Hearing test failure at school entry

Definition

The proportion of new entrant school children (aged five) who failed the new entrant hearing screening (audiometry) test.

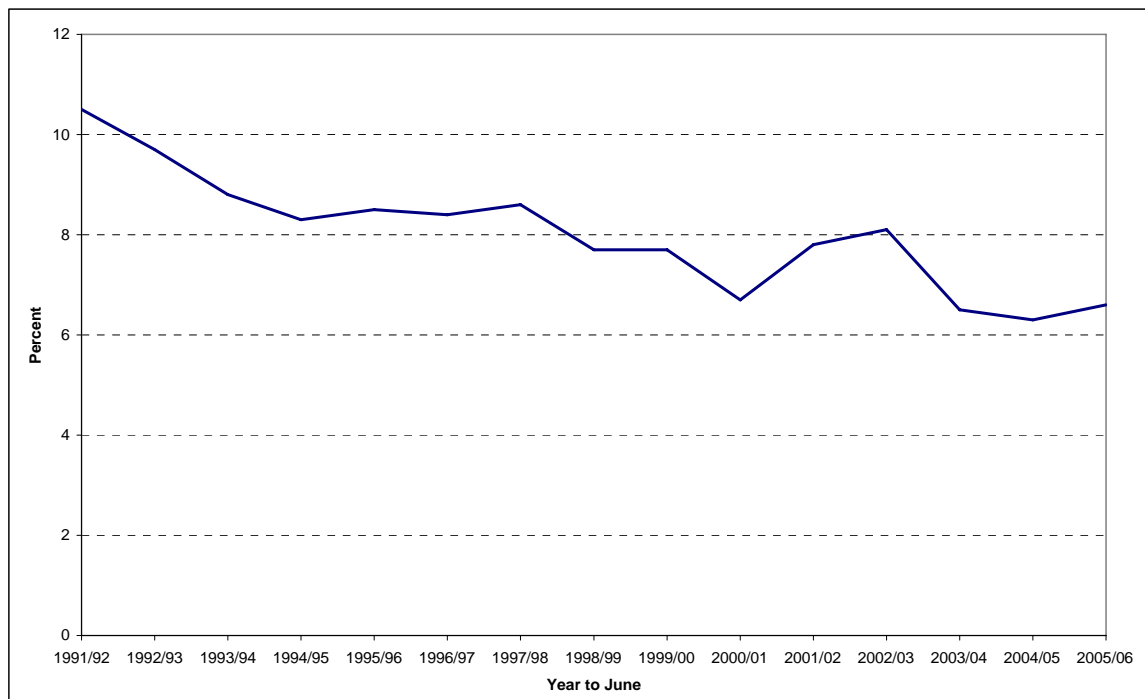
Relevance

Hearing loss in early childhood can interfere with the development of speech and language, potentially affecting social and educational outcomes. Hearing loss in children is often caused by persistent “glue ear” (*otitis media* with effusion). Glue ear is associated with the common cold and other causes of nasal congestion, exposure to second-hand smoke, low rates of breastfeeding, overcrowding, and attendance at childcare centres.³⁴

Current level and trends

In 2005/2006, 6.6 percent of new entrant school children failed the new entrant hearing screening test. There has been an improvement since 1991/1992, when 10.5 percent of such children failed the hearing screening test. Over the last three years the failure rate has plateaued.

Figure H4.1 Proportion of new entrants who failed the hearing screening test, 1991/1992 to 2005/2006



Source: Greville Consulting (2006)

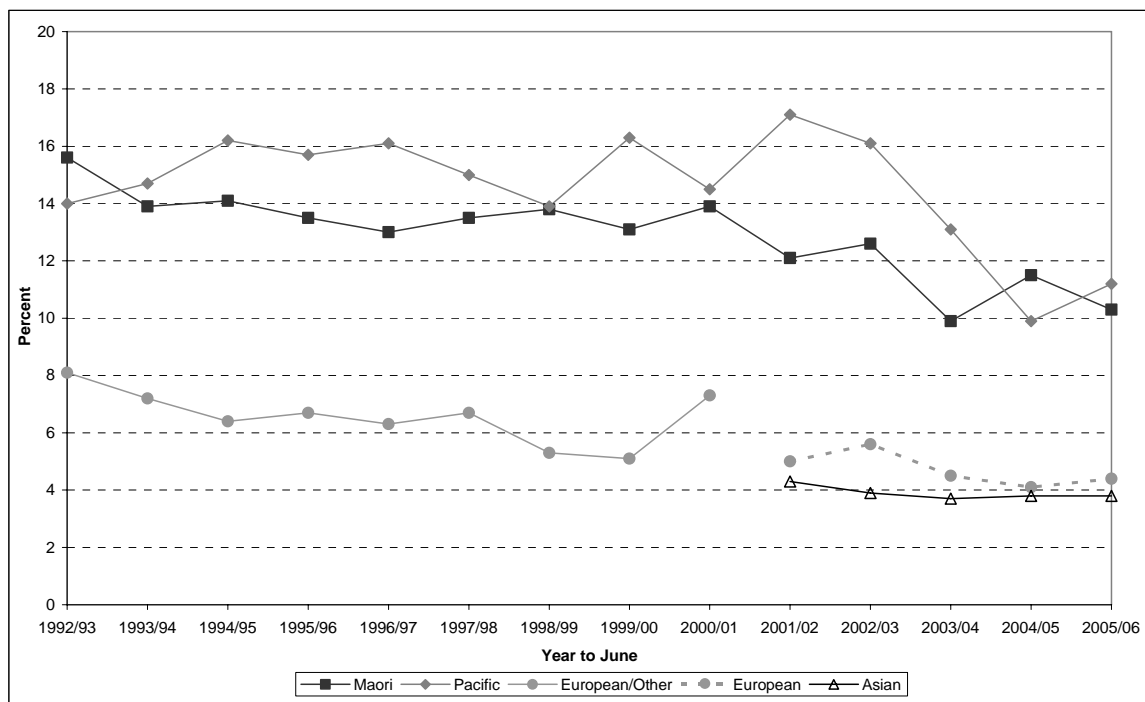
³⁴ Public Health Commission (1995), cited in Ministry of Health (2002), p 67.

Ethnic differences

There are large ethnic differences in new entrant hearing screening test failure rates. In 2005/2006, Pacific school entrants had the highest rate (11.2 percent), followed by Māori school entrants (10.3 percent). The rates for European and Asian children were much lower, at 4.4 percent and 3.8 percent, respectively.

There have been improvements for Māori and Pacific children over the last 15 years. For Pacific children, the hearing screening test failure rate fluctuated between 14–16 percent over the decade to June 2003, then fell sharply to 10–11 percent in the most recent two years. For Māori children the rate was around 14 percent between 1994 and 2001, falling to around 10–11 percent in the most recent three years.

Figure H4.2 **Proportion of new entrants who failed the hearing screening test, by ethnic group, 1992/1993 to 2005/2006**



Source: Craig et al (2007), Table 53

Regional differences

In 2005/2006, school entry hearing screening test failure rates were highest in the district health board areas of Hawke’s Bay (10.8 percent) and Waitemata (10.0 percent). South Canterbury (8.9 percent) and Northland (8.3 percent) were also well above the national rate of 6.6 percent. The lowest rates were recorded in Hutt/Capital and Coast (1.0 percent), Wairarapa (1.5 percent) and Lakes (1.8 percent).

Oral health

Definition

The proportion of children who are free of dental caries (tooth decay) at age 5; and the sum of decayed, missing or filled teeth for individual children in Year 8 (around age 12), expressed as an average number per child (DMFT score). For both measures, the denominator is the child population at the respective ages who completed treatment with the school dental service in the year.

Relevance

Dental problems such as caries (tooth decay) and gum disease are common in developed countries and thus represent a major public health problem. Dental diseases are highly related to lifestyle factors, which include a high sugar diet. They also reflect whether or not protective measures such as exposure to fluoride and good oral hygiene are present. People with poor oral hygiene may experience pain and discomfort, functional impairment, low self-esteem and dissatisfaction with their appearance. Much of the burden of dental disease falls on disadvantaged and socially marginalised populations.³⁵

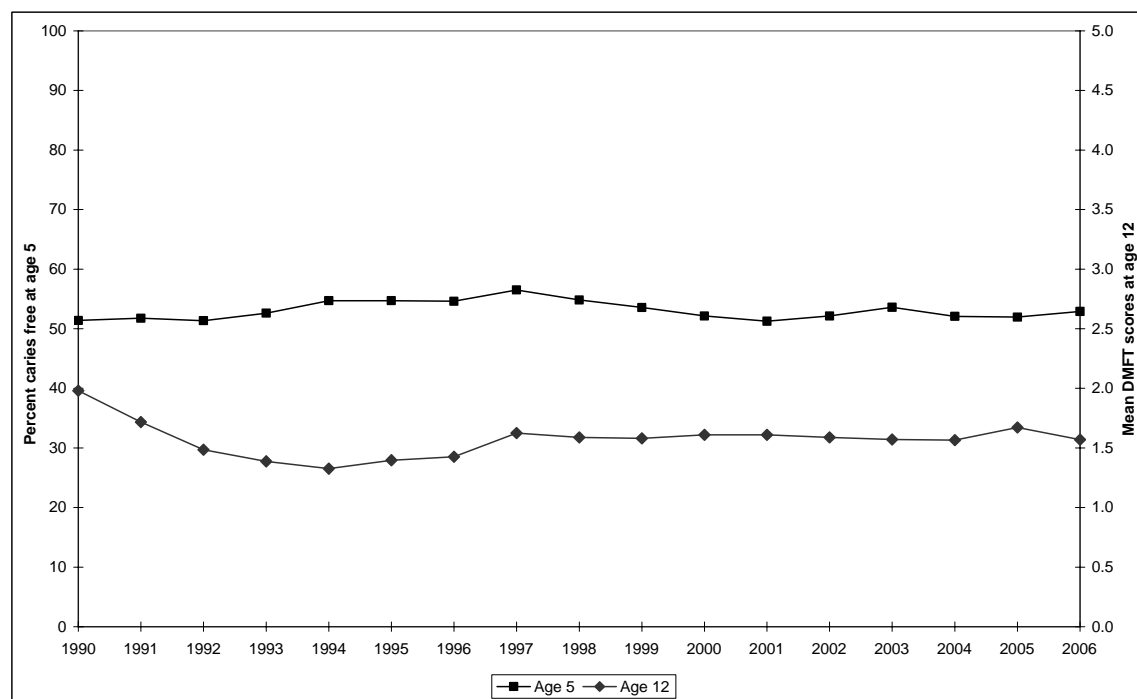
Current level and trends

In 2006, 53 percent of five year olds were caries free. This was similar to the level in previous years, with the proportion fluctuating between 51 percent and 57 percent since 1990.

The mean DMFT score for 12 year olds (the average number of decayed, missing and filled teeth among Year 8 students) was 1.6 in 2006. The mean DMFT score fell from 2.0 in 1990 to 1.3 in 1994. It then increased to 1.6 in 1997 and remained at around that level over the decade to 2006. The stability in the DMFT score for 12-year olds over the past 15 years contrasts with a significant fall in the previous decade, from 5.1 in 1980 to 2.0 in 1990.

³⁵ World Health Organization (2003b); OECD (2007b), p 38.

Figure H5.1 **Proportion of children caries free at age 5 and mean DMFT score at age 12, 1990–2006**



Source: Ministry of Health

The proportion of children who are caries free is consistently higher among those who attend schools with fluoridated water supplies.³⁶ In 2006, 57 percent of 5 year olds in schools with fluoridated water supplies were caries free, compared with 49 percent of those in schools without fluoridated water. Similarly, the likelihood of having decayed, missing or filled teeth is lower in fluoridated areas. The DMFT score for 12 year olds was 1.3 for those in schools with fluoridated water and 1.8 for those in other schools.

Ethnic differences

At 5 years, Māori and Pacific children are less likely to be caries free than children of other ethnic groups, regardless of whether they are in schools with fluoridated water supplies. In 2006, 31 percent of Māori children and 32 percent of Pacific children were caries free, compared with 62 percent of children belonging to other ethnic groups. For each ethnic group, the proportion of children who were caries free was higher for those in schools with fluoridated water.

Table H5.1 **Proportion (%) of children caries free at age 5, by ethnic group and fluoridation status of school, 2006**

Ethnic group	Fluoridation status of school		
	Fluoridated	Non-fluoridated	Total
Māori	38	24	31
Pacific	32	28	32
Other	68	57	62
Total	57	49	53

Source: Ministry of Health

Note: European and Asian ethnic groups are included in the Other category in this table.

³⁶ Craig E et al. (2007), p 225.

At 12 years, Māori and Pacific children are more likely than other children to have decayed, missing or filled teeth. In 2006, the mean DMFT score for 12 year olds was 2.4 for Māori children, 1.8 for Pacific children and 1.3 for children of all other ethnic groups. Children of all ethnic groups in schools with fluoridated water supplies had lower DMFT scores than those in schools without fluoridated water.

Table H5.2 **Mean DMFT score at age 12, by ethnic group and fluoridation status of school, 2006**

Ethnic group	Fluoridation status of school		
	Fluoridated	Non-fluoridated	Total
Māori	1.9	2.8	2.4
Pacific	1.7	2.3	1.8
Other	1.1	1.6	1.3
Total	1.3	1.8	1.6

Source: Ministry of Health

Note: European and Asian ethnic groups are included in the Other category in this table

Regional differences

Child oral health varies widely by district health board (DHB) area. In 2006, the DHBs with the highest proportions of caries free 5 year olds were Hutt Valley, Waitemata, Capital and Coast, Otago and Auckland (all at least 60 percent). Those with the lowest proportions were Northland, Lakes, Tairāwhiti, and Bay of Plenty (all 40 percent or below).

The DHBs with the highest scores for decayed, missing and filled teeth among Year 8 children in 2006 were Bay of Plenty, Northland and Waikato (each with a score of 2 or more). Those with the lowest DMFT scores (of 1 or less) were Capital and Coast, Hutt Valley and Auckland.

International comparison

A comparison of child dental health in OECD countries is available only for the DMFT Index. This is the sum of decayed, missing or filled permanent teeth for individual children, expressed as an average number per child. The data are for 12 year-old children.³⁷

Over the past 25 years, there has been a substantial improvement in child dental health in most OECD countries. Between 1980 and 2003, the average decline in DMFT per child was 67 percent in the 19 OECD countries for which data were available. Over this period, the decline in New Zealand was 69 percent (from 5.1 to 1.6 DMFT per child).

In 2003, New Zealand ranked 17th out of 26 countries, with 1.6 DMFT per child. The New Zealand score was higher than the OECD median (1.2 DMFT per child) and higher than the scores of the United Kingdom (0.8 DMFT per child), Australia (1.0 per child), and the United States (1.3 per child).

³⁷ OECD(2007a), p 38.

Obesity

Definition

The proportion of children aged 5–14 years who were obese in the 2002 National Children's Nutrition Survey and the 2006/07 New Zealand Health Survey.

For children, obesity is defined as having a body mass index (BMI - a measure of weight adjusted for height) greater than or equal to sex and age specific BMI cut-off points developed by the International Taskforce on Obesity (IOTF).³⁸

Relevance

Overweight and obese children are likely to be obese into adulthood, and to have abnormal lipid profiles and high blood pressure at a younger age.³⁹ Obese children may also suffer stigmatisation due to their weight.⁴⁰ Obesity is associated with a long list of adult health conditions including heart disease, diabetes, stroke, high blood pressure and some cancers.

Over the past two decades, increasing levels of obesity internationally are thought to be related to societal and environmental factors such as increasingly sedentary lifestyles and the ready availability of highly processed and energy-dense foods and drinks.⁴¹

Current level and trend

The 2006/07 New Zealand Health Survey found that 8.4 percent of children aged 5–14 years were obese, according to international cut-off levels.

There was no significant change in the prevalence of child obesity between 2002 and 2006/07. Figures from the 2002 National Children's Nutrition Survey of children aged 5–14 years, adjusted for comparability with the 2006/07 New Zealand Health Survey data, showed that 9.0 percent were obese.

Age and sex differences

In 2006/07, there was no significant difference by sex or age in the prevalence of obesity among children aged 5–14 years. This was also the case in 2002.

³⁸ Cole et al (2000)

³⁹ Freedman et al (2005); Harding et al (2008); World Cancer Research Fund and American Institute for Cancer Research (2007).

⁴⁰ Dietz and Robinson (2005)

⁴¹ World Cancer Research Fund and American Institute for Cancer Research (2007).

Table H6.1 **Age-specific obesity prevalence rate, children aged 2–14 years, 2002, 2006/07**

	2–4 years	5–9 years	10–14 years	Total 2–14 years	Total 5–14 years
2002					
Male	..	7.0	9.2	..	8.1
Female	..	9.0	11.0	..	10.0
Total	..	7.9	10.1	..	9.0
2006/07					
Male	7.6	8.4	7.7	8.0	8.1
Female	9.1	8.0	9.2	8.7	8.7
Total	8.3	8.2	8.5	8.3	8.4

Source: Ministry of Health, Public Health Intelligence

Note: The 2002 National Children's Nutrition Survey collected data on 5–14 year olds only.

Ethnic differences

Using the IOTF BMI cut-offs, the age-standardised obesity prevalence rate for children aged 5–14 years was highest for Pacific children (26.2 percent in 2006/07). Māori children also had a higher rate compared to the total population (12.7 percent). Between 2002 and 2006/07, the prevalence of obesity fell by around half for children of European and Other ethnic groups. For Māori and Pacific children, there was no significant change.

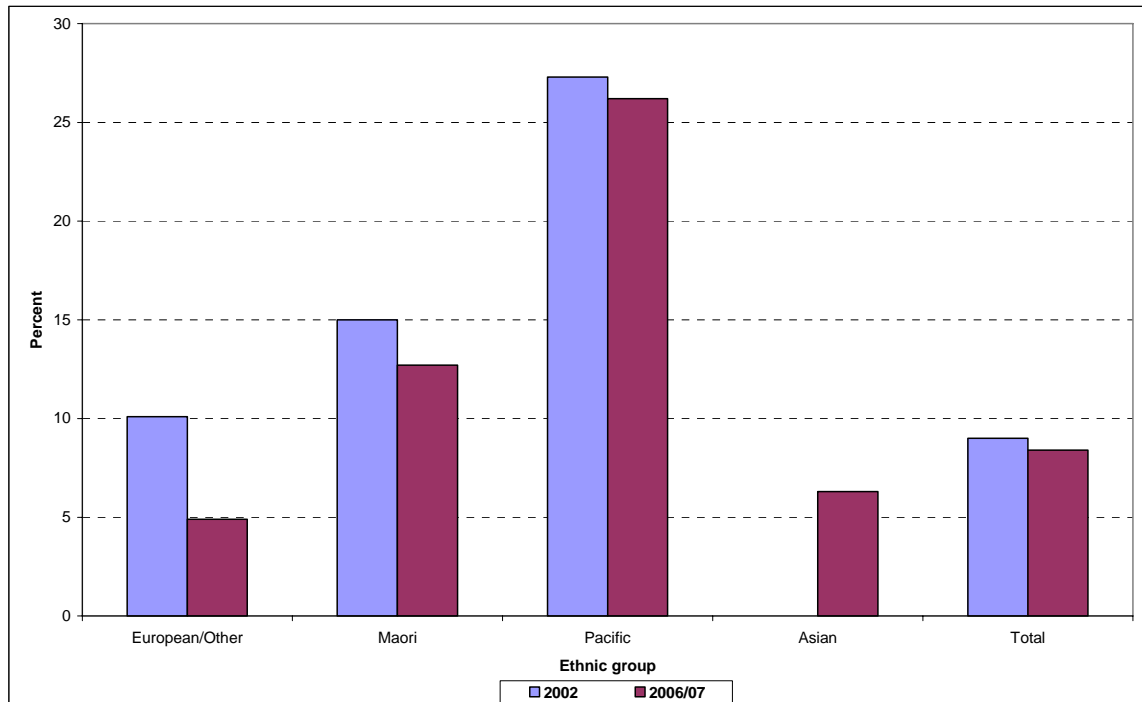
Table H6.2 **Age-standardised obesity prevalence rate (%), children aged 5–14 years, by sex and ethnic group, 2002, 2006/07**

	European/ Other	Māori	Pacific	Asian	Total
2002					
Male	9.2	14.3	27.5	..	8.1
Female	11.0	15.7	27.2	..	10.0
Total	10.1	15.0	27.3	..	9.0
2006/07					
Male	5.2	12.0	23.7	5.6	8.1
Female	4.6	13.4	28.9	7.1	8.7
Total	4.9	12.7	26.2	6.3	8.4

Source: Ministry of Health, Public Health Intelligence

Notes: (1) Total response standard output for ethnic groups has been used. (2) The 2002 National Children's Nutrition Survey was not designed to provide reliable estimates for Asian children.

Figure H6.1 **Age-standardised obesity prevalence rate, children aged 5–14 years, by ethnic group, 2002, 2006/07**



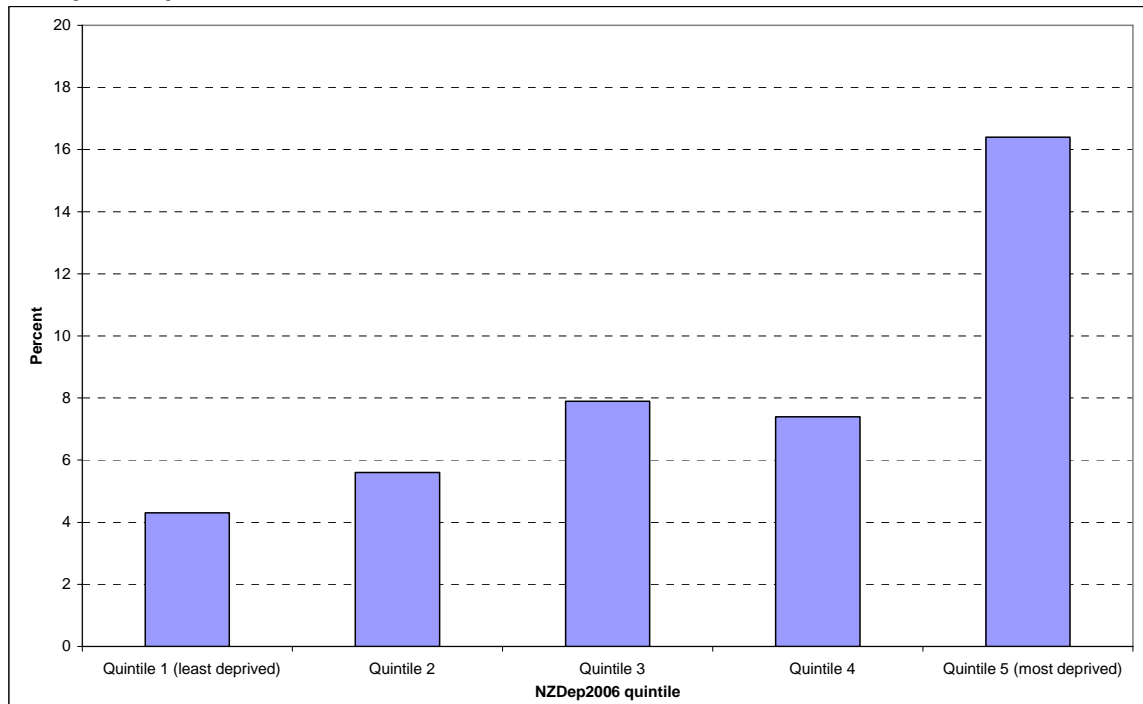
Source: Ministry of Health, Public Health Intelligence

Notes: (1) Total response standard output for ethnic groups has been used. (2) The 2002 National Children’s Nutrition Survey was not designed to provide reliable estimates for Asian children.

Socio-economic differences

The prevalence of child obesity is much higher in the most deprived neighbourhoods. In 2006/07, children aged 5–14 years who were living in the most deprived fifth of areas (NZDep2006 quintile 5) were nearly four times as likely as those in the least deprived area (NZDep2006 quintile 1) to be obese (16.4 percent, compared with 4.3 percent).

Figure H6.2 **Age-standardised obesity prevalence rate, children aged 5–14 years, by NZDep2006 quintile, 2006/07**



Source: Ministry of Health, Public Health Intelligence

Physical activity

Definition

The proportion of young people aged 15–24 years 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 2002/03 and 2006/07 New Zealand Health Surveys.

Relevance

Physical activity is protective against health conditions such as heart disease, type 2 diabetes and certain cancers (colon, post-menopausal breast and endometrial).⁴² Physical activity also helps to lower blood pressure, as well as minimising weight gain, overweight and obesity, which are risk factors for heart disease and type 2 diabetes.⁴³

Current level

In 2006/07, 55 percent of young people aged 15–24 years met physical activity guidelines, reporting that they had been physically active for at least 30 minutes a day on five or more days over the last week. In 2002/03 the proportion was also 55 percent.

Age and sex differences

Males aged 15–24 years were significantly more likely than females of that age to meet physical activity guidelines. In 2006/07, 63 percent 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 percent of females. The sex difference was significant for both 15–19 year olds and 20–24 year olds.

Table H7.1 **Proportion (%) of 15–24 year olds who met physical activity guidelines in the last week, by age and sex, 2002/03, 2006/07**

Age group	Males		Females		Total	
	2002/03	2006/07	2002/03	2006/07	2002/03	2006/07
15–19	63.9	61.6	50.0	50.0	57.5	55.9
20–24	63.3	65.4	44.9	43.8	53.5	54.5
15–24	63.6	63.4	47.0	47.0	55.3	55.2

Source: Ministry of Health, *Public Health Intelligence*

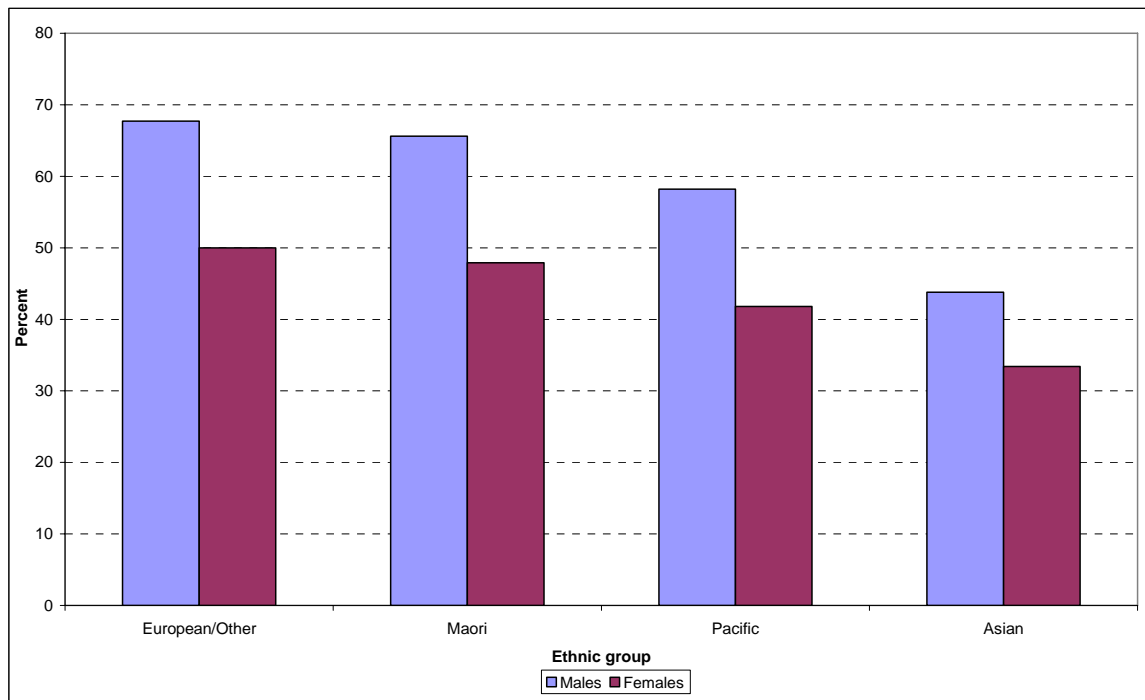
⁴² World Cancer Research Fund and American Institute for Cancer Research (2007); World Health Organization (2003), cited in Ministry of Health (2008), p 93.

⁴³ US Department of Health and Human Services (1996), cited in Ministry of Health (2008), p 93.

Ethnic differences

Asian young people were significantly less likely than young people in general to have met physical activity guidelines in the previous week. In 2006/07, the age-standardised rate for Asian 15–24 year olds was 38 percent while the rate for all young people of that age was 55 percent. In each ethnic group, males were more likely than females to have met physical activity guidelines, but this sex difference was significant only for European/Other and Māori young people. These patterns were similar in 2002/03.

Figure H7.1 Proportion of 15–24 year olds who met physical activity guidelines in the last week, by ethnic group and sex, 2006/07



Source: Ministry of Health, Public Health Intelligence

Note: Total response standard output for ethnic groups has been used.

Age-standardised using WHO world population.

Between 2002/03 and 2006/07, European/Other males recorded a significant increase in the rate at which they met physical activity guidelines (from 57 percent to 68 percent). None of the changes for males of other ethnic groups, or for females, were statistically significant.

Table H7.2 Proportion (%) of 15–24 year olds who met physical activity guidelines in the last week, by ethnic group and sex, 2002/03 and 2006/07

Ethnic group	Age-standardised rate (%)					
	Males		Females		Total	
	2002/03	2006/07	2002/03	2006/07	2002/03	2006/07
European/Other	57.4	67.7	49.9	50.0	53.5	58.5
Māori	59.7	65.6	51.2	47.9	55.2	56.1
Pacific	53.2	58.2	44.2	41.8	48.5	49.6
Asian	45.3	43.8	33.8	33.4	39.1	38.3
Total	56.7	63.2	48.6	47.0	52.5	54.8

Source: Ministry of Health, Public Health Intelligence

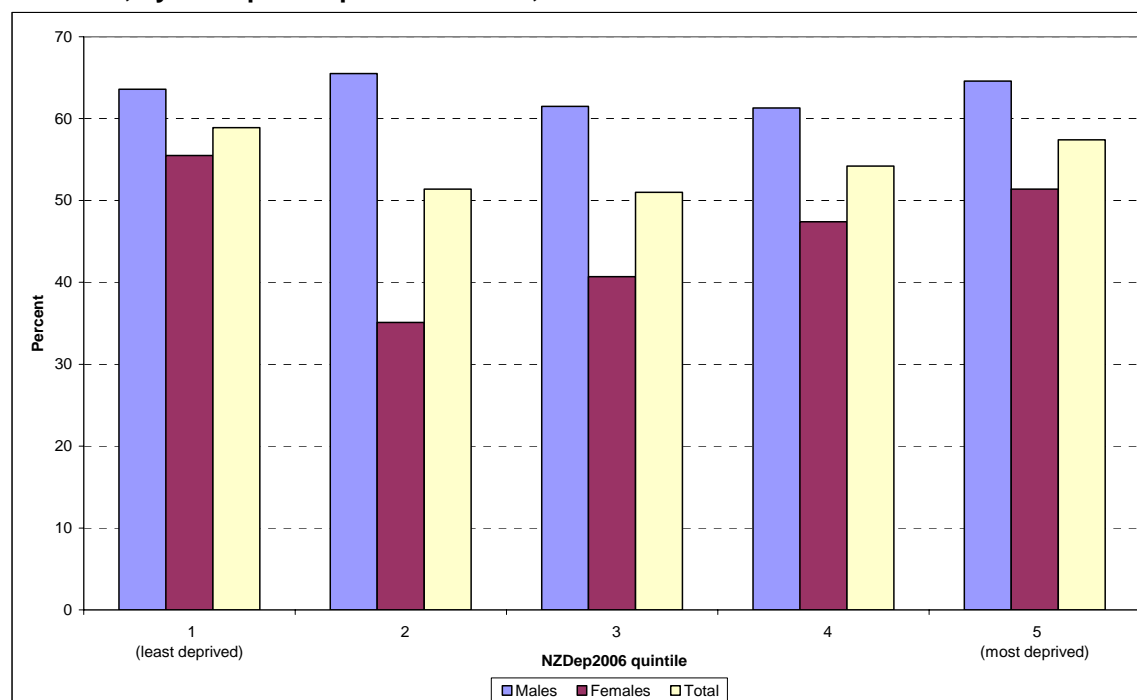
Note: Total response standard output for ethnic groups has been used.

Age-standardised using WHO world population.

Socio-economic differences

In 2006/07 there was no clear association between physical activity and the level of neighbourhood deprivation (as measured by NZDep2006 scores) among 15–24 year olds as a whole. However, there was some association among females, with the proportion who met physical activity guidelines increasing with levels of neighbourhood deprivation for those who lived in NZDep2006 quintiles 2–5.

Figure H7.2 Proportion of 15–24 year olds who met physical activity guidelines in the last week, by NZDep2006 quintile and sex, 2006/07



Source: Ministry of Health, Public Health Intelligence. Age-standardised using WHO world population

Cigarette smoking at 14–15 years

Definition

The proportion of Year 10 (14–15 year old) secondary school students who smoke cigarettes regularly (daily, weekly or monthly).

Relevance

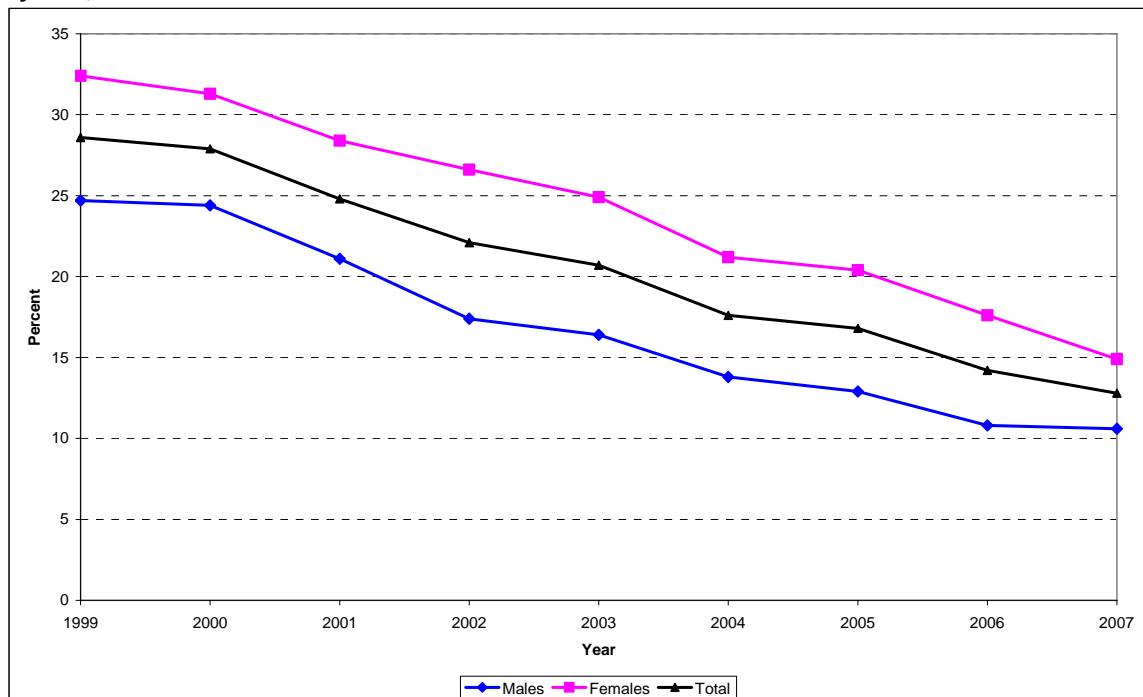
Tobacco smoking is by far the leading single cause of preventable deaths in New Zealand. Because of the addictive properties of tobacco, smoking in young people is a major influence on levels of smoking among adults. Smoking among young women is of particular concern, not only because of the impact on their own health but also potentially the impact on the health of their children. Maternal smoking, especially in pregnancy, is a preventable risk factor for sudden infant death syndrome (SIDS).⁴⁴

Current level and trends

A national survey of 14–15 year old (Year 10) students in 2007 found that 13 percent of student smoked cigarettes regularly (at least monthly). This was a decline from 14 percent in 2006.

Smoking prevalence among 14–15 year olds has declined considerably since the survey began in 1999. Between 1999 and 2007, the proportion of students who were regular smokers declined from 29 percent to 13 percent (a 55 percent reduction in relative terms).

Figure H8.1 Prevalence of regular cigarette smoking (at least monthly) at 14–15 years, by sex, 1999–2007



Source: Paynter (2008) Table 2a

⁴⁴ Ministry of Health (2003b), p. 24.

Sex differences

Females aged 14–15 years are more likely to smoke cigarettes than males of that age. In 2007, 15 percent of female Year 10 students were regular smokers, compared with 11 percent of males. Between 2006 and 2007, the proportion of female students who were regular smokers fell from 18 percent to 15 percent, but smoking prevalence remained steady for males. As a result, the sex difference in Year 10 smoking prevalence narrowed to 4 percentage points in 2007, the smallest difference recorded since 1999.

Between 1999 and 2007, the prevalence of smoking for females declined from 32 percent to 15 percent (a reduction of 54 percent) and for males, from 25 percent to 11 percent (a reduction of 57 percent).

Ethnic differences

Among Year 10 students, Māori females have by far the highest smoking prevalence. In 2007, 34 percent of 14–15 year old Māori females reported smoking regularly, almost twice the rate of Māori males (19 percent). Pacific students had the second highest smoking rate (18 percent of Pacific females, 14 percent of Pacific males). Asian youth were the only ethnic group with a higher smoking rate for males than for females (8 percent, compared to 4 percent).

While smoking prevalence among 14–15 year olds has fallen substantially for both sexes in all ethnic groups since 1999, the fall was larger for European/Other students than for Māori and Pacific students over the entire period. The decline in smoking among Māori students has accelerated since 2003.

Table 8.1 Prevalence of regular smoking (at least monthly) at 14–15 years, by ethnic group and sex, 1999–2007

Year	Māori		Pacific		Asian		European/Other	
	Male	Female	Male	Female	Male	Female	Male	Female
1999	33.6	50.9	23.7	33.3	13.4	10.4	24.2	30.0
2000	33.7	51.1	25.8	31.3	14.6	9.0	23.3	28.8
2001	28.7	47.5	23.0	29.4	11.4	7.7	20.0	25.9
2002	24.9	47.8	16.5	28.5	11.2	7.3	16.6	23.2
2003	27.0	47.4	19.7	26.9	10.2	7.3	14.2	21.1
2004	24.4	42.2	17.7	26.3	6.9	5.9	11.2	16.7
2005	21.3	41.2	16.3	25.5	8.3	5.3	11.0	16.6
2006	20.7	37.0	13.9	21.4	5.4	4.1	8.1	12.9
2007	19.0	33.7	14.1	18.4	8.0	4.0	8.2	10.6

Source: Paynter, J. (2008) Tables 4a, 4d

Socio-economic differences

There were significant declines in smoking rates among students in all five socio-economic quintiles (the lowest fifth of schools by socio-economic status) between 1999 and 2007. However, there was a greater decline in regular smoking prevalence during that period for males and females in the highest quintile (of 67 percent and 68 percent respectively), than for males and females in the lowest quintile (31 percent and 23 percent). In 2007, male and female students at schools in the lowest socio-economic quintile (the lowest fifth of schools by socio-economic status) had regular smoking rates that were 2.5 and 3.2 times those of students at schools in the highest quintile.⁴⁵

⁴⁵ Paynter, J (2008) Tables 6a, 6b

Parental smoking and smoking in the home

There is a clear association between parental smoking and the prevalence of smoking among Year 10 students. In 2007, students with no parent who smoked were less than half as likely to be regular smokers (7 percent) as those with one parent who smoked (17 percent), who in turn were about half as likely to smoke as students with two parents who both smoke (30 percent).

Table 8.3 Prevalence of regular smoking (at least monthly) at 14–15 years, by parental smoking status, 2001–2007

Parental smoking	2001	2002	2003	2004	2005	2006	2007
Both	44.1	42.1	40.9	36.2	36.4	33.0	30.2
One	31.2	28.2	25.9	22.2	20.7	19.0	16.9
None	17.5	15.1	13.4	10.7	10.4	7.6	7.1

Source: Paynter (2008) Table 7a

Smoking prevalence is much higher for students who live in homes where smoking is allowed inside than for those in homes where there is no smoking.

Table 8.4 Prevalence of regular smoking (at least monthly) at 14–15 years, by smoking in the home, 2001–2007

	2001	2002	2003	2004	2005	2006	2007
Smoking allowed inside	37.5	35.7	36.1	28.9	29.1	27.3	25.8
No smoking inside home	19.3	16.6	14.0	13.3	12.4	9.8	9.1

Source: Paynter (2008) Table 8a

Regional differences

Over the period 1999–2007 the prevalence of regular smoking declined significantly in all 21 district health board (DHB) areas. In 2007, DHB areas with relatively high regular smoking prevalence among 14–15 year olds included Tairāwhiti, Whanganui, Hawke's Bay, Wairarapa, Northland, Hutt Valley Lakes District and Waikato (14–19 percent). Smoking prevalence was below the national average in the Auckland, Waitemata and Taranaki DHB areas (10–11 percent).

Youth suicide

Definition

The number of suicide deaths per 100,000 population, expressed as a three-year moving average rate, for the population aged 15–24 years.

Relevance

Suicide is a leading cause of death among young people and an indicator of mental health in the youth population. Risk factors for suicide and attempted suicide among youth include childhood adversity and trauma, socio-economic and educational disadvantage, mental health disorders and exposure to recent stress or life difficulty. Factors that have been suggested as playing a potentially protective role against suicidal behaviour include good coping skills and problem-solving behaviours, positive beliefs and values, feelings of self-esteem and belonging, connections to family or school, secure cultural identity, supportive family/whānau, hapū and iwi, responsibility for children, social support and holding attitudes against suicide.⁴⁶

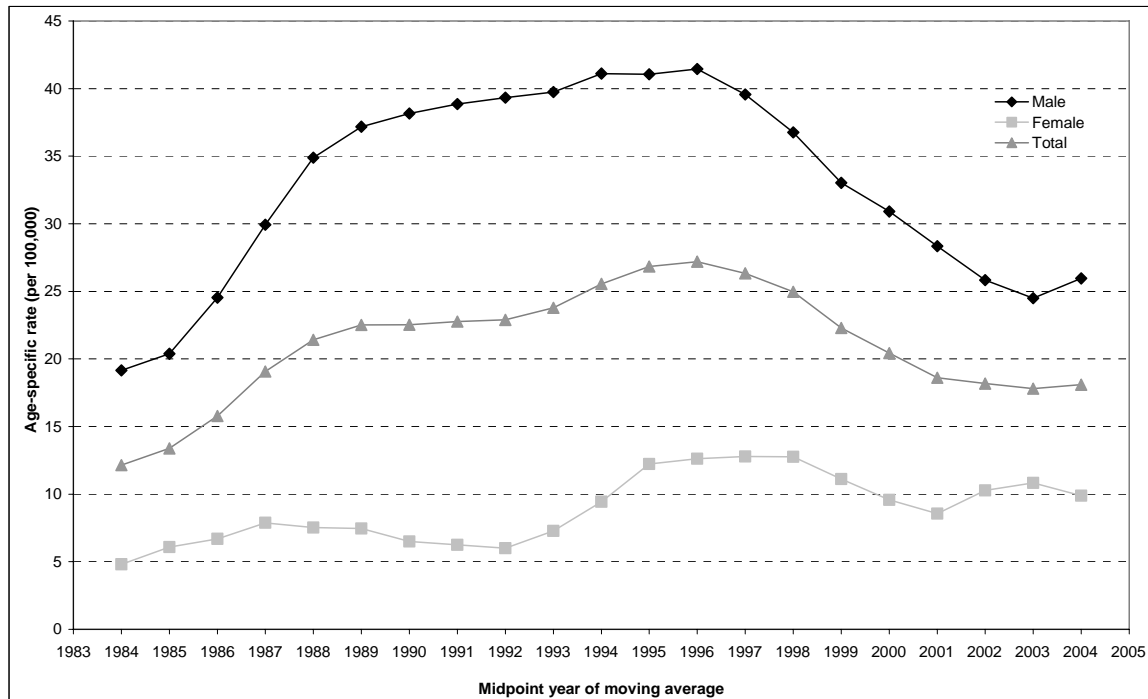
Current level and trends

Provisional data for 2005 show there were 108 deaths from suicide among young people aged 15–24 years in that year. This was 4.4 percent fewer than the 113 young people who died in 2004 but still 11.3 percent more than the 97 who died in 2003. The three-year moving average youth suicide death rate was 18.1 per 100,000 in 2003–2005, compared with 18.6 per 100,000 in 2000–2002. The youth suicide rate has declined by a third from the peak in 1995–1997 of 27.2 deaths per 100,000 to 18.1 per 100,000 in 2003–2005. However, it is still higher than the rate in 1984–1986 (13.4 per 100,000).

Youth aged 15–24 years had the highest hospitalisation rate for intentional self-harm of any age group in 2006 (299.9 cases per 100,000, or 1,710 cases).

⁴⁶ Maskill C et al. (2005).

Figure H9.1 **Three-year moving average youth suicide death rate (15–24 years), by sex, 1983–1985 to 2003–2005**



Source: Ministry of Health, New Zealand Health Information Service

Sex differences

Males have a much higher rate of death by suicide than females, with 26.0 deaths per 100,000 males aged 15–24 in 2003–2005 compared with the female rate of 9.9 per 100,000. Research suggests that the difference is associated with choice of methods. Females, however, make more non-fatal suicide attempts.⁴⁷ In 2006, there were 1,205 hospitalisations of young females (an age-specific rate of 424.9 per 100,000) and 505 hospitalisations of young males for intentional self-harm (an age-specific rate of 176.2 per 100,000).

Most of the change in the youth suicide rate since 1983–1985 was due to a rise and fall in the male youth suicide rate. The male rate rose to a peak of 41.4 per 100,000 in 1995–1997 and declined to 24.5 per 100,000 by 2002–2004, increasing slightly to 26.0 per 100,000 in 2003–2005. The female suicide rate doubled from 1991–1993 to 1997–1999 (from 6.0 per 100,000 to 12.8 per 100,000), and then fell markedly to 8.6 per 100,000 in 2000–2002. Between 2000–2002 and 2003–2005, the youth suicide death rate decreased slightly for males and increased slightly for females.

⁴⁷ Maskill C et al. (2005), pp 39-41.

Table H9.1 Three-year moving average suicide death rate per 100,000 aged 15–24 years, by sex, selected years 1985–2005

Period	Male	Female	Total
1985–1987	24.5	6.7	15.8
1988–1990	37.2	7.5	22.5
1991–1993	39.3	6.0	22.9
1994–1996	41.1	12.2	26.8
1997–1999	36.8	12.8	25.0
2000–2002	28.3	8.6	18.6
2003–2005	26.0	9.9	18.1

Source: Ministry of Health, New Zealand Health Information Service

Age differences

Since 1985–1987, males and females aged 20–24 have experienced higher suicide rates than those aged 15–19 years.

Table H9.2 Three-year moving average suicide death rate per 100,000 aged 15–19 and 20–24 years, by sex, selected years 1985–2005

Period	15–19 years			20–24 years		
	Male	Female	Total	Male	Female	Total
1985–1987	17.8	4.7	11.4	31.7	8.8	20.5
1988–1990	29.1	4.9	17.2	45.9	10.2	28.3
1991–1993	26.9	3.7	15.5	51.9	8.3	30.3
1994–1996	31.5	12.1	22.0	50.3	12.4	31.5
1997–1999	29.2	16.2	22.9	44.6	9.3	27.1
2000–2002	20.0	9.5	14.9	37.4	7.5	22.6
2003–2005	22.7	9.3	16.2	29.4	10.5	20.1

Source: Ministry of Health, New Zealand Health Information Service

Ethnic differences

Youth suicide rates for Māori are subject to considerable fluctuation because of small numbers, so trends over time are difficult to interpret. However, the rate of suicide among young Māori appears to be consistently higher than that for non-Māori. The three-year moving average youth suicide death rate for Māori in 2003–2005 was 33.2 per 100,000 compared with 14.6 for non-Māori. While the rates for non-Māori youth have declined (by 38 percent since 1996–1998), Māori rates, after an initial drop, have increased since 2000–2002, resulting in a decline of just 12 percent since 1996–1998.

Table H9.3 **Three-year moving average suicide death rate per 100,000 aged 15–24 years, Māori , non-Māori , by sex 1996–1998 to 2003–2005**

	Males		Females		Total	
	Māori	Non-Māori	Māori	Non-Māori	Māori	Non-Māori
1996–1998	55.5	35.8	19.8	11.1	37.5	23.6
1997–1999	49.9	33.6	20.0	10.9	35.0	22.5
1998–2000	47.3	29.5	16.8	9.6	32.2	19.8
1999–2001	40.5	28.5	14.2	8.4	27.5	18.6
2000–2002	40.9	25.2	14.2	7.1	27.6	16.3
2001–2003	38.7	22.8	18.5	8.2	28.6	15.6
2002–2004	43.8	20.1	20.8	8.4	32.3	14.4
2003–2005	46.1	21.4	20.3	7.4	33.2	14.6

Source: Ministry of Health, New Zealand Health Information Service

From a statistical point of view, small numbers are even more of an issue for Asian and Pacific youth suicide rates, even when the data is aggregated over several years. For the period 2000–2005, the Asian ethnic group was the only ethnic group with a significantly lower youth suicide rate than the national average. Māori had a significantly higher youth suicide rate than the national average for both the 15–19 and 20–24 age groups. Pacific youth aged 20–24 had a higher suicide rate than the national average, while Pacific youth aged 15–19 had a lower rate than the national average. However, neither of these results was statistically significant.

Table H9.4 **Age-specific youth suicide death rates by ethnic group, 2000–2005**

Age	Pacific	Asian	Māori	Euro/Other	Total
15–19	11.0 (6.0, 18.5)	6.3 (3.1, 11.2)	28.8 (23.4, 35.2)	13.2 (11.2, 15.6)	15.4 (13.6, 17.3)
20–24	28.1 (19.1, 39.9)	10.7 (6.6, 16.3)	38.6 (31.5, 46.7)	18.4 (15.9, 21.2)	21.5 (19.3, 23.9)

Source: Ministry of Health

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

Table H9.5 **Number of youth suicide deaths by age and ethnic group, 2000–2005**

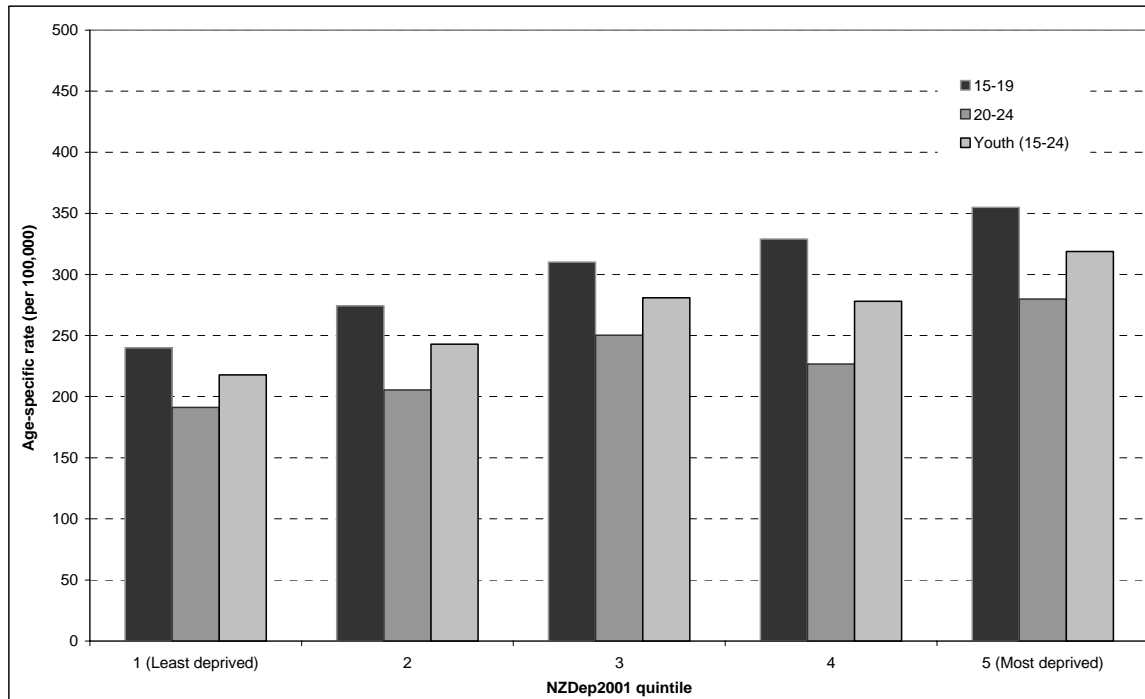
Age	Pacific	Asian	Māori	Euro/Other	Total
15–19	14	11	97	147	269
20–24	31	21	104	189	345
15–24	45	32	201	336	614

Source: Ministry of Health

Socio-economic differences

In 2006, the intentional self-harm hospitalisation rate for youth (15–24) living in the most deprived areas of New Zealand was 1.5 times greater than for youth living in the least deprived areas. Hospitalisation events for intentional self-harm increase with deprivation, particularly for the 15–19 age group.

Figure H9.2 **Intentional self-harm hospitalisation rate for youth aged 15–24 years, by NZDep2001 quintile and age, 2006**



Source: Ministry of Health, New Zealand Health Information Service

International comparison

In the most recent comparison of 13 OECD countries, the 2005 New Zealand male youth suicide rate of 27.6 per 100,000⁴⁸ was second highest after Finland (33.1 per 100,000 in 2004). Countries with lower youth suicide rates than New Zealand included Canada (17.5 in 2002), Australia (17.4 in 2003), the United States (16.5 in 2002), and the United Kingdom (8.0 per 100,000 in 2004).

The 2005 New Zealand female youth suicide rate of 8.2 per 100,000 was third highest after Finland (9.7 in 2004) and Japan (8.4 in 2004). Lower rates than New Zealand's were recorded for Canada (5.2 in 2002), Australia (3.6 in 2003), the United States (2.9 in 2002) and the United Kingdom (2.3 in 2004).

⁴⁸ The New Zealand rates included in this section are different from those reported elsewhere in the indicator because they have been recalculated in a manner compatible with the other countries listed, using data from the World Health Organization.

Care and support

Positive relationships with parents
Witnessing violence in the home
Early childbearing

Care and support

Desired outcomes

All children and young people enjoy secure attachment to parents and caregivers in a nurturing relationship where they are valued, respected and supported.

Introduction

The care and support generated within families is the foundation for good health and optimal social functioning. Children and young people are more likely to develop social confidence and show positive behaviour when their parents or caregivers have good relationship and problem-solving skills, and use consistent and non-abusive discipline.

There are many reasons why families may not always fully meet this ideal. Economic hardship puts pressure on relationships and parenting skills may suffer. Poor health or disability in family members increases the load on caregivers. Violence within families is directly detrimental to the wellbeing of those involved. Where a family does not have the resources to provide this essential care and support, community networks and organisations can step in to assist. Supportive communities offer children safe physical and social spaces that connect them to caring adults and social services. Active parental support for children, which enhances children's achievement, is partly dependent on a sense of living in a supportive community.⁴⁹

The United Nations Convention on the Rights of the Child (UNCROC) expressly recognises that parents have the most important role in bringing up children. The Preamble acknowledges the importance of the family environment for the "full and harmonious development" of a child's personality, "in an atmosphere of happiness, love and understanding". It also states that families should be given the necessary protection and assistance so that they can fully meet their responsibilities. In Article 3, the Convention sets out the principle that, in all actions concerning children, the best interests of the child shall be a primary consideration.

Indicators

Positive relationships with parents is an indicator of the quality of family life. Children and young people are better able to cope with the challenges and changes in their lives when they have warm and attentive relationships with their parents. The indicator is based on the views of secondary school students about their relationships with their parents.

Witnessing violence in the home is associated with a range of poor social and mental health outcomes, such as a higher risk of depression, anxiety and suicide. Young people who witness family violence are more likely to be both a victim of violence and a perpetrator of violence, and are less likely to get along well with their family. This indicator is also based on the perspective of young people of secondary school age.

⁴⁹ Ministry of Social Development (2002) p 16; Australian Bureau of Statistics (2001); Biddulph et al. (2003)

Early childbearing is the third indicator in this domain. In New Zealand and most other developed countries, the timing of childbearing has changed substantially over the past 35 years, a trend associated with rising levels of enrolment in higher education. The median age of first time mothers in New Zealand was 28 years in 2007. An early transition to parenthood is not only a less common life event than in previous decades, it is also more likely to be accompanied by disadvantage. It is in this context that adolescent childbearing, while less than half the level it was in 1972, has come to be seen as an issue of concern for the wellbeing of both young mothers and their children.⁵⁰ In this indicator, early childbearing is defined as the birth rate of females under 20 years.

⁵⁰ Singh S and Darroch JE (2000); Friesen M et al. (2008); UNICEF (2007); World Health Organization (2007).

Positive relationships with parents

Definition

The proportion of secondary school students aged 12–18 years who reported that their Mum and/or Dad (or someone who acts as Mum and/or Dad) cares a lot about them, that they feel close to Mum and/or Dad most of the time, and that they are able to spend enough time with Mum and/or Dad.

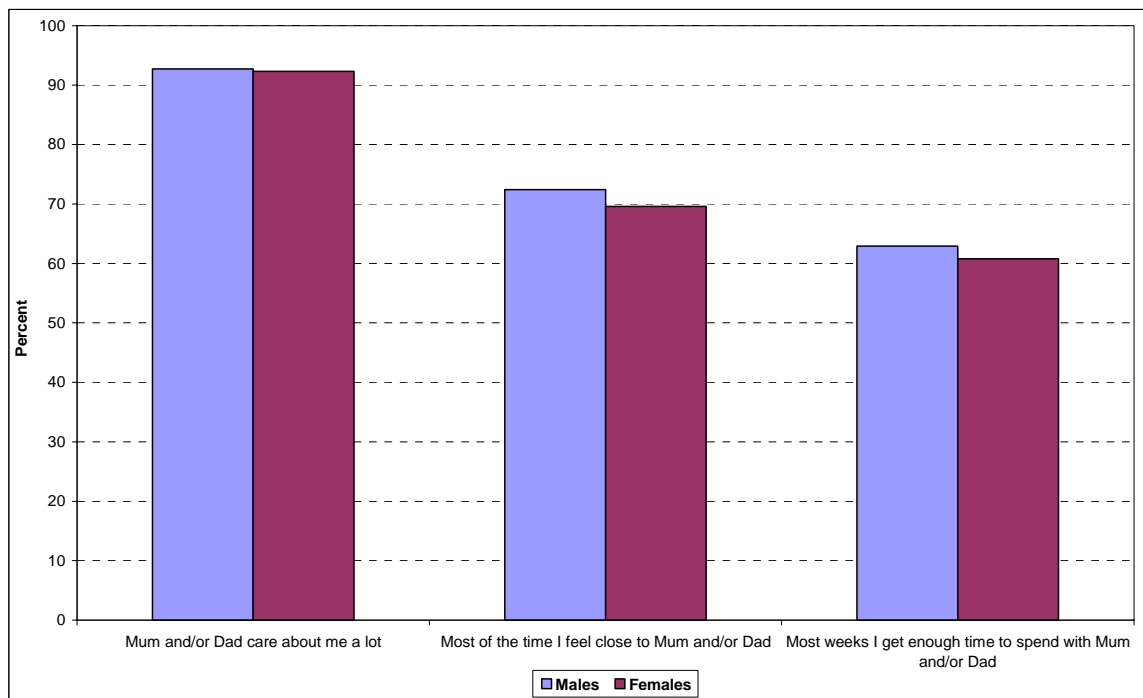
Relevance

When children and young people have strong positive relationships with their parents, they are better able to cope with challenges and changes in their lives. They may also achieve better at school and have healthier and happier relationships with others.⁵¹

Current level

Most students of all ages, both sexes and all ethnic groups report positive relationships with their parents. More than 90 percent of students surveyed in 2001 reported that their Mum and/or Dad cared about them a lot. The majority of students (around 70 percent) also reported that most of the time they felt close to Mum and/or Dad. Most students (around 60 percent) reported that most weeks they get enough time to spend with Mum and/or Dad. However, many students (around 40 percent) reported not getting enough time with at least one of their parents.

Figure CS1.1 Proportion of secondary school students reporting positive relationships with their parents, by sex, 2001



Source: Adolescent Health Research Group (2003)

⁵¹ Adolescent Health Research Group (2003).

Age differences

Similar proportions of students of different ages reported that their Mum and/or Dad cared about them a lot. Younger students were more likely than older students to report that most of the time they feel close to their Mum and/or Dad, and more likely to report that most weeks they get enough time with their Mum and/or Dad.

Table CS1.1 Proportion (%) of secondary school students reporting positive relationships with parents, by age, 2001, with 95% confidence intervals below

Age in years	Mum and/or Dad care about me a lot	Most of the time I feel close to Mum and/or Dad	Most weeks I get enough time to spend with Mum and/or Dad
12–13	92.1 (90.8, 93.4)	76.7 (75.0, 78.5)	65.4 (63.0, 67.8)
14	92.5 (91.4, 93.6)	71.5 (69.4, 73.6)	62.8 (60.5, 65.2)
15	92.1 (90.9, 93.4)	66.9 (64.3, 69.6)	60.4 (58.0, 62.8)
16	92.2 (90.9, 93.5)	69.4 (67.1, 71.8)	59.6 (56.9, 62.3)
17–18	94.2 (92.7, 95.6)	68.8 (66.0, 71.7)	59.1 (55.9, 62.3)
Total	92.5 (91.8, 93.2)	70.9 (69.7, 72.1)	61.8 (60.5, 63.1)

Source: Adolescent Health Research Group (2003)

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

Sex differences

Similar proportions of male and female students reported positive relationships with their parents.

Table CS1.2 Proportion (%) of secondary school students reporting positive relationships with parents, by sex, 2001, with 95% confidence intervals below

Sex of student	Mum and/or Dad care about me a lot	Most of the time I feel close to Mum and/or Dad	Most weeks I get enough time to spend with Mum and/or Dad
Male	92.7 (91.6, 93.7)	72.4 (70.8, 73.9)	62.9 (60.9, 64.8)
Female	92.3 (91.4, 93.2)	69.6 (68.1, 71.0)	60.8 (59.2, 60.8)

Source: Adolescent Health Research Group (2003)

Ethnic differences

Most students in all ethnic groups report positive relationships with their parents. While the ethnic differences in prevalence of reported positive relationships with parents appear small, some differences were significant after adjustment for age, sex and socio-economic status. Pacific and New Zealand European students were more likely than other students to report that their Mum and/or Dad cared about them a lot, and that most of the time they feel close to their Mum and/or Dad. Asian and New Zealand European students were more likely to report that most weeks they get enough time with their Mum and/or Dad.

Table CS1.3 **Proportion (%) of secondary school students reporting positive relationships with parents, by ethnic group, 2001, with 95% confidence intervals below**

Ethnic group	Mum and/or Dad care about me a lot	Most of the time I feel close to Mum and/or Dad	Most weeks I get enough time to spend with Mum and/or Dad
Māori	89.7 (88.1, 91.3)	66.4 (64.3, 68.5)	54.6 (52.2, 57.0)
Pacific peoples	92.4 (90.3, 94.4)	73.2 (69.5, 77.0)	59.2 (55.7, 62.6)
Asian	89.6 (87.2, 92.0)	64.8 (60.0, 69.7)	64.0 (60.7, 67.4)
Other	91.3 (88.9, 93.6)	68.2 (63.4, 73.0)	60.0 (55.3, 64.8)
NZ European	94.4 (93.7, 95.1)	73.7 (72.3, 75.1)	65.3 (63.7, 66.8)

Source: Adolescent Health Research Group (2003)

Witnessing violence in the home

Definition

The proportion of secondary school students aged 12–18 years who reported witnessing violence committed by an adult towards another adult or child in their home in the last 12 months, as measured by the Youth2000 Survey. Violence was defined in the survey as yelling or swearing, or hitting or physically hurting another adult or child.

Relevance

Witnessing family violence is associated with a range of poor social and mental health outcomes. Young people who witness family violence are more likely to be both a victim of violence and a perpetrator of violence, and less likely to get along well with their family. Witnessing violence is also associated with a higher risk of depression, anxiety and greater likelihood of attempting suicide.⁵² Frequent violence is particularly upsetting and can affect those who witness it well into adulthood.⁵³

Current level

About half (49 percent) of all secondary students in the Youth2000 Survey reported that they had seen an adult in their home yell or swear at other adults at least once during the last 12 months. A smaller proportion of students (6 percent) witnessed adults in their home physically hurting other adults within that period. Just over 1 percent of students reported that adults in their home had hurt other adults three or more times in the last year.

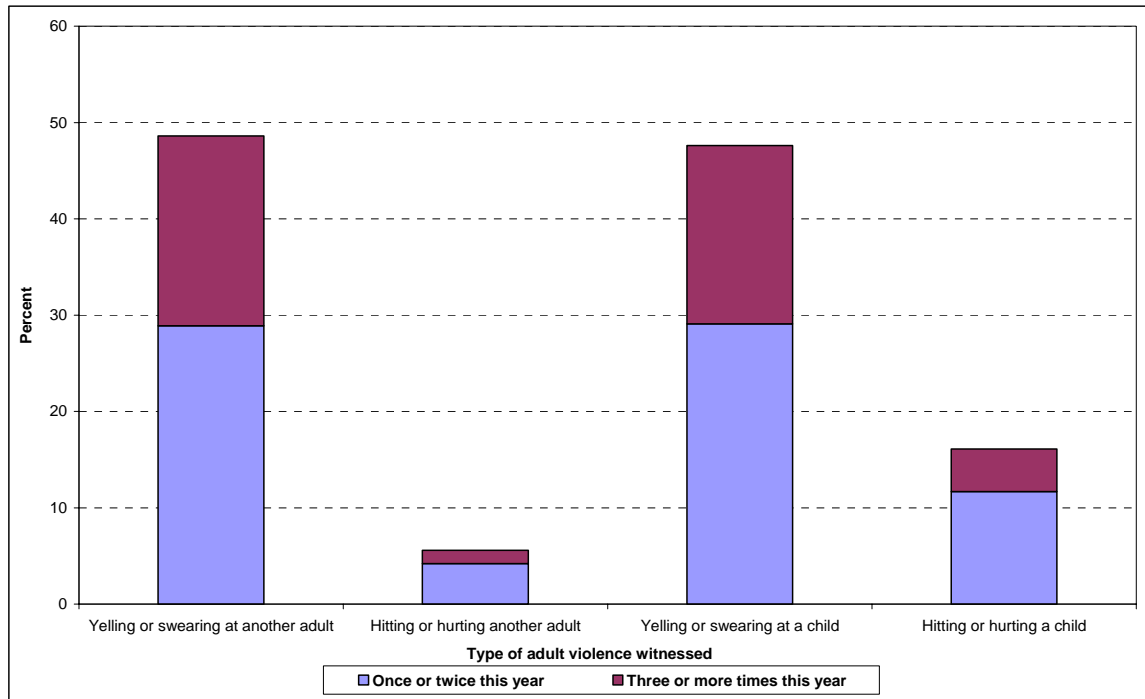
Almost half of all students (48 percent) reported seeing adults in their home yelling or swearing at children during the last 12 months. Around 16 percent of students experienced adults in their home hitting or physically hurting a child, with 4 percent reporting that this had happened on three or more occasions in the last year.⁵⁴

⁵² Fleming et al. (2007).

⁵³ Martin J, Langley J, Millichamp J (2006).

⁵⁴ Fleming et al. (2007).

Figure CS2.1 **Proportion of secondary school students witnessing violence by an adult in the home in the last 12 months, 2001**



Source: Fleming, et al (2007) p 33

Students who had witnessed adults in their home yelling, swearing, hitting or physically hurting adults or children were asked to rate the severity of the behaviour the last time it happened. Yelling and swearing at adults, and hitting or physically hurting children, were both seen as “pretty bad”, “really bad” or “terrible” by nearly a third (31 percent) of those who had seen these behaviours. Yelling and swearing at children was rated with the same severity by around quarter (26 percent) of students who had seen it occur. The type of family violence most likely to be seen as “pretty bad”, “really bad”, or “terrible” was adults hurting other adults, with 62 percent of students who had witnessed it rating it this way.

Age differences

Younger students were less likely to report witnessing adults in their home yelling or swearing at other adults, or adults in their home yelling or swearing at children. These differences in proportions appear small. However, the differences were significant after adjustment for sex, ethnicity and socio-economic status.

There were no differences between age groups in the proportion of students who witnessed adults in their home hitting other adults or adults in their home hitting children.

Table CS2.1 Proportion (%) of secondary school students witnessing violence by an adult in the home in the last 12 months, by type of violence and age of student, 2001, with 95% confidence intervals below

Age in years	Yelling or swearing at another adult	Hitting or hurting another adult	Yelling or swearing at a child	Hitting or hurting a child
12–13	43.5 (40.9, 46.1)	5.2 (4.1, 6.3)	40.9 (38.2, 43.5)	17.1 (15.4, 18.8)
14	47.7 (45.1, 50.2)	6.5 (5.3, 7.7)	47.7 (45.1, 50.4)	16.9 (15.0, 18.7)
15	52.5 (50.0, 55.0)	6.1 (4.9, 7.3)	51.7 (49.3, 54.1)	15.6 (13.5, 17.6)
16	51.5 (49.3, 53.6)	5.3 (4.2, 6.4)	49.3 (47.1, 51.6)	14.8 (12.8, 16.8)
17–18	47.2 (44.3, 50.2)	4.4 (2.9, 5.9)	48.7 (45.7, 51.8)	14.8 (12.0, 17.5)
Total	48.5 (47.0, 50.0)	5.6 (4.8, 6.4)	47.6 (46.1, 49.1)	16.0 (14.8, 17.2)

Source: Youth2000 Survey, unpublished data

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

Sex differences

Similar proportions of male and female students reported witnessing adult violence in their home in the last 12 months. The differences in proportions by sex appear small. However, there were significant differences between male and female students after adjustment for age, ethnicity and socio-economic status.

Female students were more likely than male students to report witnessing an adult in their home yelling or swearing at another adult, an adult in their home yelling or swearing at a child, or an adult in their home hitting or hurting another adult.

Table CS2.2 Proportion (%) of secondary school students witnessing violence by an adult in the home in the last 12 months, by type of violence and sex of student, 2001, with 95% confidence intervals below

Sex of student	Type of adult violence witnessed			
	Yelling or swearing at another adult	Hitting or hurting another adult	Yelling or swearing at a child	Hitting or hurting a child
Male	42.8 (41.0, 44.6)	4.7 (3.8, 5.6)	45.5 (43.6, 47.3)	14.9 (13.5, 16.3)
Female	53.4 (51.8, 55.0)	6.4 (5.3, 7.5)	49.4 (47.6, 51.2)	16.9 (15.3, 18.5)

Source: Youth2000 Survey, unpublished data

Ethnic differences

There were significant differences between ethnic groups, after adjustment for age, sex and socio-economic status, in the proportions of students who reported witnessing an adult in their home hitting or hurting a child or another adult. New Zealand European students were least likely to report witnessing this type of violence and Pacific and Māori students were most likely to report doing so.

Table CS2.3 Proportion (%) of secondary school students witnessing violence by an adult in the home in the last 12 months, by type of violence and ethnicity of student, 2001, with 95% confidence intervals below

Ethnic group	Type of adult violence witnessed	
	Hitting or hurting a child	Hitting or hurting another adult
Māori	21.3 (19.4, 23.3)	10.0 (8.4, 11.6)
Pacific peoples	28.1 (24.8, 31.5)	11.1 (8.4, 13.8)
Asian	13.4 (10.8, 15.9)	6.6 (5.0, 8.3)
Other	14.1 (9.1, 19.1)	5.9 (3.4, 8.4)
NZ European	12.5 (11.6, 13.5)	2.7 (2.3, 3.2)

Source: Youth2000 Survey, unpublished data

Early childbearing

Definition

The number of live births to females under 20 years of age, per 1,000 females aged 15–19 years.

Relevance

Research evidence shows that adverse childhood and family background factors increase the risk of early childbearing, and that early childbearing puts young women at risk for educational underachievement and poorer economic circumstances.⁵⁵ For the children of very young mothers, there is an increased risk of low birth weight,⁵⁶ infant mortality,⁵⁷ and (for female children) repeating the cycle of early motherhood.⁵⁸ Delaying childbearing and supporting young mothers and their children can help improve the wellbeing of children and young people.⁵⁹

Current level and trends

In 2007, there were 4,955 births to females under 20 years of age, representing a rate of 31.6 per 1,000 females aged 15–19 years. This was an increase from 28.4 per 1,000 in 2006 and coincided with a general rise in fertility for all age groups under 40 years.

For non-Māori New Zealanders, early childbearing became more prevalent around the end of the Second World War⁶⁰ and was associated with a shift towards early marriage. The teenage birth rate for the total population increased during the 1960s to reach a peak of 69.4 births per 1,000 females aged 15–19 in 1972. The rate underwent a long decline through the 1970s, stalling at just over 30 per 1,000 in the mid-1980s. It then increased in the late 1980s to reach 35.2 per 1,000 in 1990 before resuming a generally downward trend. The teenage birth rate fell between 1997 and 2002 (from 33.2 to 25.8 per 1,000) but rose by almost as much between 2002 and 2007.

⁵⁵ Jaffee SR (2002); Boden JM, Fergusson DM and Horwood LJ (2008)

⁵⁶ UNICEF/WHO (2004)

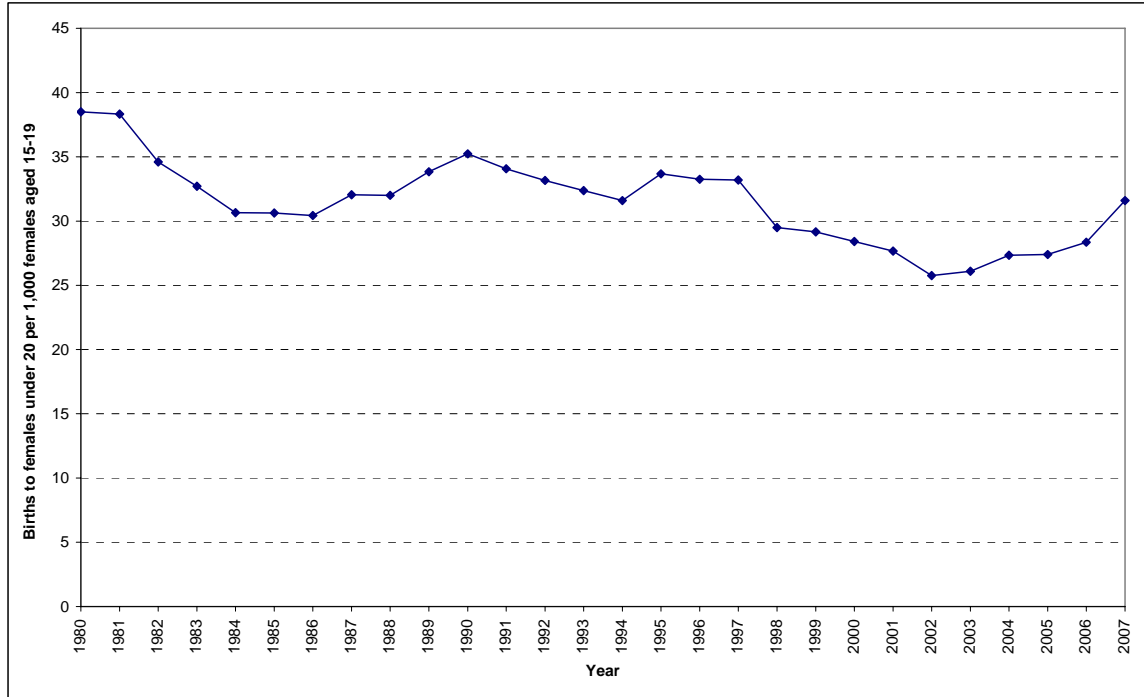
⁵⁷ New Zealand Health Information Service (2007)

⁵⁸ Woodward LJ, Fergusson DM and Horwood LJ (2006)

⁵⁹ It is important to note that childbearing norms vary between ethnic groups, along with levels of acceptance of early motherhood and support for young mothers and their children.

⁶⁰ Boddington B, Khawaja M and Didham R (2003), p11.

Figure CS3.1 Teenage birth rate (under 20 years), 1980–2007



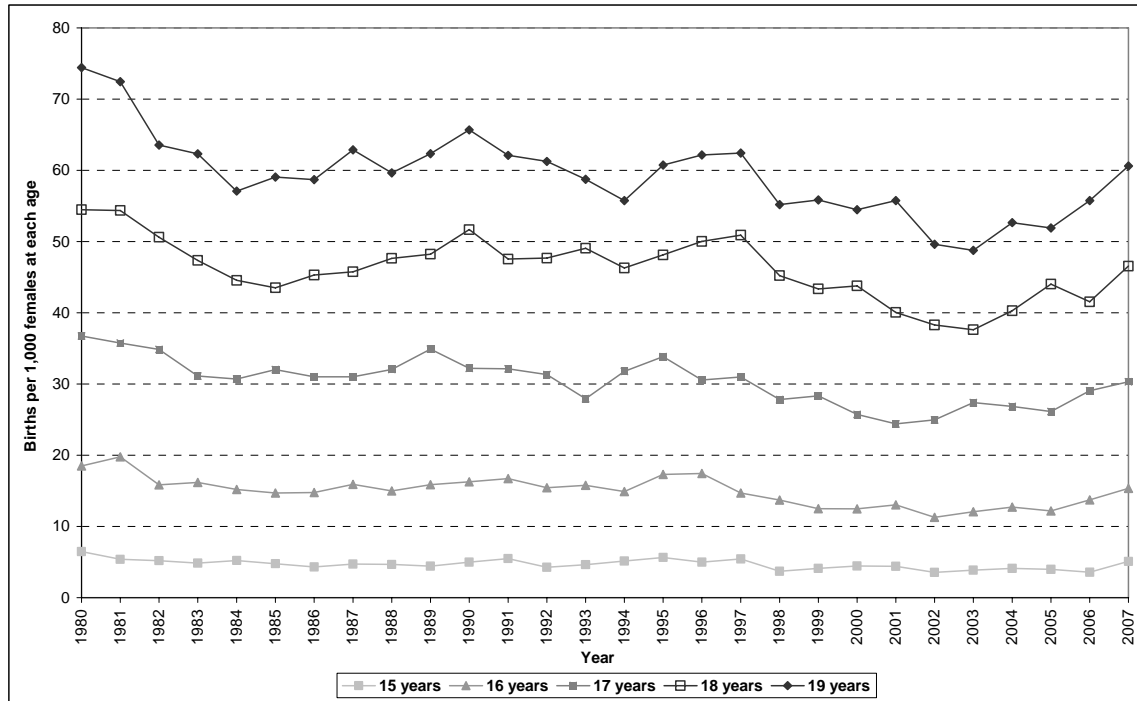
Source: Statistics New Zealand

As a proportion of total births, births to females under 20 years fell from 12 percent in 1980 to just under 8 percent in 1992 and have remained at 7–8 percent over the past 15 years.

Age differences

Birth rates among young women under 20 years increase with each year of age. In 2007, the birth rate at 19 years (60.6 per 1,000) was twice as high as the rate at 17 years (30.3 per 1,000), and four times higher than the rate at 16 years (15.4 per 1,000). The rise in the teenage birth rate between 2002 and 2007 was greater at the older ages than the younger ages.

Figure CS3.2 Teenage birth rate by single year of age, 1980–2007



Source: Statistics New Zealand

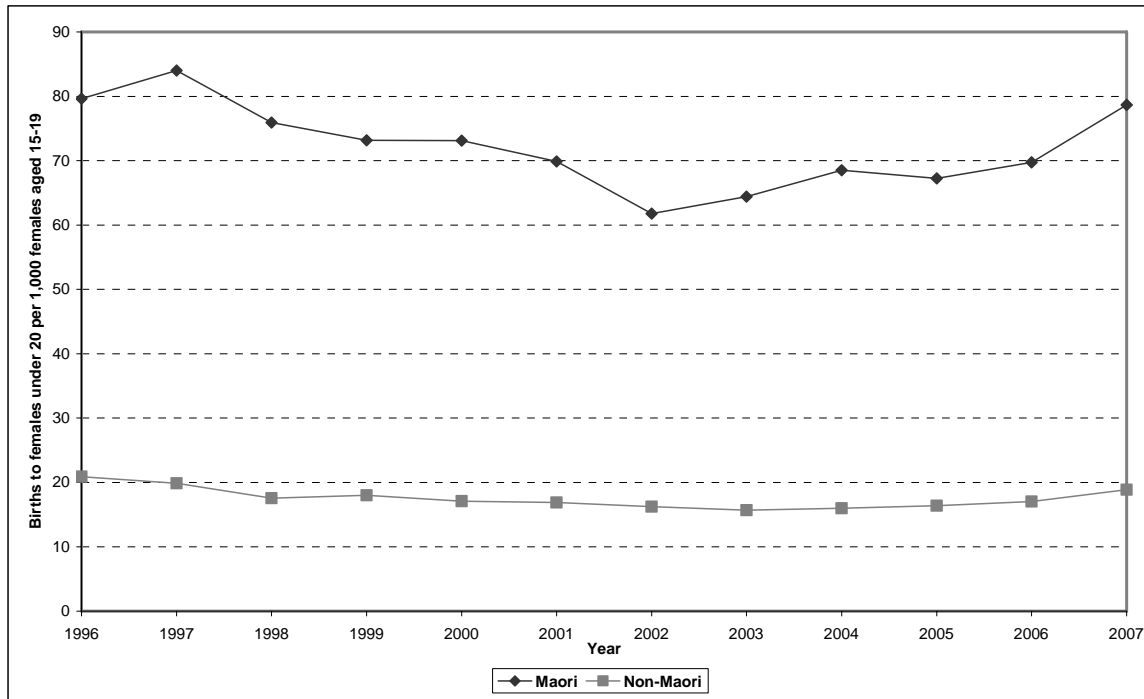
Of all children born to females under 20 in 2007, the majority (66 percent or 3,274) were born to older teenagers aged 18–19 years, while another third (33 percent or 1,629) were to born to young adolescents aged 15–17 years. The remaining 1 percent (52 children) were born to adolescents younger than 15 years.

Ethnic differences

Just over half of all young women who have children while in their teens are Māori (53 percent in 2007). Because they make up such a large proportion of early childbearers, changes for Māori are readily reflected in the overall teenage birth rate. The increase in the teenage birth rate between 2002 and 2007 was driven by a rise in the Māori rate (from 61.8 per 1,000 in 2002 to 78.7 per 1,000 in 2007, an increase of 27 percent). This was a reversal of the trend between 1997 and 2002, when the Māori rate fell by 26 percent, (from 84.0 per 1,000 in 1997 to 61.8 per 1,000).

While the non-Māori teenage birth rate also fell and rose over the same period, the changes were less pronounced (a fall of 18 percent between 1997 and 2002, and a rise of 16 percent between 2002 and 2007). In 2007, the non-Māori rate was 18.9 per 1,000, up from 15.7 per 1,000 in 2003, the lowest rate recorded in the decade.

Figure CS3.3 Teenage birth rate (under 20 years), Māori, non-Māori, 1996–2007



Source: Statistics New Zealand

Teenage birth rates for all the main ethnic groups are available for the three-year period centred on the five-yearly population census. Because of a change in the ethnicity question in birth registration data in late 1995, comparisons can only be made for periods centred on the last two censuses, 2001 and 2006. These show that the birth rate for Māori females aged 15–19, at 71.0 per 1,000 females aged 15–19 in 2006, was just over three times that of European females of that age (22.5 per 1,000). The birth rate for Pacific teenagers (42.5 per 1,000 in 2006), although lower than that for Māori, was one-and-a-half times higher than the rate for Europeans. The rate for Asian teenagers was lowest: 6.9 per 1,000, one-quarter of the national level. Between 2001 and 2006, birth rates increased for European and Māori women aged 15–19, and declined for Pacific and Asian women of that age.

Table CS3.1 Births per 1,000 females aged 15–19 years, by ethnic group of mother, 2001, 2006

Year	Ethnic group of mother				
	European	Māori	Pacific	Asian	Total
2001	19.9	68.6	47.4	7.4	27.2
2006	22.5	71.0	42.5	6.9	28.8

Source: Statistics New Zealand

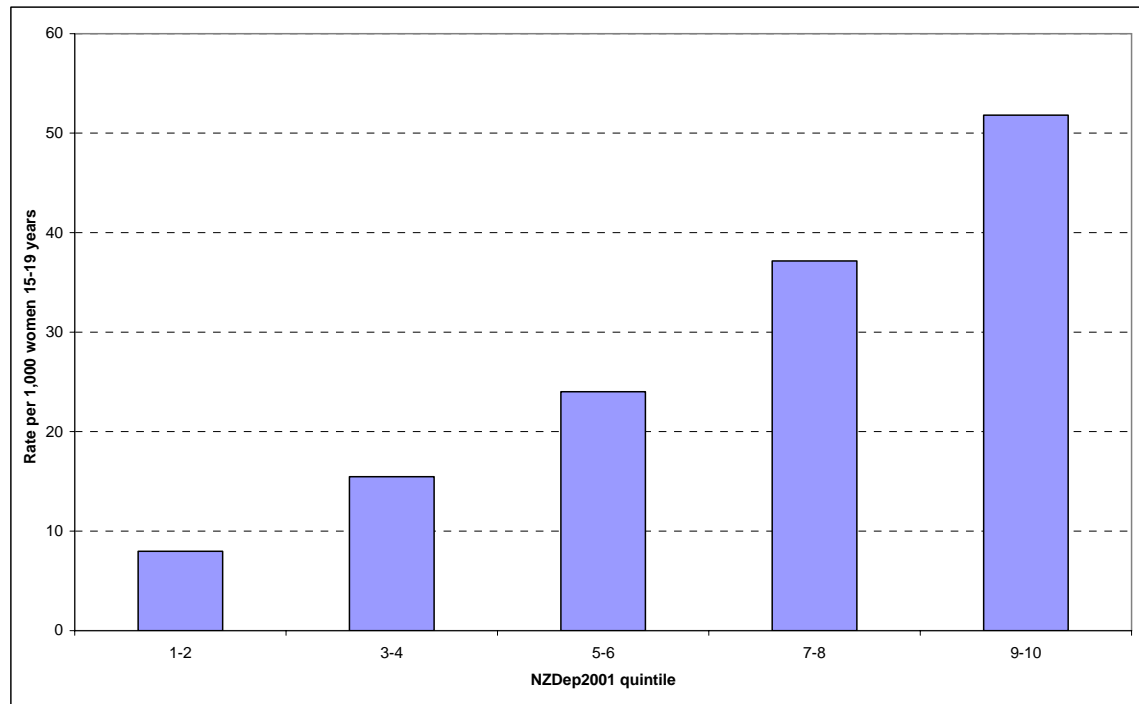
Notes: (1) The rate is the average number of live births to females aged 15–19 years registered during the three-year period centred on a census year, per 1,000 female estimated resident population aged 15–19 at 30 June in the census year. (2) The ethnicity is that of the mother. As each birth has been included in every ethnic group specified, some births are counted more than once.

Since childbearing among Māori and Pacific women is concentrated at younger ages, being born to a mother in her teens is more common for children born to Māori and Pacific mothers than for those born to European and Asian mothers. In 2006, the proportion of newborns with a mother aged under 20 varied from 17 percent of those with a Māori mother, to 10 percent of those with a Pacific mother, 6 percent of those with a European mother, and 2 percent of those with an Asian mother.

Socio-economic differences

There is a strong association between early childbearing and neighbourhood deprivation. In the period 2002–2006, the birth rate for women aged 15–19 years living in the most deprived areas was 6.5 times higher than the rate for those living in the least deprived areas.

Figure CS3.4 Teenage birth rate (15–19 years), by NZDep2001 quintile, 2002–2006



Source: Craig, et al (2007), Table 131

Regional differences

Early childbearing varies widely by region. While the teenage birth rate (under 20 years) was 29 per 1,000 for New Zealand as a whole in 2006, it ranged from a high of 58.2 per 1,000 in the Gisborne regional council area to 13.2 per 1,000 in Otago. The rate for the Auckland region was 25.4 per 1,000, below the national average. However, the largest number of births to women under 20 years occurs in the Auckland region (an average of 1,300 births per year in 2006, compared to 100 births in Gisborne).

For most regions, the teenage birth rate declined between 1996 and 2006, with the largest falls (of 19 percent) recorded for Auckland, Bay of Plenty and Hawke’s Bay. The only region to record a noticeable rise in the rate over the period was Tasman, where the rate increased by 42 percent between 1996 and 2006.

International comparison

New Zealand was one of 14 OECD countries in which the teenage birth rate more than halved between 1970 and 1985.⁶¹ While there were further reductions in the rate for most OECD countries after the mid-1980s, this was not the case for New Zealand. As a result, New Zealand has a relatively high teenage birth rate and ranked fourth out of 30 OECD countries in 2004–2006, after Mexico, the United States and Turkey. At 28.4 per 1,000 in 2006, the under 20 birth rate in New Zealand was considerably higher than that of Canada (13.4 in 2005) and Australia (15.4 in 2006), somewhat higher than that of Scotland (25.8 in 2006) and England and Wales (26.6 in 2006), but considerably lower than the rate in the United States (41.9 per 1,000 in 2006).

⁶¹ Singh S and Darroch JE (2000), Table 3

Education

Children of parents without educational qualifications
Participation in early childhood education
School truancy
Reading literacy at age 15
Mathematical literacy at age 15
Scientific literacy at age 15
Retention of students in senior secondary schools
School leavers with higher qualifications
Participation in tertiary education
Tertiary qualification completion

Education

Desired outcomes

All children and young people obtain the knowledge and skills to enable them to be full participants in society.

Introduction

Education is both a human right and means of realising other human rights. Educational achievement is associated with better health, higher income and living standards, and a longer life. Knowledge and skills are important for gaining access to services and for understanding and exercising political rights.

The desired outcome for education is consistent with Articles 28 and 29 of UNCROC, which recognise the right of children and young people to equal access to the kind of education that develops their personalities and abilities to their fullest potential and encourages a respect for the rights of others and for the environment.

Educational achievement is not just a function of an individual's abilities and aspirations, but is influenced strongly by socioeconomic circumstances. Poor social circumstances in early life are associated with lower educational achievement. The long-term social and economic costs of educational failure are high. Those without the skills to participate socially and economically are likely to generate higher costs for health and social welfare systems. A fair and inclusive education system that extends the benefits of education to all enhances social cohesion.⁶²

In New Zealand, education is compulsory for all children aged between six and 16 years, although in practice most children start school on their fifth birthday.

Indicators

There are 10 indicators in the education domain. They cover a range of child and youth outcomes from contact with the formal education system, from early childhood education to tertiary level.

The first is an indicator of the home learning environment. Research shows that parental education, particularly the mother's level of education, is linked to children's participation and achievement in education. Children whose parents have no educational qualifications may therefore be disadvantaged.

Participation in early childhood education enhances child development and future ability to learn. Quality early childhood programmes can help narrow the achievement gap between children from low-income families and those from more advantaged families.

School truancy is an indicator of school disengagement. Students who truant from school not only miss out on class work, but also run an increased risk of alienation from the education system and dropping out of school.

⁶² Human Rights Commission (2004), National Health Committee (1998), Field S, Kuczera M, Pont B (2007)

There are three indicators on literacy – reading, mathematical and scientific – at age 15. In each of these, literacy is defined broadly as a means of developing knowledge and the potential to participate effectively in society. They can also be seen as indicators of the quality of education systems and equality of educational outcomes.

Retention of students in senior secondary schools is an indicator of school engagement. Students 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.

School leavers with higher qualifications is an indicator of the extent to which young people are gaining knowledge and skills that will serve as the foundation for higher learning and training opportunities, as well as the preparation for direct entry into the labour market.

The last two indicators are participation in tertiary education and tertiary qualification completion. The tertiary education sector provides pathways for a diverse range of learners, from certificate level courses through to research based postgraduate degrees. Changes in participation and achievement in tertiary education in the core age group of 18–24 years show the extent to which young New Zealanders are developing the skills needed for a modern knowledge economy.

Children of parents without educational qualifications

Definition

The proportion of dependent children under the age of 18 who live without parents with formal educational qualifications. For children in one-parent families this means that the parent with whom the child usually lives has no qualifications; for children in two-parent families it means that neither parent has qualifications.

Relevance

New Zealand and international research shows that parental education is linked to children's participation and achievement in education. In particular, the mother's level of education is one of the most important factors influencing children's reading levels and other school achievements. Parents with higher levels of education tend to provide the kinds of home learning environments and varied experiences that facilitate children's success at school. Children whose parents have no educational qualifications may therefore be disadvantaged. Parents who have difficulties with literacy are more likely to exert a positive influence on their children's educational achievement when they are able to enhance their own skills.⁶³

Current level and trends

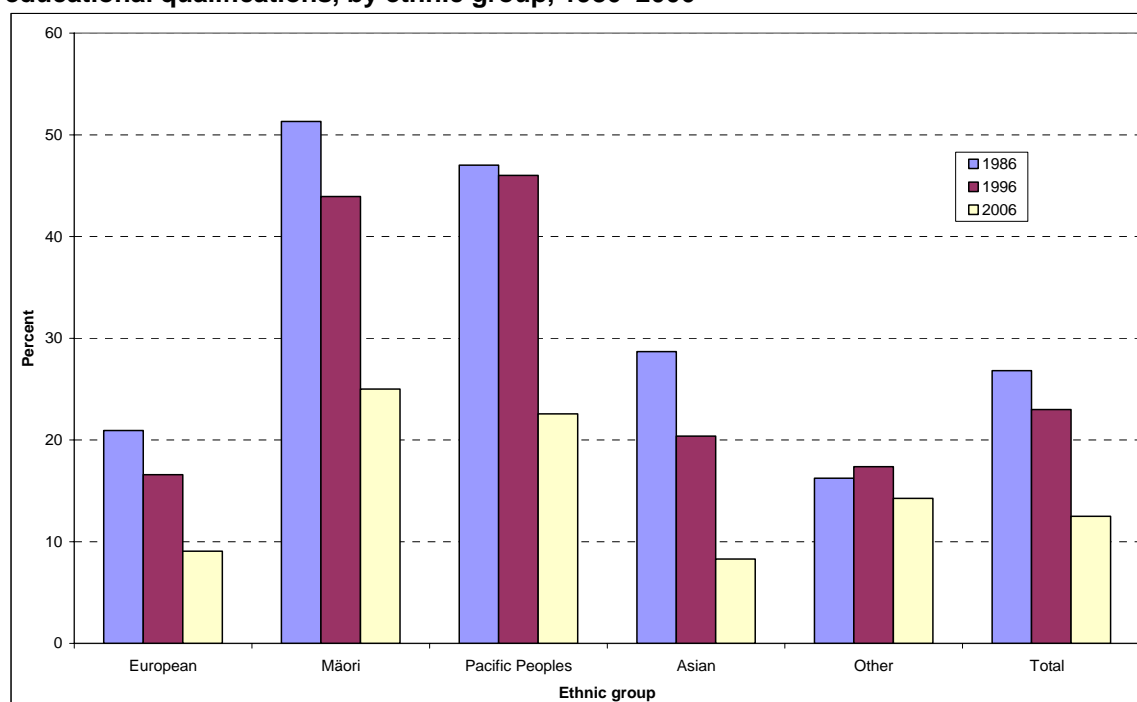
At the time of the 2006 Census, 12 percent of dependent children under the age of 18 lived in families in which no parent had a formal educational qualification. This was considerably lower than the figure in 1996 (23 percent) and 1986 (27 percent).

Ethnic differences

Māori and Pacific children were the most likely to be living without parents with formal qualifications (25 percent and 23 percent respectively in 2006). European and Asian children had similar proportions in this situation (9 percent and 8 percent respectively), and both were lower than the national average, while the proportion for children of Other ethnicities (14 percent) was slightly above the national average. For children of the four major ethnic groups, there was a marked improvement over the 20 years from 1986 to 2006.

⁶³ Biddulph et al. (2003) pp 82-84.

Figure E1.1 **Proportion of dependent children under 18 years living without parents with educational qualifications, by ethnic group, 1986–2006**



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

Differences by family type

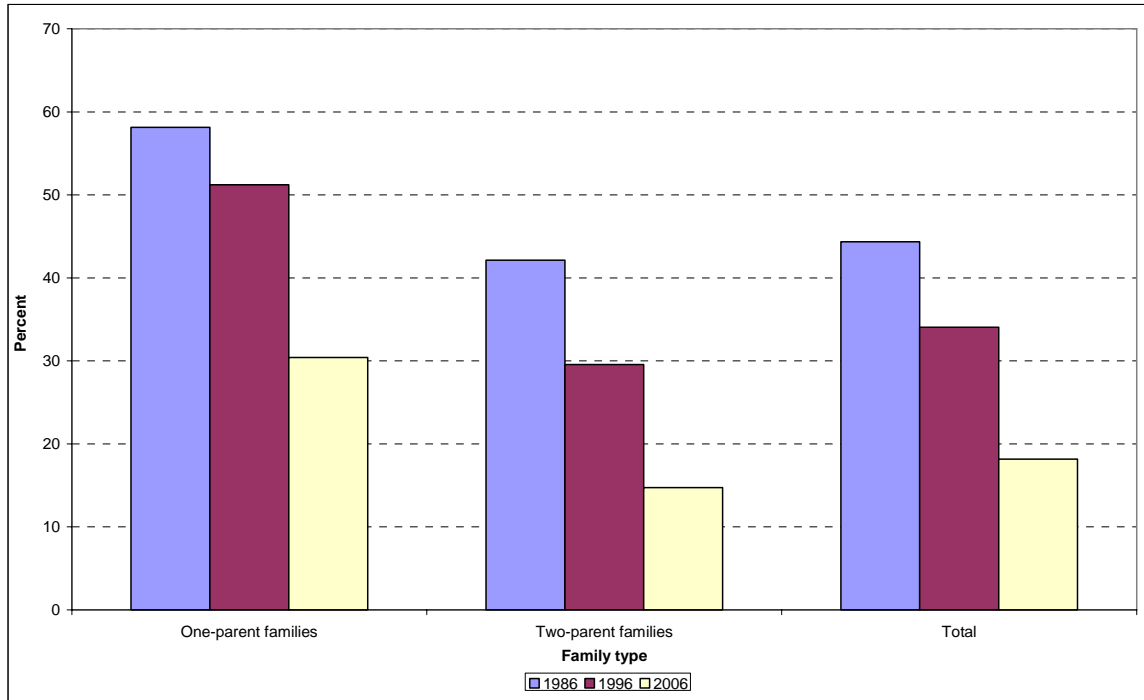
Children in one-parent families were much more likely than those in two-parent families to be living without a parent with qualifications (31 percent and 6 percent respectively in 2006). While the proportion of children in one-parent families in this situation almost halved between 1986 and 2006, this was not as great as the fall for children in two-parent families. Therefore, the disparity between children in one and two-parent families in this indicator widened over that period.

In both one and two-parent families, Māori and Pacific children were far more likely than others to be living without a parent with educational qualifications.

The differences and trends are similar when looking particularly at mothers' qualifications, a factor found in research to be most influential on children's educational achievement.⁶⁴ Overall, the proportion of children living with a mother with no educational qualifications fell from 44 percent to 18 percent between 1986 and 2006. But the fall was proportionately greater for children living with a mother in a two-parent family (from 42 percent to 15 percent), than for those living with a sole mother (from 58 to 30 percent). In 2006, children living with a sole mother were twice as likely as those living with a partnered mother to have a mother without educational qualifications, an increase from 1.4 times as likely in 1986.

⁶⁴ See Biddulph et al (2003)

Figure E1.2 Proportion of dependent children under 18 years living with mothers with no educational qualifications, by family type, 1986–2006



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

The falling trend in the proportion of children living with a mother with no formal qualifications was experienced across all ethnic groups. For Māori, it fell from 67 percent to 32 percent; for Pacific peoples, from 63 percent to 30 percent; for Asians, from 45 percent to 12 percent; for Europeans, from 39 percent to 15 percent and for other ethnic groups, from 25 percent to 20 percent.

Table E1.1 Proportion (%) of dependent children under 18 years living with parents with no educational qualifications, by family type and ethnic group, 1986–2006

Year, ethnic group of child	One-parent family			Two-parent family		Total	
	Father with no qualifications	Mother with no qualifications	Total parents with no qualifications	Mother with no qualifications	Both parents with no qualifications	Mother with no qualifications	No parent with qualifications
1986							
European	40	50	49	37	17	39	21
Māori	68	74	73	65	43	67	51
Pacific	65	68	68	62	41	63	47
Asian	47	54	53	44	26	45	29
Other	30	36	36	22	11	25	16
Total	50	58	57	42	21	44	27
1996							
European	43	43	43	24	10	28	17
Māori	70	64	65	49	30	54	44
Pacific	68	63	63	56	38	58	46
Asian	36	42	41	31	17	33	20
Other	38	36	37	24	12	27	17
Total	52	51	51	30	15	34	23
2006							
European	30	26	26	12	4	15	9
Māori	50	40	41	27	13	32	25
Pacific	45	37	38	27	15	30	23
Asian	19	19	19	11	6	12	8
Other	24	31	30	17	9	20	14
Total	35	30	31	15	6	18	12

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

Participation in early childhood education

Definition

The number of enrolments of children aged 3 and 4 years in early childhood centres or home-based education programmes as a proportion of all 3 and 4 year olds.

The measure includes all forms of organised and sustained centre and home-based programmes designed to foster learning and emotional and social development in children. The measure overestimates participation because children enrolled in more than one early childhood centre will be double-counted. Information from an alternative measure which avoids double counting – the proportion of Year 1 students who have previously participated in early childhood education – is also included.

Relevance

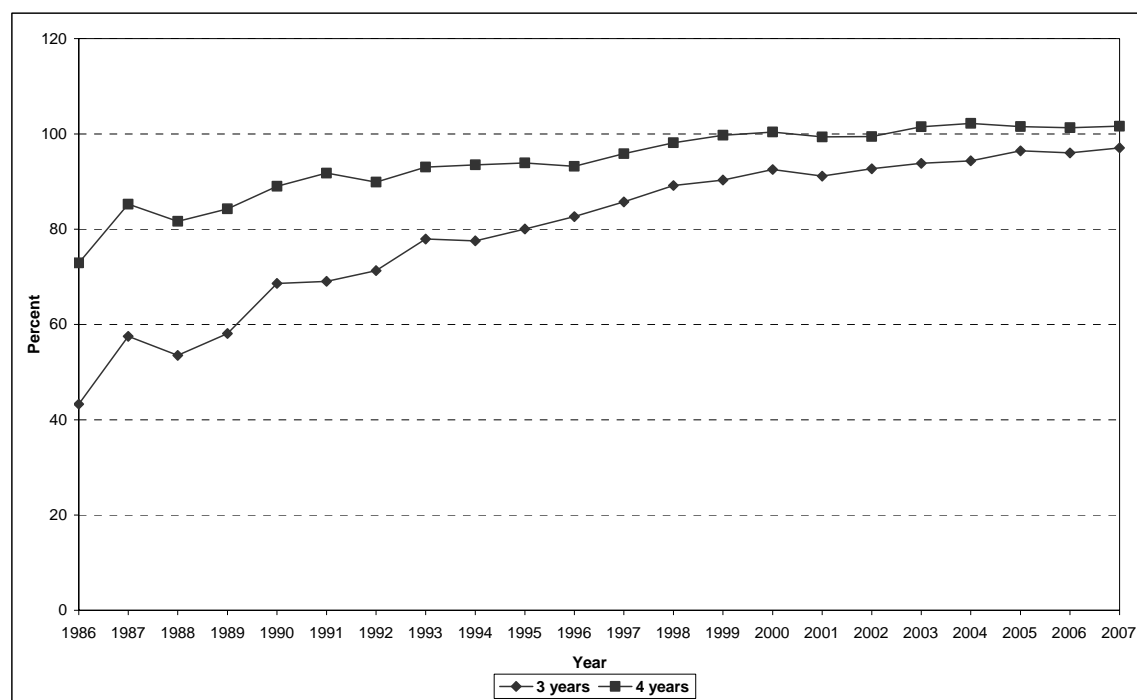
Evidence from New Zealand and international research shows that the early childhood years are vital to a child's development and future ability to learn.⁶⁵ Quality early childhood programmes prepare young children socially, physically and academically for entry into primary education and can help narrow the achievement gap between children from low-income families and those from more advantaged families.

Current level and trends

As at 1 July 2007, the "apparent" early childhood education participation rate was 97 percent for 3 year olds and 102 percent for 4 year olds, confirming that some children attend more than one service. These figures represent a substantial increase from 43 percent and 73 percent respectively in 1986. Much of the growth in participation in early childhood education occurred in the five years between 1986 and 1991, with slower growth in subsequent years.

⁶⁵ Wylie (1999) and Boocock (1995); Wylie, Thompson and Lythe (2001; Wylie, Thompson, Hodgen, Feral, Lythe and Fijn (2004)

Figure E2.1 **Early childhood education ‘apparent’ participation rate, 3 and 4 year olds, 1986–2007**



Sources: Ministry of Education; Ministry of Social Development

Note: These figures overestimate the true participation rate. Rates in excess of 100 percent are possible because children can be enrolled in more than one service

Sex differences

Participation in early childhood education participation does not appear to vary by sex: boys make up just over half (51 percent) of all enrolments, the same proportion as in the population at that age.

Participation by type of early childhood education service

In 2007, childcare centres (44 percent) and kindergartens (37 percent) 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 percent) and kōhanga reo (4 percent).

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 have previously participated in early childhood education services has increased over the last seven years, from 91 percent in July 2000 to 95 percent in July 2007.

Ethnic differences

New Zealand European children are the most likely to have attended an early childhood education service before entering primary school: 98 percent compared with 96 percent of Asian, 91 percent of Māori and 84 percent of Pacific Year 1 students in 2007. 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 a slight decline in the proportion of Pacific new entrants who had attended early childhood education services before starting school.

Table E2.1 Early childhood education attendance by Year 1 students, by ethnic group, as at 1 July 2000–2007

Year	NZ European	Māori	Pacific	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

Source: Ministry of Education

Note: These figures exclude cases for which 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 2007, only 83 percent of new entrants in decile 1 schools had previously attended early childhood education services, compared with 97 percent in decile 6 schools and 99 percent in decile 10 schools.

Regional differences

In 2007, prior participation in early childhood education was highest in the Canterbury region (99 percent) and Otago (98 percent), and lowest in Northland (91 percent), Auckland and Gisborne (both 92 percent).

International comparison

New Zealand children have a relatively high rate of participation in early childhood education, ranking sixth equal (with Iceland, 2003) out of 29 OECD countries in the proportion of four year olds enrolled in childcare and early childhood education in 2004, or the most recent year. The New Zealand rate of 95.1 percent was considerably higher than the OECD median of 83.5 percent and higher than the rates of the United Kingdom (92.0 percent), Australia (64.6 percent in 2005) and the United States (64.1 percent in 2005).⁶⁶

⁶⁶ OECD (2008)

School truancy

Definition

The school truancy rate in this indicator is defined as the average (mean) daily number of unjustified absences from school per 100 students enrolled. Unjustified absences are absences for a half-day or more that are not explained to the satisfaction of the school.⁶⁷ Students who were unjustifiably absent from school for a half-day or more on three or more days in the week of the survey are defined as frequent truants. Both the unjustified absence rate and the frequent truancy rate have been standardised by ethnic group, school decile, sex and year level. The data comes from the Ministry of Education's Attendance Survey, conducted during one week in August 2004 and 2006.

Relevance

Students who are truant from school not only miss out on class work, but also run an increased risk of alienation from the education system and dropping out of school. Longitudinal studies of Christchurch and Dunedin children have found truancy to be a strong predictor of violence, and predictive of delinquency, substance abuse, suicidal risk, unemployment and early parenting. Linkages between truancy and crime are of considerable concern.⁶⁸ Frequent truants are the most likely to suffer long term problems.

Current level and trends

In 2006, the overall unjustified absence rate, standardised by ethnic group, school decile, sex and year level, was 2.3 percent. This was slightly higher than the rate in 2004 (2.1 percent).

The standardised frequent truancy rate in 2006 was 1.1 percent, slightly above the 2004 rate of 1.0 percent.

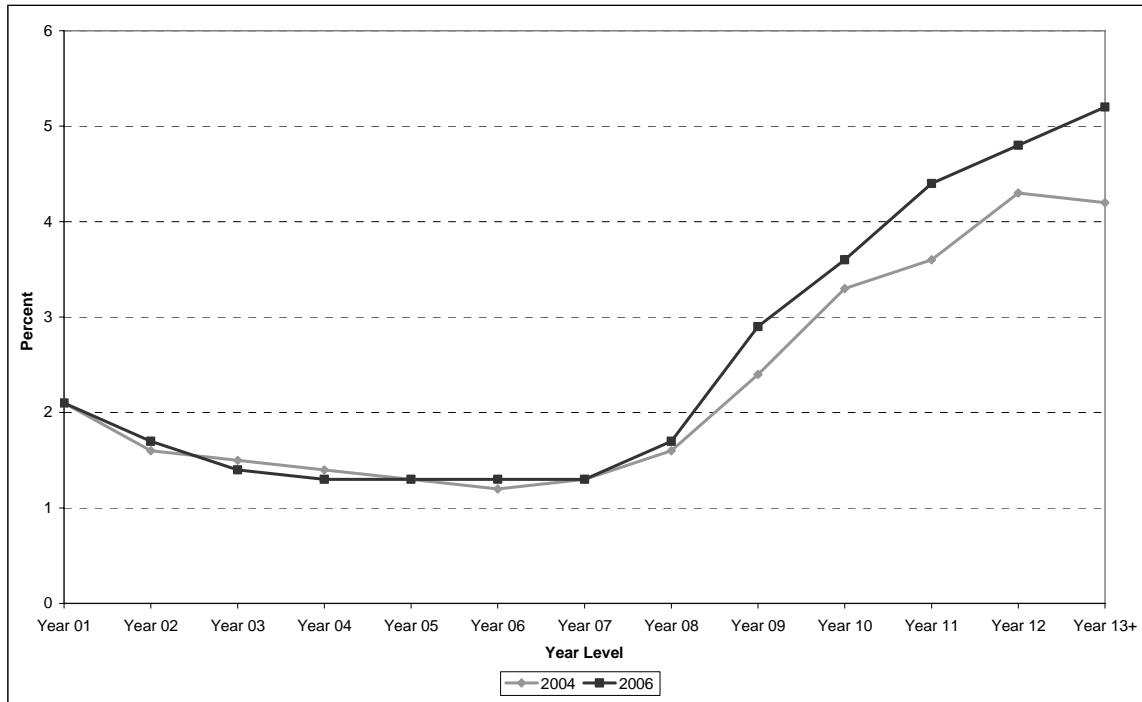
Age and sex differences

Age is a factor in truancy. Unjustified absence rates for primary and intermediate school-age children (Year 1 to Year 8) are substantially lower than those for secondary school-age students. For secondary school-age students, the percentage of unjustified absences increases with years at school. The increase in the rate between 2004 and 2006 occurred at Year 9 and above.

⁶⁷ Intermittent unjustified absences, of less than half a day, which include arriving late and skipping classes, are not included in this indicator.

⁶⁸ Ministry of Education [2007]

Figure E3.1 **Standardised unjustified absence rate by Year Level, 2004 and 2006**



Source: Ministry of Education

Notes:

- (1) This measure relates to the number of days that individuals truant.
- (2) The rate has been standardised by ethnic group, sex and school decile.
- (3) Absences in Year 13, the last year of school, are difficult to interpret without additional information.

In general, truancy rates for boys and girls were very similar at all levels below secondary school. From Year 10, girls were slightly more likely than boys to be unjustifiably absent.

When standardised by year level, the unjustified absence rate remained slightly higher for females (2.4 percent) than for males (2.3 percent) in 2006. The frequent truancy rate was also slightly higher for females (1.2 percent) than males (1.1 percent).

Ethnic differences

Ethnicity is a significant factor with regard to truancy from school. In 2006, standardised unjustified absence rates for Māori and Pacific students (5.0 percent and 4.2 percent, respectively) were 3–4 times higher than the rates for New Zealand European students (1.3 percent) and Asian students (1.2 percent).

Frequent truancy is more common for Māori and Pacific male and female students than for their New Zealand European or Asian counterparts. Māori students (2.7 percent) were 4.5 times as likely as New Zealand European students (0.6 percent) or Asian students (0.5 percent) to be frequent truants, while the rate for Pacific students (2.0 percent) was 3.5 times higher.

While females overall had slightly higher truancy rates than males, Pacific and Asian ethnic group males had higher rates than their female counterparts.

Table E3.1 Standardised truancy rates, by ethnic group and sex, 2006

Ethnic group	Unjustified absence rate (1)			Frequent truancy rate (2)		
	Male	Female	Total	Male	Female	Total
Māori	4.8	5.1	5.0	2.5	2.8	2.7
Pacific	4.3	4.0	4.2	2.1	1.9	2.0
Asian	1.3	1.0	1.2	0.5	0.4	0.5
New Zealand						
European	1.3	1.3	1.3	0.6	0.6	0.6
Total	2.3	2.4	2.3	1.1	1.2	1.1

Source: Ministry of Education

Notes:

(1) This measure relates to the number of days that individuals truant.

(2) This measure relates to the number of individuals that truant.

(3) Percentages have been standardised by Year Level.

(4) Total includes 'Other' ethnic group.

Truancy rates increased for all ethnic groups between 2004 and 2006. The largest growth occurred for Māori students, with an increase of 17 percent in the percentage of unjustified absences.

Socio-economic differences

There is a clear gradient in truancy rates by socio-economic quintile of school. In 2006, students from schools in the lowest quintile (deciles 1 and 2), which draw their students from communities with the highest degree of socio-economic disadvantage, were over 6 times more likely to be frequent truants than students in the highest quintile (deciles 9 and 10). These differences by school quintile were evident for students in each of the main ethnic groups.

Table E3.2 Standardised frequent truancy rate, by ethnic group and school socio-economic quintile, 2006

SES Quintile	Ethnic Group				
	Māori	Pacific	Asian	NZ European	Total
1 (low SES)	3.7	2.7	0.8	1.4	2.8
2	3.0	2.2	0.8	0.8	1.6
3	2.1	1.0	0.4	0.6	0.9
4	1.5	1.1	0.4	0.5	0.6
5 (High SES)	1.0	0.7	0.3	0.4	0.5

Source: Ministry of Education

Notes:

(1) Schools in the lowest quintile (quintile 1) draw their students from communities with the highest degree of socio-economic disadvantage.

(2) This measure relates to the number of individuals that truant.

(3) As age was not provided in the Attendance Survey data, truancy percentages have been standardised by Year Level.

Regional differences

Truancy varies widely by region. In 2006, the standardised unjustified absence rate was highest in the Gisborne region (4.0 percent), followed by Northland (3.6 percent) and Bay of Plenty (3.1 percent). The lowest rates were in Otago (1.2 percent) and the Tasman region (1.4 percent), though in Otago, a majority of schools were closed on the Tuesday of the survey week because of snow. The rankings were similar for frequent truancy, with the highest rates in Gisborne (2.0 percent), Northland (1.8 percent) and Bay of Plenty (1.6 percent) and the lowest rates in Otago (0.4 percent) and Tasman (0.7 percent).

Reading literacy at age 15

Definition

The mean scores for 15-year-old New Zealand students based on the international reading literacy scales set by the Programme for International Student Assessment (PISA) study in 2006. The combined reading literacy scale is derived from three separate scales that measure relative performance in retrieving information, interpreting texts, and “reflecting on and evaluating texts” (the ability of students to relate what they have read to their knowledge, ideas and experience).

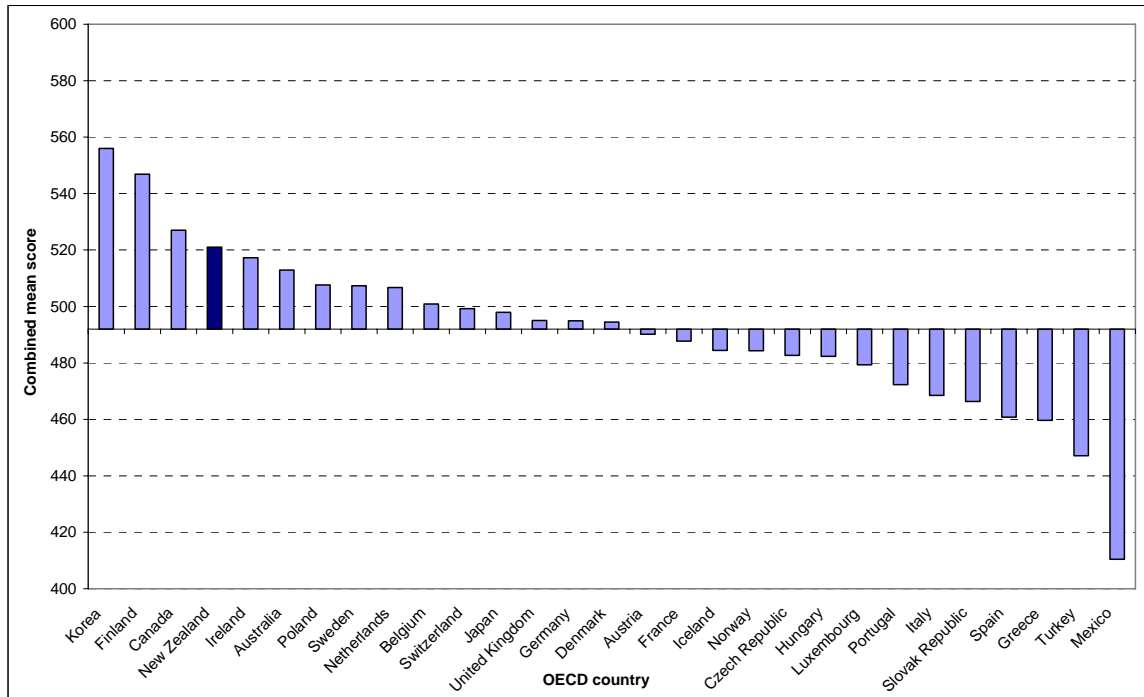
Relevance

According to the definition used in the PISA 2006 survey, “reading literacy is understanding, using and reflecting on written texts in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society”.⁶⁹ Mean performance scores are typically used to measure the quality of educational systems, while the distribution of scores is an important indicator of the equality of educational outcomes.⁷⁰

Current level and trends

In 2006, the combined mean reading literacy score for 15-year-old New Zealand students was 521, significantly higher than the OECD mean of 492.

Figure E4.1 Mean reading literacy scores of 15-year-old students in OECD countries, PISA 2006



Source: OECD (2007d), Table T6.1c

⁶⁹ OECD (2006), p 46.

⁷⁰ OECD (2001), p 54.

New Zealand had one of the widest distributions of reading literacy scores, with a gap of 344 points between the 5th and 95th percentiles, compared with an OECD average gap of 324 points. A wider spread of scores indicates a higher level of disparity between high and low achievers within a country.

New Zealand had 16 percent of its students achieving at Level 5, the top level of proficiency, compared with the OECD average of 9 percent. At the other end of the scale, 15 percent of New Zealand students scored at Level 1 or below, compared with an average of 20 percent across all OECD countries.

The achievement of New Zealand students in 2006 was similar to that recorded in 2000 when the mean reading literacy score of 15-year-old students was 529 (compared to an OECD average of 500), with 19 percent at the top level of proficiency and 14 percent at the lowest level.

Sex differences

Girls scored higher than boys on the combined reading literacy score, achieving a mean score of 539 compared with 502 for boys – a difference of 37 points. Girls were much more likely than boys to achieve at the highest level of proficiency (19 percent compared with 12 percent). At the other end of the scale, girls were much less likely than boys to be unable to demonstrate proficiency above Level 1 (10 percent compared with 20 percent).

No change in boys' performance in reading literacy was observed between 2000 and 2006. Although girls' performance decreased by 14 score points over this period, there was no significant change in the difference in performance between girls and boys.

Ethnic differences

Pākehā (European) students scored significantly higher, on average, than students from other ethnic groups, with an overall reading literacy score of 542. Asian students (528) also scored much higher than the OECD mean but significantly below European students. Māori students (477) scored higher than Pacific students (461) and both these groups were below the OECD mean.

International comparison

New Zealand 15-year-old students performed very strongly on the combined literacy reading scale, with a mean score of 521 significantly above the OECD average of 492. Only two OECD countries – Korea (556) and Finland (547) – achieved significantly better results. New Zealand's mean score was similar to those of Canada (527) and Ireland (517) and significantly higher than those of Australia (513) and the United Kingdom (495).

While girls performed better than boys, New Zealand boys and girls both performed well, on average, in international comparisons. The mean score for New Zealand girls was 539 compared with the OECD mean of 511, while the mean score for New Zealand boys was 502 compared with the OECD mean of 473.

The spread of reading literacy scores (the gap between the 5th and 95th percentile) was wider for New Zealand students (344 points) than for students in Australia (307), Canada (316) and the United Kingdom (335), although in the latter case the difference may not be significant.

New Zealand had the third largest proportion (16 percent) of 15-year-old students achieving at the highest level of reading proficiency (Level 5), after Korea (22 percent) and Finland (17 percent).

Across the OECD, 20 percent of students did not achieve beyond Level 1. The New Zealand proportion of 15 percent was statistically similar to Canada (13 percent) and Ireland (12 percent). Finland (5 percent) and Korea (6 percent) had the lowest proportions not achieving beyond Level 1.

Mathematical literacy at age 15

Definition

The mean scores for 15-year-old New Zealand students based on the international mathematics literacy scale set by the Programme for International Student Assessment (PISA) study in 2006. The combined mathematical literacy scale is derived from measurement of four content areas: quantity (related to number), change and relationships (related to algebra), space and shape (related to geometry) and uncertainty (related to statistics).

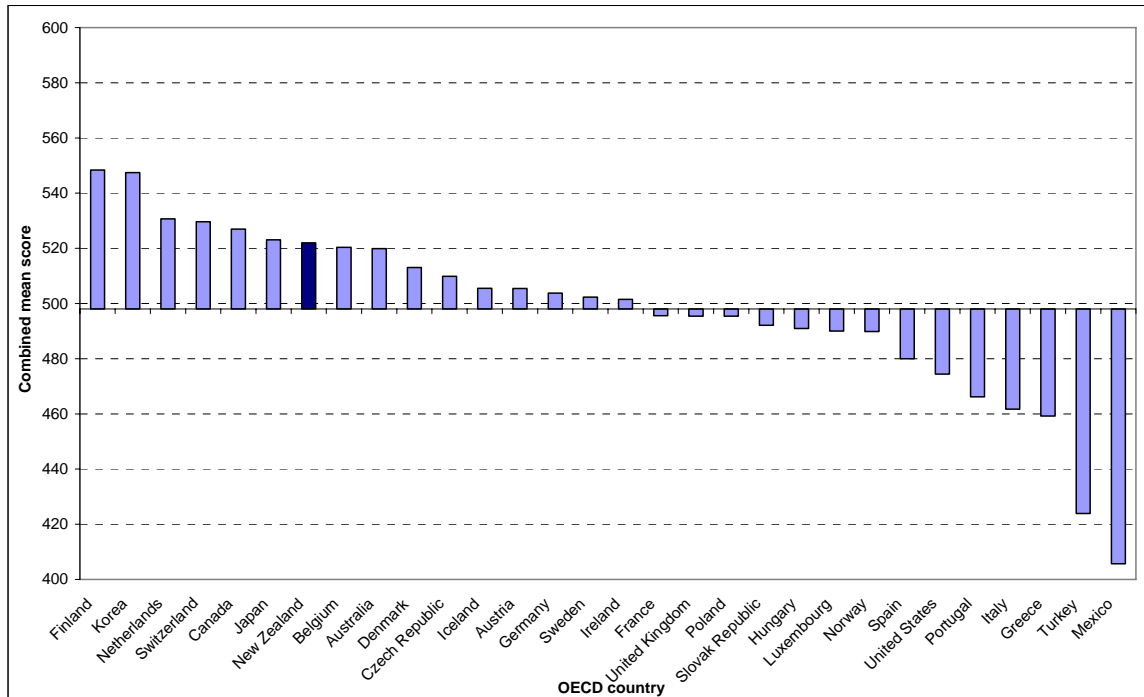
Relevance

PISA 2006 defines mathematical literacy as “an individual’s capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgements and to use and engage with mathematics in ways that meet the needs of that individual’s life as a constructive, concerned and reflective citizen”.⁷¹ As with reading literacy, the definition revolves around the wider use of mathematics in people’s lives rather than being limited to mechanical operations.

Current level and trends

In 2006, the mean score in combined mathematical literacy for 15-year-old New Zealand students overall was 522, significantly above the OECD mean of 498.

Figure E5.1 Mean mathematical literacy scores of 15-year-old students in OECD countries, PISA 2006



Source: OECD (2007d), Table T6.2c

⁷¹ OECD (2006), p 72.

New Zealand's spread of mathematical literacy scores (the gap between the 5th and 95th percentiles), at 306 points, was similar to the OECD average gap of 300 points. A wider spread of scores indicates a higher level of disparity between high and low achievers within a country.

Nineteen percent of New Zealand students were in the highest mathematical literacy levels, attaining at Level 5 or above, compared with an OECD average of 13 percent. At the other end of the scale, 14 percent of New Zealand students scored at Level 1 or below, compared with an OECD average of 21 percent.

There was no significant change in the overall performance of New Zealand students between 2003 and 2006 (results from the 2000 study are not directly comparable with later years).

Sex differences

On average, boys (527) had better mathematical literacy scores than girls (517). Boys were more likely than girls to be in the top three levels of mathematical literacy (44 percent compared with 38 percent). However, the same proportion of boys and girls (14 percent) were at the lowest levels of proficiency, achieving at Level 1 or below.

Ethnic differences

On average, Pākehā (European) and Asian students performed significantly better than Māori and Pacific students. The difference between the mean scores for European (539) and Asian (548) students was not statistically significant but both were considerably higher than those for Māori (479) and Pacific (463) students.

International comparison

New Zealand students performed strongly in mathematical literacy, with the mean score of 522 being significantly above the OECD mean of 498. Only three OECD countries (5 countries overall) performed significantly higher than New Zealand which had a mean score similar to that of Canada (527) and Australia (520), but significantly higher than those of the United Kingdom (495) and the United States (474). New Zealand's position relative to these four countries was similar for both girls and boys.

New Zealand boys and girls both performed well, compared to their international counterparts, achieving mean scores higher than the OECD average for their sex. For both sexes, the mean score for New Zealand was similar to those of Canada and Australia, and higher than those of the United Kingdom and the United States.

The spread of scores among New Zealand students (a gap of 306 points between the 5th and the 95th percentile) compares with that of students in the United States (297), the United Kingdom (292), Australia (289) and Canada (281).

Only five OECD countries had higher proportions of students achieving the three highest levels of mathematical literacy than New Zealand (41 percent). This was a similar proportion to that of Canada (43 percent) and Australia (40 percent), but considerably higher than the proportion of students reaching these levels in the United Kingdom (29 percent) and the United States (23 percent).

At the other end of the scale, only 3 OECD countries had lower proportions of students achieving no higher than Level 1. Canada (11 percent), Australia (13 percent) had similar proportions of low achievers to New Zealand (14 percent), while the United Kingdom (20 percent) and particularly the United States (28 percent) had higher proportions.

Scientific literacy at age 15

Definition

The mean scores for 15-year-old New Zealand students based on the international scientific literacy scale set by the Programme for International Student Assessment (PISA) study in 2006. The combined scientific literacy scale is derived from an assessment of three scientific competencies (identifying scientific issues, explaining phenomena scientifically and using scientific evidence) and two scientific knowledge areas (knowledge of science and knowledge about science.)

Relevance

For the purposes of PISA 2006, scientific literacy refers to an individual's:

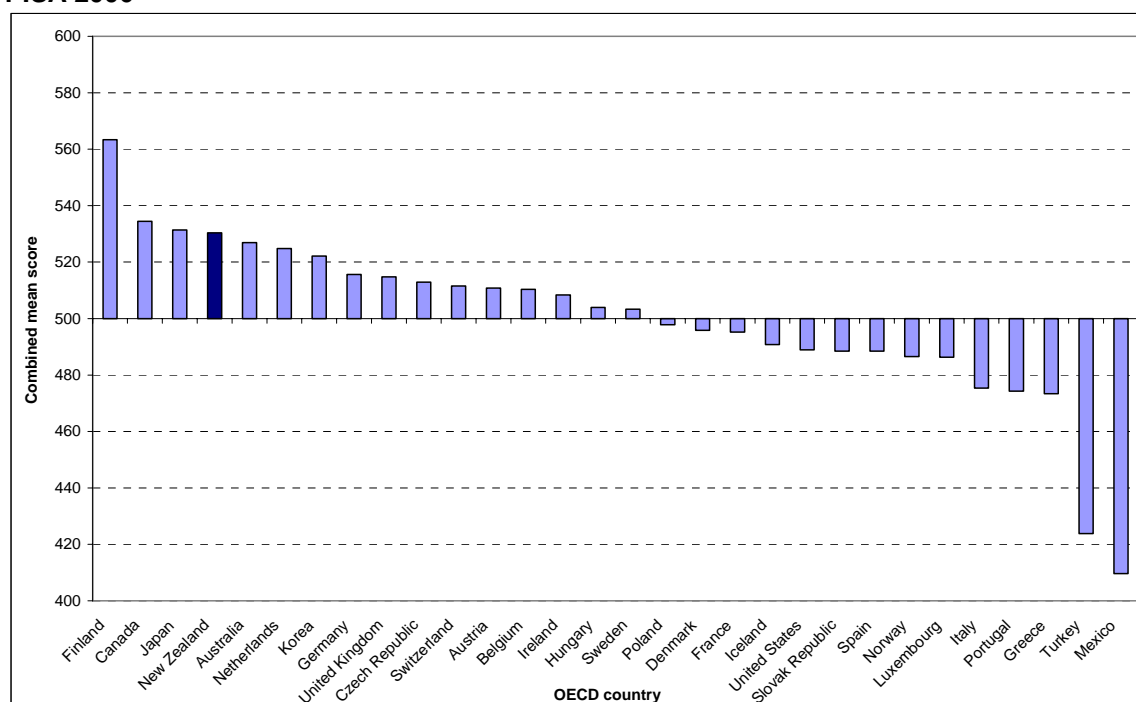
- scientific knowledge and use of that knowledge to identify questions, acquire new knowledge, explain scientific phenomena and draw evidence-based conclusions about science-related issues;
- understanding of the characteristic features of science as a form of human knowledge and enquiry;
- awareness of how science and technology shape our material, intellectual, and cultural environments; and
- willingness to engage in science-related issues and with the ideas of science, as a reflective citizen.⁷²

Current level and trends

In 2006, the mean performance in scientific literacy for 15-year-old New Zealand students overall was 530 score points, significantly above the OECD mean of 500.

⁷² OECD (2006), p 23.

Figure E6.1 **Mean scientific literacy scores of 15-year-old students in OECD countries, PISA 2006**



Source: OECD (2007), Table 2.1c

When compared with other OECD countries, New Zealand had the widest spread of science scores with a range of 352 points between the fifth and 95th percentiles. The average gap among the OECD countries was 311 points. A wider spread of scores indicates a higher level of disparity between high and low achievers within a country.

Eighteen percent of New Zealand students attained the highest scientific literacy levels, reaching Level 5 or higher, compared with an OECD average of 9 percent. At the other end of the scale, 14 percent of New Zealand students scored at Level 1 or lower, compared with an OECD average of 19 percent.

Comparisons with earlier years are not possible because of changes in the way scientific literacy is measured in the survey.

Sex differences

There was no significant difference in the performance of girls (532) and boys (528) on the combined scientific literacy scale. Similar proportions of girls (17 percent) and boys (18 percent) performed at the top two levels of proficiency, while at the lower end of the scale slightly fewer girls (12 percent) than boys (15 percent) failed to demonstrate proficiency above Level 1.

Ethnic differences

On average, Pākehā (European) and Asian students performed significantly better than Māori and Pacific students. On the combined scientific literacy scale European students scored an average of 554 points while Asians scored 541, both significantly above the OECD average of 500. Māori students scored an average of 480 and Pacific students 454.

International comparison

On the combined scientific literacy scale only one OECD country (Finland, 563) performed significantly better than New Zealand. New Zealand's performance (530) was about the same as that of Canada (534) and Australia (527). It was significantly better than the performance of the United Kingdom (515) and the United States (489).

New Zealand boys and girls both performed well, compared to their international counterparts, achieving mean scores higher than the OECD average for their sex. For both sexes, the mean score for New Zealand was similar to those of Canada and Australia, and higher than those of the United Kingdom and the United States.

The spread of scientific literacy scores among New Zealand students (a gap of 352 points between the 5th and the 95th percentile) was similar to that in the United Kingdom (348) and the United States (344), but wider than that of students in Australia (328) and Canada (309).

Only one OECD country (Finland) had a significantly higher proportion of students achieving the three highest levels of scientific literacy than New Zealand. At 42 percent, the New Zealand figure was similar to that of Canada (42 percent) and Australia (39 percent), but higher than the proportion of students reaching these levels in the United Kingdom (36 percent) and the United States (27 percent).

At the other end of the scale, only two OECD countries had significantly lower proportions of students achieving no higher than Level 1 than New Zealand. Canada (10 percent), Australia (13 percent) had similar proportions of low achievers to New Zealand (14 percent), while the United Kingdom (17 percent) and the United States (24 percent) had higher proportions.

Retention of students in senior secondary schools

Definition

The percentage of students staying on at school to age 17.

Relevance

Completion of upper secondary education is associated with a range of economic and social benefits. When students are successfully engaged in senior secondary school they are more likely to acquire the skills and knowledge required for participation in our increasingly knowledge-based society. The positive effect of each additional year of schooling on incomes has been estimated to range from 5 to 10 percent.⁷³ Staying at school can also help young people's social adjustment. New Zealand research has found that staying at school to the seventh form helps boys in particular, by providing stability as they negotiate their way through "the chaos of adolescence".⁷⁴

Current level and trends

In 2006, an estimated 71.1 percent of students stayed at school to their 17th birthday. This figure comes from a new measure of senior secondary school retention, based on electronic student rolls.

For trends in retention rates over time, a different measure is used, based on snapshots of aggregate data at 1 July each year.⁷⁵

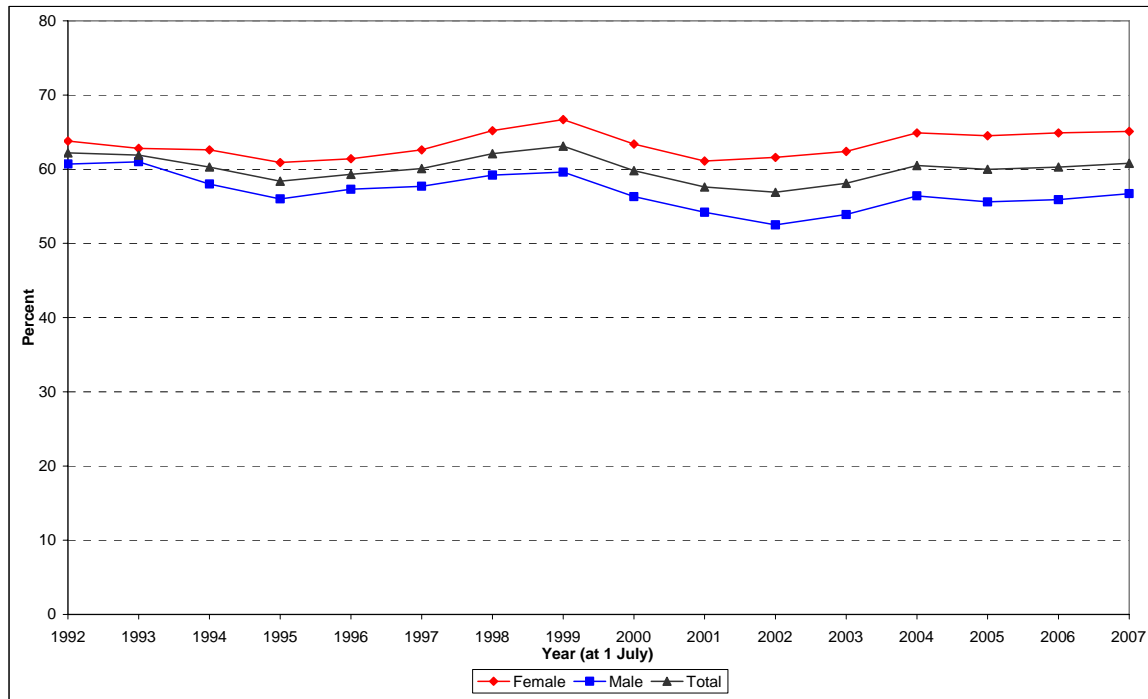
Retention rates for students aged 17.5 years decreased during much of the 1990s, then rose from 1996 to peak at 63.1 percent in 1999. After falling sharply to 56.9 percent in 2002, the student retention rate to age 17.5 recovered to 60.5 percent in 2004. The rate was 60.8 percent in 2007, representing very little change over the last four years.

⁷³ Norton et al. (2000)

⁷⁴ Lashlie C (2005)

⁷⁵ Aggregate roll returns only capture the age of students in years. Therefore, the indicator is a measure of those who stay at school to age 17.5 (on average). Since the denominator for the measure is the number of students in the 1 July roll return from the year students were aged 14.5 years, on average, net migration can also affect results.

Figure E7.1 **Estimated proportion of students staying on at school to age 17.5, by sex, 1992–2007**



Source: Ministry of Education

Notes:

(1) The figures in the table represent the proportion of 14.5 year olds, as at 1 July, still enrolled at school 3 years later.

(2) This measure is calculated from aggregate roll return data which captures the age of the students in whole years. Therefore, a student aged 17 on 1 July could be between 17 years and 0 days and 17 years and 364 days. Statistically it is a measure of those who stay at school to age 17.5 years, on average.

Sex differences

Females are more likely than males to stay at school to age 17.5 (65.1 percent and 56.7 percent, respectively, in 2007). This difference has changed little since 2000, but is markedly different from the early 1990s when females and males had similar retention rates.

Ethnic differences

Using the new measure of retention for 2006, Māori students had the lowest estimated proportion of students remaining at school to age 17, with 53.4 percent. This compares with an estimated retention rate of 75.4 percent for Pacific students and 72.2 percent for European/Pākehā students.

Table E7.1 Estimated proportion (%) of domestic students staying on at school, by age and ethnic group, 2006

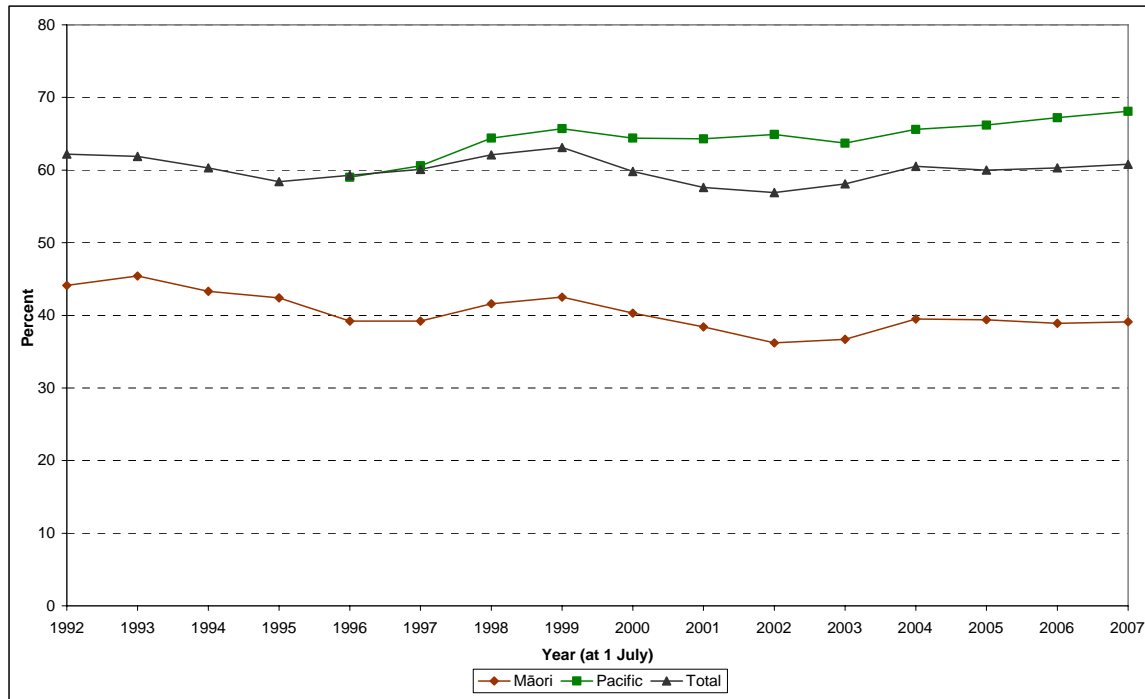
Ethnic Group	Age at leaving school		
	16 years old and above	17 years old and above	18 years old and above
Māori	80.6	53.4	20.2
Pacific	93.8	75.4	36.0
Asian	98.7	91.9	52.6
European/Pākehā	92.0	72.2	31.3
Total	90.8	71.1	32.0

Source: Ministry of Education

Note: These measures were calculated using the proportions of school leavers aged 16 or above, 17 or above, and 18 or above from a file of disaggregated school leaver records. As the data included just over 90% of school leavers, all figures are estimates.

Using the aggregate measure, in 2007, 39.1 percent of Māori remained at school to age 17.5, compared with 68.1 percent for Pacific students and 62.0 percent for European/Pākehā. The gap between Māori and non-Māori in the rate of students remaining at school to age 17.5 has not narrowed over time.

Figure E7.2 Estimated proportion of students staying on at school to age 17.5, by ethnic group, 1992–2007



Source: Ministry of Education

Notes:

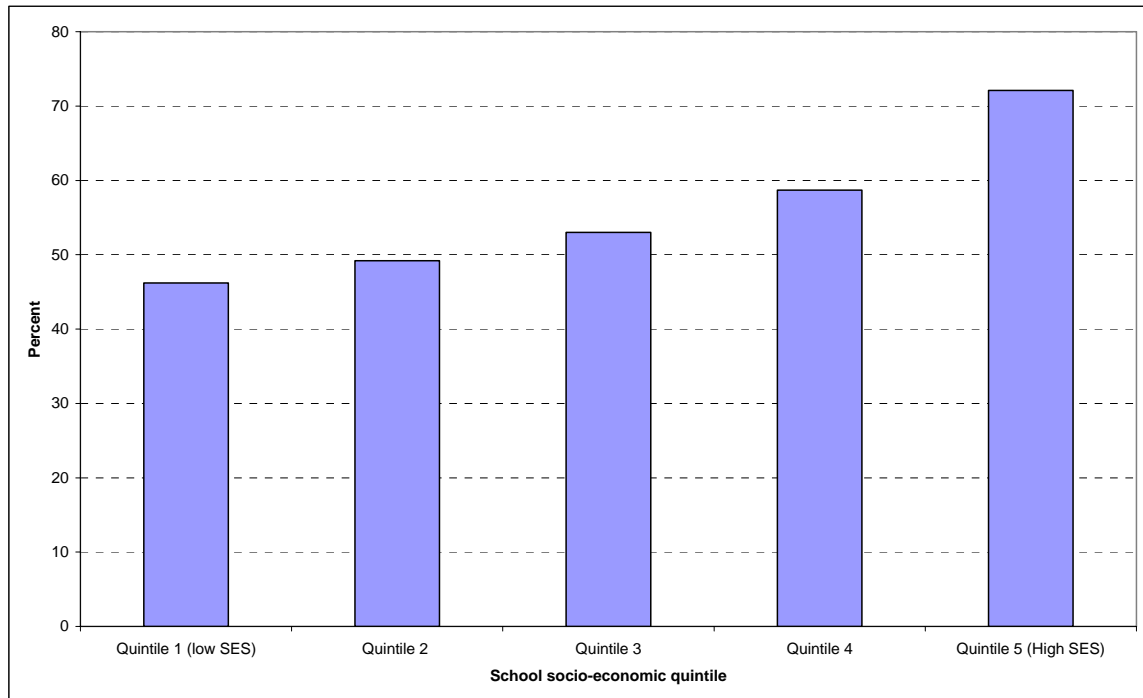
(1) The figures in the graph represent the proportion of 14.5 year olds, as at 1 July, still enrolled at school 3 years later.

(2) This measure is calculated from aggregate roll return data which captures the age of the students in whole years. Therefore, a student aged 17 on 1 July could be between 17 years and 0 days and 17 years and 364 days. Statistically it is a measure of those who stay at school to age 17.5 years, on average.

Socio-economic differences

There is a clear correlation between school quintile (the socio-economic mix of the school the student attended) and the proportion of students remaining at school to age 17.5. Schools in the highest quintile (deciles 9 and 10) draw their students from communities with the lowest degree of socio-economic disadvantage. In 2007, students from these schools were 56 percent more likely to remain at school to age 17.5 than students in the lowest quintile (deciles 1 and 2).

Figure E7.3 Estimated proportion of students staying on at school to age 17.5, by school socio-economic quintile, 2007



Source: Ministry of Education

Notes

(1) The figures in the graph represent the proportion of 14.5 year olds, as at 1 July, still enrolled at school 3 years later.

(2) This measure is calculated from aggregate roll return data which captures the age of the students in whole years. Therefore, a student aged 17 on 1 July could be between 17 years and 0 days and 17 years and 364 days. Statistically it is a measure of those who stay at school to age 17.5 years, on average.

Regional differences

There is wide regional variation in the rate at which students stay on to senior secondary school. In 2007, the Auckland region (67.6 percent) had the highest rate of student retention to age 17.5, followed by Wellington (66.3 percent) and Otago (65.2 percent). The West Coast region had the lowest rate (40 percent), with Northland (45.8 percent) the Gisborne region (47.3 percent) and Marlborough (48.4 percent) all recording less than 50 percent.

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.

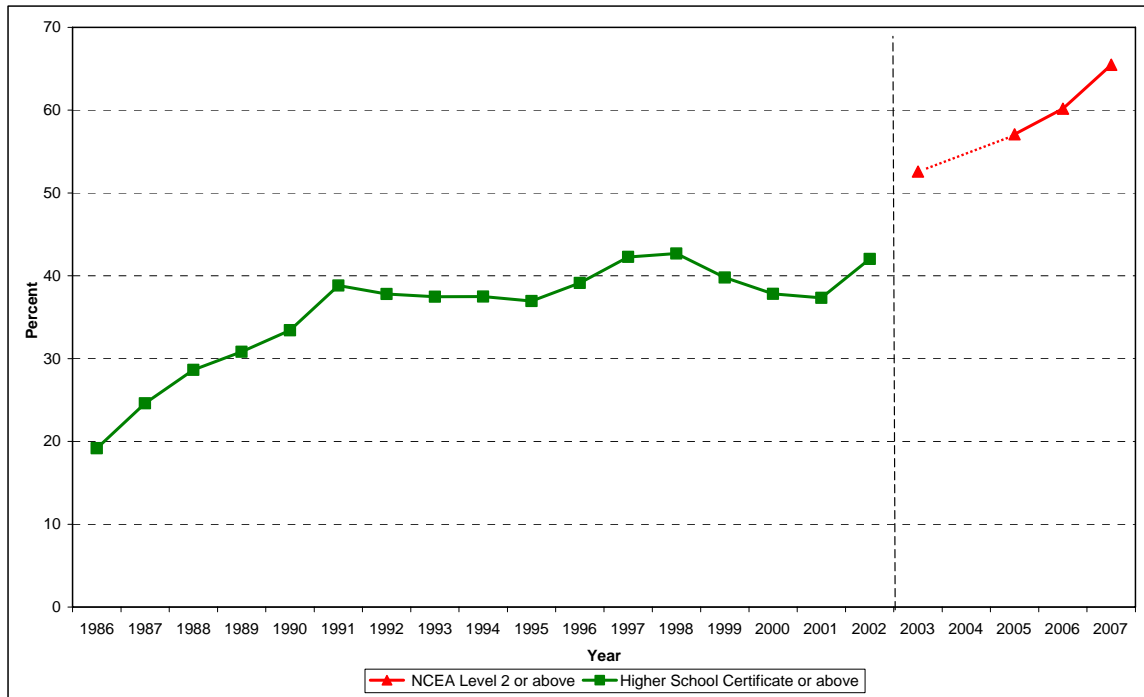
Relevance

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.⁷⁶

Current level and trends

In 2007, 66 percent 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 percent (34,000 students). 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 E8.1 includes the proportion of school leavers who left with Higher School Certificate and above for the years 1986 to 2002.

Figure E8.1 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

Note: Because of methodological changes in the allocation of attainment levels in 2004, the data for that year is not comparable with other years and has been omitted. Sex differences

⁷⁶ OECD(2007a)

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 E8.1 Proportion (%) of school leavers with NCEA Level 2 or above, by sex, 2003, 2005–2007

Year	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 for all ethnic groups in the proportion of students leaving with a qualification at NCEA Level 2 or above. The increase was greater for Māori and Pacific students than for European and Asian students.

Table E8.2 Proportion (%) of school leavers with NCEA Level 2 or above, by ethnic group, 2003, 2005–2007

Year	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 percent of school leavers from deciles 1–3 schools (in the most disadvantaged communities) attained qualifications at NCEA Level 2 or above, compared with 62 percent of those leaving deciles 4–7 schools and 79 percent of those leaving deciles 8–10 schools.

Regional differences

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

Participation in tertiary education

Definition

The proportion of the population aged 18–24 years 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 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.

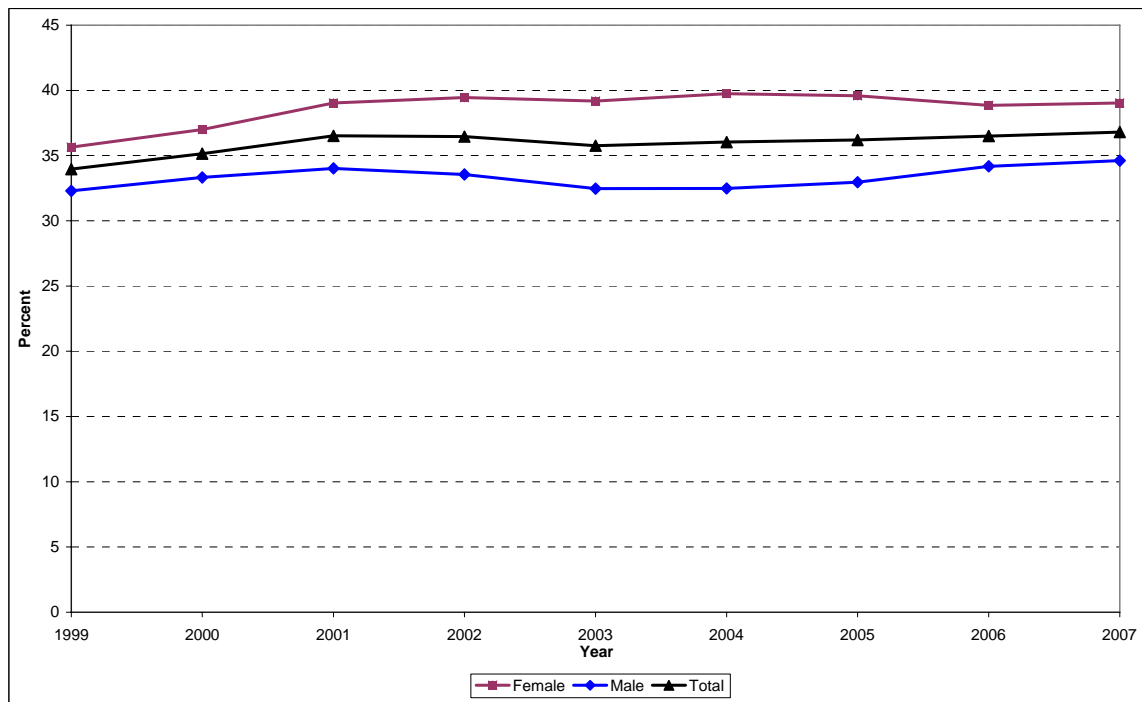
Relevance

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

Current level and trends

During 2007, 36.8 percent of young people aged 18–24 years (154,000 people) were enrolled in formal tertiary education, a marginal increase on the proportion in 2006 (36.5 percent, or 150,600 people). The tertiary education participation rate for 18–24 year olds increased between 1999 and 2001, fell slightly between 2002 and 2003, and increased very gradually between 2003 and 2007.

Figure E9.1 Tertiary education participation rate, 18–24 years, 1999–2007



Source: Ministry of Education

Sex and age differences

Young women are more likely than young men to be enrolled in tertiary study. In 2007, the tertiary participation rate of females aged 18–24 was 39.0 percent, while the rate for males of that age was 34.6 percent. Between 1999 and 2001, the tertiary participation rate increased for both sexes aged 18–24 years, but more for females than males. Over the next two years the male rate dropped slightly while the female rate held steady. As a result, the sex gap increased from 3 to 7 percentage points between 1999 and 2003. From 2004 the male tertiary participation rate recovered, narrowing the sex gap to 4 percentage points in 2007. There is a greater sex difference in the tertiary participation rate at 18–19 years than at 20–24 years.

Table E9.1 Tertiary participation rates (%) at 18–24 years, by age and sex, 1999–2007

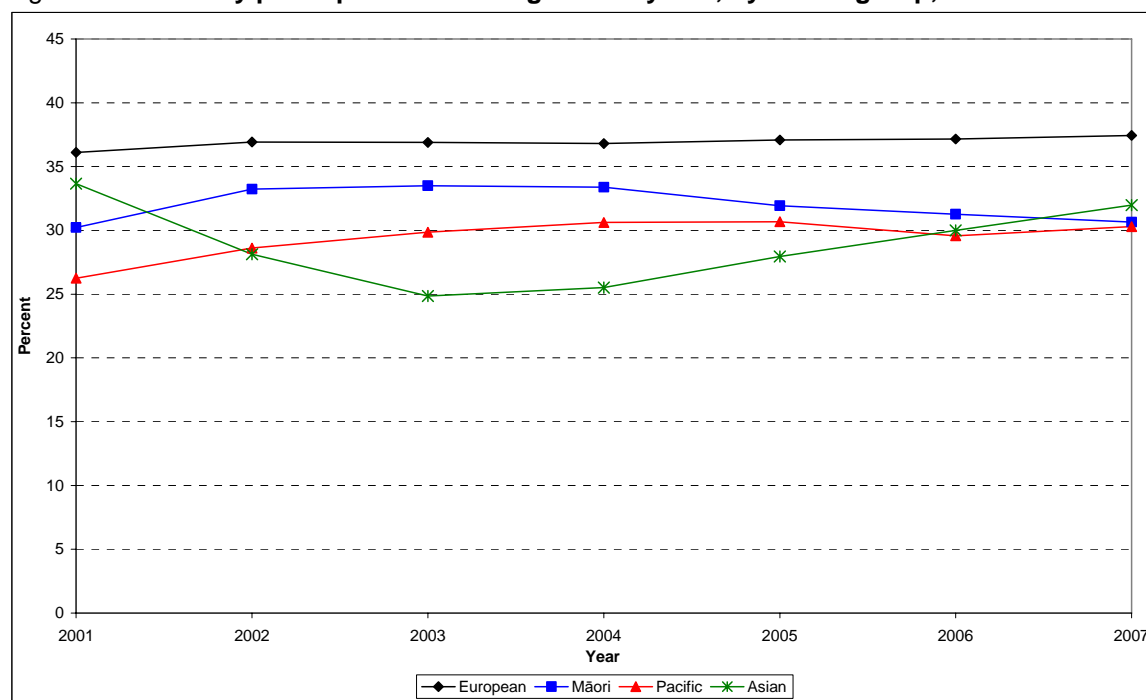
Year	Male			Female		
	18–19	20–24	18–24	18–19	20–24	18–24
1999	40.3	28.9	32.3	46.5	31.1	35.6
2000	40.7	30.1	33.3	47.2	32.7	37.0
2001	40.6	31.1	34.0	48.6	35.0	39.0
2002	39.7	30.8	33.6	47.2	36.1	39.4
2003	38.6	29.8	32.5	46.7	36.0	39.2
2004	39.5	29.6	32.5	47.9	36.4	39.8
2005	40.9	29.7	33.0	48.6	35.9	39.6
2006	42.3	30.7	34.2	48.8	34.8	38.9
2007	42.7	31.2	34.6	49.6	34.6	39.0

Source: Ministry of Education

Ethnic differences

The European ethnic group had the highest tertiary education participation rate at 18–24 years in 2007 (37 percent). The rate for the Asian ethnic group (32 percent) was slightly above that of Māori and Pacific ethnic groups (31 percent and 30 percent respectively). Between 2002 and 2007, the tertiary participation rate of 18–24 year olds remained steady for the European ethnic group, declined for Māori and increased for Pacific peoples. The rate for Asian young people fell sharply between 2001 and 2003 but had almost recovered to its 2001 level by 2007.

Figure E9.2 Tertiary participation rate at age 18–24 years, by ethnic group, 2001–2007



Source: Ministry of Education

In each of the main ethnic groups, females have higher tertiary participation rates than males. The sex difference is greatest for Māori and Pacific students.

Table E9.2 Tertiary participation rates (%), 18–24 years, by ethnic group, 2001–2007

Year	Male				Female			
	European	Māori	Pacific	Asian	European	Māori	Pacific	Asian
2001	34.2	24.8	23.0	33.7	38.1	35.5	29.4	33.7
2002	35.0	25.2	24.3	27.5	38.9	41.1	32.8	28.8
2003	34.5	25.1	24.6	23.9	39.4	41.8	35.1	25.9
2004	34.1	25.3	24.6	24.2	39.6	41.5	36.6	26.9
2005	34.6	25.0	24.9	26.4	39.6	38.9	36.6	29.6
2006	35.6	25.7	24.7	29.7	38.7	36.6	34.4	30.3
2007	35.8	26.2	25.2	31.8	39.1	34.9	35.4	32.2

Sources: Ministry of Education

International comparison

There are no robust measures of tertiary participation across OECD countries. Some indication of New Zealand's relative standing can be gained from the proportion of people enrolled in education at diploma and degree level at various ages. In 2005, 30 percent of 18–24 year olds were enrolled in education at diploma or degree level, placing New Zealand seventh out of 28 countries. This was above the OECD median of 27 percent. The New Zealand rate was higher than those of the United Kingdom (22 percent), Canada (28 percent) and Australia (29 percent) but below the rate for the United States (36 percent).⁷⁷ Note, however, that the OECD data also includes international students, excluded from the analysis above.

⁷⁷ OECD Stat data extracted on 16.7.08. Some of what is called tertiary education in NZ is below ISCED level 5 and hence is classified by the OECD as 'post-secondary non-tertiary'. The comparison in this paragraph relates only to enrolments at ISCED levels 5 and 6.

Tertiary qualification completion

Definition

The number of 18–24 year olds who graduated or completed a qualification at a tertiary education institute, as a proportion of all 18–24 year olds.

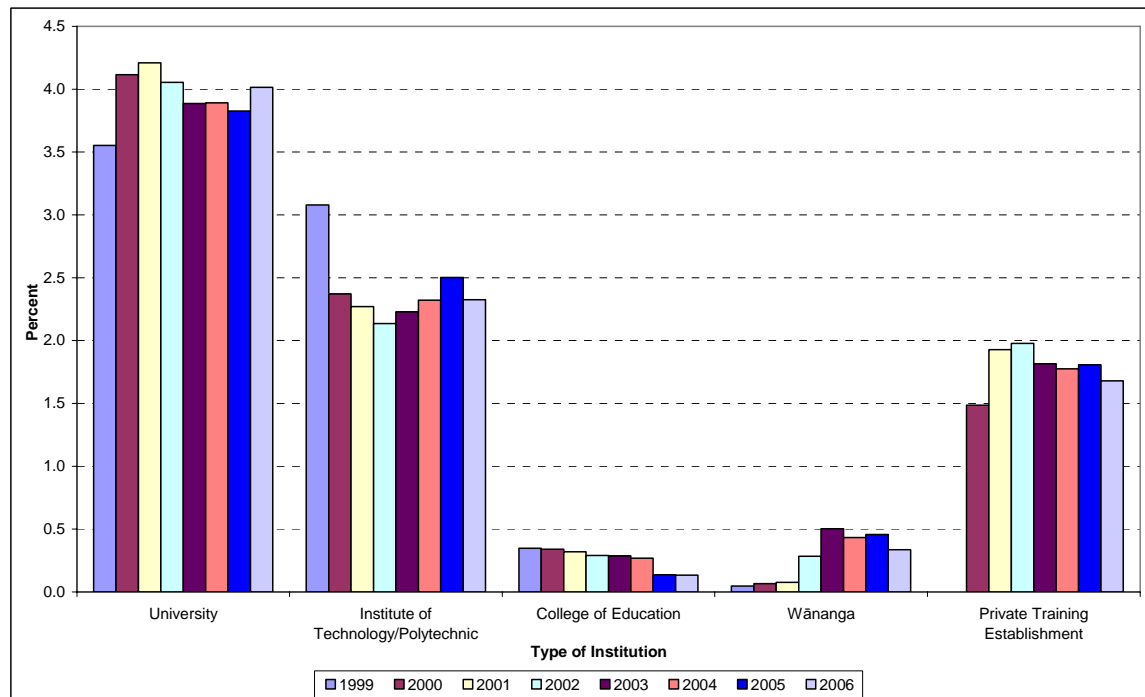
Relevance

Qualification completion rates at the core tertiary participation age is a useful measure of the skill acquisition of young people as they enter adulthood. The term “completion” refers to successful completion of a qualification, rather than a course. Course completion rates will generally be much higher than qualification completion rates as most qualifications will require the successful completion of a large number of courses to qualify the student. This measure is best viewed alongside the access measure, tertiary participation.

Current level and trends

In 2006, 34,426 students aged 18–24 years graduated or completed a qualification at a tertiary education institute. This represents 8.3 percent of all 18–24 year olds. In recent years the rate has been fairly steady, fluctuating between 8 and 9 percent from 2000 to 2006, after rising from 7 percent in 1999.

Figure E10.1 Proportion of 18–24 year olds who completed a tertiary qualification, by type of institution, 1999–2006



Source: Ministry of Education

Differences by type of institution and qualification

Despite the growing diversity of tertiary institutions, young people are still more likely to gain qualifications from a university than from other types of tertiary institution. In 2006, 4.0 percent of all 18–24 year olds completed university qualifications, 2.3 percent completed qualifications at institutes of technology or polytechnics, and 1.7 percent graduated from private tertiary establishments. Less than one percent of 18–24 year olds graduated from colleges of education and wānanga (Māori tertiary education institutions).

Bachelors degrees are the qualification most likely to be completed by young adults, with 3.5 percent of 18–24 year olds gaining such degrees in 2006. These were followed by Levels 1–3 certificates which are equivalent to a senior secondary school education (2.3 percent), Level 4 certificates and Level 5–7 diplomas which consist of mid-register qualifications and workplace learning (2.1 percent), and postgraduate qualifications (0.7 percent).

Sex differences

Young females have higher tertiary completion rates than young males (9.9 percent compared with 6.8 percent in 2006). This has been the case throughout the period 1999–2006 and the pattern is the same across all types of tertiary institutions and all award levels except doctorate level.

Table E10.1 **Proportion (%) of 18–24 year olds who completed a tertiary qualification, by sex and year of completion, 1999–2006**

Year of completion	Female	Male	Total
1999	8.1	5.8	7.0
2000	9.6	6.9	8.3
2001	10.0	7.4	8.7
2002	10.0	7.2	8.6
2003	10.2	6.9	8.5
2004	10.3	6.8	8.5
2005	10.0	7.2	8.6
2006	9.9	6.8	8.3

Source: Ministry of Education

Ethnic differences

Young Māori are less likely than non-Māori to complete tertiary qualifications, with 5.6 percent of 18–24 year old Māori doing so in 2006, compared with 8.9 percent of non-Māori. Tertiary completion rates rose faster for young Māori than for non-Māori between 1999 and 2003 but in subsequent years the Māori rate has declined while the rate for non-Māori has remained steady.

Table E10.2 Proportion (%) of 18–24 year olds who completed a tertiary qualification, Māori and non-Māori, by sex and year of completion, 1999–2006

Year of completion	Māori			Non-Māori		
	Female	Male	Total	Female	Male	Total
1999	4.8	3.6	4.2	8.9	6.3	7.6
2000	6.1	4.4	5.3	10.5	7.5	9.0
2001	6.6	5.2	5.9	10.8	7.9	9.3
2002	8.6	5.1	6.9	10.3	7.7	9.0
2003	9.7	5.2	7.5	10.3	7.3	8.8
2004	9.0	4.8	7.0	10.5	7.2	8.9
2005	8.1	4.8	6.5	10.4	7.7	9.0
2006	7.1	4.1	5.6	10.6	7.3	8.9

Source: Ministry of Education

Māori are more likely than non-Māori to achieve Levels 1–3 certificates (equivalent to a senior secondary school education) while non-Māori have higher rates of achievement at Bachelors degree and postgraduate levels. Among both Māori and non-Māori, young women are more likely to complete qualifications than young men. Although young Māori women are much more likely than young Māori men to complete degree level or postgraduate qualifications, they are still considerably less likely to do so than young non-Māori women.

Table E10.3 Proportion (%) of 18–24 year olds who completed a tertiary qualification, Māori and non-Māori, by sex and qualification type, 2006

Qualification type	Māori			Non-Māori		
	Female	Male	Total	Female	Male	Total
Levels 1–3 Certificate	3.3	2.0	2.7	2.6	2.0	2.3
Level 4 Certificate or Levels 5–7 Diploma	2.1	1.2	1.7	2.6	1.8	2.1
Bachelors degree	1.7	0.9	1.3	4.9	3.2	4.0
Postgraduate qualification	0.3	0.1	0.2	1.0	0.7	0.8
Total	7.1	4.1	5.6	10.7	7.3	8.9

Source: Ministry of Education.

Five-year completion rates

Of those 20–24 year olds who began studying for a tertiary qualification in 2002, 42 percent had completed by the end of 2006. The five-year completion rate was higher for females (46 percent) than for males (37 percent). It was also higher for people belonging to Asian ethnic groups (48 percent) than for Europeans (43 percent), Māori (41 percent) or Pacific students (34 percent). Students at private training establishments were the most likely to complete their qualifications within five years (47 percent), followed by those at universities (40 percent), while the least likely to finish in this time were those at institutes of technology or polytechnics (31 percent).

International comparison

In 2005 New Zealand had the third highest tertiary type A (degree-level qualification) graduation rate across 24 countries, with 51.3 percent of people at the typical age of graduation completing a tertiary type A qualification. New Zealand's rate was lower than Australia's (59.4 percent) but considerably higher than that of the United Kingdom (39.4 percent) and the United States (34.2 percent). The OECD average was 36.4 percent.

Economic security

Children without a parent in paid work

Children and young people living in low-income households

Unemployment

Employment

Median hourly earnings

Economic security

Desired outcomes

All children and young people enjoy a secure standard of living that means they can fully participate in society. All young people achieve the transition to economic independence.

Introduction

Economic security refers to the material resources which children and young people need to thrive and participate in society. It includes access to adequate income to meet basic needs such as nutritious food, appropriate clothing, healthy housing, medical care, transport and communication and other goods and services that provide a decent standard of living in a developed country in the 21st century.

Poverty during childhood, especially if prolonged, severe or occurring during the early years, can have lasting negative effects. It can affect children's health and development and educational attainment and flow through to poorer employment and earnings in adulthood.⁷⁸ Children have their own views on economic adversity. Research shows that what concerns children is not lack of resources per se, but exclusion from activities that other children appear to take for granted, and embarrassment and shame at not being able to participate on equal terms with other children.⁷⁹

For children, and for many young people under 25 years of age, economic security is dependent on the economic circumstances of their parents and caregivers. As children grow into adolescence and adulthood, having their own access to economic resources helps them establish an independent and secure future for themselves.

Paid work is the main route to economic security and it is important to social wellbeing in other ways. As well as providing income and regular social contact, employment can contribute to an individual's sense of purpose, identity and self worth, especially if the work is satisfying and rewarding, and has opportunities for skill development. Conversely, unemployment is associated with poorer mental and physical health and lower levels of life satisfaction. Young people are a vulnerable group in the labour market because of their limited skills and experience compared to older age groups. Prolonged periods of unemployment at this age can have long-term negative impacts on their wellbeing.⁸⁰

For many young people, especially those who no longer live with their parents, income from employment is a major determinant of their standard of living. Earnings from paid work enable them to engage in social and recreational activities, to support themselves while studying, or to save for future goals.

⁷⁸ Ministry of Social Development (2002)

⁷⁹ Redmond G (2008)

⁸⁰ Richardson S and Miller-Lewis L (2002) Low Wage Jobs and Pathways to Better Outcomes. New Zealand Treasury Working Paper 02/29

Indicators

There are five indicators in the Economic Security domain.

The first indicator, children without a parent in paid work, recognises that employment income is the main factor determining adequate family income and children's living standards.

Children and young people living in low-income households gives an indication of how equitably resources are distributed and how many children and young people are in households with incomes that limit their ability to participate fully in society. It is the same measure as that used in The Social Report 2008.

The third indicator, the unemployment rate, is a measure of overall economic conditions and of the ease with which youth who are seeking employment are able to obtain it. Specifically, it is the proportion of 15–24 year olds who are in the labour force (either employed or unemployed), and who are out of work and are actively seeking and available to start a job. This definition conforms closely to the international standard definitions specified by the International Labour Organization. In New Zealand it is referred to as the 'official' unemployment rate.

The fourth indicator, the employment rate, is the proportion of 15–24 year olds who are employed for one or more hours a week. As many young people, particularly those aged 15-19 years, are still enrolled in education, the youth employment rate is best considered in conjunction with the indicators on school retention and tertiary education. It is sometimes referred to as the 'employment-to-population' ratio and is one of the standard labour force measures used by the OECD.

Lastly, median hourly earnings is an indicator of the financial returns to employment for 15–24 year olds earning income from wage and salary jobs.

Children without a parent in paid work

Definition

The proportion of children under 15 years whose resident parent(s) are not in paid work (either unemployed or not in the labour force).

Relevance

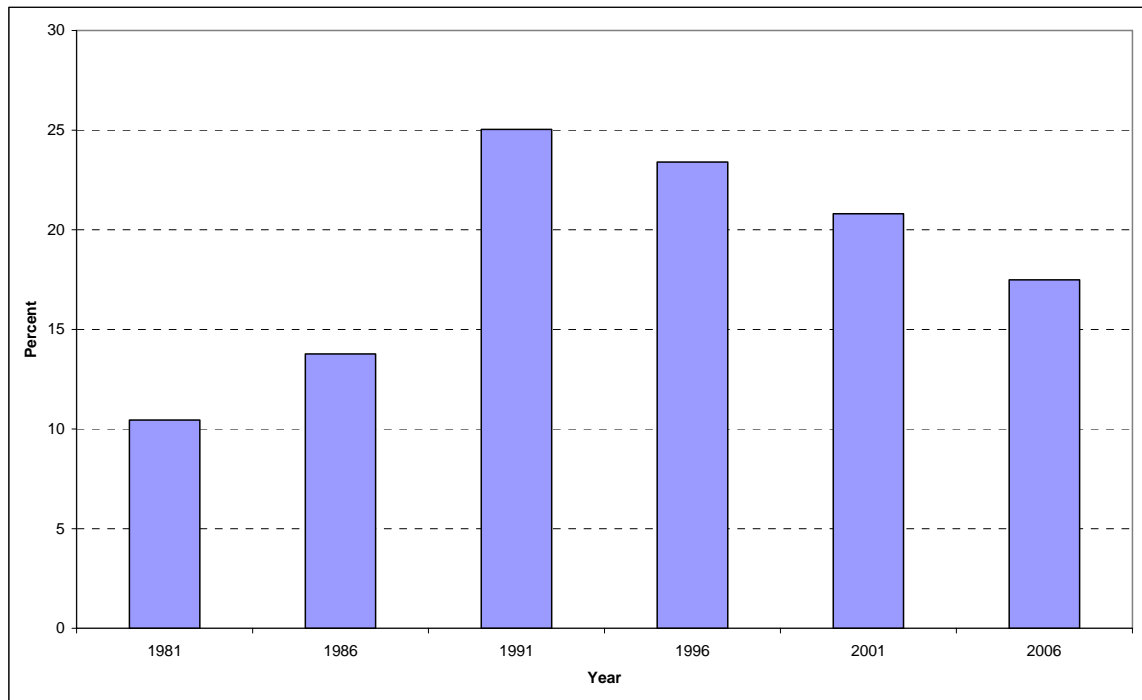
Paid work is the main source of regular income for most parents. Children living in families where market income is not the main source of income are at higher risk of experiencing low standards of living.⁸¹

Current level and trend

In 2006, 17 percent of children under 15 lived in a family with no parent employed. This was an improvement on the level in 2001 (21 percent).

During the 1980s, when economic and labour market conditions deteriorated, the proportion of children with no parent employed more than doubled. In 1981, 10 percent of children lived with parents who were out of work. By 1986 the level had risen to 14 percent and by 1991 it was 25 percent. The economic recovery that began in 1992 saw an increase in employment among parents. Over the period from 1991 to 2006, there was a steady decline in the proportion of children with no parent employed. But in 2006, the level was still higher than it had been in 1986.

Figure ES1.1 Proportion of children without a parent in paid work, 1981–2006



Source: Source: Statistics New Zealand (1995) pp 36, 37; Statistics New Zealand (1998) p 60 and unpublished census data

⁸¹ Krishnan, V, Jensen, J, Rochford, M (2002).

Differences by family type

Another factor that has influenced parental employment trends in the past twenty years is the increase in sole parenthood. Children in sole parent families are much more likely than those in two-parent families to have no parent employed (51 percent and 6 percent, respectively, in 2006). Again, there has been considerable improvement since 1991, when the levels were 75 percent and 11 percent, respectively, for children in these family types.

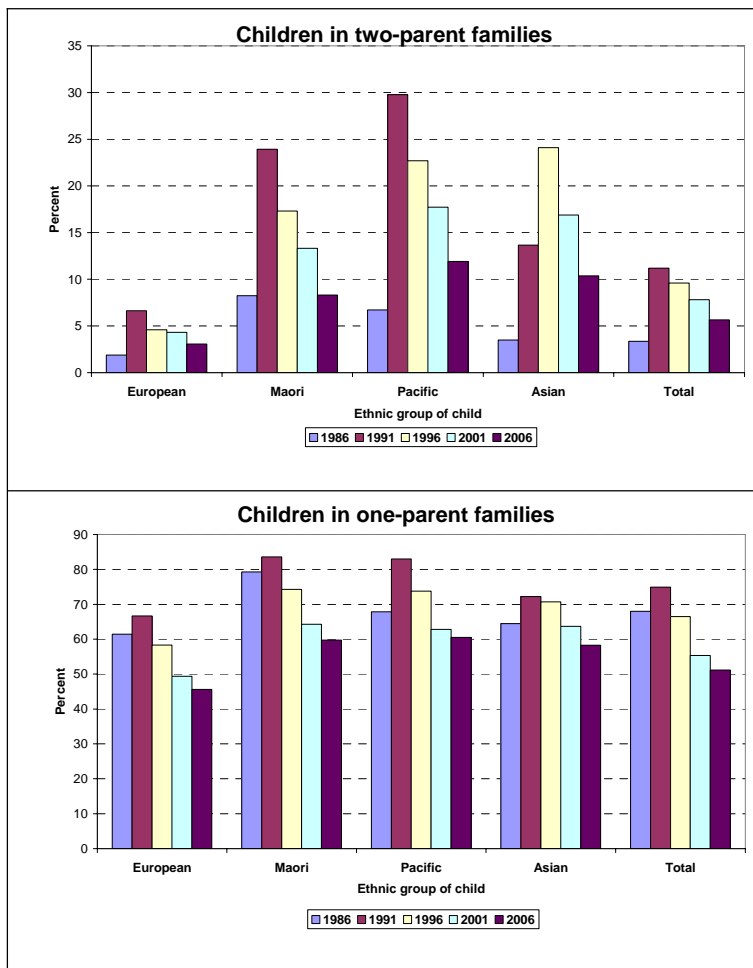
Ethnic differences

The relatively high levels of unemployment and sole parenthood among Māori and Pacific peoples mean that children in these ethnic groups are more likely than other children to have no parent in paid work. In 2006, 30 percent of Māori children were in that situation, compared with 29 percent of Pacific children, 19 percent of Asian children, and 13 percent of European children. While still relatively high, levels of parental non-employment have fallen dramatically for Māori and Pacific peoples since 1991, when 48 percent of Māori children and 45 percent of Pacific children had no parent employed.

The increase in the proportion of children with parents out of work in the 1980s was particularly strong for Māori and Pacific children living in two-parent families. The high concentration of Māori and Pacific people in manufacturing industries and production jobs led to greater job losses in these ethnic groups at that time.⁸² In 1991 Māori and Pacific children living in two-parent families were three times and four times more likely, respectively, to have both parents out of work than their equivalents in 1986.

⁸² Statistics New Zealand (1995), p35.

Figure ES1.2, ES1.3 Proportion of children without a parent in paid work, by family type and ethnic group, 1986–2006



Source: Source: Statistics New Zealand (1995) pp 36, 37; Statistics New Zealand (1998) p 60 and unpublished census data

Note: The scales in the two graphs are different.

Among children living with one parent in 2006, Māori and Pacific children had the highest proportion of parents out of work (60 percent and 61 percent, respectively), followed by Asian children (58 percent) and European children (46 percent). Comparative figures for 1991 were: Māori children (84 percent), Pacific children (83 percent), Asian children (72 percent), and European children (67 percent).

Compared with the situation in 1986, there has been an improvement in all ethnic groups for children in one-parent families, and a recovery to 1986 levels for Māori children in two-parent families. However, children of all other ethnic groups living in two-parent families remain more likely than were their counterparts in 1986 to have no parent employed.

Table ES1.1 Proportion (%) of children without a parent in paid work, by ethnic group, 1981–2006

Year	Ethnic group of child				
	European	Māori	Pacific	Asian	Total
1981	7	20	17	..	10
1986	15	40	26	8	14
1991	16	48	45	19	25
1996	14	41	38	30	23
2001	15	36	33	26	21
2006	13	30	29	19	17

Source: Statistics New Zealand (1995) pp 36, 37; Statistics New Zealand (1998) p 60 and unpublished census data

Note: In the sources for the 1981–1996 data, prioritised output for ethnic groups was used. Total response output has been used for the years 2001 and 2006, and for Asian children for all years from 1986 to 2006. Total response means that children identified with more than one ethnic group are counted once in each group reported.

Children and young people with low incomes

Definition

The proportion of dependent children aged under 18 years, and the proportion of young people aged 18–24 years, who live in households with equivalent disposable income net-of-housing-cost below selected thresholds.

Incomes are after-tax (disposable) and after deducting housing costs, and the incomes are adjusted for household size and composition. The thresholds are set at 50 percent and 60 percent of the 1998 household disposable income median, with 25 percent deducted to allow for average housing costs. The thresholds are adjusted for inflation to keep them fixed in real terms.

Relevance

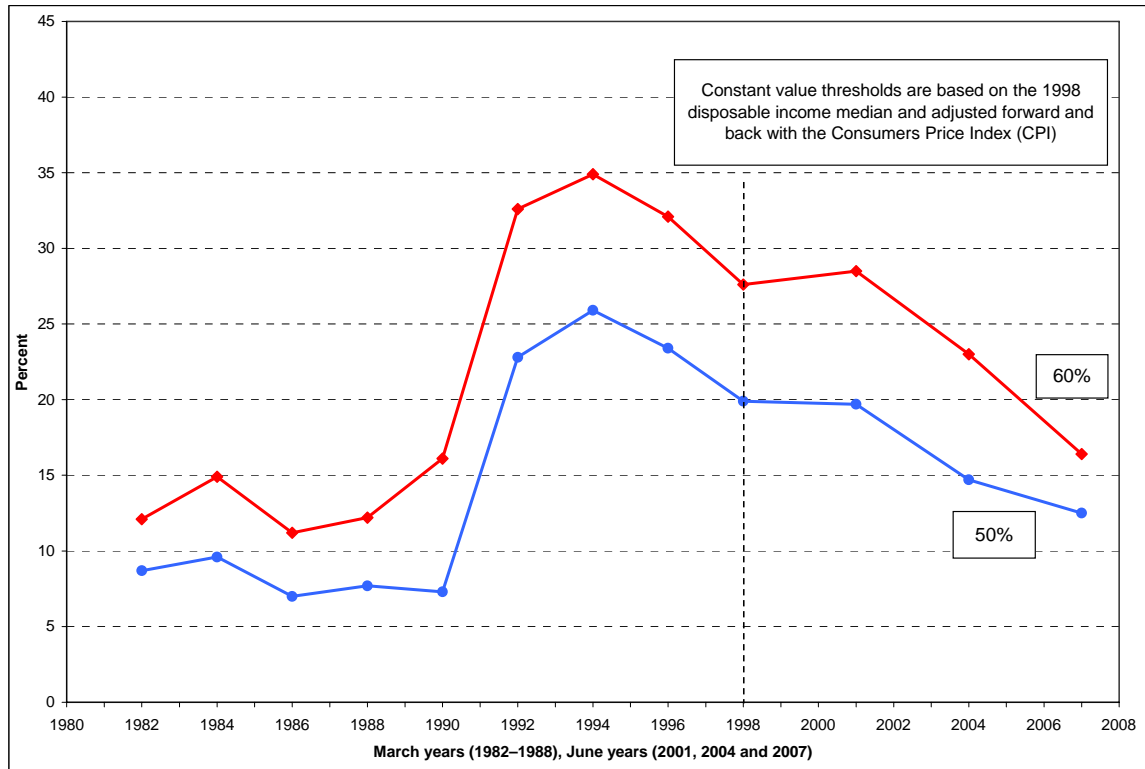
Insufficient economic resources limit people's capability to participate in and belong to their community and wider society and otherwise restrict their quality of life. Furthermore, long-lasting low family income in childhood is associated with negative outcomes, such as lower educational attainment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

Current level and trends

In the year to June 2007, 16 percent of dependent children aged under 18 years lived in households with incomes below the 60 percent threshold. This was a substantial decline from 23 percent in the previous survey year to June 2004. The proportion of children with low incomes rose sharply from 1990, peaked in 1994 and has generally declined since then. While the 2007 rate was less than half the 1994 rate of 35 percent, it was still above the 1986 rate of 11 percent.

The trend is similar using the 50 percent threshold to define low-income households. In the year to June 2007, 12 percent of dependent children lived in households with incomes below the 50 percent threshold, a decline from 15 percent in 2004. The 2007 rate was less than half the peak rate of 26 percent in 1994, but higher than the 1986 rate of 7 percent.

Figure ES2.1 Proportion of dependent children under 18 years with net-of-housing-cost household incomes below selected thresholds, 1982–1998, 2001, 2004 and 2007



Source: Perry (2008) Table F5 (constant value)

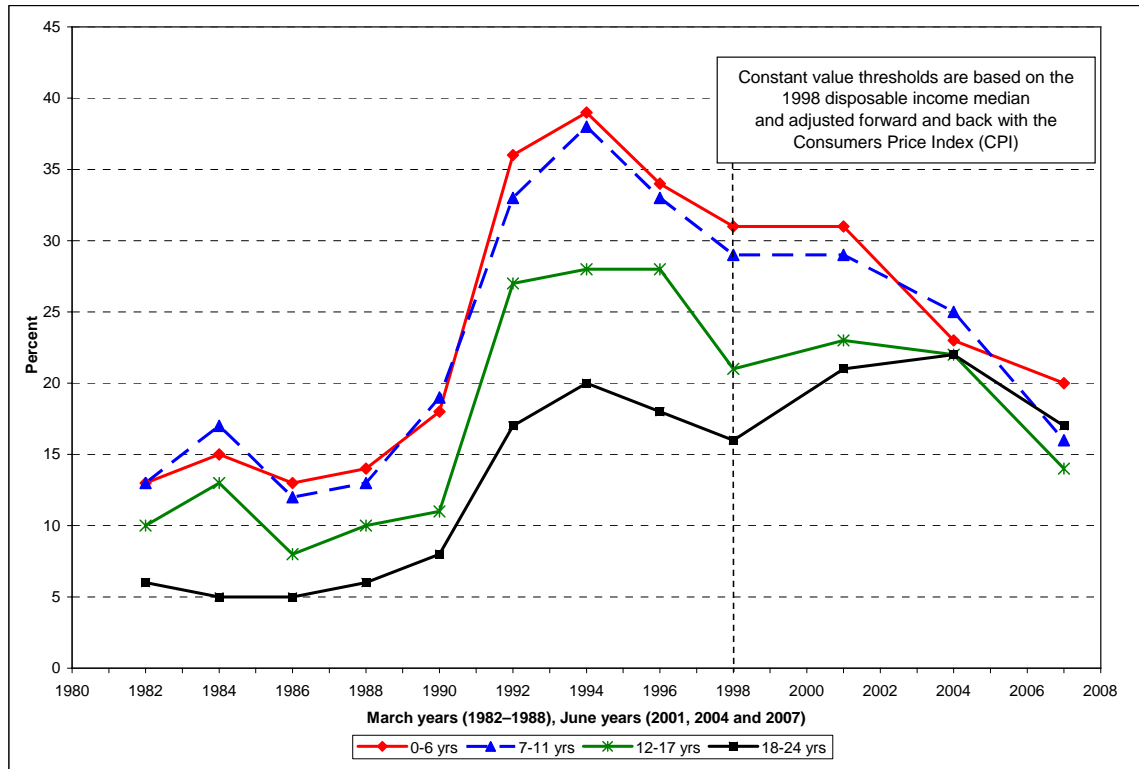
Note: Between 1998 and 2007, the Household Economic Survey was conducted on a three-yearly basis.

For young people aged 18–24 years, the proportion living below the 60 percent threshold also declined considerably between 2004 and 2007, from 22 percent to 17 percent. After rising sharply from 8 percent in 1990 to 20 percent in 1994, the proportion of 18–24 year olds living in low-income households fell to 16 percent in 1998. It then increased again, reaching a second peak of 22 percent in 2004.

Age differences

In 2007, child poverty rates ranged from 20 percent for children aged 0–6 years, 16 percent for those aged 7–11 years and 14 percent for those aged 12–17 years. Poverty rates for younger children were consistently higher than those for older children in all years except 2004. For younger children (under 12 years), poverty rates have steadily declined since 1994. The rate for older children (12 to 17 years) fell between 1996 and 1998, then levelled off before falling again between 2004 and 2007.

Figure ES2.2 Proportion of children and young people with net-of-housing-cost household incomes below the 60 percent threshold, by age, 1982–1998, 2001, 2004 and 2007



Source: Perry (2008) Tables G2 A, H2 A

Note: Between 1998 and 2007, the Household Economic Survey was conducted on a three-yearly basis.

Table ES2.1 Proportion (%) of children and young people with net-of-housing-cost household incomes below the 60 percent threshold, by age, 1982–1998, 2001, 2004 and 2007

	1982	1984	1986	1988	1990	1992	1994	1996	1998	2001	2004	2007
0–6 yrs	13	15	13	14	18	36	39	34	31	31	23	20
7–11 yrs	13	17	12	13	19	33	38	33	29	29	25	16
12–17 yrs	10	13	8	10	11	27	28	28	21	23	22	14
0–17 yrs	12	15	11	12	16	32	35	32	27	28	23	16
18–24 yrs	6	5	5	6	8	17	20	18	16	21	22	17

Source: Perry (2008) Tables G2 A, H2 A

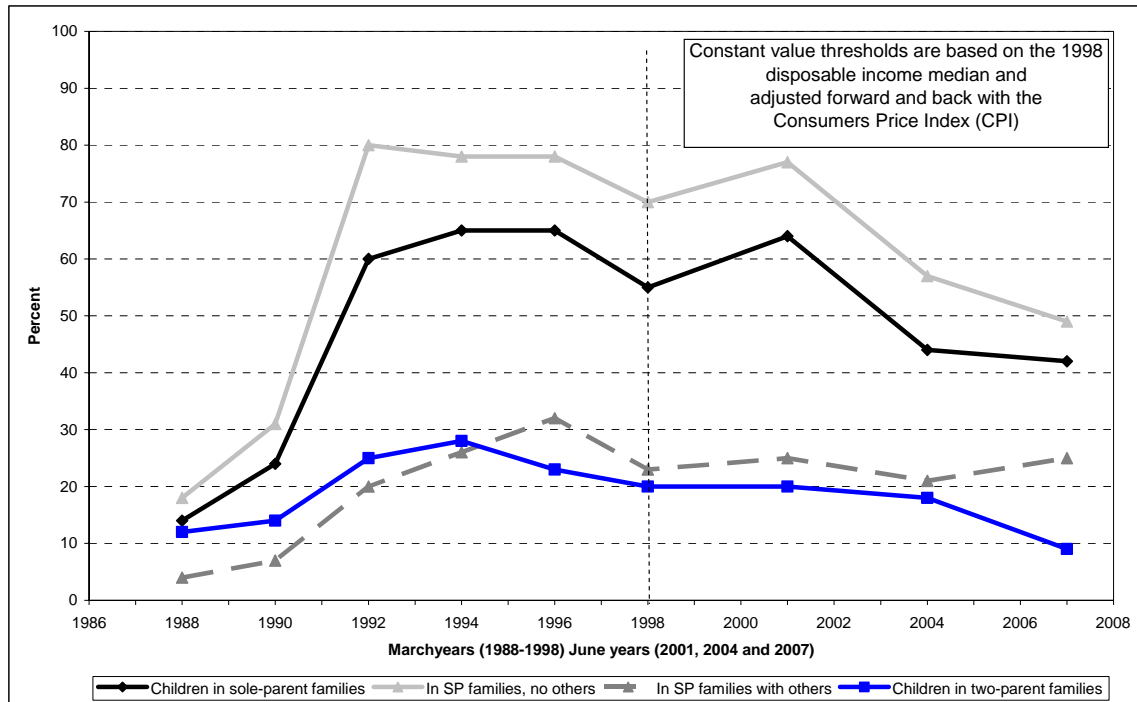
Note: Between 1998 and 2007, the Household Economic Survey was conducted on a three-yearly basis.

Differences by family and household type

Children in sole-parent families experience significantly higher poverty rates than those in two-parent families. In 2007, 42 percent of children living with one parent were in families with incomes below the 60 percent threshold, compared with 9 percent of those in two-parent families. Child poverty rates have declined substantially since 2001, particularly for children in two-parent families. In 2001, the rates were 64 percent and 20 percent respectively. For children in two-parent families, child poverty was lower in 2007 than it was in 1988, while for those in one-parent families it was still much higher.

Around one in three sole parent families live in wider households with other adults. Children living in these families have significantly lower poverty rates than those in sole parent families living alone because of the wider household resources available to them (25 percent and 49 percent respectively).

Figure ES2.3 Proportion of children with net-of-housing-cost household incomes below the 60 percent threshold, by family type, 1988–1998, 2001, 2004 and 2007



Source: Perry (2008) Table H3

Notes: (1) Family here is 'economic family unit' (see Appendix 2 for definition)

(2) Between 1998 and 2007, the Household Economic Survey was conducted on a three-yearly basis.

Other groups of children with higher than average proportions under the 60 percent threshold in 2007 were those living in households with 3 or more children (20 percent, compared with 14 percent of those with 1–2 children), and those in workless households (58 percent, compared with 8 percent of those with one or more adults employed full-time).

International comparison

For international comparisons, two measures are available. They both use equivalent disposable household income without taking housing costs into account, and low-income thresholds are set relative to the median in the respective survey years (a moving line rather than a fixed line approach). The OECD measure uses a 50 percent of median threshold and the European Union (EU) measure uses a 60 percent of median threshold.

On the OECD measure (50 percent threshold), the average New Zealand child poverty rate through the mid-1990s (1994–1996) was 13 percent, rising to just over 15 percent in 2004, the year of the most recent OECD comparison. In 2004, New Zealand's rate was above the OECD median (12 percent) and in the lower half of the OECD rankings (20th out of 30 countries). New Zealand's rate was similar to those of Ireland and Germany (each 16 percent), Canada (15 percent) and Japan (14 percent), higher than that of the United Kingdom (10 percent) and well below the rate of the United States (21 percent). Sweden, Finland, Norway and Denmark had the lowest child poverty rates (4–5 percent).⁸³ By 2007, the New Zealand rate was just under 15 percent.

Using the EU measure (60 percent threshold), New Zealand's rate in 2004 (26 percent), was above the EU average (20 percent). New Zealand's less favourable relative position in 2004 using the 60 percent threshold compared with its position using a 50 percent threshold shows that, compared to most of the other countries, New Zealand's income distribution for households with children is more concentrated in the 50 percent to 60 percent of median range. In the 2007 Household Economic Survey, the rate for New Zealand (EU measure, 60 percent threshold) had dropped to 20 percent, which is at the average for 25 EU countries in 2004. Given that the 50 percent rate remained steady between 2004 and 2007, this indicates that the concentration of households with children in the 50–60 percent zone reduced in the 2004 to 2007 period.

⁸³ Förster, M. and Mira d'Ercole, M. (2007), Annex Table A.5.3, cited in Perry (2008) Table J.3.

Unemployment

Definition

The youth unemployment rate is number of 15–24 year olds in the labour force who are not employed but are actively seeking and available for paid work, expressed as a percentage of 15–24 year olds in the labour force. The labour force is defined as the sum of those who are employed and those who are unemployed.

Relevance

The unemployment rate is an important reflection of overall economic conditions and of the ease with which people are able to move into employment. As labour markets become more and more selective, a lack of relevant skills brings a higher risk of unemployment. Whatever the level of qualification, first experiences in the labour market have a profound influence on later working life. Getting off to a good start facilitates integration, while a failure can be difficult to make up.⁸⁴

Current level and trends

The annual average youth unemployment rate in 2007 was 9.7 percent. The youth unemployment rate declined steadily from 14.6 percent in 1998 to 9.3 percent in 2004 but has levelled off since then. The youth rate was still higher in 2007 than it was in 1986 (7.9 percent) and almost four times higher than the rate for those aged 25–54 (2.5 percent).

Figure ES3.1 Youth unemployment rate (15–24 years), 1986–2007



Source: Statistics New Zealand, Household Labour Force Survey

Note: Rates are annual averages for the calendar year.

⁸⁴ OECD (2008b)

Sex and age differences

Youth unemployment rates have been slightly higher for females than for males since 2004. In 2007, the rate was 9.8 percent for females and 9.7 for males. Young men were more affected than young women by high rates of unemployment during the peaks in youth unemployment in 1991 and 1998.

Young people aged 15–19 years have higher rates of unemployment than those aged 20–24 years. In 2007, the unemployment rate for 15–19 year olds was 14.0 percent, more than double the rate for 20–24 year olds (6.2 percent).

Table ES3.1 Youth unemployment rate (%), by sex and age group, selected years 1986–2007

Year	Sex (age 15–24)		Age group		
	Male	Female	15–19	20–24	15–24
1986	7.9	8.0	11.5	4.9	7.9
1991	20.6	16.8	21.9	16.5	18.8
1996	12.4	11.1	15.7	9.1	11.8
2001	12.1	11.5	15.5	8.9	11.8
2006	9.3	10.0	13.7	6.4	9.6
2007	9.7	9.8	14.0	6.2	9.7

Source: Statistics New Zealand, Household Labour Force Survey

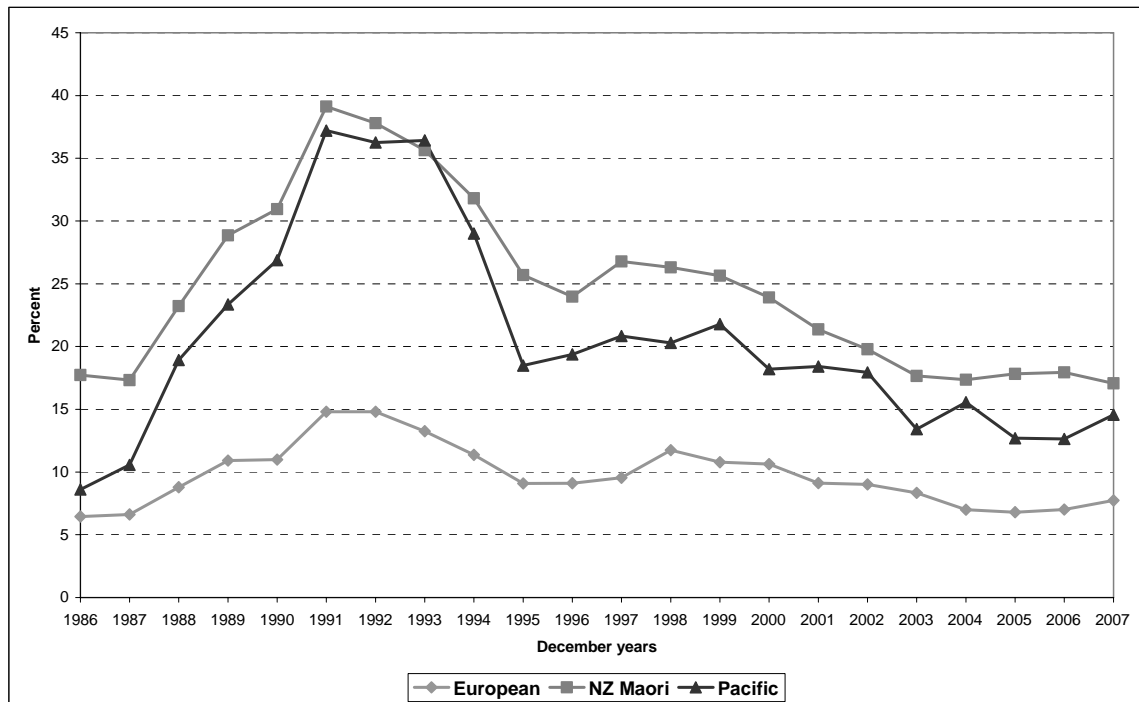
Note: Rates are annual averages for the calendar year.

Ethnic differences

Unemployment rates remain higher for young Māori (aged 15–24 years) than for young Pacific peoples and young Europeans. In 2007, 17.1 percent of young Māori and 14.6 percent of Pacific young people were unemployed, compared with 7.7 percent of young Europeans.

Māori and Pacific young people were more affected than young Europeans by the deterioration in youth unemployment in the late 1980s. Between 1999 and 2003, all three ethnic groups saw an improvement in youth unemployment rates but there has been little change since 2003.

Figure ES3.2 Youth unemployment rate (15–24 years), by ethnic group, 1986–2007



Source: Statistics New Zealand, Household Labour Force Survey

Note: Rates are annual averages for the calendar year.

Regional differences

In the year ended 31 December 2007, youth unemployment rates were highest (at 12.9 percent) in the Gisborne/Hawke’s Bay region and lowest (at 6.9 percent) in Canterbury. Over the period 1995–2007, the average rate of youth unemployment has been highest in the Northland, Gisborne/Hawke’s Bay and Bay of Plenty regions and lowest in Nelson/Tasman/Marlborough/West Coast and Auckland.

International comparison

In 2007, New Zealand’s unemployment rate of 9.7 percent was 12th lowest out of 30 OECD countries and below the OECD average of 11.9 percent. New Zealand’s rate was slightly higher than that of Australia (9.4 percent), but was lower than those of the United States (10.5 percent), Canada (11.2 percent) and the United Kingdom (14.4 percent). New Zealand’s youth unemployment rate was higher than the average for OECD countries between 1989 and 1994 and again between 1998 and 2000 but since 2001 it has remained below the OECD average.

Employment

Definition

The youth employment rate is the proportion of young people aged 15–24 who are employed for at least one hour per week.

Relevance

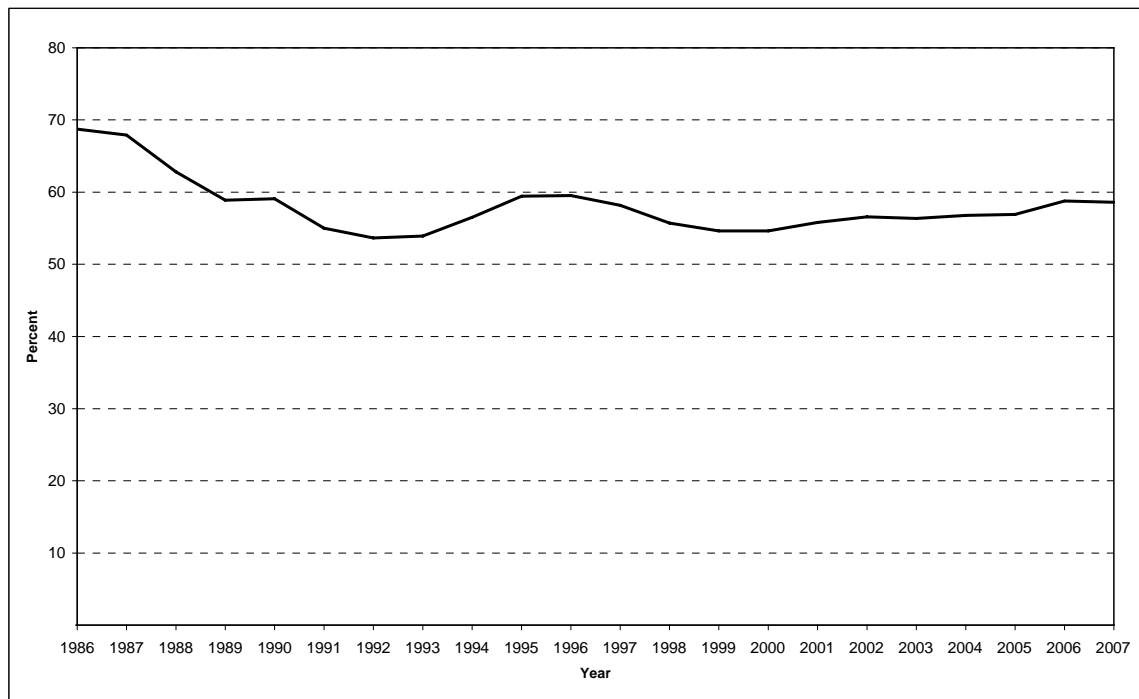
The employment rate is the best available indicator of young people’s participation in employment. Earning income from wages or salaries contributes to young people’s economic independence. As many young people, particularly those aged 15–19 years, are engaged in education that will positively enhance their future economic independence, the youth employment rate is best considered in conjunction with the indicators on school retention and tertiary education participation.

Current level

In 2007, 58.6 percent of young people aged 15–24 were employed. The youth employment rate fell considerably during the economic downturn of the late 1980s and early 1990s, falling from 68.7 percent in 1986 to 53.7 percent in 1992. The rate recovered to almost 60 percent in 1996 but fell back during the economic downturn of 1997 and 1998. In 2000, the youth employment rate stood at 54.6 percent and had increased to 58.8 percent by 2006.

Compared with their counterparts in the mid-1980s, young people today are much more likely to be still at school or studying at tertiary institutions.

Figure ES4.1 Employment rate, young people aged 15–24, 1986–2007



Source: Statistics New Zealand, Household Labour Force Survey

Note: rates are annual averages for the calendar year.

While full-time employment became less common for young people between 1986 and 2007, part-time work became more common. Over this period the proportion of 15–24 year-olds in full-time employment decreased from 58.2 percent to 35.1 percent, with most of the fall occurring between 1986 and 1992. On the other hand, the proportion of young people in part-time employment more than doubled between 1986 and 2007, from 10.5 percent to 23.5 percent.

Age and sex differences

Young people aged 15–24 have lower rates of paid employment than older people. Within the youth population, young people aged 15–19 are less likely to be employed than those aged 20–24. In 2007, less than half of youth aged 15–19 (48.4 percent) were employed, compared to 69.7 percent of young people aged 20–24, 82.2 percent of people aged 25–54 and 72 percent of those aged 55–64.

Young men are more likely to be employed than young women. This reflects the fact that young women are more likely to be in education or caring for children. In 2007, 60.7 percent of young men aged 15–24 and 56.4 percent of young women aged 15–24 were employed.

Table ES4.1 Employment rate (%) by sex and age group, selected years 1986–2007

Year	Sex (age 15–24)		Age group		
	Male	Female	15–19	20–24	15–24
1986	74.5	63.0	59.0	79.0	68.7
1991	56.9	53.1	44.0	66.1	55.0
1996	62.0	57.0	47.4	71.3	59.5
2001	58.3	53.3	45.2	67.4	55.8
2006	61.5	55.9	47.3	71.2	58.8
2007	60.7	56.4	48.4	69.7	58.6

Source: Statistics New Zealand, Household Labour Force Survey

Note: Rates are annual averages for the calendar year.

Young men are more likely than young women to work full-time (30 hours or more per week) but the reverse is true for part-time work. In 2007, 40.8 percent of males and 29.2 percent of females aged 15–24 worked full-time, while 19.9 percent of males and 27.2 percent of females in that age group worked part-time. For both sexes the proportion in full-time work declined and the proportion in part-time work increased over the 1986–2007 period.

Reflecting their higher participation in education, young people aged 15–19 are less likely than those aged 20–24 to work full-time but more likely to work part-time. In 2007, 19.3 percent of 15–19 year-olds and 52.3 percent of 20–24 year-olds worked full-time, while 29.1 percent of 15–19 year-olds and 17.4 percent of 20–24 year-olds worked part-time.

Table ES4.2 Full-time and part-time employment rates (%) by sex and age group, selected years 1986–2007

Year	Sex (age 15–24)		Age group		
	Male	Female	15–19	20–24	15–24
Full-time					
1986	65.6	50.9	43.5	73.6	58.2
1991	43.5	36.3	22.7	57.1	39.8
1996	44.8	34.7	19.7	59.1	39.7
2001	39.8	29.3	18.7	51.9	34.6
2006	44.4	30.0	20.9	55.1	37.3
2007	40.8	29.2	19.3	52.3	35.1
Part-time					
1986	9.0	12.1	15.5	5.3	10.5
1991	13.4	16.8	21.3	9.0	15.2
1996	17.3	22.3	27.7	12.1	19.8
2001	18.5	24.0	26.5	15.5	21.2
2006	17.1	25.9	26.4	16.1	21.4
2007	19.9	27.2	29.1	17.4	23.5

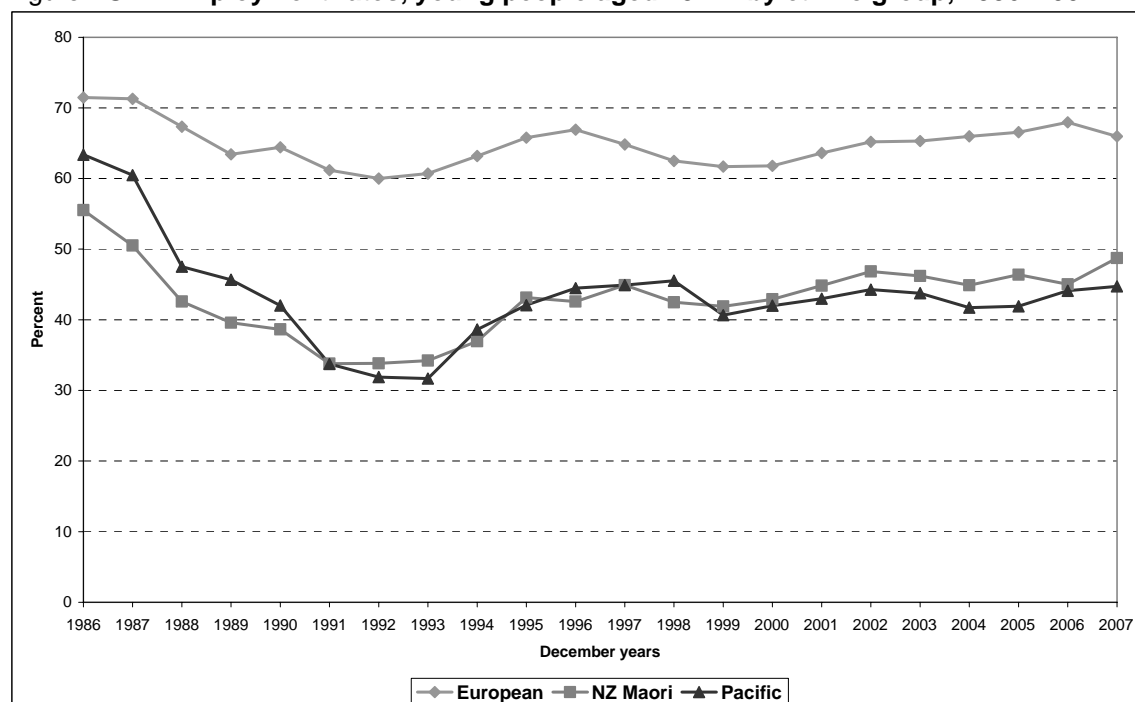
Source: Statistics New Zealand, Household Labour Force Survey

Note: Rates are annual averages for the calendar year.

Ethnic differences

European youth are more likely to be employed than Māori and Pacific youth. In 2007, 66 percent of European youth aged 15–24 were employed, compared to 48.7 percent of Māori youth and 44.7 percent of Pacific youth. Young people in each ethnic group experienced a decline in employment rates between 1986 and 1992 and despite subsequent increases, rates for each group in 2007 remained below those of 1986.

Figure ES4.2 Employment rates, young people aged 15–24 by ethnic group, 1986–2007



Source: Statistics New Zealand, Household Labour Force Survey

Note: Rates are annual averages for the calendar year.

Regional differences

Youth employment rates vary across different regions of New Zealand. In 2007, young people aged 15–24 in Canterbury were most likely to be employed (67.2 percent) followed by those in the Nelson/Tasman/Marlborough/ West Coast region (63.3 percent). Employment rates were lowest for young people in Auckland (52.9 percent) and Wellington (56.8 percent).

International comparison

In 2007, New Zealand's youth employment rate of 58.7 percent was the seventh highest out of 30 OECD countries and considerably higher than the OECD average of 43.5 percent. New Zealand's rate was lower than that of Australia (64.2 percent), similar to that of Canada (59.5 percent) but higher than those of the United Kingdom (55.9 percent) and the United States (53.1 percent).

Median hourly earnings

Definition

Real median hourly earnings from all wages and salaries (before tax) for employees aged 15–24 years earning income from wage and salary jobs, as measured by the New Zealand Income Survey and the Consumers Price Index.

Relevance

Earning their own wage or salary from employment is an important step towards financial independence for young adults.

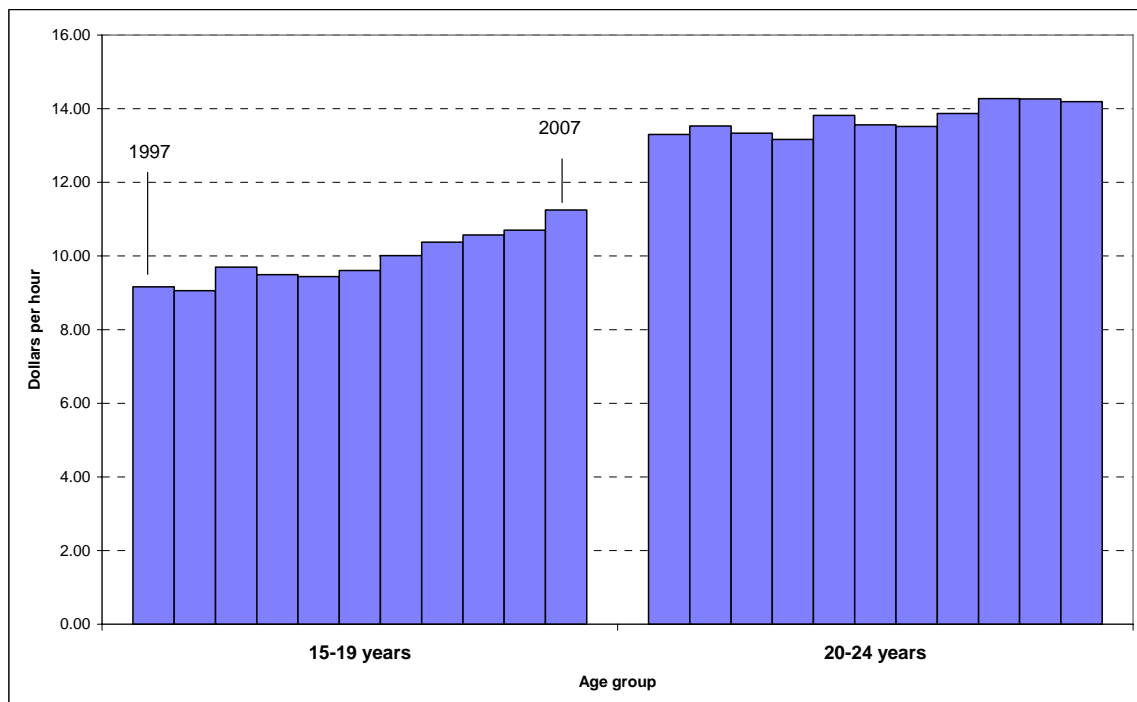
Current level and trends

In June 2007, half of all young people aged 15–19 years with income from a wage and/or a salary earned more than \$11.25 an hour from all wage and salary jobs. Half of all 20–24 year-old employees earned more than \$14.19 an hour from wage and salary jobs.

In the ten years to June 2007, the inflation-adjusted median hourly earnings of young people aged 20–24 increased by 89 cents an hour or 7 percent. Over the same period, median hourly earnings for those aged 15–19 increased in real terms by \$2.09 an hour, or 23 percent.

In March 2001, the age of eligibility for the adult minimum wage was lowered from 20 to 18 years and the minimum wage for 16–17 year olds was raised from 60 to 70 percent of the adult minimum wage. In March 2002, the minimum wage for 16–17 year olds was raised to 80 percent of the adult minimum wage. On 1 April 2007, the minimum wage for employees aged 18 years and over was \$11.25 an hour, while the minimum wage for 16–17 year olds and people over 16 in training was \$9 an hour.

Figure ES.1 Real median hourly earnings from wage and salary jobs (in June 2007 dollars), by age, June 1997 to June 2007



Source: Statistics New Zealand, New Zealand Income Survey

Sex and ethnic differences

In June 2007, males aged 15–24 earned a median of \$12.91 while females earned \$12.32. Since 1997, the median hourly earnings of females aged 15–24 have been slightly below those of young males in every year except 2000 and 2001, when they were equal. Over the ten years to June 2007, the median hourly earnings of 15–24 year old males increased by 8 percent, while the earnings of females in the same age group increased by 7 percent.

In June 2007, median hourly earnings were \$12.92 for European youth, \$12.36 for Māori youth, \$13.00 for Pacific youth and \$11.99 for youth from Other ethnic groups (including Asian). Allowing for possible sampling error, most of these differences are not statistically significant. Between June 1997 and June 2007 the real median hourly earnings of 15–24 year olds increased by 10 percent for Europeans. The increases for youth from Māori, Pacific and Other ethnic groups are not statistically significant.

Table ES5.1 Real median hourly earnings (June 2007 dollars) of 15–24 year olds from wage and salary jobs, by sex and ethnic group, June 1997 to June 2007

Year	Males	Females	Total	European	Māori	Pacific people	Other
1997	11.91	11.52	11.67	11.79	11.55	11.61	10.75
1998	12.08	11.43	11.79	12.00	11.72	11.48	10.87
1999	12.13	11.52	11.80	11.54	12.13	12.00	12.13
2000	11.87	11.87	11.87	11.87	11.87	11.87	11.87
2001	11.52	11.52	11.52	11.52	11.52	11.52	11.52
2002	11.75	11.30	11.39	11.75	11.30	11.75	11.02
2003	12.24	11.68	11.91	12.24	11.12	12.09	11.12
2004	12.45	11.82	12.02	12.07	12.15	12.17	11.25
2005	12.69	11.63	12.37	12.64	11.80	12.16	11.63
2006	12.74	12.23	12.23	12.23	12.23	12.23	12.23
2007	12.91	12.32	12.50	12.92	12.36	13.00	11.99

Source: Statistics New Zealand, *New Zealand Income Survey*

Safety

Unintentional injury mortality
Assault mortality
Bullying at school
Criminal victimisation
Fear of crime
Road casualties

Safety

Desired outcomes

All children and young people enjoy personal safety, and are free from abuse, victimisation, violence, and avoidable injury and death.

Introduction

Safety is fundamental to the wellbeing of children and young people. The United Nations Convention on the Rights of the Child recognises the right of children to a safe environment and protection from all forms of physical or emotional harm (Articles 3, 6 and 19).

Physical injuries, at their most extreme, threaten survival itself. For every avoidable death, there are many more non-fatal injuries, traumas, and disabilities, some of which may have long-term consequences.

The psychological effects of physical harm are also important. Victims of violence and injury often retain emotional scars long after their physical wounds have healed. They may suffer from anxiety or depression and experience the social isolation associated with psychological distress.

The safety of children and young people is an issue for the whole of society. Avoidable injuries and deaths affect not only inflict pain, suffering and loss on individuals and their families but also impact on the wider community, whose resources may be called upon for emergency help and rehabilitation. Children who grow up in an environment where violence is the norm may become violent adults, perpetuating a negative cycle.

Most injuries in childhood are to some extent preventable through public health measures, environmental safety and safe parenting practices. Like other developed countries, New Zealand recognises the importance of safety to wellbeing in an array of legislation designed to protect people from many types of avoidable harm, such as the road code and occupational safety regulations. The degree to which these measures are understood and accepted can make a difference to their implementation. For example, surveys have shown that almost all New Zealanders now agree that safety belts are effective in reducing the road toll, and the proportion of children aged under 5 years who are appropriately restrained in cars has grown from 75 percent in 1999 to 91 percent in 2007.⁸⁵

⁸⁵ Ministry of Transport [2007]; Ministry of Transport [2008]. The use of car restraints for children under 5 years was made compulsory in 1994 and 1995.

Indicators

There are six indicators in the Safety domain.

Unintentional injury mortality is the rate of child deaths resulting from a range of causes, including road traffic accidents, drowning, suffocation, burns, falls, and poisoning. After the first year of life, unintentional injury is the leading cause of death for children and young people.

Assault mortality is an indicator of family and community violence. It measures deaths resulting from violence, the tip of the pyramid of child abuse and interpersonal violence. Young children and youth are particularly vulnerable to the risk of death from assault.

Bullying at school is an indicator of the safety of the school environment, from the perspective of secondary school students. Peer aggression and victimisation have been recognised as an obstacle to the healthy educational, social and emotional adjustment of young people. Frequent bullying is associated with an increased risk of violence towards others.

Criminal victimisation is an indicator of the prevalence of criminal offending, as experienced and reported by 15–24 year olds. Criminal victimisation surveys provide a more comprehensive picture of victimisation than police statistics on crime, as not all offending is reported to the police or recorded by them.

Fear of crime is a measure of the extent to which 15–24 year olds feel their quality of life is affected by their concerns about crime. Anxiety about victimisation not only detracts from wellbeing directly, it may restrict young people's choices about how to live their lives.

The final indicator, road casualties, is an indicator of avoidable death and injury that is particularly pertinent to young people aged 15–24 years, who are most at risk.

Unintentional injury mortality

Definition

The number of children under 15 years of age who have died as a result of an unintentional injury, per 100,000 children under 15 years.

Relevance

Unintentional injury is the leading cause of death for children aged 1–14 years.⁸⁶ Children are developmentally more vulnerable to injury than adults. Additionally, children are dependent on adults for their safety and often their environment has been designed to meet the needs of adults rather than those of children.⁸⁷ Most injuries in childhood are to some extent preventable through public health measures, environmental safety and safe parenting practices.

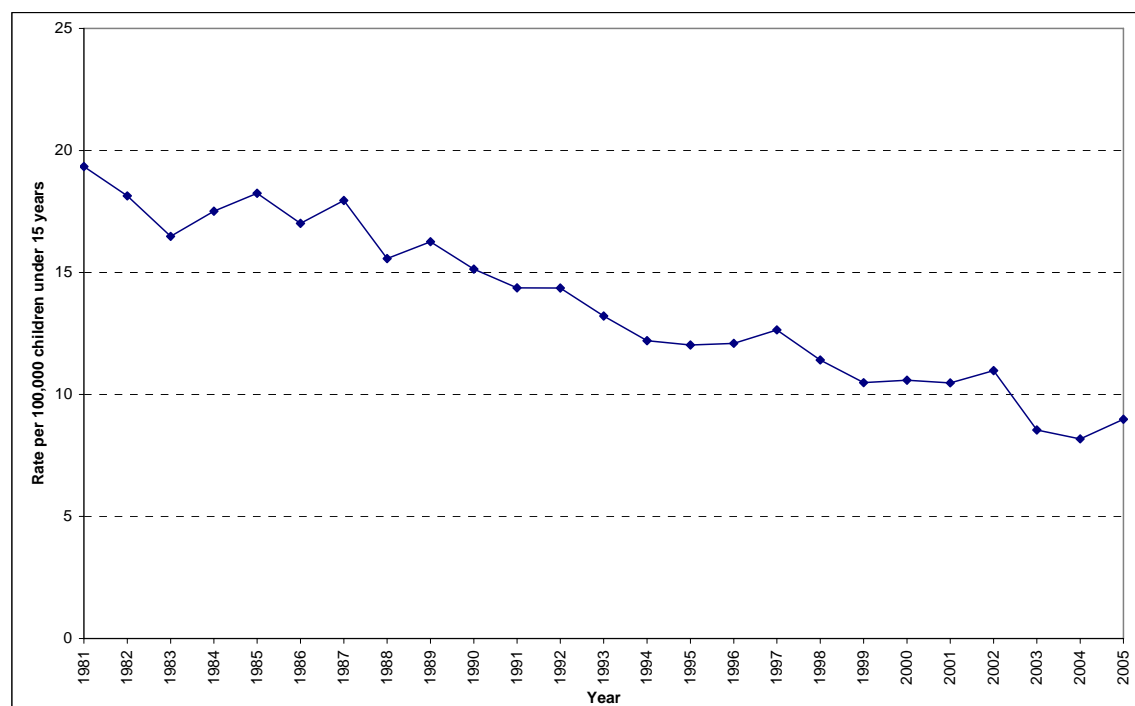
Current level and trends

In 2005, 80 children under 15 years of age died as a result of an unintentional injury, according to provisional mortality data for that year. On a population basis, this represented a rate of 9 children per 100,000 aged 0–14 years. This was similar to the rates in 2003 and 2004 but lower than the rate of just over 10 per 100,000 for the years 1999–2002.

The rate of child deaths from unintentional injury has fallen fairly steadily over the past 25 years, more than halving since 1981, when it stood at 19 per 100,000.

Road traffic injuries are the most common cause of childhood injury death, followed by suffocation and drowning/submersion.

Figure S1.1 Unintentional injury mortality rate, children aged 0–14 years, 1981–2005



Source: Ministry of Health, New Zealand Health Information Service

⁸⁶ Injury Prevention Research Unit (2007).

⁸⁷ D'Souza and E Wood (2003), p 60.

Age and sex differences

Children under five years of age are more likely than older children to die from accidental injuries. In 2005, 15 per 100,000 children under five years were fatally injured, compared with 6 per 100,000 5–14 year olds. For young children, suffocation and drowning/submersion are more common causes of injury death than traffic injuries.

Unintentional injury mortality rates are consistently higher for males than for females. In 2005, the rate for male children was 10 deaths per 100,000 males under 15 years of age, while the rate for female children was 8 deaths per 100,000 females of that age.

Table S1.1 Unintentional injury mortality rate per 100,000 children aged 0–14 years, by age group and sex, 1991–2005

Year	0–4 years			5–9 years			10–14 years		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1991	23.1	12.8	18.1	12.8	9.5	11.2	20.4	6.3	13.5
1992	19.3	17.5	18.4	10.4	14.1	12.2	15.1	8.7	12.0
1993	29.0	20.9	25.0	8.0	2.3	5.2	9.7	6.3	8.1
1994	26.2	16.0	21.2	12.0	7.4	9.8	6.7	2.4	4.6
1995	22.9	15.3	19.2	9.6	6.5	8.1	11.0	5.4	8.3
1996	23.6	13.3	18.7	6.6	5.5	6.1	12.3	10.7	11.5
1997	31.3	17.0	24.3	7.7	6.8	7.2	8.5	3.8	6.2
1998	20.1	12.8	16.6	10.8	4.7	7.8	15.3	4.4	10.0
1999	16.3	13.7	15.0	7.0	4.7	5.9	13.0	8.6	10.8
2000	19.2	13.8	16.6	5.1	8.2	6.6	12.7	4.9	8.9
2001	18.7	13.1	16.0	6.5	5.6	6.1	13.0	6.1	9.6
2002	22.9	14.6	18.8	6.6	5.6	6.1	12.0	4.7	8.4
2003	11.1	16.0	13.5	7.9	3.5	5.8	8.7	4.6	6.7
2004	15.1	14.4	14.8	6.0	4.2	5.1	6.8	3.3	5.1
2005	15.1	14.4	14.8	6.7	6.3	6.5	8.7	3.3	6.1

Source: Ministry of Health, New Zealand Health Information Service; Statistics New Zealand.

Ethnic differences

Māori children are more likely than non-Māori children to die as a result of an unintentional injury. In 2005, the rate per 100,000 children aged 0–14 years was 16 for Māori and 7 for non-Māori.

Table S1.2 Rate of unintentional injury mortality at 0–14 years per 100,000 children by ethnicity, 1996–2005

Year	Māori	Non- Māori	Total
1996	20.8	9.5	12.1
1997	31.3	7.0	12.6
1998	20.4	8.7	11.4
1999	18.6	7.9	10.5
2000	17.4	8.4	10.6
2001	15.3	8.9	10.5
2002	14.3	9.9	11.0
2003	16.6	6.0	8.5
2004	18.9	4.7	8.2
2005	15.7	6.8	9.0

Source: Ministry of Health, New Zealand Health Information Service; Statistics New Zealand

Assault mortality

Definition

The number of children aged under 15 years and the number of young people aged 15–24 years who have died as a result of assault, per 100,000 people in each age group.

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.

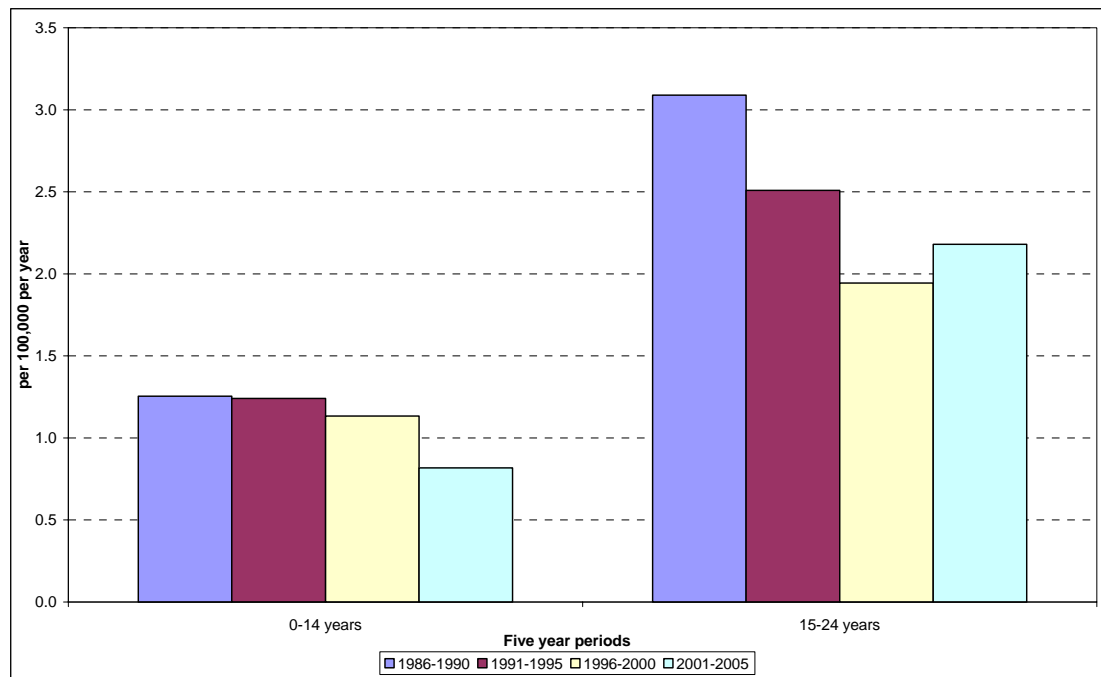
Current level and trends

In the five years to 2005, 36 children aged under 15 years died as a result of assault. On a population basis, this represented an average of less than one child (0.8) per 100,000 each year. The five-year average annual rate has fallen since the late 1980s, with the largest fall occurring in the latest five-year period.

Between 2001 and 2005, 62 young people aged 15–24 died as a result of assault, representing a rate of 2.2 per 100,000 people in that age group. The five-year average annual rate for 15–24 year olds fell between 1986–90 and 1996–2000 but rose slightly in the latest five-year period.

It should be noted that rates based on small numbers are volatile and trends can be difficult to discern over the short term, even when averaged over a number of years. The data for 2005 is provisional.

Figure S2 Five-year average annual assault mortality rate, ages 0–14 years and 15–24 years, 1986–1990 to 2001–2005



Source: Ministry of Health, New Zealand Health Information Service (ICD-9 codes E960–E969 to 1999; ICD-10 codes X85–Y09 from 2000).

Notes: (1) 2005 data is provisional (2) Rates are based on small numbers and trends can be difficult to discern over the short term (3) Change in cause of death coding may affect comparison over time

Age and sex differences

Among children under 15, assault mortality rates are higher for those aged under five years than for older children. In the five years to 2005, the average annual rate of death from assault was 1.6 per 100,000 for children aged under five years, compared with 0.5 per 100,000 for those aged 5–14 years. Assault mortality rates are higher in young adulthood, with 1.8 deaths per 100,000 15–19 year olds and 2.6 deaths per 100,000 20–24 year olds in the five years to 2005.

Among children aged under 15, there is no clear pattern of differences by sex in assault mortality rates. However, in the 15–24 age group, rates are consistently higher among males than females.

Table S2.1 Five-year average annual assault mortality rates per 100,000 children and young people, by age and sex, 1996–2000 and 2001–2005

	0–4 years	5–14 years	15–19 years	20–24 years
Male				
1986–1990	2.8	0.5	1.9	7.3
1991–1995	1.9	1.1	1.7	4.5
1996–2000	2.8	0.3	1.7	2.6
2001–2005	1.5	0.3	2.7	2.7
Female				
1986–1990	1.9	0.9	0.8	2.5
1991–1995	2.4	0.4	1.1	2.6
1996–2000	2.0	0.6	1.4	2.1
2001–2005	1.6	0.6	0.8	2.5
Total				
1986–1990	2.4	0.7	1.4	4.9
1991–1995	2.2	0.7	1.4	3.6
1996–2000	2.4	0.5	1.6	2.3
2001–2005	1.6	0.5	1.8	2.6

Source: Ministry of Health, New Zealand Health Information Service

Ethnic differences

In the five years from 2001 to 2005, 17 Māori children under 15 years died from assault. This represents a five-year average annual rate of 1.5 per 100,000 children, down from 1.9 per 100,000 in 1996–2000. Non-Māori children died at an average annual rate of 0.6 per 100,000 children between 2001 and 2005, down from 0.9 per 100,000 in the previous five-year period.

In the 15–24 age group, the death rate from assault among Māori averaged 4.4 per 100,000 for the years 2001–2005, compared with 4.9 per 100,000 between 1996 and 2000. Among non-Māori in this age group the death rate increased from an average of 1.2 per 100,000 between 1996 and 2000, to 1.7 per 100,000 between 2001 and 2005.

Bullying at school

Definition

The proportion of secondary school students aged 12–18 years who reported that they had been bullied at school, as measured by the Youth2000 Survey. According to the definition in the survey, bullying occurs when a student or group of students say nasty and unpleasant things to another student, or the student is kicked, threatened, pushed or shoved around, or when a group of students completely ignore somebody and leave them out on purpose.⁸⁸

Relevance

Peer aggression and victimisation are becoming recognised as a significant obstacle to the healthy educational, social and emotional adjustment of young people, with significant costs to society as well as loss of potential for the young people involved.⁸⁹ Frequent bullying is associated with a number of problems, including increased rates of mental health issues and relationship difficulties, and an elevated risk of violence towards others.⁹⁰

Current level

Almost one-third (30 percent) of secondary school students surveyed in 2001 reported having been bullied at school in the last 12 months. Twenty-three percent said that bullying had occurred only once or twice in the last year, while 7 percent said they had been bullied once a week or more often.

Of the students who had been bullied, 31 percent (10 percent of all students surveyed) thought it was “pretty bad”, “really bad” or “terrible” and 9 percent of students (3% of all students surveyed) had not gone to school once or more in the last month because they were afraid someone might hurt, bully or tease them.

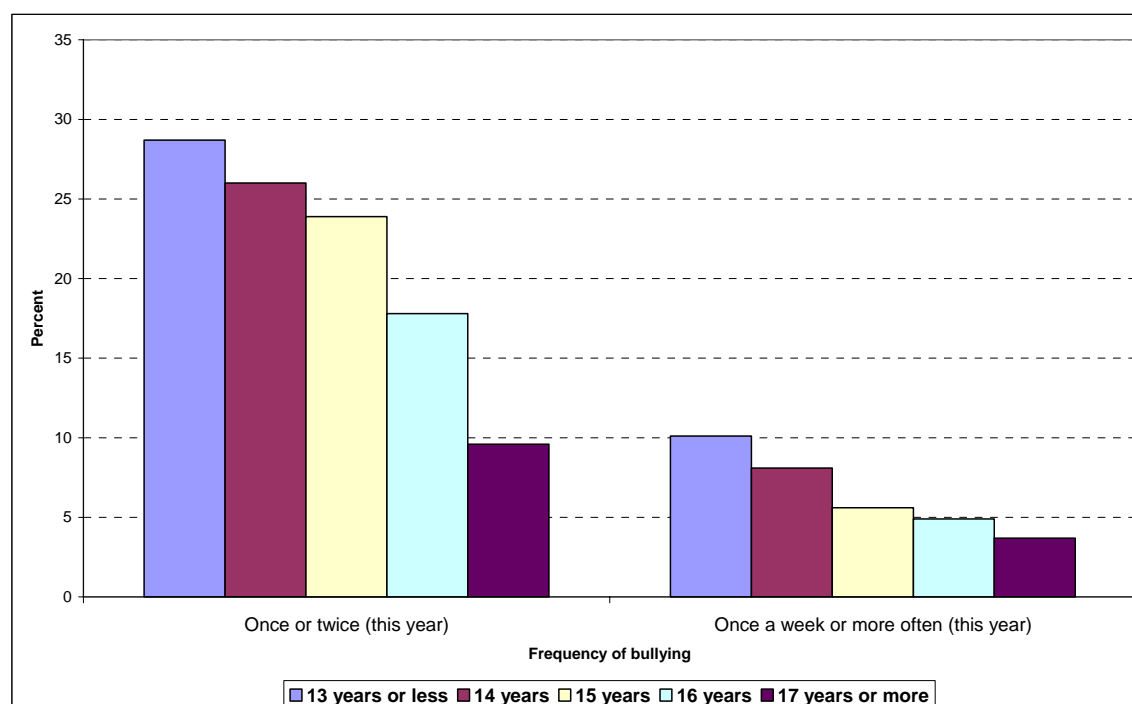
About half of bullied students told an adult about being bullied, with 26 percent telling a parent and 11 percent telling a teacher.

⁸⁸ Fleming, et al (2007) p 19

⁸⁹ Currie, et al (eds) (2004) pp 133, 143

⁹⁰ Fleming, et al (2007) pp 5, 40

Figure S3.1 **Proportion of secondary school students who reported being bullied at school, by frequency of bullying and age, 2001**



Source: Adolescent Health Research Group (2003)

Age differences

Bullying was most commonly reported by younger secondary school students and decreased steadily by age. In 2001, 38 percent of those aged 13 or less reported having been bullied, compared with 32 percent of 15 year olds and 16 percent of students aged 17 or more. Younger students were also bullied most frequently. Ten percent of those aged 13 or less reported being bullied at least once a week in 2001, compared with 7 percent of 15 year olds and 4 percent of students aged 17 or more. These differences were significant after adjustment for sex, ethnicity and socio-economic status.

Table S3.1 **Proportion (%) of secondary school students report being bullied in the last 12 months, by frequency and by age of student, 2001, with 95% confidence intervals below**

Age in years	Never	Once or twice per year	Weekly or more often
12–13	61.9 (58.5, 65.3)	28.5 (25.7, 31.3)	9.6 (8.1, 11.1)
14	65.0 (61.9, 68.0)	26.6 (24.0, 29.2)	8.4 (7.1, 9.8)
15	68.0 (65.5, 70.5)	25.2 (23.1, 27.4)	6.8 (5.5, 8.1)
16	76.5 (73.6, 79.4)	18.8 (16.4, 21.2)	4.7 (3.4, 5.9)
17–18	84.2 (82.2, 86.3)	11.5 (9.7, 13.3)	4.3 (3.1, 5.5)
TOTAL	69.7 (67.7, 71.7)	23.2 (21.7, 24.8)	7.1 (6.3, 7.8)

Source: Youth2000 Survey, unpublished data

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

Sex differences

Overall, after adjustment for age, ethnicity and socio-economic status, male students were more likely than female students to report they were bullied at school at least once in the previous year. However, the sex difference appears most significant in respect of frequent bullying (at least once a week), with 9 percent of male students and 5 percent of female students experiencing frequent bullying in 2001.

Table S3.2 **Proportion (%) of secondary school students being bullied in the last 12 months, by frequency and by gender of student, 2001, with 95% confidence intervals below**

Sex of student	Never	Once or twice per year	Weekly or more often
Male	67.1 (64.7, 69.5)	23.7 (21.8, 25.6)	9.2 (8.2, 10.3)
Female	71.9 (69.9, 74.0)	22.8 (21.1, 24.6)	5.2 (4.5, 6.0)

Source: Youth2000 Survey, unpublished data

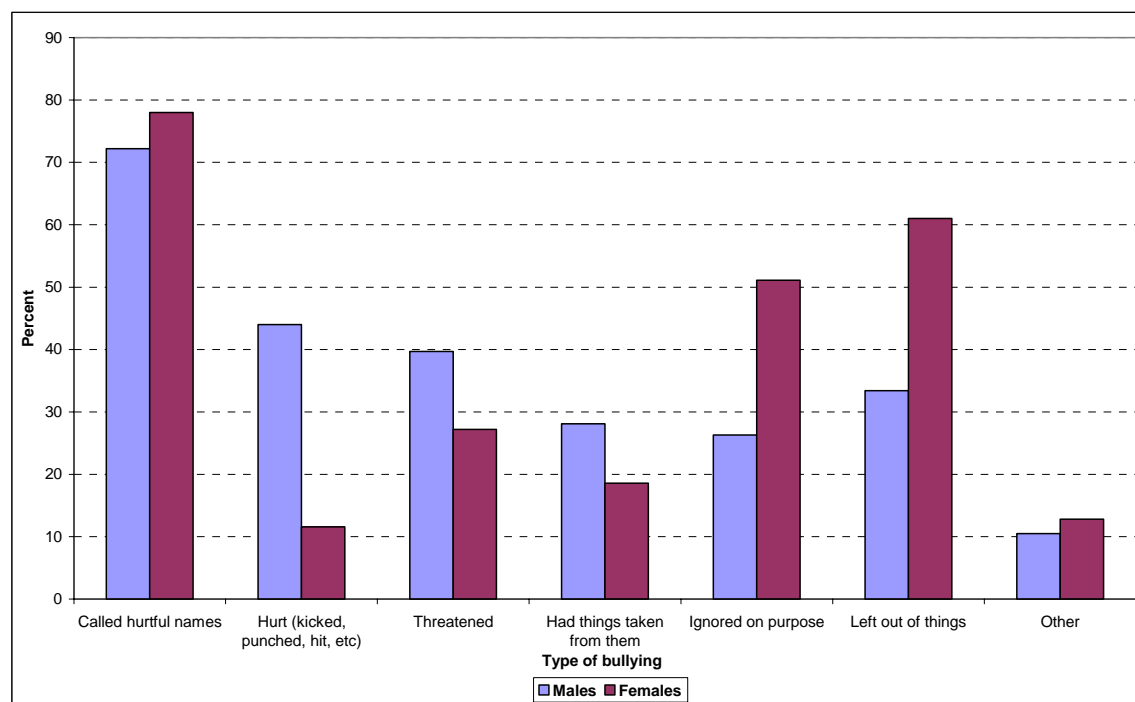
Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

Male and female students reported similar views on the severity of bullying they had experienced, with 31 percent of both sexes regarding it as “pretty bad”, “really bad”, or “terrible”.

Of those who had been bullied, males were less likely than females to have told an adult about the bullying (43 percent and 61 percent, respectively).

There were also sex differences in the type of bullying experienced, with males more likely to report physical types of aggression and females more likely to report forms of relational aggression.

Figure S3.2 **Types of bullying experienced by secondary school students who reported being bullied at school, by sex, 2001**



Source: Fleming, et al (2007), p 33

Note: Percentages add to more than 100 as students were able to select as many ways as applied to them

Ethnic differences

There were significant differences between ethnic groups, after adjustment for age, sex and socio-economic status, in the proportions of students who report bullying in the last year. Māori, Pacific and Asian students were less likely than New Zealand European students to report being bullied at school, either once or twice a year or more frequently.

Table S3.3 **Proportion (%) of secondary school students who reported being bullied at school, by ethnicity, 2001, with 95% confidence intervals below**

Ethnic group	Never	Once or twice per year	Weekly or more often
Māori	72.0 (69.8, 74.3)	21.4 (19.3, 23.5)	6.5 (5.4, 7.7)
Pacific peoples	82.4 (79.0, 85.7)	13.1 (10.6, 15.5)	4.6 (2.5, 6.7)
Asian	75.5 (71.3, 79.7)	19.7 (16.3, 23.0)	4.8 (2.8, 6.8)
Other	68.3 (63.4, 73.1)	24.0 (20.0, 28.1)	7.7 (4.7, 10.7)
NZ European	66.2 (64.0, 68.3)	25.9 (24.2, 27.6)	7.9 (6.9, 8.9)

Source: Youth2000 Survey, unpublished data

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

However, Māori, Pacific and Asian students who reported being bullied were more likely than New Zealand European students to report the bullying as severe (“pretty bad”, “really bad”, or “terrible”). Māori students who had been bullied were more likely than New Zealand European students to have not gone to school at least once in the last month because they were afraid they would be hurt, bullied or teased.

Table S3.4 Proportion (%) of secondary school students who reported negative experience of being bullied at school, by ethnicity, 2001, with 95% confidence intervals below

Ethnic group	Bullying is pretty bad, really bad or terrible	Missed school at least once in last month
Māori	38.2 (34.3, 42.1)	15.0 (12.3, 17.6)
Pacific peoples	37.4 (29.1, 45.8)	9.5 (5.3, 13.7)
Asian	42.9 (31.8, 54.0)	6.2 (1.2, 11.2)
Other	35.4 (27.9, 42.9)	12.8 (7.1, 18.4)
NZ European	26.8 (24.9, 28.8)	7.6 (6.2, 9.0)

Source: Youth2000 Survey, unpublished data

Note: If the respective confidence intervals (in brackets) do not overlap, the difference between rates is likely to be statistically significant.

International comparison

An international comparison of young people’s experience of bullying is available from the Health Behaviour of School-aged Children (HBSC) survey, conducted in 35 (mainly European) countries in 2001/2002. The survey respondents were aged 11, 13 and 15 years. About a third (34 percent) of all students across the 35 countries in the survey reported being bullied at least once in the previous couple of months, while 11 percent said they had been bullied two or three times during that period. While the recall period was different in the two surveys, these results are similar to those found for New Zealand secondary school students aged 12–18 (30 percent reporting being bullied in the past 12 months; 7 percent reporting being bullied at least weekly). As in the Youth2000 survey, the HBSC survey found relatively small differences by sex in the risk of being a victim of bullying, but a significant difference by age, with the youngest students most at risk.⁹¹

⁹¹ Currie et al (eds) (2004) pp133-144

Criminal victimisation

Definition

The proportion of the population aged 15–24 who have been the victim of one or more incidents of criminal offending in 2005 as measured by the New Zealand Crime and Safety Survey 2006 (NZCASS).

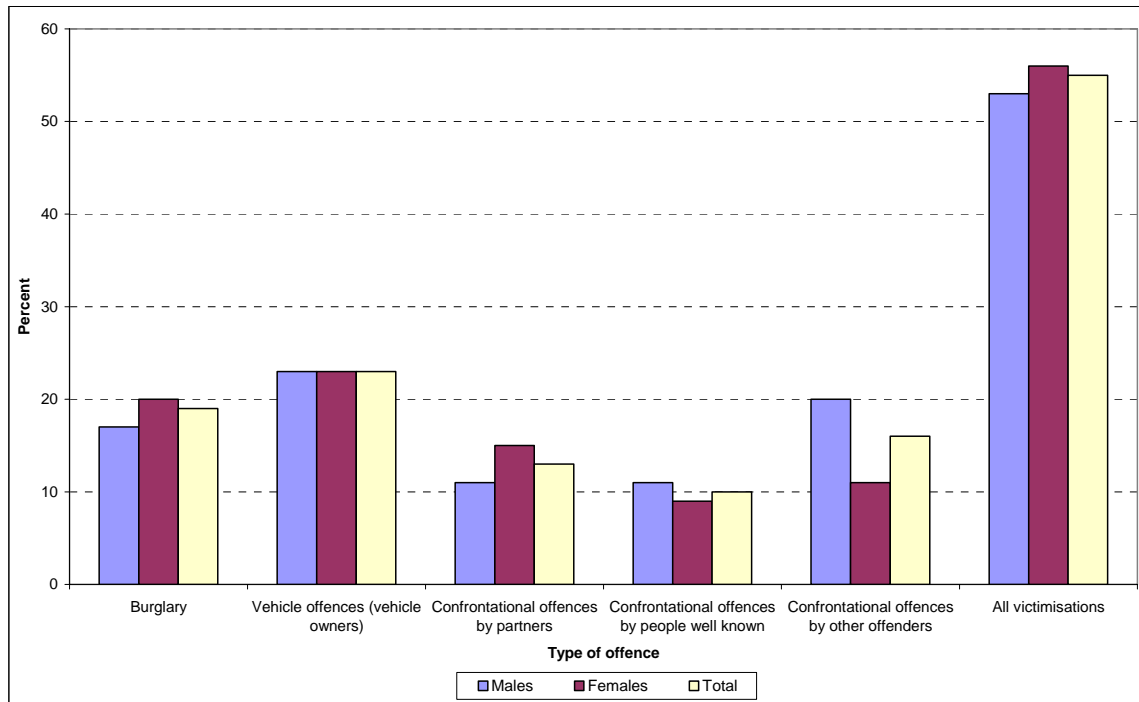
Relevance

Being safe and feeling safe are fundamental to wellbeing. The criminal victimisation rate of young people provides a broad measure of personal safety and wellbeing.

Current level and trends

The survey data shows that 55 percent of 15–24 year olds experienced some form of criminal victimisation in 2005. It is not possible to compare this figure with data from earlier surveys owing to changes in the survey design.⁹²

Figure S4.1 Criminal victimisation prevalence rate for 15–24 year olds, by type of offence and sex, 2005



Source: Mayhew and Reilly (2007b) Tables C3 – C8

Note: Data for confrontational offences by partners (both sexes) and confrontational offences by people well known (males) should be treated with caution because of sampling error.

⁹² Mayhew and Reilly (2007b), p7, p10

Confrontational offences (assaults, threats to the person or personal property, and robbery) can be broken down into three categories based on the victim's relationship to the offender. During the survey period, 13 percent of 15–24 year olds had been the victims of confrontational offences committed by their partners, 10 percent had been victims of such offences committed by other people well known to them, and 16 percent had been victims of such offences committed by other offenders. In other categories of offence, 19 percent of 15–24 year olds had been the victims of burglaries and 23 percent of vehicle owners in that age group had been victims of vehicle offences (thefts of and from vehicles and vehicle interference).

Sex differences

There was no statistical difference in the likelihood of females aged 15–24 and males of the same age to be victims of crime. Fifty-six percent of young females and 53 percent of young males in this age group had experienced some form of criminal victimisation in 2005. Females were more likely than males to be victims of confrontational offences committed by partners (15 percent compared with 11 percent⁹³), while males were more likely than females to be victims of confrontational offences committed by offenders who were not well known to them (20 percent compared with 11 percent).

Young women aged 15–24 had a relatively high rate of victimisation in relation to sexual offences compared with other women. Twelve percent of women aged 15–24 experienced at least one sexual offence in 2005, compared with 4 percent of women overall.

Ethnic differences

For young people aged 15–24, there was no statistical difference in the likelihood of experiencing victimisation by ethnicity. Of people aged 15–24, European and Pacific peoples had the same proportion of victimisation (55 percent). Sixty percent of Māori aged 15–24 were victims of any type of crime as were 52 percent of young people from ethnic groups other than Māori, European and Pacific peoples.

The rates of confrontational victimisation (assaults, threats and robbery) are from three categories of perpetrators: by partners; people well known; and by strangers. Māori youth had relatively high rates for victimisation of confrontational offences. Forty percent of Māori aged 15–24 had been a victim of confrontational crime, compared with 28 percent of European, 27 percent of Pacific peoples, and 21 percent of those from other ethnic groups.⁹⁴

⁹³ These figures need to be treated with some caution because of sampling error.

⁹⁴ All ethnic differences for youth were derived from the Ministry of Justice New Zealand Crime and Safety Survey, 2006.

Fear of crime

Definition

The proportion of young people aged 15–24 who 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 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 young people to alter their behaviour to avoid being victimised. This limits young people's options and can reduce their freedom. Young people may have more reason to be fearful of crime than others as they are often in public places where they are exposed to risk.⁹⁵

Current level

In 2005, 41 percent of young New Zealanders aged 15–24 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 ten point scale. Just over a third (35 percent) scored its effect at 4–7, while 6 percent scored it at 8–10). People aged 15–24 were more likely to report that fear of crime affected their quality of life than those aged 40–59 (38 percent) or 60 and over (33 percent), but less likely to do so than 25–39 year-olds (47 percent).

Sex differences

Women in general were more likely than men to report fear of crime having an impact on their life. Young women, in particular, were more likely than young men to report that fear of crime had a moderate or high impact on their quality of life, with 47 percent of females aged 15–24 and 36 percent of males of the same age scoring its effect at 4 or above on the impact scale. Thirty-nine percent of females and 32 percent of males reported a moderate impact (scoring it at 4–7), while 8 percent of females and 4 percent of males reported a high impact on their quality of life (scoring it at 8–10).

Table S5.1 Proportion of people aged 15–24 who reported that fear of crime had a moderate or high impact on their quality of life, by sex, 2005

Sex	High impact (score of 8–10)	Moderate impact (score of 4–7)	Moderate or high impact (score of 4– 10)
Males	4	32	36
Females	8	39	47
Total 15–24 year olds	6	35	41

Source: Mayhew and Reilly (2007a)

⁹⁵ Mayhew and Reilly (2007a), p 47.

Ethnic differences

Among young people, those from ethnic groups other than European and Māori (referred to as 'Other' and in this case including Pacific and Asian ethnic groups) were the most likely to report that fear of crime affected their quality of life, either moderately or a great deal, with 52 percent doing so compared with 45 percent of Māori and 36 percent of Europeans. Those in the Other ethnic group category were also the most likely to rate the impact of fear of crime on their quality of life as high, with 12 percent scoring its effect at 8–10, compared with 6 percent of Māori and 3 percent of Europeans.

Table S5.2 Proportion of people aged 15–24 who reported that fear of crime had a moderate or high impact on their quality of life, by ethnic group, 2005

Ethnic group	High impact (score of 8–10)	Moderate impact (score of 4–7)	Moderate or high impact (score of 4–10)
European	3	33	36
Māori	6	39	45
Other	12	40	52

Source: Mayhew and Reilly (2007a)

Road casualties

Definition

Number of deaths caused by motor vehicles per 100,000 population under 25 years. Number of persons injured as a result of motor vehicle crashes as reported to the police, per 100,000 population under 25 years. Pedestrians or cyclists killed or injured by motor vehicles are included.

Relevance

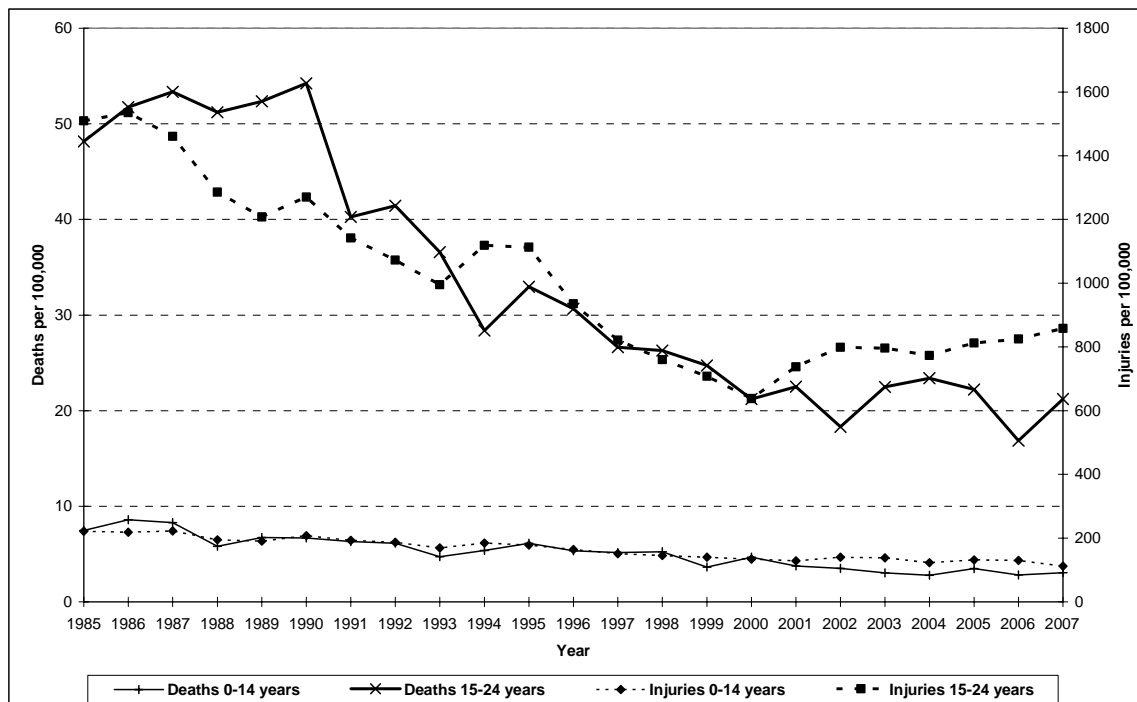
Motor vehicle crashes are a major cause of premature death, especially among young adults. Deaths, injuries and disability resulting from motor vehicle crashes inflict considerable pain and suffering on individuals, families and communities, as well as on other road users, emergency service providers, health workers and others.⁹⁶

Current level and trends

In 2007, 157 children and young people under 25 years of age died as a result of motor vehicle crashes, a rate of 10 deaths per 100,000 population. Provisional reported injury data for 2007 shows that a further 6,254 children and young people were injured, a rate of 417 injuries per 100,000.

Deaths and injuries from motor vehicle crashes have declined substantially since the late 1980s. In 1986, the death rate for the population under 25 years was nearly three times higher (27 per 100,000) than it was in 2007, and the injury rate was almost twice as high (775 injuries per 100,000).

Figure S6.1 Road traffic injury and death rate per 100,000 population aged 0–14 and 15–24 years, 1985–2007



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

⁹⁶ Ministry of Social Development (2008), p 108.

Age and sex differences

In 2007, young people aged 15–24 years were seven times as likely to be killed in a motor vehicle crash as those under 15 years (21 per 100,000 compared with 3 per 100,000 children under 15 years). They were also nearly eight times as likely as children under 15 years to be injured (858 per 100,000 and 112 per 100,000 respectively).

Males are much more likely than females to be killed or injured as a result of motor vehicle crashes. In 2007, the death rate was 14 per 100,000 for males under 25 years and 7 per 100,000 for females, while the injury rate was 486 per 100,000 for males and 343 per 100,000 for females.

Table S6.1 Road traffic death and injury rate, by age and sex, 2007

Age group (years)	Rate per 100,000 population in each group					
	Death rate			Reported injury rate		
	Males	Females	Total	Males	Females	Total
0–4	3.3	2.1	2.7	53.4	37.2	46.2
5–9	2.0	2.1	2.1	123.5	107.3	116.9
10–14	3.2	5.4	4.2	201.9	137.5	171.2
15–19	27.7	12.8	20.3	1111.1	783.2	950.8
20–24	34.6	9.6	22.2	904.5	606.7	756.6
Total under 25	14.2	6.5	10.5	486.2	342.8	416.6

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

Ethnic differences

Among children and young people under 25 years, Māori were much more likely than those in other ethnic groups to die in motor vehicle accidents in 2005, with a death rate of 19 per 100,000 compared with 9 per 100,000 for Pacific peoples and 11 per 100,000 for European and other ethnic groups. The Māori death rate was higher in 2005 than in 2004 and considerably higher than in 2001 and 2002 when there were between 11 and 12 deaths per 100,000 Māori aged under 25 years.

Table S6.2 Motor vehicle death rate per 100,000 for children and young people under 25 years, by ethnic group, 2001–2005

Year	Māori	Pacific peoples	European and other	Total
2001	11.4	11.4	12.1	11.9
2002	11.7	11.8	10.2	10.7
2003	17.7	9.2	10.3	11.9
2004	17.4	11.5	10.4	12.1
2005	19.2	8.9	10.7	12.5

Source: Ministry of Health, New Zealand Health Information Service

Note: 2005 data is provisional; 2004 data for European and other and Total has been revised

International comparison

In 2006, New Zealand's road death rate for youth aged 15–24 years (16.9 per 100,000) was just above the OECD median of 15.8 per 100,000 for that year. New Zealand ranked 18th out of 27 OECD countries,⁹⁷ a considerable improvement compared to 2005, when New Zealand ranked 25th with a rate of 22.4 per 100,000. New Zealand's 2006 rate was similar to that of Canada (16.4 per 100,000 in 2005) and Australia (15.8 per 100,000 in 2006), well above that of the United Kingdom (11.2 per 100,000 in 2006), but well below that of the United States (25.5 per 100,000 in 2005).

⁹⁷ The three countries not included in the source data are Mexico, the Slovak Republic and Turkey.

Civil and political rights

Voter turnout

Civil and political rights

Desired outcomes

All children and young people enjoy fundamental human, civil and political rights, free from discrimination and exploitation. Children and young people are given the opportunity to participate in decisions that affect them.

Introduction

The fundamental importance of human rights to wellbeing is acknowledged in the Universal Declaration of Human Rights, adopted in 1948 with New Zealand's full support. Since then, New Zealand has ratified the six core international treaties which give effect to the statements of principle in the Declaration. These cover civil and political rights; economic, social and cultural rights; the elimination of racial discrimination and discrimination against women; protection against torture and other cruel, inhuman or degrading treatment; and the rights of children and young people under the age of 18. The last of these, the United Nations Convention on the Rights of the Child (UNCROC), is the first legally binding international instrument to incorporate the full range of children's human rights – civil and political as well as economic, social and cultural. It was ratified by New Zealand in 1993.

Two major pieces of law in New Zealand that specifically promote and protect human rights and give effect to these international treaties are the Human Rights Act 1993 (HRA) and the New Zealand Bill of Rights Act 1990 (BoRA). Under the HRA it is illegal to discriminate against people on 13 grounds: age, sex (including pregnancy and childbirth), marital status, religious belief, ethical belief, colour, race, ethnic or national origin (including nationality or citizenship), disability, political opinion, employment status and sexual orientation. The BoRA sets out a range of civil and political rights including the right to vote and stand for parliament, freedom of thought, conscience and religion, freedom of expression, association, and assembly, and freedom from discrimination. Other laws provide protection for specific rights, such as the Privacy Act 1993. The voting age was lowered from 21 to 20 years in 1969 and then to 18 years in 1974.

The relationship between Māori and the Crown is guided by the Treaty of Waitangi (1840). Articles 1 and 3 of the Treaty can be seen as giving people the right to live as equal citizens in New Zealand. Article 2 affirms the right of Māori to live as Māori, to govern and participate in aspects of Māori life. Neither of these rights diminishes the other. Taken together, they may be said to reflect the concept of *tūrangawaewae* – the right to belong, or "the standing place from where one gains the authority to belong". The Treaty is a fundamental reference point for race relations in New Zealand.

Children and young people have the same basic general human rights as adults as well as specific human rights that recognise their special need for protection. Three key pieces of New Zealand legislation that are responsible for the welfare and interests of children are the [Children, Young Persons and Their Families Act 1989](#), the [Children's Commissioner Act 2003](#), and the [Care of Children Act 2004](#). Together, these laws give effect to the principle that the welfare and best interests of the child are paramount, and that they should be consulted about decisions that affect them.

Although children are autonomous rights holders, they are dependent on others to give effect to their rights. As they grow towards adulthood, they are able to exercise their rights in an increasingly independent manner, although they may still be vulnerable as they learn to 'negotiate' to obtain basic rights, for example in the workplace or when accessing public services. Human rights education is therefore an essential tool for ensuring that each generation knows how to realise their rights and exercise them responsibly. Knowledge of, and respect for, each other's human rights is a prerequisite for harmonious relations among the diverse groups that make up New Zealand.

For further information about human, civil and political rights in New Zealand, and those of children and young people in particular, see the websites of the Human Rights Commission, www.hrc.co.nz, and the Office of the Children's Commissioner, www.occ.org.nz.

Indicators

While New Zealand has a range of formal commitments to civil and political rights, the extent to which they are exercised by the population is difficult to measure directly.

The single indicator in this domain is Voter turnout, which provides an estimate of the proportion of 18–24 year olds who cast a vote in a New Zealand general election, and a count of the proportion of young people aged 18–29 years who are registered on the electoral roll and are eligible to vote. Voter registration is mandatory in New Zealand but voting is not. Voter turnout rates are therefore a measure of voluntary participation in political processes.

Voter turnout

Definition

The proportion of young people aged 18–24 years who cast a vote in a New Zealand general election, as estimated by the New Zealand Election Study; and the proportion of young people aged 18–29 years who are registered on the electoral roll and are eligible to vote.

Relevance

Voter registration is mandatory in New Zealand, but voting is not. Voter turnout rates are therefore a measure of voluntary political participation. They can also be seen as a measure of the extent to which citizens feel a part of the political process and as an indicator of the level of trust in political institutions. One strong predictor of levels of political participation is efficacy, which refers to an individual's perception of their ability to know what is going on, be heard and make a difference politically. Another strong predictor is the extent to which people think an election is a real contest and therefore if it is worth voting. Declining participation, particularly by younger people, suggests that levels of efficacy are lower than in the past. There is debate about the reasons for this among leading political science theorists. Putnam (2000) argues that the decline in levels of social capital explains the decline in electoral participation internationally. Franklin (2004) argues that patterns of voter turnout are generational and may be based in the extent of electoral competition at the time people first have the opportunity to vote.⁹⁸

Current level and trends

Voter turnout

The 2005 New Zealand Election Study estimated that 76 percent of 18–24 year olds had voted in the 2005 general election. This was considerably higher than the estimate for the 2002 election (63 percent) and higher than those for any of the previous five elections. The turnout among 18–24 year-olds is customarily lower than that among older voters but in 2005 the gap was considerably smaller than it had been in earlier elections.

Table CP1.1 **Voter turnout in general elections, by age, 1987–2005**

Election year	18–24 years	25+ years	Difference (percentage points)
1987	74	89	15
1990	71	85	14
1993	61	85	24
1996	73	89	16
1999	69	84	15
2002	63	78	16
2005	76	80	5

Source: *New Zealand Election Study*

Note: Voter turnout is the estimated proportion of registered electors in each age group who cast a vote

⁹⁸ Catt H (2005); Vowles J (forthcoming).

Voter registration

Young people have a lower electoral enrolment rate than older people. At the time of the 2005 election, an estimated 85 percent of 18–29 year olds were registered on the electoral roll, compared with 94 percent of the total voter population. Enrolment rates have been lower for adults under 30 years than for the total voter population at each election from 1987 to 2005. The difference increased slightly between 2002 and 2005.

Table CP1.2 **Proportion (%) of the estimated voting population enrolled to vote on polling day, by age, general elections 1987–2005**

Election year	18–29 years	Total (all ages)	Difference (percentage points)
1987	82	92	11
1990	82	90	8
1993	86	92	7
1996	80	89	10
1999	80	89	9
2002	86	92	6
2005	85	94	9

Source: Electoral Enrolment Centre

Note: Figures are based on the number of enrolled voters at writ day as a proportion of the estimated voter population at 30 June each year

Regional differences

In October 2007, estimated voter registration rates varied widely by electorate. The lowest proportions of 18–24 year olds registered to vote were in Auckland Central, Wellington Central, Dunedin North, Mount Albert, Christchurch Central and Wigram (all under 60 percent). In contrast, over 90 percent of 18–24 year olds were registered to vote in Waitaki, New Plymouth, Rangitata, Wairarapa, Waimakariri, Tukituki, Invercargill and Nelson.

Justice

Police apprehensions of 14–16 year olds
Cases proved in the Youth Court

Justice

Desired outcomes

All children and young people take growing responsibility for their actions, and have access to fair and equitable treatment within the justice system.

Introduction

Offending by children aged 10 to 13 years and young people aged 14 to 16 years is dealt with under the [Children, Young Persons, and Their Families Act 1989](#). The Act is recognised internationally as the first legislative example of a restorative justice approach to offending by children and young people. The objects of the Act relating to children and young people who commit offences include:

- that they are held accountable, and encouraged to accept responsibility, for their behaviour; and
- that they are dealt with in a way that acknowledges their needs and that will give them the opportunity to develop in responsible, beneficial, and socially acceptable ways.

Principles are also identified in the Act to guide the people, agencies and courts that deal with the children and young people who are alleged to have or who have broken the law. These principles are consistent with Article 40 of the United Nations Convention on the Rights of the Child (UNCROC), which sets out a range of protections for children and young people accused of breaking the law.

The youth justice system takes a diversionary approach and aims to keep young people out of the formal justice system (courts), unless the public interest requires otherwise. The system aims to resolve offending and hold a young offender to account without them receiving a criminal conviction, as they would under the criminal justice system. Research shows that youth / juvenile justice systems are more successful at reducing reoffending than adult criminal justice systems.

A child aged 10 to 13 years can only be prosecuted in an adult court for murder or manslaughter. For other offences they are dealt with under the care and protection system. If court intervention is required it will be in the Family Court. A young person (someone aged 14 to 16 years) can be warned by frontline Police; referred to the Youth Aid division of Police for alternative action (diversion); referred for a youth justice Family Group Conference (FGC) to decide whether a charge should be laid; or arrested and charged in the Youth Court. Cases proved in the Youth Court are not recorded as convictions.

For very serious offences, the Youth Court may transfer the young person to the adult court system. Where a young person is charged with murder or manslaughter they are dealt with in the High Court. Alleged offenders aged 17 years and over are dealt with in the adult court system.

The majority of offending by young people is minor and short-term; nearly half of all known offences committed by young people are rated as of minimum seriousness. A minority of young people commit serious and/or repeat offences. This minority commits a large proportion of all youth offences. These are serious young offenders who have been described in research as persisters. Persistent young offenders often begin offending at a young age (before the age of 14 years) and can start committing serious crimes early on in their criminal careers. Early intervention (intervention delivered early in the life of the person and the problem) is the most effective means known of reducing the risk of persistent offending among at-risk young people.

For further information about the New Zealand youth justice system, see www.justice.govt.nz/youth-justice/system.html and www.cyf.govt.nz/youthjustice.htm

Indicators

The two indicators in the Justice domain reflect the working of the youth justice system.

Police apprehensions of 14–16 year olds is an indicator of the level of offending by young people. It measures the incidence of apprehensions for alleged offending per head of population aged 14–16 years.

Cases proved in the Youth Court is an indicator of the extent of youth offending which is too serious to be resolved by any of the other means available in the youth justice system.

Police apprehensions of 14–16 year olds

Definition

The number of Police apprehensions of 14–16 year olds for all offences except non-imprisonable traffic offences, as a proportion (per 10,000) of all 14–16 year olds. This measure overstates the true rate of apprehensions of youth of this age, because some individuals may have been apprehended for more than one offence. An apprehension for an offence indicates a formal contact between a young person and the Police in relation to an offence that has occurred. Apprehension in relation to an offence is not the same as being charged with or convicted for that offence.

Relevance

The involvement of young people in offending has a negative impact on their wellbeing. Aside from minor traffic offences, offending by young people may also indicate exposure to a range of other risky behaviours or to the risk of violence.

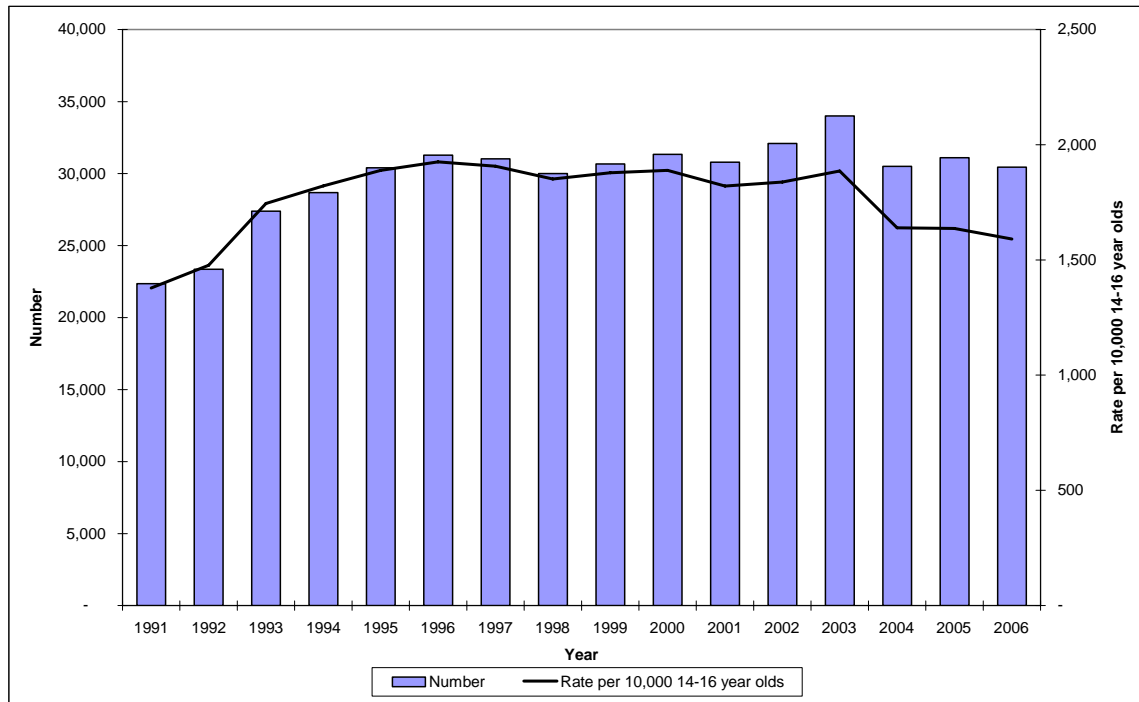
Current level and trends

In the year ended December 2006 there were 30,451 Police apprehensions of 14–16 year olds for non-traffic offences, a rate of 1,591 apprehensions per 10,000 14–16 year olds.

The non-traffic apprehension rate for 14–16 year olds rose sharply in the early 1990s, from 1,378 per 10,000 in 1991 to a peak of 1,926 per 10,000 in 1996. After remaining reasonably steady until 2003 it dropped markedly to 1,639 in 2004 and has fallen more slowly since then.

Of the 30,451 youth apprehensions recorded in 2006, the majority (62 percent) were either dealt with by Police Youth Aid or issued with a formal warning, 6 percent were referred to a Family Group Conference to decide whether a charge should be laid, and 29 percent were prosecuted.

Figure J1.1 Number of non-traffic apprehensions and non-traffic apprehension rate, 14–16 year olds, 1991–2006



Source: Spier P (2001), Table 7.1; Ministry of Justice, unpublished data; Chong J (2007), Tables 3.3 and 3.4

Types of offences

The majority of apprehensions involving 14–16 year olds over the period 1995–2006 were for property offences – mainly theft, burglary, wilful damage and car conversion. In 2006, the youth apprehension rate for theft was 352 per 10,000 14–16 year olds. Theft-related apprehension rates have been lower in recent years than in the mid-1990s when they were over 500 per 10,000. Apprehension rates for motor vehicle conversion have declined considerably, from 141 per 10,000 in 1995 to 76 per 10,000 in 2006.

Rates of apprehension for burglary were also lower in 2006 than in 1995 (192 per 10,000 compared with 231 per 10,000). However, apprehensions for wilful damage have increased, from 157 per 10,000 in 1995 to 216 per 10,000 in 2006.

Offences against good order were the basis for another large group of apprehensions, with a rate of 212 per 10,000 14–16 year olds in 2006. This was the same as the figure in 1995, although it had fluctuated in the intervening years.

The rate of apprehension for violent offences was 196 per 10,000 14–16 year olds in 2006, an increase from 167 per 10,000 in 1995. Most of the offences in this category are assaults, with serious assaults slightly outnumbering minor assaults in 2006 (79 serious assaults per 10,000 14–16 year olds, compared with 73 minor assaults). For most of the period since 1995 minor assaults were more common than serious assaults but while minor assaults have gone down slightly in recent years, serious assaults have been increasing.

Youth apprehension rates for drug offences increased during the late 1990s but have since fallen. Between 2000 and 2006 the rate for 14–16 year olds fell from 119 offences per 10,000 to 69 offences per 10,000.

Apprehension rates for offences against justice increased markedly between 1995 and 2000 (from 29 per 10,000 to 80 per 10,000), possibly because of a greater focus by Police on compliance with bail conditions.⁹⁹ However, the rate has almost halved since then, reaching 42 per 10,000 in 2006.

Sex differences

The majority of young people who are apprehended by the Police are male (between 77 and 80 percent over the period from 1995 to 2006).¹⁰⁰

Ethnic differences

Young Māori are overrepresented in Police apprehensions. Since 1995, almost half of all Police apprehensions of young people have involved young Māori. The apprehension rate of Māori aged 14–16 is more than twice the rate for Pacific peoples of the same age and nearly three times that of New Zealand Europeans. While the apprehension rate for Pacific peoples is higher than that of the New Zealand European and other category (including Asian), it is lower than the rate for the total 14–16 year old population.¹⁰¹

⁹⁹ Spier P (2002), section 7.2.

¹⁰⁰ Chong J (2007), p 48.

¹⁰¹ Chong J (2007), p 50-51.

Cases proved in the Youth Court

Definition

The number of cases proved in the Youth Court, excluding cases involving non-imprisonable traffic offence cases, as a proportion (per 10,000) of all 14–16 year olds. Individuals who have had more than one case proved in the same year will be counted more than once.

Relevance

The Children, Young Persons, and Their Families Act 1989 states that “... unless the public interest requires otherwise, criminal proceedings should not be instituted against a child or young person if there is an alternative means of dealing with the matter” (s. 208). Most young people (about 80 percent) who are apprehended are dealt with by the Police Youth Aid Section and are given a warning or diversion. Only a minority of young people apprehended are referred to a family group conference or are prosecuted in the Youth Court.

This indicator measures only those cases proved in the Youth Court. These cases represent offences that are brought to the Youth Court because they are too serious to be managed through community-based measures such as diversion and for which a young person is held accountable. These cases are not recorded as convictions.

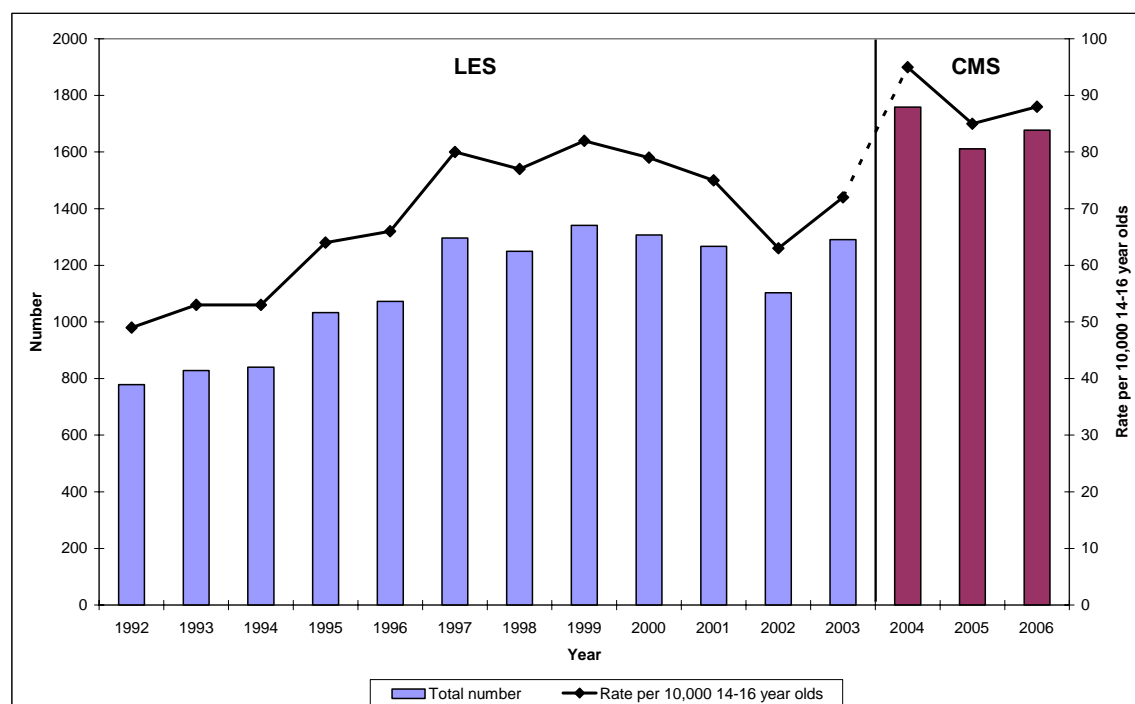
Current level and trends

In 2006, 1,677 non-traffic cases were proved in the Youth Court, a rate of 88 cases for every 10,000 14–16 year olds in New Zealand.

The rate of non-traffic cases proved in the Youth Court per 10,000 14–16 year olds increased substantially between 1992 and 1997 (from 49 per 10,000 to 80 per 10,000) and fluctuated around that level until 2003. Since the introduction of a new system for recording cases in 2004 the rate has dropped slightly (from 95 cases per 10,000 to 88 per 10,000).

In 2006, the majority of proved cases against young offenders involved property offences (53 percent), while almost a quarter (24 percent) related to violent offences. A further 11 percent involved imprisonable traffic offences and 5 percent concerned offences against good order.

Figure J2.1 Number of non-traffic cases proved in the Youth Court and rate of cases proved per 10,000 14–16 year olds, 1992–2006



Source: Chong J (2007), p60 and 64

Note: In 2004 the system used by the courts to log cases was updated from the Law Enforcement System (LES) to the Case Management System (CMS). The new system recorded a higher number of cases and so data collected before and after the changeover is not strictly comparable (Chong 2007, pp 18-21).

Age differences

Sixteen year olds accounted for the largest proportion (46 percent) of cases involving young people where the final outcome in 2006 was case proved, followed by 15 year olds (25 percent). Those aged 17 years (at the time of sentencing) accounted for 22 percent, while 14 year olds accounted for just six percent. A few cases (1 percent) involved people aged 18 or over, who were under 17 when they offended.

Sex differences

Males make up the vast majority of cases brought for prosecution in the Youth Court and this is reflected in their share of cases proved (87 percent in 2006). Of all young people prosecuted in the Youth Court in 2006, males were more likely than females to have a final outcome of case proved in 2006: 28 percent, compared with 22 percent of females.

Ethnic differences

Māori are highly overrepresented in Youth Court prosecutions. In 2006, 56 percent of cases proved involved a young Māori. In comparison, Māori made up 22 percent of the population aged 14–16 years in 2006.¹⁰²

Pacific young people accounted for 11 percent of cases proved in 2006, the same proportion as they made up of the population aged 14–16 years in that year (11 percent).

¹⁰² Statistics New Zealand, Estimated National Ethnic Population by age and sex at 30 June 2006

European young people were underrepresented, accounting for 32 percent of cases proved and 72 percent of the population aged 14–16 years.

Young people of all other ethnicities (including Asian) were also underrepresented, making up just 2 percent of cases proved but 11 percent of 14–16 year olds in the population.

Cultural identity

Te reo Māori speakers
Language retention

Cultural identity

Desired outcomes

All children and young people are able to participate in the culture and values important to them and their families and to feel secure with their identity.

Introduction

Culture refers to the set of customs, practices, languages, values and world views that is learned and shared within social groups such as those defined by ethnicity, region, nationality or common interests. Culture can be seen as “the language through which we learn to read the world”, the collection of learned assumptions that group members use to cope with their world and with one another.¹⁰³ Active participation in one’s culture promotes a secure cultural identity, which in turn can be linked to positive outcomes in wellbeing.¹⁰⁴

Cultural identity is not exclusive; it can vary according to context and over time. New Zealand is a diverse society. It has a bicultural Māori and Anglo-Celtic foundation and many people from the wider Pacific and Asia have settled here. An increasing proportion of young New Zealand residents were born overseas or to parents of different ethnicities. As they grow older they may choose to adopt more than one ethnic, cultural or national identity. A recent New Zealand study of migrant youth showed that while ethnic identity was stronger than national identity in the first generation, successive generations increasingly saw themselves as “New Zealanders” and in second generation migrants, national and ethnic identity were equally strong.¹⁰⁵

New Zealand is a signatory to a number of international treaties that protect people’s rights to participate in their culture and encourage respect for cultural diversity. These include a recent United Nations Educational, Scientific and Cultural Organization (UNESCO) convention aimed at promoting the diversity of cultural expression, to which New Zealand acceded in October 2007. The New Zealand Bill of Rights Act (1990) provides that people who belong to ethnic, religious or linguistic minorities shall not be denied the right to enjoy their culture, practice their beliefs and use their language.

Language is an essential ingredient of culture and a key to cultural identity. New Zealand has a particular responsibility under the Treaty of Waitangi and international law to protect and promote te reo Māori as the indigenous language of New Zealand. Te reo Māori and New Zealand Sign Language are recognised by law as official languages, along with English. As a Pacific nation, New Zealand also has a regional responsibility to promote and protect other Pacific languages.¹⁰⁶

¹⁰³ Heaven C and Tubridy M (2003)

¹⁰⁴ Durie M et al. (2002); Durie M (2006)

¹⁰⁵ Ward C (2008) p 19.

¹⁰⁶ Human Rights Commission (2008)

Indicators

The two indicators in the Cultural Identity domain both concern language.

Te reo Māori speakers is an indicator of the health of the Māori language. It measures the extent to which young Māori under the age of 25 years can hold an everyday conversation in the Māori language and includes additional information on fluency in te reo Māori among 15–24 year olds. The ability to speak Māori is essential to the practice of Māori culture, particularly on the marae.

Language retention is a similar measure for ethnic groups with a range of languages other than Māori and English. Being able to speak the language associated with one's ethnicity is an indicator of the ability to retain and pass on one's culture and traditions to future generations. For each ethnic group, New Zealand born and overseas born young people are compared.

Te reo Māori speakers

Definition

The proportion of Māori children under 15 years and Māori young people aged 15–24 who can speak te reo Māori, as recorded in the New Zealand Census of Population and Dwellings 2006. The ability to speak te reo Māori is defined in the Census as being able to hold a conversation about a lot of everyday things in the Māori language.

Relevance

Māori language is a central component of Māori culture and an important aspect of participation and identity. The Māori language also forms part of the broader cultural identity and heritage of New Zealand and, in 1987, was granted the status of an official language of New Zealand.¹⁰⁷

Current level

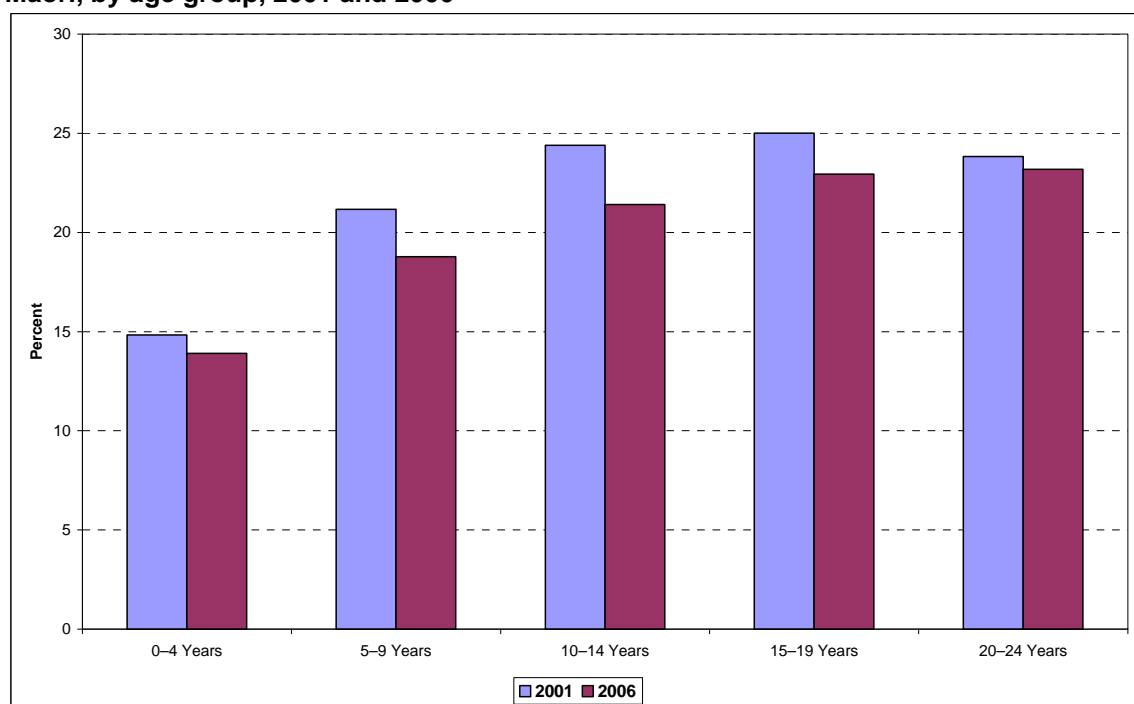
In the 2006 Census, 18 percent of Māori under 15 years reported that they were able to hold a conversation in te reo Māori, down from 20 percent in 2001. In the 15–24 year-old age group, 23 percent of Māori could speak te reo, compared with 24 percent five years earlier.

In total, 20 percent of Māori aged under 25 were able to speak te reo Māori in 2006, compared with 28 percent of Māori aged 25 and over.

Further information is available from the two surveys of the health of the Māori language, conducted in 2001 and 2006. These show that the proportion of Māori aged 15–24 with some level of speaking proficiency increased from 43 percent in 2001 to 55 percent in 2006. The proportion of 15–24 year olds with a high proficiency level more than doubled, with 13 percent reporting that they could speak Māori “well” or “very well” in 2006, compared with 6 percent in 2001. This data is not directly comparable with the 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.

¹⁰⁷ Ministry of Social Development (2008), p 82.

Figure CI1.1: Proportion of Māori children and young people who can speak te reo Māori, by age group, 2001 and 2006



Source: Statistics New Zealand, Census of Population and Dwellings

Sex differences

Young Māori females were slightly more likely than young Māori males to be able to speak te reo Māori in 2006. This sex difference was apparent across all age groups. Of all Māori under 25 years, 21 percent of females were able to speak te reo Māori, compared with 19 percent of males.

Age differences

The proportion of young Māori able to hold a conversation in te reo Māori in 2006 increased with age, from 14 percent of those under five years to 23 percent of those aged 20–24.

Table CI1.1 Proportion (%) of Māori children and young people who can speak te reo Māori, by age group and sex, 2006

Sex	Age group (years)					
	0-4	5-9	10-14	15-19	20-24	Under 25
Males	13.6	18.1	19.8	21.0	22.2	18.6
Females	14.2	19.5	23.1	24.9	24.1	20.9
Total	13.9	18.8	21.4	22.9	23.2	19.7

Source: Statistics New Zealand, Census of Population and Dwellings

Regional differences

Young Māori who live in areas with high proportions of Māori residents are the most likely to be able to converse in te reo Māori. The regions with the highest proportions of Māori speakers in the under 25 age group in 2006 were Gisborne (28 percent), Bay of Plenty (27 percent), Hawke's Bay (23 percent), Northland and Waikato (both 22 percent). The regions with the lowest proportions were West Coast (10 percent), Tasman (11 percent) and Marlborough (12 percent).

Language retention

Definition

The proportion of children and young people aged under 25 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 an indigenous 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

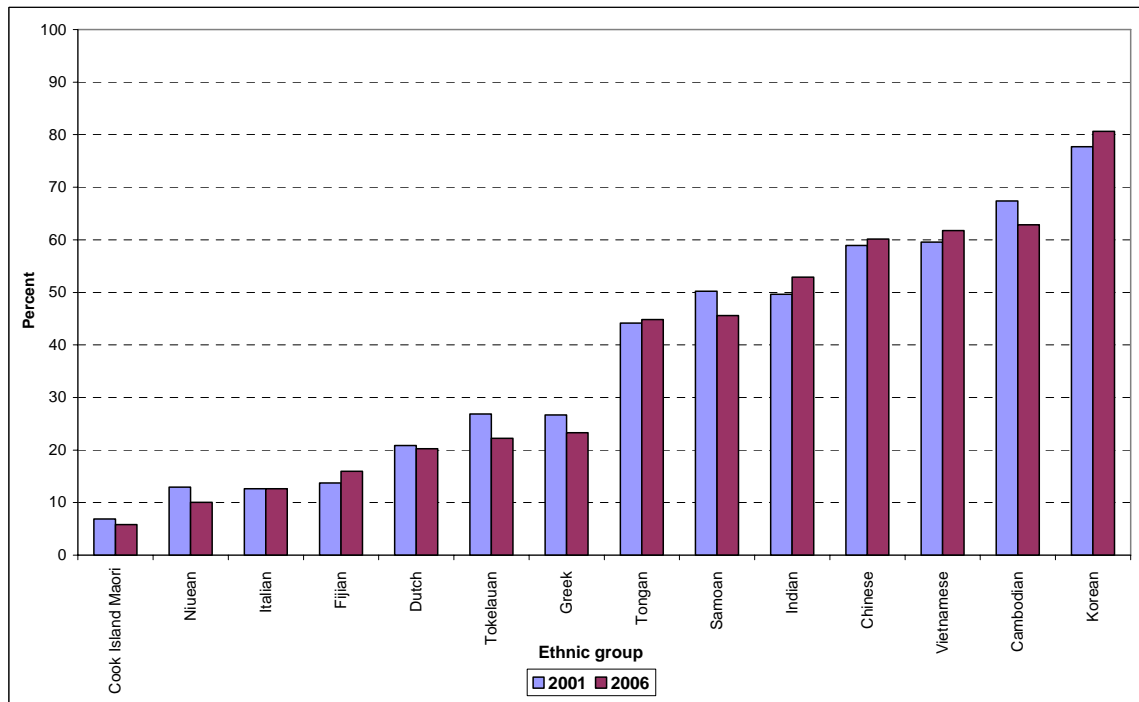
The ability to speak the language of one’s identified ethnicity is an indicator of the ability to retain and pass on one’s culture and traditions to future generations. Language is a central component of cultural identity.

Current level and trends

In 2006 the proportion of under 25 year olds who could hold everyday conversations in the first language of their ethnic groups varied widely by ethnicity, from 6 percent of Cook Islands Māori to 81 percent of Koreans. Those identifying with Asian ethnic groups were more likely to speak their first language than those identifying with Pacific or European ethnic groups.

Between 2001 and 2006 most ethnic groups experienced little change in the proportion of children and young people who could speak their first language, although there were slight increases for most Asian ethnic groups and slight decreases for most Pacific and European ethnic groups.

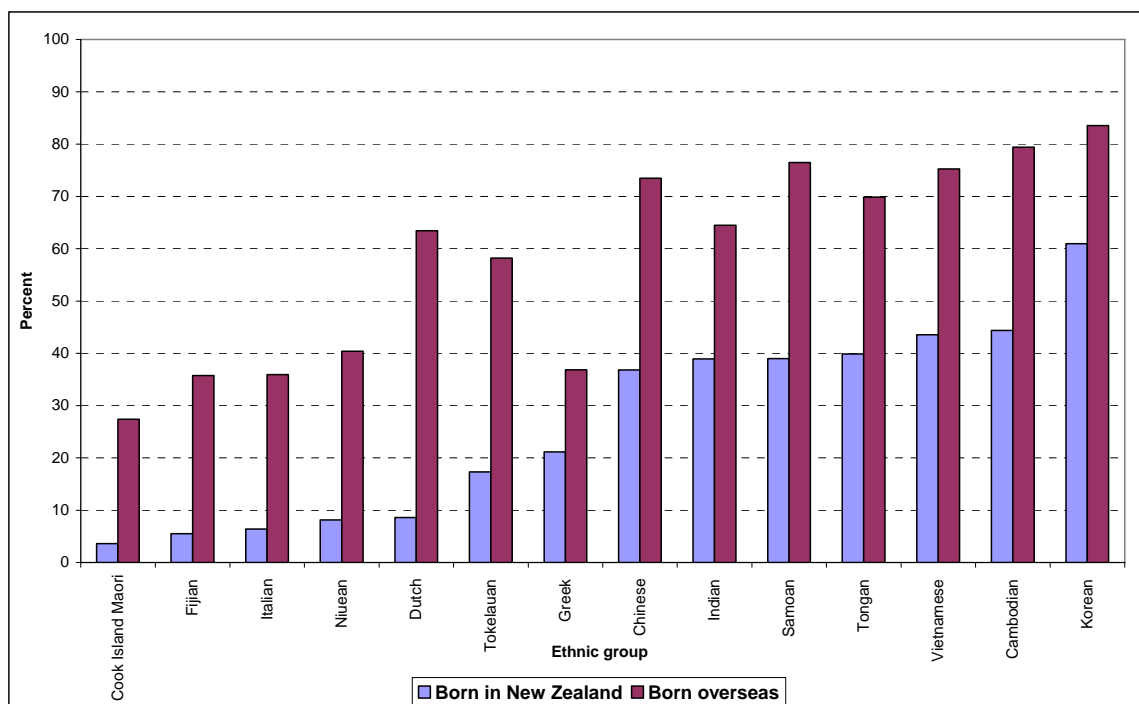
Figure C12.1 Proportion of people aged under 25 who could speak the first language of their ethnic group, 2001 and 2006



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

For all ethnic groups, young people who were born overseas were considerably more likely to speak their first language than those born in New Zealand. Among young people born in New Zealand, the proportion who could speak their first language ranged from 4 percent of Cook Islands Māori to 61 percent of Koreans.

Figure C12.2 Proportion of people aged under 25 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, those aged 18–24 were more likely than those aged under 18 to be able to hold an everyday conversation in the first language of their ethnic group. In most ethnic groups, females were slightly more likely than males to speak their first language. The sex differences were greatest among Cambodians and Vietnamese.

Table CI2.1 Proportion (%) of people aged under 25 in selected ethnic groups who can speak the first language of their ethnic group, by age group and sex, 2006

Ethnic group	Age		Sex		Total
	0–17	18–24	Male	Female	0–24
Pacific					
Samoaan	42	60	44	47	46
Cook Islands Maori	5	9	6	6	6
Tongan	42	58	44	46	45
Niuean	8	17	10	10	10
Tokelauan	18	38	21	23	22
Fijian	13	25	16	16	16
Asian					
Chinese	52	69	59	61	60
Indian	48	64	51	55	53
Cambodian	54	77	59	67	63
Vietnamese	55	71	58	66	62
Korean	80	83	79	82	81
European					
Dutch	17	29	20	21	20
Greek	--	--	23	23	23
Italian	--	--	12	14	13

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

Note: -- figure too small to be expressed

Social connectedness

Telephone/mobile access in the home
Internet access in the home

Social connectedness

Desired outcomes

All children and young people enjoy friendships and social, cultural and recreational activities that build confidence and security, promote healthy relationships, and encourage civic and social responsibility.

Introduction

Social connectedness is about relationships, being involved with other people and the community. Connectedness happens when people socialise with friends, family, people in their neighbourhood and the communities they belong to. It also occurs when people take part in more structured activities such as education, employment, religious and cultural observance, sport, recreation, entertainment, and community events. The networks formed through these exchanges can provide a sense of inclusion and identity, and a source of support in times of need. They help society function effectively by building 'social capital', a resource that can be drawn on to achieve personal goals in socially acceptable ways.

The availability of social support has been identified as a major protective factor that is associated with positive outcomes for children and young people.¹⁰⁸ Children and young people with strong family, cultural and community ties have more resources to draw on than those who are socially isolated.

Participating in community activities, particularly structured and supervised activities, has a positive impact on young people, including more moderate drinking patterns, less drug taking, better school attendance, better education and career outcomes, more prosocial behaviour and better attitudes and behaviour regarding sex.¹⁰⁹ Initial findings from the Youth Connectedness Project suggest that belonging to groups outside school is linked to higher wellbeing, life satisfaction, stronger ethnic identity and a more positive body image.¹¹⁰

Good communication and transport networks enhance opportunities for social connectedness. Technology is changing the nature of community and connectedness, reflected in the widespread use of text messaging via mobile phone and social networking on the Internet.

Indicators

Social connectedness cannot readily be measured in itself but insights can be gained by looking at factors that facilitate connectedness such as levels of participation in education, employment, sport and recreation as well as access to transport and communications.

The two indicators in this domain are measures of the extent to which children and young people have access at home to the main means of connecting with people and communities outside the household: telephones (including landlines and mobile phones) and the Internet.

¹⁰⁸ Kalil A (2003) p 63.

¹⁰⁹ McLaren K (2002) p 149.

¹¹⁰ Crespo, C (2007)

Telephone/mobile access in the home

Definition

The number of children under 18 years and young people aged 18–24 years living in households with access to telephones (either landline or cellphones), as a percentage of all children and young people.

Relevance

The telephone is a vital means of communication for individuals and households which helps to maintain social connectedness, not only enabling social contact with friends and family but also ensuring adequate lines of communication in times of need and emergency.

Current level

Only small proportions of children and young people live in households without access to telephones. In 2006, 98 percent of those under the age of 18 and 97 percent of those aged 18–24 lived in households with telephone access. This was an improvement on the figures in 2001, when 95 percent of both age groups lived in households with telephones.

The 2006 Census collected information separately on cellphones and landline telephones for the first time. It showed that 84 percent of those aged under 18 and 83 percent of those aged between 18 and 24 lived in households with cellphones that were available in the dwelling all or most of the time, while 90 percent of 0–17 year olds and 85 percent of 18–24 year olds lived in households with landline telephones.

Age and sex differences

In both the under 18 and 18–24 age groups there was little or no difference in telephone access for males and females. There was also very little difference between the age groups. The increase in telephone access between 2001 and 2006 occurred for both sexes and both age groups.

TableSC1.1 Proportion (%) of children and young people living in homes with access to telephones, by sex and age, 2001 and 2006

Sex	Under 18 years		18–24 years	
	2001	2006	2001	2006
Female	94.8	97.7	94.8	97.4
Male	94.9	97.7	95.0	97.4
Total	94.9	97.7	94.9	97.4

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

Ethnic differences

There is some variation in telephone access by ethnicity, with children and young people from Māori and Pacific ethnic groups being less likely than others to live in households with telephones. In 2006, 94 percent of Māori and 95 percent of Pacific people under the age of 18 had telephone access compared with 99 percent of those in European, Asian and other ethnic groups. However, the gap has narrowed since 2001 when 87 percent of Māori and 86 percent of Pacific people under the age of 18 lived in households with telephones. A similar trend is evident in the 18–24 age group.

Table SC1.2 Proportion (%) of children and young people living in households with access to telephones, by ethnic group and age, 2001 and 2006

	Under 18 years		18–24 years	
	2001	2006	2001	2006
Māori	87.3	94.2	87.6	94.3
Pacific	85.6	94.6	88.8	95.6
Asian	97.9	98.8	97.2	97.8
European	97.8	99.0	96.8	98.2
Other	97.5	98.8	96.3	98.2
Total	94.9	97.7	94.9	97.4

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

Ethnic differences are also apparent when access to cellphones and landline telephones is looked at separately. In 2006, European children and young people were more likely than others to have access to cellphones, with 88 percent of those aged under 18 and 86 percent of those aged 18–24 living in households with cellphones. Pacific people were the least likely to have access to cellphones – 74 percent of 0–17 year olds and 77 percent of 18–24 year olds.

Māori and Pacific children and young people were less likely than those from European, Asian and other ethnic groups to live in households with landline telephones. In the 0–17 age group, 75 percent of Māori and 80 percent of Pacific people had access to landline telephones, while in the 18–24 age group the figures were 71 percent for Māori and 81 percent for Pacific people.

Table SC1.3 Proportion (%) of children and young people living in households with access to cellphones and telephones, by ethnicity and age, 2006

	Access to cellphone		Access to telephone	
	Under 18	18–24	Under 18	18–24
Māori	81.1	81.1	75.0	71.2
Pacific Peoples	73.9	76.6	79.6	81.5
Asian	79.9	77.7	96.4	93.2
European	87.9	85.8	94.0	86.9
Other	74.9	77.6	95.7	91.6
Total	84.3	83.0	89.9	85.5

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

Internet access in the home

Definition

The number of children under 18 years and young people aged 18–24 years living in households with access to the internet, as a percentage of all children and young people.

Relevance

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, employment prospects and other aspects of wellbeing. Being able to communicate and interact easily in the absence of frequent face-to-face contact helps maintain social connectedness, although there are some associated risks of negative online behaviour for some groups.¹¹¹

Current level

At the 2006 Census 70 percent of children under 18 years and 65 percent of young people aged 18–24 lived in households with access to the Internet. This is a considerable increase on the figures in 2001 when 46 percent of children under 18 years and 42 percent of 18–24 year olds lived in households with internet access.

Sex differences

Among children under 18, household internet access did not vary by sex. However, at ages 18–24, males (66 percent) were slightly more likely than females (64 percent) to have internet access at home.

Table SC2.1 Proportion (%) of children and young people living in homes with access to the internet, by sex, 2001 and 2006

Sex	Under 18 years		18–24 years	
	2001	2006	2001	2006
Female	45.4	70.0	40.0	63.8
Male	45.5	69.9	43.5	66.1
Total	45.5	69.9	41.7	64.9

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

Age differences

Older children are more likely than younger children to have household access to the internet. In 2006, 74 percent of 15–17 year olds and 73 percent of 10–14 year olds lived in homes with access to the internet, compared with 69 percent of children aged 5–9 years and 66 percent of children aged under five years.

On the other hand, 18–19 year olds (66 percent) were slightly more likely to have household access to the internet than those aged 20–24 (64 percent).

¹¹¹ Kleeb J (2007)

Table SC2.2 **Proportion (%) of children and young people living in homes with access to the internet, by age group, 2001 and 2006**

Age group	2001	2006
0–4 years	38.4	65.6
5–9 years	43.9	68.5
10–14 years	49.7	72.9
15–17 years	53.2	74.0
Total under 18	45.5	69.9
18–19 years	44.6	66.4
20–24 years	40.5	64.3
Total 18–24	41.7	64.9

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

Ethnic differences

Asian and European children, and children from the Other ethnic group category, were more likely than Māori and Pacific children to live in households with access to the internet. The same pattern was apparent among young people aged 18–24. However, in both age groups, the proportion of Māori and Pacific children and young people with access to the internet almost doubled between 2001 and 2006, increasing at a faster rate than for other ethnic groups.

Table SC2.3 **Proportion (%) of children and young people living in households with access to the internet, by ethnic group, 2001 and 2006**

Ethnic group	Under 18 years		18–24 years	
	2001	2006	2001	2006
Māori	25.1	48.0	22.9	42.7
Pacific	18.6	37.0	21.5	39.0
Asian	60.9	78.4	65.2	80.5
European	52.5	78.4	45.3	68.2
Other	53.2	72.1	52.1	71.0
Total	45.5	69.9	41.7	64.9

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

Differences by family type

Access to the internet varies by family type and the labour force status of parents. Two-parent families with dependent children are far more likely to have internet access than one-parent families with dependent children. In 2006, 79 percent of two-parent families and 50 percent of one-parent families lived in households with internet access. For both groups this was a considerable increase on the 2001 figures of 55 percent and 28 percent respectively.

Among two-parent families, those with both parents employed were the most likely to have internet access – 86 percent of those in which one parent was employed full-time and the other part-time, 83 percent of those in which both were employed full-time and 79 percent of those in which both were employed part-time. By comparison, just 52 percent of families in which neither parent was employed had internet access.

Among one-parent families, 62 percent of those in which the parent was employed full-time had internet access, compared with 57 percent of those in which the parent was employed part-time and 38 percent of those in which the parent was not employed.

Table SC2.4 Proportion (%) of one and two-parent families with dependent children living in households with internet access, by labour force status of parents, 2001 and 2006

Family type and labour force status of parents	2001	2006
Two-parent families		
Both employed full-time	60.9	82.7
One employed full-time, one employed part-time	60.0	85.7
Both employed part-time	51.0	78.8
One employed full-time, one not employed	48.3	73.5
One employed part-time, one not employed	40.5	65.5
Neither employed	31.2	51.5
Total	54.9	79.3
One-parent families		
Employed full-time	39.7	62.5
Employed part-time	30.3	56.6
Not employed	19.8	38.3
Total	27.9	50.3

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

International comparison

In the OECD PISA 2006 survey, 88 percent of 15 year olds New Zealand students reported that they had access to the Internet at home. This was a higher proportion than the OECD average of 76 percent. Canada and Australia (each with 91 percent) were among ten countries which had significantly higher proportions than New Zealand. The United Kingdom (89 percent) and Belgium (88 percent) had similar proportions to New Zealand. New Zealand had a higher proportion than the United States (84 percent) and sixteen other OECD countries.

Environment

Children living with a parent who smokes
Household crowding

Environment

Desired outcomes

All children and young people live in, and have access to, healthy natural and built environments.

Introduction

Children's environmental health was the subject of a Global Initiative launched at the World Summit on Sustainable Development in September 2002. The focus on children is justified by the fact that children are more vulnerable than adults to environmental risks for a number of reasons. Children have little control over their environment. Unlike adults, they may be both unaware of risks and unable to make choices to protect their health. In proportion to their weight, they breathe more air, consume more food, and drink more water than adults do. Children's central nervous, immune, reproductive and digestive systems are still developing, and exposure to environmental toxins can lead to irreversible damage.¹¹² The phasing out of lead from gasoline in New Zealand between 1986 and 1996 was a critical step in reducing one of the major environmental hazards to the health of our children and young people.¹¹³

The World Health Organization is leading the implementation of the Global Initiative on Children's Environmental Health and has developed a framework of children's environmental health indicators. The Multiple Exposures Multiple Effects (MEME) model provides the conceptual and theoretical basis for the development, collection and use of children's environmental health indicators. This model emphasises the complex relationships between environmental exposures and child health outcomes. Individual exposures can lead to many different health outcomes; specific health outcomes can be attributed to many different exposures. Both exposures and health outcomes – as well as the associations between them – are affected by contextual conditions, such as social, economic or demographic factors.¹¹⁴

The two indicators selected for the Environment domain can readily be fitted into such a framework. They each relate to environmental exposure that has known implications for a number of child health outcomes, and they are each strongly related to socioeconomic conditions.

¹¹² World Health Organization, Children's Environmental Health website: <http://www.who.int/ceh/en/>

¹¹³ Wilson N and Horrocks J (2008)

¹¹⁴ World Health Organization, Children's Environmental Health website, Concept of children's environmental indicators, <http://www.who.int/ceh/indicators/indicconcept/en/index.html>

Indicators

Children living with a parent who smokes is about childhood exposure to secondhand smoke as well as exposure to unhealthy adult behaviour that is a known risk factor for adolescent take-up of cigarette smoking.¹¹⁵ The cost of smoking is borne disproportionately by the most disadvantaged children and their families. Eliminating this environmental hazard will do much improve the health and wellbeing of New Zealand's children while they are still young and as they grow into adulthood.

Household crowding was selected for the 2004 edition of this report and has been updated to 2006 and extended to cover the twenty-year period from 1986. Based on the Canadian National Occupancy Standard, it is an indicator of the adequacy of the built environment for the health and wellbeing of our children and young people.

¹¹⁵ Thomson G, Wilson N, Howden-Chapman P (2005).

Children living with a parent who smokes

Definition

The proportion of dependent children under the age of 18 living with at least one parent who is a regular smoker (smoking one or more cigarettes a day).

Relevance

Parental smoking and related behaviours are key determinants of adolescent tobacco smoking. Parents who smoke are more likely to give their children high amounts of pocket money, to allow smoking in the home, and to provide cigarettes to their children, all of which are risk factors for daily smoking by New Zealand adolescents. Parental smoking has been identified as a major factor explaining the increased smoking risk among Māori and Pacific adolescents, while ethnic differences in socio-economic status also contribute.¹¹⁶ The financial costs of smoking impact disproportionately on children in low-income families¹¹⁷ and increase hardship among sole parents.¹¹⁸ Exposure to cigarette smoke is associated with a number of adverse health outcomes for children, including sudden infant death syndrome, glue ear, asthma, other respiratory problems, and meningococcal disease.

Current level and trends

At the time of the 2006 Census, 33 percent of dependent children under the age of 18 lived with at least one parent who was a regular smoker. This was lower than the proportion in 1996 (38 percent).

Ethnic differences

Māori children (56 percent) were by far the most likely to be living with a parent who regularly smoked in 2006. They were followed by Pacific children (45 percent), European children (30 percent), children of Other ethnic groups (21 percent) and Asian children (18 percent). The pattern by ethnicity was the same five years earlier.

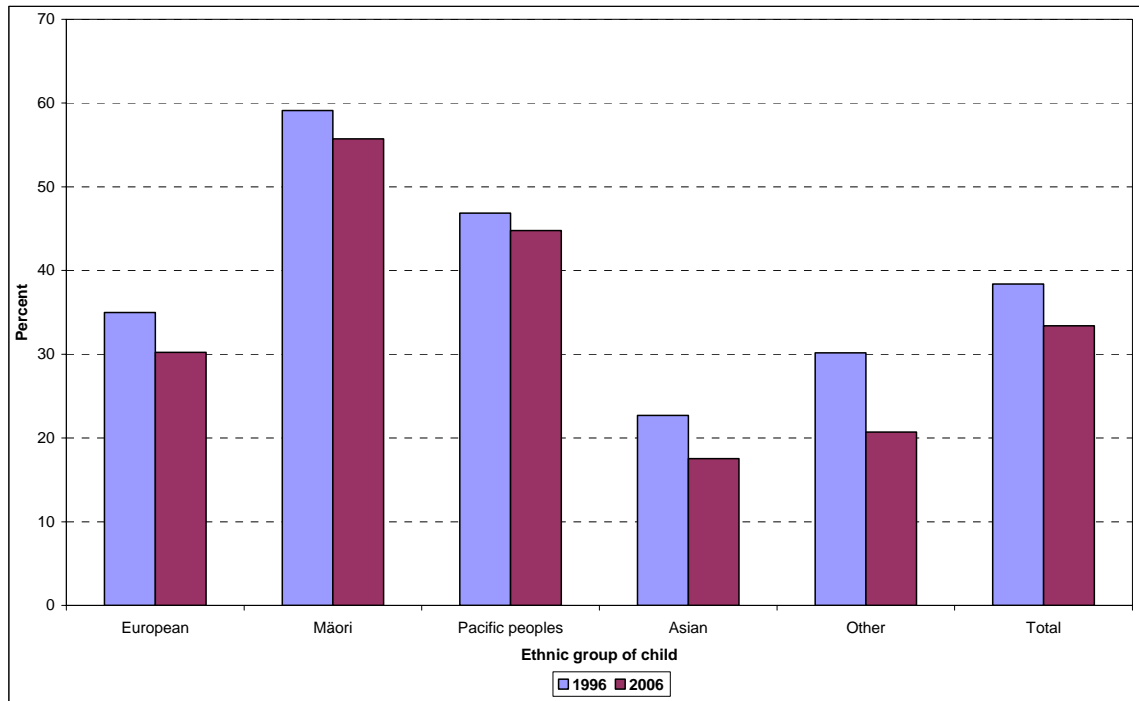
Between 1996 and 2006, the proportion of dependent children living with a parent who regularly smoked fell for children of all ethnic groups. The decline was greater for European, Asian and Other ethnic group children than for Māori and Pacific children.

¹¹⁶ Scragg R, Laugeson M and Robinson E (2003)

¹¹⁷ Woodward A and Laugeson M (2001), Thomson G et al. (2002), cited in Craig E (2007) p 159

¹¹⁸ Dorsett R and Marsh A (1998)

Figure EN1.1 Proportion of dependent children under 18 living with at least one parent who is a regular smoker, by ethnic group, 1996, 2006

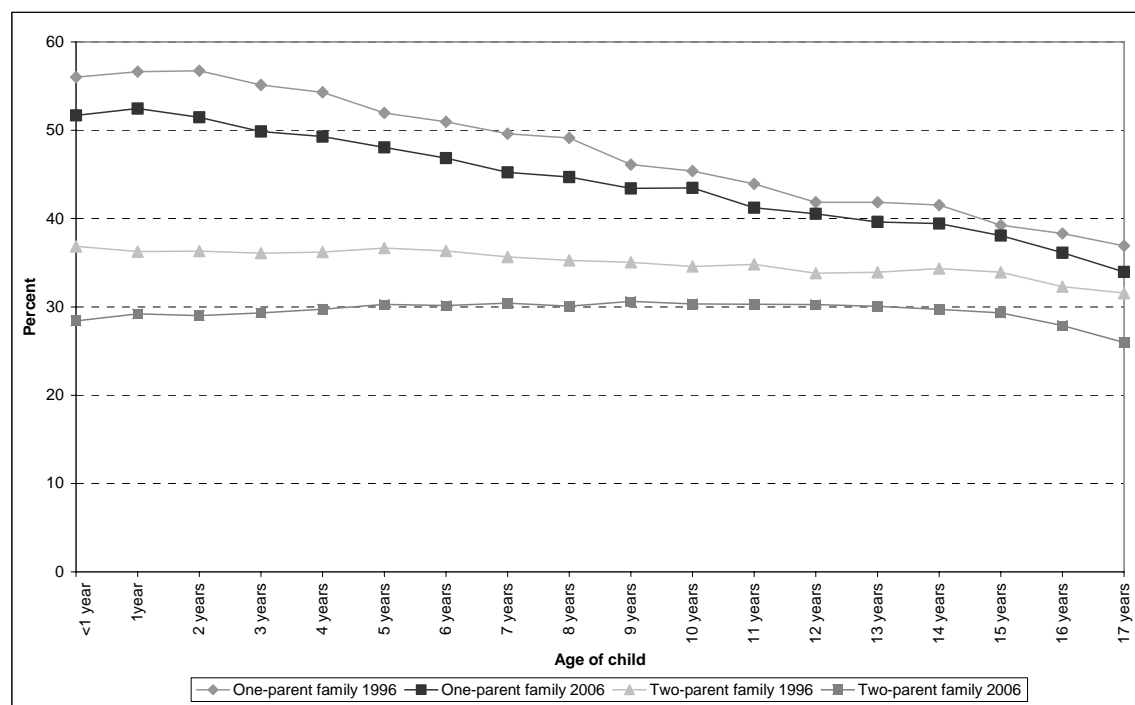


Source: Statistics New Zealand, unpublished census data

Differences by family type and age

Children in one-parent families (44 percent) were much more likely than children in two-parent families (30 percent) to be living with a parent who regularly smoked in 2006. The difference was greatest at younger ages. Babies under one year living in a one-parent family (52 percent) were almost twice as likely as those living in a two-parent family (28 percent) to live with a parent who regularly smoked.

Figure EN1.2 Proportion of dependent children with at least one parent who is a regular smoker, by family type and age of child, 1996, 2006



Source: Statistics New Zealand, unpublished census data

Over the decade to 2006, the fall in the proportion of children living with a parent who regularly smoked was greater for children in two-parent families than for those in one-parent families. Pacific children in one-parent families were the only group for which the proportion living with a parent who smoked did not fall.

Table EN1.1 Proportion (%) of dependent children under 18 living with at least one parent who is a regular smoker, by ethnic group and family type, 1996, 2006

Year, Ethnic group of child	Family type		
	One parent family	Two-parent family	Total families
1996			
European	45	32	35
Māori	61	58	59
Pacific peoples	45	48	47
Asian	20	23	23
Other	31	30	30
Total	48	35	38
2006			
European	41	27	30
Māori	59	53	56
Pacific peoples	46	44	45
Asian	15	18	18
Other	18	22	21
Total	44	30	33

Source: Statistics New Zealand, unpublished census data

Household crowding

Definition

The proportion of children under 15 years and young people aged 15–24 years living in crowded households. A crowded household is defined as a household that requires one or more additional bedrooms, as defined by the Canadian National Occupancy Standard.

Relevance

New Zealand research has found a strong association between household crowding and the prevalence of certain infectious diseases such as meningococcal disease, acute rheumatic fever and tuberculosis, with the association most marked among young children. Crowding is also associated with other measures of socioeconomic deprivation such as low income, unemployment, low education level and fewer material resources such as cars and telephones. Children living in a crowded house are almost twice as likely to have a smoker in the household as children in a house that is not crowded.¹¹⁹ International research has found an association between residential crowding and psychological distress, including that of children.¹²⁰

Current level and trends

In 2006, 17 percent of children under 15 years (136,563 children) and 17 percent of young people aged 15–24 years (89,076) were living in crowded households.

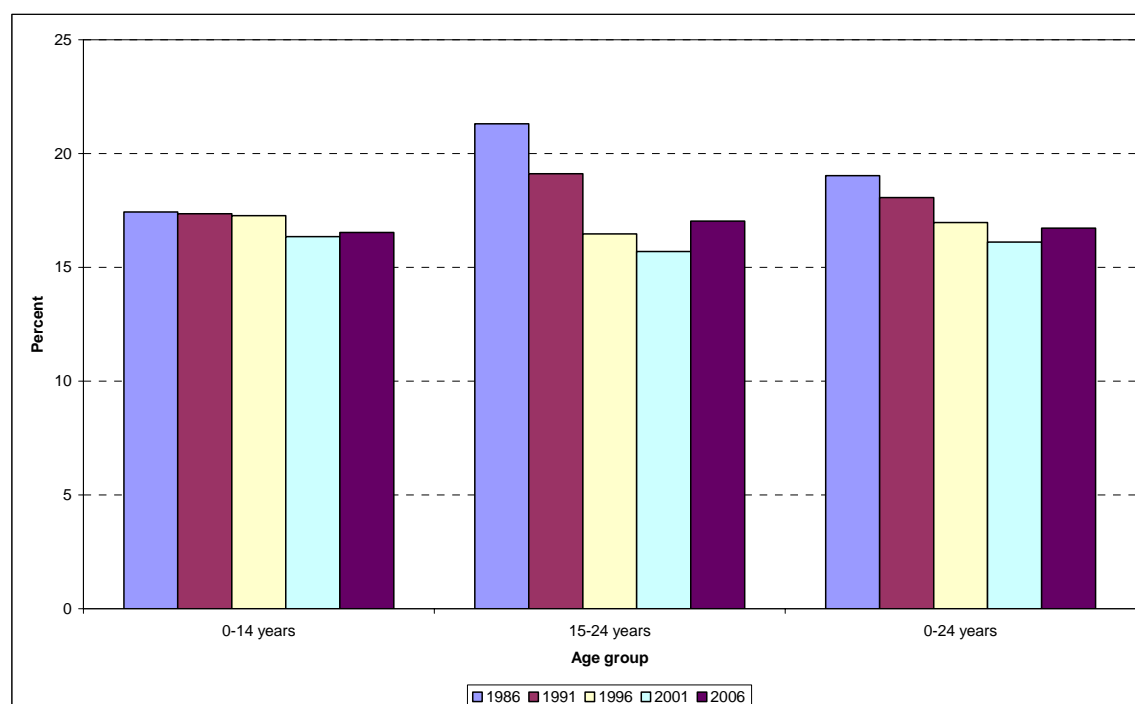
The proportion of children under 15 living in crowded households remained fairly steady at around 16 to 17 percent between 1986 and 2006. Among 15–24 year olds the proportion living in crowded households fell from 21 percent to 16 percent between 1986 and 2001 but increased again slightly, to 17 percent, in 2006.

For the total population aged under 25 years, the proportion living in crowded households fell from 19 percent in 1986 to 16 percent in 2001, then increased slightly to 17 percent in 2006.

¹¹⁹ Baker M, Goodyear R, Howden-Chapman P (2003)

¹²⁰ Evans GW (2003)

Figure EN2.1 **Proportion of the population aged under 25 years living in crowded households, by age group, 1986–2006**



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

Age and sex differences

Children and young people are more likely than older New Zealanders to be living in crowded conditions. In 2006, 17 percent of the population under 25 years of age lived in households requiring one or more bedrooms, compared with 7 percent of the population aged 25 years and over.

Children aged 10–14 (15 percent) were slightly less likely than those aged under 10 and young people aged 15–24 (both 17 percent) to be living in crowded households in 2006.

There were almost no sex differences in the propensity of children and young people to be living in crowded households in 2006.

Table EN2.1 **Proportion (%) of children and young people living in crowded households, by age and sex, 2006**

Sex	Age group			
	0–9 years	10–14 years	15–24 years	Total under 25 years
Male	17.1	15.2	17.0	16.7
Female	17.2	15.5	17.1	16.8
Total	17.2	15.3	17.0	16.7

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

Ethnic differences

Pacific children and young people are far more likely than those of other ethnic groups to be living in crowded households. For example, in 2006, 46 percent of Pacific children under 15 years lived in crowded households, compared with 28 percent of Māori children, 22 percent of Asian children and 8 percent of European children. The pattern was similar among 15–24 year olds.

Levels of crowding improved between 1986 and 2006 for European, Māori and Pacific children and young people. They also improved among Asian young people aged 15–24 but for Asian children aged under 15 there was an increase in crowding between 1986 and 1996 before it fell back to the earlier level. Among those ethnic groups combined into the Other category, the proportion living in crowded housing increased (from 25 percent to 27 percent for those under 15 years; and from 29 percent to 32 percent for those aged 15–24).

Table EN2.2 **Proportion (%) of children and young people living in crowded households, by age and ethnic group, 1986–2006**

Age group, year	Ethnic group					
	European	Māori	Pacific people	Asian	Other	Total
Under 15 years						
1986	10.9	37.5	50.8	22.7	25.2	17.4
1996	10.1	30.3	48.1	24.8	29.0	17.3
2006	8.0	27.8	46.3	22.3	26.8	16.5
15–24 years						
1986	15.4	42.5	58.9	31.8	28.9	21.3
1996	10.1	28.8	50.2	23.5	31.8	16.5
2006	8.5	27.8	48.3	24.0	32.2	17.0

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

Regional differences

The proportion of children living in crowded households varies widely across New Zealand's 73 territorial authority areas, with the highest levels in Manukau City (southern Auckland). In 2006, 35 percent of children under 15 years and 33 percent of 15–24 year olds living in Manukau City lived in crowded households, compared with just four percent and six percent, respectively, of children and young people in the South Island district of Selwyn. Other territorial authorities with high proportions of children and young people living in crowded households included Opotiki (31 percent; 30 percent); Kawerau (27 percent; 29 percent); the Far North (27 percent; 26 percent), Wairoa (26 percent; 27 percent); Porirua (24 percent and 27 percent); and Auckland City and Papakura (both 25 percent in each group).

Summary findings

Summary findings

This section summarises wellbeing outcomes for New Zealand children and young people and how they have changed over recent years, particularly since the mid-1990s. It includes a comparison of New Zealand outcomes with those of other countries. Changes over time for Māori, Pacific, Asian and Other ethnic group children and young people are also presented.

Changes in child and youth wellbeing over time

Overall, this report shows that wellbeing outcomes for New Zealand children and young people are generally positive and are improving. Of the 36 indicators for which there is trend data, 22 show improvement, while a further 11 have changed little or not at all. For the remaining three indicators there has been some deterioration in recent years, although in one of these (Te reo Māori speakers), other measures of language use show improvement over the same period.

Figure SU1 shows changes in wellbeing for the 24 indicators which have data for the mid-1990s and can be compared over a decade.

Health

In the health domain, most indicators show improving outcomes. Infant mortality has more than halved since the late 1980s. The proportion of 14–15 year olds who regularly smoke cigarettes has more than halved since 1999. The youth suicide rate has fallen since the mid-1990s, but is still higher than it was in the mid-1980s. Immunisation coverage at two years has improved substantially since the early 1990s but is still below the target level of 95 percent required to prevent the outbreak of diseases such as measles. Hearing test failure at school entry has also improved since the early 1990s. The proportion of children born with a low birth weight has improved since 2002 and was lower in 2006 than it was a decade earlier.

There has been little change in oral (dental) health since the early 1990s. In 2006, just over half of five year olds were caries free, while 12 year olds had, on average, 1.6 decayed, missing or filled teeth. There was no change in child obesity or youth physical activity over the five years to 2007. The 2006/2007 New Zealand Health Survey found that 8 percent of children aged 5–14 years were obese. Among 15–24 year olds, just over half (55 percent) met physical activity guidelines.

Care and support

The care and support domain includes two indicators for which there is no time series information yet.¹²¹ They provide measures of wellbeing from the perspective of young people themselves. Most secondary school students said they had positive relationships with their parents but many reported not getting enough time with at least one of them. Half of the students had seen adults in their home yelling or swearing at other adults or children. One in 20 had seen adults physically hurting other adults, and around one in six had witnessed adults hitting or physically hurting children.

¹²¹ These indicators are drawn from the Youth2000 survey, conducted in 2001. Results from a repeat survey, Youth2007, were not available in time for this report.

Early childbearing is the third indicator in this domain. The birth rate for females under 20 years has generally followed a downward trend over the long term. Between 1997 and 2002, it fell from 33.2 births per 1,000 females to 25.8 per 1,000, but this decline was almost reversed in the five years to 2007, when it reached 31.6 per 1,000.

Education

Outcomes in the education domain that have improved include the proportion of children living with parents with no qualifications, which more than halved between 1986 and 2006. Participation in early childhood education at ages three and four years has increased continuously since the late 1980s, while the proportion of school leavers with National Certificate of Educational Achievement (NCEA) Level 2 or above has increased since 2003, reaching 66 percent in 2007.¹²²

Reading literacy and mathematical literacy at age 15 did not change between 2003 and 2006; there was no trend data for scientific literacy. On each of these indicators, New Zealand students perform very well, on average. However, for reading and scientific literacy, the wide spread of scores indicates a relatively high level of disparity between high and low achievers. The proportion of students staying on at school to age 17.5 years fluctuated over the decade and in 2007 it was similar to the level in 1992.

For 18–24 year olds, both the tertiary education participation rate and the tertiary qualification completion rate have increased since 1999, though there has been little change in recent years. In 2007, over a third of 18–24 year olds (37 percent) were enrolled in tertiary education. In 2006, 8 percent of 18–24 year olds completed a qualification at a tertiary education institute.

The only indicator to deteriorate in this domain was the school truancy rate, which increased slightly between 2004 and 2006.

Economic security

Outcomes have improved for four of the five indicators in the economic security domain. The proportion of children under 15 years with no parent employed fell from 25 percent in 1991 to 17 percent in 2006, but was still higher than it had been in 1986 (14 percent). The proportion of children living in low-income households more than halved between 1994 and 2007 (from 35 percent to 16 percent), but was still above the 1986 rate of 11 percent. The unemployment rate for 15–24 year olds declined from 14.6 percent in 1998 to 9.7 percent in 2007, while real median hourly earnings for this age group have increased since 1997, particularly for 15–19 year olds. These improved economic outcomes broadly coincide with trends for the adult population over the same period.¹²³

The employment rate for 15–24 year olds has remained steady over the last decade, in part because of higher levels of participation in education.

¹²² The National Certificate of Educational Achievement was introduced in 2002. A direct comparison cannot be made with higher secondary school qualifications in earlier years.

¹²³ See Ministry of Social Development (2008) The Social Report 2008.

Safety

For the three indicators in the safety domain that can be monitored over time, the trends are mainly positive. For children under 15 years, the rate of death from unintentional injuries fell by one quarter in the decade to 2005. The child assault death rate was lower in the five-year period 2001–2005 than in 1996–2000. However, the assault death rate for 15–24 year olds increased slightly over the same period.¹²⁴

Road safety has improved substantially for children and young people over the last twenty years. Since the mid-1990s, the road death rate for children under 15 years has almost halved, while the rate for 15–24 year olds has fallen by one third.

There is no trend data for the remaining three safety indicators, which each reflect young New Zealanders' own perceptions of safety. Almost a third of secondary school students reported in 2001 that they had been bullied at school in the last 12 months. Just over half of 15–24 year olds experienced some form of criminal victimisation in 2005, while 41 percent said that fear of crime had a moderate or high impact on their quality of life.

Civil and political rights

The single indicator in the civil and political rights domain showed improvement. Estimated voter turnout among registered 18–24 year olds was higher in the 2005 general election than in any of the previous six elections.

Justice

Recent improvements were evident in the justice domain. The police apprehension rate for 14–16 year olds declined between 2003 and 2006, while the rate of cases proved in the Youth Court was lower in 2006 than in 2004.¹²⁵

Culture and identity

One of the two indicators in the culture and identity domain deteriorated while the other showed little or no change. Between 2001 and 2006, there was a slight decline in the proportion of Māori children and young people who could hold a conversation about everyday things in Māori, as measured by the five-yearly population census. However, the Māori Language Survey, which measured language proficiency, found an increase in the proportion of Māori aged 15–24 with some level of speaking proficiency over the same period.

For ethnic groups other than Māori, most experienced little change between 2001 and 2006 in the proportion of children and young people who could hold a conversation about everyday things in their first language.

Social connectedness

Both indicators in this domain showed improvement. Children and young people were more likely to live in households with telephone access in 2006 than in 2001, and much more likely to have Internet access at home.

Environment

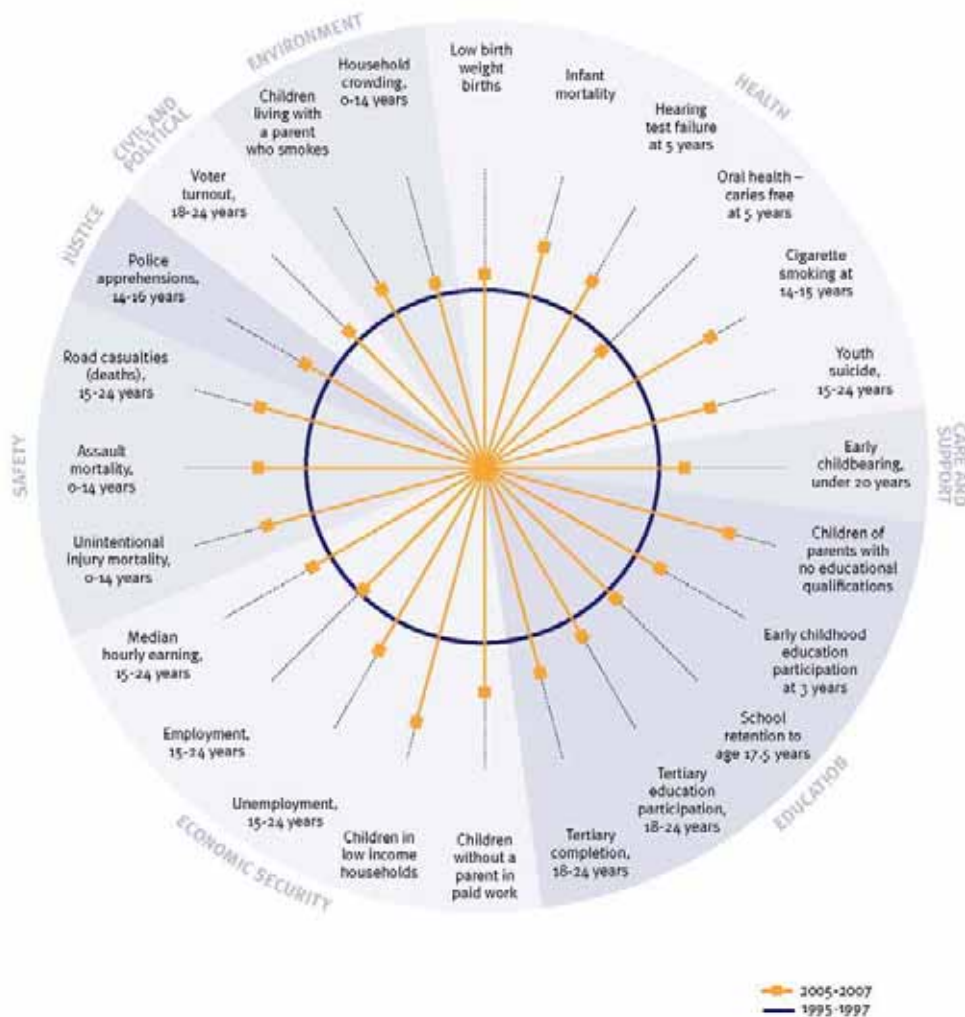
Children under 18 years were less likely to be living with at least one parent who regularly smokes in 2006 than in 1996.

The proportion of children under 15 years living in crowded housing remained fairly steady over the twenty years from 1986 to 2006. Over the same period, 15–24 year olds became less likely to be living in crowded housing, although the proportion in this situation increased slightly between 2001 and 2006.

¹²⁴ These apparent trends in both child and youth assault mortality rates should be interpreted with caution because they are based on very small numbers.

¹²⁵ The introduction of a new system for recording cases in 2004 precludes longer time trends.

Figure SU1 Changes in child and youth wellbeing, 1995–1997 to 2005–2007



Interpreting “Changes in child and youth wellbeing, 1995–1997 to 2005–2007”

The circle represents average outcomes for each indicator between 1995 and 1997, and the spokes represent outcomes between 2005 and 2007. Where possible, the data is averaged over the three years in these two time periods. Where a spoke falls outside of the circle, this means outcomes have improved since the mid-1990s; the further from the circle it falls, the more substantial the improvement. Where a spoke falls within the circle, the outcome for this indicator has deteriorated since the mid-1990s; the further the spoke is from the circle, the more pronounced the deterioration.

There are some important limitations on this style of presentation. In particular we cannot directly compare the size of changes for different indicators. The absence of trend data for some indicators limits the number of indicators displayed above to 24. Most of the latest data is for 2005–2007, with the exception of suicide (2003–2005) and assault mortality (2001–2005). The earlier period is 1995–1997 for all indicators except cigarette smoking, tertiary education participation and tertiary completion (1999 for each of these), and assault mortality (1996–2000).

For fuller information on trends over time, see the Current Level and Trends sections of the indicators.

International comparisons

Of the 42 indicators in this report, 17 include internationally comparable data on child or youth outcomes. For nine of these indicators, New Zealand outcomes were better than the median outcome for the 30 countries of the Organisation for Economic Cooperation and Development (OECD), while for seven indicators they were worse. For the remaining indicator, New Zealand outcomes were similar to those of other countries.¹²⁶ The comparisons are based on the latest OECD data available and New Zealand data for the same period is used, even where more recent data is available.

New Zealand compared very well with other OECD countries in the education domain. Participation in early childhood education is relatively high, with New Zealand ranking sixth among OECD countries in 2004. New Zealand 15 year olds performed strongly in the OECD Programme for International Student Assessment (PISA) study in 2006, scoring significantly above the OECD average on assessments for reading, mathematical and scientific literacy. New Zealand 18–24 year olds have a relatively high rate of participation in tertiary education at diploma and degree level, ranking seventh among OECD countries in 2005.

There were two positive results for youth in the economic security domain. New Zealand 15–24 year olds had the seventh highest employment rate in the OECD and the 12th lowest youth unemployment rate in 2007. For children under 18 years, the only internationally comparable indicator in this domain was children living in households with low incomes. In 2004, the New Zealand outcome for this indicator was somewhat less favourable than the OECD median (50 percent threshold) for that year. More recent New Zealand data (2007) shows very little change on this measure. Using a 60 percent of median threshold, New Zealand's rate was above the European Union average in 2004 and had fallen to the EU average by 2007.

In the social connectedness domain, New Zealand 15 year olds have a relatively high level of access to the internet at home compared to their OECD counterparts.

In the health domain, New Zealand compared favourably on low birth weight births, which were less prevalent in New Zealand than in most OECD countries. However, this finding is difficult to interpret across countries with different ethnic distributions because average birth weight varies by ethnicity.

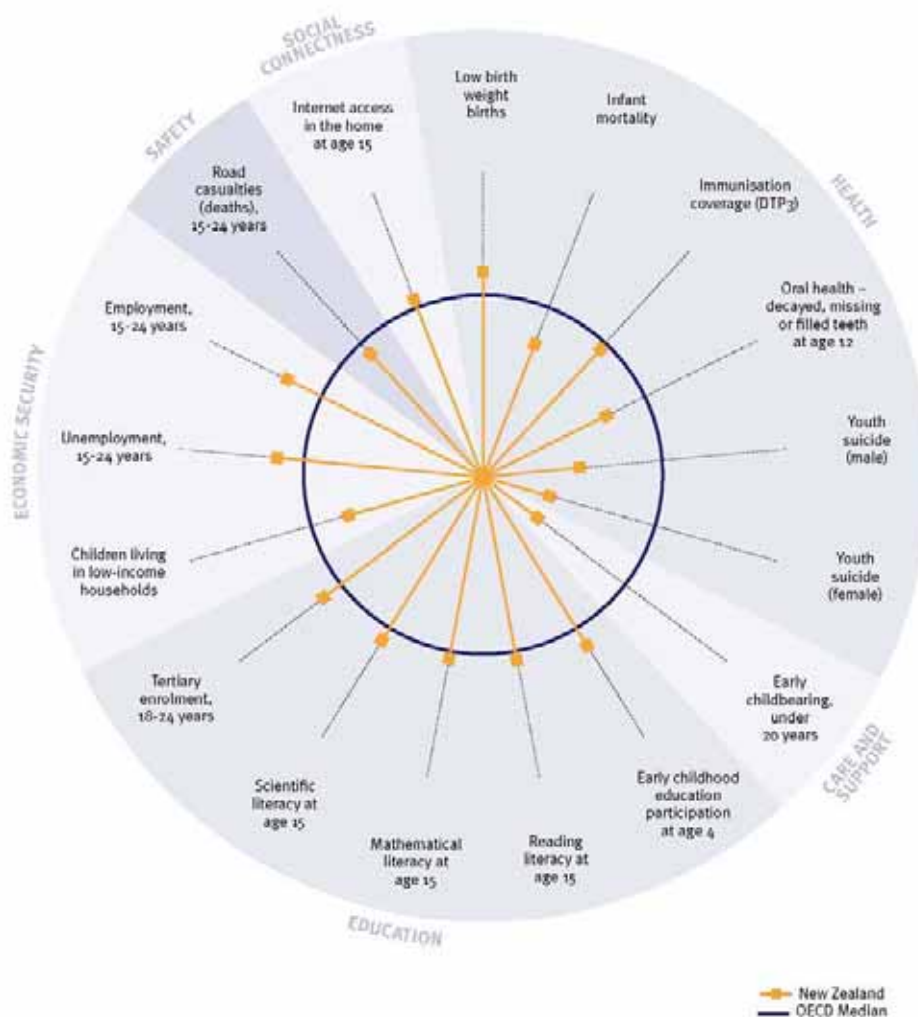
For other indicators in the health domain, New Zealand outcomes were less favourable when compared to other countries. New Zealand's infant mortality rate was higher than the OECD median, while its youth suicide rates were among the highest. Immunisation coverage of New Zealand children at age two years was lower than the OECD average for four of the five main early childhood vaccinations. In oral health, New Zealand 12 year olds were more likely to have decayed, missing or filled teeth than children of that age in other OECD countries.

In the care and support domain, New Zealand's teenage birth rate was well above the OECD median, ranking fourth highest in the OECD.

In the safety domain, results for New Zealand were similar to those of other countries. New Zealand's road death rate for 15–24 year olds was just above the OECD median in 2006. New Zealand secondary school students were about as likely as students of a similar age in European countries to experience bullying at school.

¹²⁶ One of these two, bullying at school, is not included in the figure below because international data was not available in a suitable summary form.

Figure SU2 Child and youth wellbeing in New Zealand relative to the OECD



Interpreting “Child and youth wellbeing in New Zealand, relative to the OECD”

This figure shows New Zealand child and youth wellbeing relative to the OECD for 15 indicators (counting the two spokes for suicide as one indicator). The circle represents the OECD median for each indicator, and the spokes represent New Zealand’s outcomes relative to the OECD median. Where a spoke falls inside the circle, New Zealand is in the lower half of the OECD. Where the spoke falls outside the circle, outcomes in New Zealand are better than the OECD median.

For each indicator, the most recent data has been used where possible. Most of the data is for years between 2005 and 2007. Exceptions are: children living in low-income households (2004), oral health (2003), and suicide (2002–2005). Bullying at school is not shown in the figure as international data is not available in a suitable summary form. For immunisation, DTP3 has been used to represent the results of the indicator, in which five different vaccinations are compared. Tertiary enrolment at 18–24 years refers to enrolments at diploma/degree level only.

SOME CAUTION IS REQUIRED WITH THIS DATA: international comparisons can be difficult to interpret because of the different methods countries use to collect, classify and record social data. Problems of comparability are less likely where the data comes from OECD surveys or where it is based on international standards like those developed by the International Labour Organization or the World Health Organization.

Māori children and young people

The report shows that most outcomes for Māori children and young people have changed for the better within the last decade. Of the 27 indicators with data for Māori over time, 16 show improvement, five have remained steady and six show some deterioration.

In the health domain, a number of indicators show improvement. The proportion of low birth weight babies declined between 2001 and 2006, although it was relatively unchanged from a decade ago. The infant mortality rate fell by 42 percent between 1996 and 2005. There have also been improvements in hearing test failure rates and rates of cigarette smoking among 14–15 year-olds have fallen dramatically since 1999, by 43 percent for males and 34 percent for females. The only indicator in the health domain to show recent deterioration for Māori was the youth suicide rate which, after falling between the periods 1996–1998 and 1999–2001, increased by nearly as much in the years up to 2003–2005.

Despite the improvements, health outcomes for Māori generally compare unfavourably against those for the total population: Māori have a higher proportion of low birth weight babies, higher infant mortality, lower immunisation rates, poorer hearing and oral health, higher rates of obesity and cigarette smoking and higher rates of youth suicide. The only health indicator on which they compare favourably with the total population is the proportion of youth meeting physical activity guidelines.

In the care and support domain the only indicator which can be monitored over time is early childbearing, which shows that the teenage birth rate for Māori fell by 26 percent between 1997 and 2002 before increasing by a similar amount between 2002 and 2007. Just over half of all women who have children in their teens are Māori. In terms of their relationships with parents, the proportion of Māori secondary school students who felt that their parents cared about them a lot was similar to the figure for the total population at around 90 percent in 2001. However, young Māori were slightly less likely than others to report that they felt close to their parents most of the time or spent enough time with them. Māori secondary school students were also more likely than students in general to have witnessed an adult hitting or hurting a child or another adult in their home in the last 12 months.

There have been gains in Māori educational participation and achievement in recent years, from early childhood through to tertiary level. Māori children are much more likely than in the past to have parents with educational qualifications – the proportion living without parents with formal educational qualifications fell from 51 percent to 25 percent between 1986 and 2006. Māori children are increasingly likely to have attended early childhood education before starting school and are more likely to leave school with higher qualifications. The proportion of Māori school leavers with NCEA level 2 or above increased from 29 percent to 44 percent between 2003 and 2007, the largest improvement of any ethnic group. On the other hand, there has been a slight fall in the proportion of Māori staying on at school to the age of 17.5 years since the early 1990s and an increase in school truancy among Māori since 2004. At tertiary level, the proportion of 18–24 year old Māori females participating in tertiary education increased markedly between 2001 and 2002 but fell by a similar amount from 2004 to 2007, while over the whole period from 2001 there was a small increase in tertiary education participation for Māori males. The proportion of Māori completing tertiary education qualifications increased between 1999 and 2003 and fell back in subsequent years, although over the whole period there was an improvement in this outcome for Māori, particularly for Māori females.

Despite some positive trends, educational indicators for Māori generally compare unfavourably with those for the total population. Māori still have lower rates of participation in early childhood education, higher truancy rates, and lower mean scores for reading, mathematical and scientific literacy. They are also considerably less likely to stay on at school to the age of 17.5 years and to leave school with higher qualifications. At tertiary level, participation rates for Māori 18–24 year olds are not much below those of the total population in that age group (31 percent compared with 37 percent in 2007) but there is more of a gap in the proportion of this age group who completed qualifications (6 percent compared with 8 percent for the total population in 2006).

Indicators in the economic security domain paint a far more positive picture for young Māori than they did in the late 1980s and early 1990s. The proportion of Māori children whose parents were not in paid work fell from 48 percent to 30 percent between 1991 and 2006. Young Māori in the 15–24 year age group are themselves much more likely to be in paid employment than they were in the early 1990s, thanks largely to a dramatic decline in the unemployment rate for this age group, which fell from 39 percent in 1991 to 17 percent in 2007. However, by comparison with the total population aged 15–24 years, unemployment rates for Māori youth are still relatively high and employment rates relatively low. There is little difference in median hourly earnings between Māori and the total population aged 15–24 (\$12.36 for Māori compared with \$12.50 for the total population in 2007) but there has been no significant increase in real median hourly earnings for young Māori since the late 1990s.

In the safety domain, recent trends for Māori children and young people are mixed. The likelihood of dying from assault was lower in 2001–2005 than it had been in the previous five-year period for both under-15 year olds and 15–24 year olds. Deaths of under-15 year olds from unintentional injury are lower than they were in the late 1990s. Road deaths for Māori under the age of 25 increased between 2001 and 2005. By comparison with the total population under 25 years, young Māori are at greater risk of dying from assault, unintentional injury and motor vehicle accidents. Although 15–24 year old Māori are not significantly more likely to experience criminal victimisation, they are more likely to be victims of confrontational offences such as assaults, threats or robbery, and to report that fear of crime affects their quality of life. Similarly, although Māori secondary school students were less likely than New Zealand European students to report having been bullied at school, those who had been bullied were more likely to regard it as severe, and more likely to avoid school because of fear of bullying.

Young Māori are also over-represented in youth justice statistics, accounting for almost half of all police apprehensions of 14–16 year olds and over half of all cases proved in the Youth Court involving 14–16 year olds.

In other domains the trends for young Māori are generally positive. While census results show a slight fall between 2001 and 2006 in the proportion of young Māori who can hold a conversation in te reo Māori, a survey on the health of the Māori language shows that the proportion of 15–24 year olds with a high proficiency level in the language more than doubled over the same period. Between 2001 and 2006 the proportion of Māori children and young people living in households with access to telephones increased while the proportion living in households with internet access almost doubled, although in both cases Māori are less likely than the total child and youth population to have access. The proportion of Māori children living with parents who are regular smokers has fallen over the last decade, as has the proportion of children and youth living in crowded households, although again the rates for Māori remain considerably higher than for children and youth generally.

Pacific children and young people

Outcomes for Pacific children and young people have improved within the last decade for most of the 22 indicators for which there is trend data: 15 have changed for the better, while seven showed little or no change.

In the health domain, the picture is mixed. The proportion of Pacific babies with a low birth weight, which is relatively low compared to other ethnic groups, declined slightly between 2000 and 2006, although it changed little over the decade. On the other hand, the Pacific infant mortality rate is relatively high and has fluctuated since 1996, with no clear pattern of improvement over the period as a whole. At school entry, Pacific children are more likely than others to fail the hearing test, although their failure rates have declined since 2001/2002. Rates of cigarette smoking among 14–15 year-old Pacific students have fallen substantially since 1999, by 41 percent for males and 45 percent for females. Like Māori, Pacific children have poorer oral health outcomes than children of other ethnic groups. Obesity prevalence was highest among Pacific children and did not change between 2002/03 and 2006/07. Pacific youth were not significantly less likely than youth generally to meet physical activity guidelines and there was no change in this outcome between 2002/03 and 2006/07. Suicide rates for Pacific youth were not statistically different from the national average rate for 15–24 year olds in the period 2000–2005.

In the care and support domain, the teenage birth rate for Pacific women declined between 2001 and 2006. Pacific students, along with New Zealand European students, were more likely than other students to report positive relationships with their parents. However, like Māori, Pacific students were more likely than other students to report witnessing adults in the home hurting other adults or children.

Several gains for Pacific children and young people are evident in the education domain. There was a substantial fall in the proportion of Pacific children living with parents without educational qualifications between 1986 and 2006, from 47 percent to 23 percent. Since 2000, improvements in early childhood education participation have been greater for Pacific children than for the total population, although Pacific children still have the lowest rate. At the other end of schooling, since 1998, Pacific students have been more likely than secondary students generally to stay on at school to age 17.5 years. The proportion of Pacific school leavers with NCEA Level 2 or above increased from 42 percent in 2003 to 56 percent in 2007. Tertiary education participation has increased for Pacific 18–24 year olds since 2001, particularly for females. Other education outcomes are less favourable: Pacific students have relatively high school truancy rates and had the lowest mean scores for reading, mathematical and scientific literacy.

Similarly, in the economic security domain there have been some substantial gains, such as the dramatic fall since 1991 in the proportion of Pacific children without a parent in paid work (from 45 percent to 29 percent in 2006). For 15–24 year old Pacific youth, the unemployment rate has fallen since 1999, while the employment rate has increased over the same period. However, there was no significant increase in median hourly earnings for Pacific youth over the decade to 2007.

In the safety domain, there is no clear trend between 2001 and 2005 in the road death rate for Pacific children and young people under 25 years of age, although the rates for young Pacific people were lower than the national average from 2003. Pacific youth aged 15–24 years were not significantly more likely than youth of other ethnic groups to experience criminal victimisation, and they were less likely than New Zealand European students to report being bullied at school. However, those who had been bullied were more likely to regard it as severe.

In the justice domain, the police apprehension rate for Pacific youth, while higher than that of the New Zealand European and other category (including Asian), is lower than the rate for the total population aged 14–16 years. Pacific young people accounted for 11 percent of cases proved in the Youth Court, the same proportion as they made up of the population aged 14–16 years.

In the culture and identity domain, the proportion of the population under 25 years who could speak the first language of their ethnic group declined slightly between 2001 and 2006 for those of Samoan, Niuean and Cook Island Māori ethnicity and remained steady for Tongans. Pacific children and young people born in New Zealand are less likely to be able to speak the first language of their ethnic group than those born overseas, and the proportion varies widely between Pacific ethnic groups, ranging from 6 percent of Cook Island Māori to 46 percent of Samoans.

Outcomes in the social connectedness and environment domains were generally positive. Between 2001 and 2006 there was an increase in the proportion of Pacific people under 25 years with household access to a telephone, while the proportion living in households with internet access almost doubled. However, in both cases Pacific people are less likely than the national average to have access. The proportion of Pacific children living with parents who are regular smokers has declined slightly since 1996, but only for those living in two-parent families. Parental smoking remains much higher for Pacific children than for children generally. Pacific people under 25 years are far more likely than those of other ethnic groups to be living in crowded households, but there was an improvement in this outcome between 1986 and 2006, particularly for 15–24 year olds.

Asian children and young people

Twenty-six indicators in this report provide separate information for Asian children and young people. In a further three indicators, those of Asian ethnicity are included, along with ethnic groups other than European, Māori, Pacific peoples, in a category referred to here as Other (including Asian).

Of the 15 indicators with trend data for Asian children and young people, 11 showed improvement within the last decade, three remained steady, while one deteriorated slightly.

Health outcomes for Asian children and youth are mostly very favourable. At age two, Asian children have relatively high levels of immunisation coverage, similar to those of New Zealand European children. At school entry, Asian children consistently have the lowest rates of hearing test failure and at ages 5–14 years, they have lower than average rates of obesity. At secondary school, Asian 14–15 year olds, particularly females, have the lowest regular cigarette smoking rates and these have declined substantially since 1999 (by 40 percent for males and 62 percent for females). For the period 2000–2005, Asian youth had a significantly lower youth suicide rate than the national average, in both the 15–19 and 20–24 age groups. Physical activity was the only health outcome in which Asian young people performed poorly; they were the least likely among 15–24 year olds to have met physical activity guidelines in the previous week, with no significant change since 2002/03.

In the care and support domain, Asian secondary school students, with New Zealand Europeans, were more likely than other students to report that most weeks they get enough time with their Mum and/or Dad. They were more likely than New Zealand European students, but less likely than Māori or Pacific students, to report witnessing an adult in their home hitting or hurting another adult. The teenage birth rate for Asian women is the lowest of all ethnic groups and it declined between 2001 and 2006.

Asian children and young people do particularly well in the education domain. In 2006, only 8 percent of Asian children under 18 years lived with parents without educational qualifications, the proportion having fallen from 29 percent in 1986. Asian children have the second highest rate of participation in early childhood education and it has improved since 2000. Asian school students have the lowest school truancy rate. Asian 15 year olds had the highest mean score in mathematical literacy in 2006, and the second highest mean scores, after European students, in reading and scientific literacy. In 2006, an estimated 92 percent of Asian students had stayed at school to their 17th birthday, compared to 71 percent of all students.¹²⁷ Asian students who left school in 2007 had the highest proportion with NCEA Level 2 or above. Only at tertiary level was the picture less positive. The tertiary education participation rate for Asian 18–24 year olds fell sharply between 2001 and 2003 and had almost recovered by 2007, when it stood at 32 percent, just above the rates of Māori and Pacific peoples.

There is limited information for Asian people in the economic security domain because most of the indicators are based on survey data which does not yet report separate data for the Asian ethnic group. The five-yearly population census shows that the proportion of Asian children under 18 year without a parent in paid work has fallen since 1996 and at 19 percent in 2006, it was just above the national average (17 percent). In the median hourly earnings indicator, Asians are included in the Other ethnic group. There were no statistically significant differences between the median hourly earnings of Other (including Asian) 15–24 year olds and those of other youth in 2007, and no significant changes in median hourly earnings for these youth over time.

In the safety domain, Asian youth aged 15–24 years were not significantly more likely than youth of other ethnic groups to experience criminal victimisation, and they were less likely than New Zealand European students to report being bullied at school. However, those who had been bullied were more likely to regard it as severe.

¹²⁷ School retention to age 17.5 years, the measure used for change over time, is not available for Asian students.

Outcomes in the justice domain were favourable for Other (including Asian) youth. In 2006, 14–16 year olds in this group had relatively low rates of apprehension by police, and were under-represented in cases proved in the Youth Court.

In the culture and identity domain, people under 25 years who identified with Asian ethnic groups were more likely than those identifying with Pacific or European ethnic groups to be able to hold everyday conversations in the first language of their ethnic group. For most Asian ethnic groups, the proportion increased slightly between 2001 and 2006.

Outcomes in the social connectedness were positive. Almost all Asian people under 25 years live in households with access to a telephone. Among children under 18 years, Asians (with Europeans) have the highest proportion with access to the internet at home, while among 18–24 year olds, Asians have by far the highest proportion with access.

In the environment domain, Asian children under 18 were the least likely of all ethnic groups to be living with parents who regularly smoked and the proportion fell between 1996 and 2006. On the other hand, Asian children and young people are more likely than children generally to be living in crowded households. For Asian youth aged 15–24 years, the proportion in living in crowded housing declined between 1986 and 2006 but for children under 15 there was little change.

Other (excluding Asian) children and young people

There is limited separate information for the Other (excluding Asian) category, a group which makes up just over 1 percent of the population under 25 years. Most of these children and young people identify with various ethnic groups from the Middle Eastern, Latin American or African regions. The diverse and changing composition of this group makes it difficult to interpret results and trends. Their small numbers mean they are not well represented in sample surveys.

For most of the 12 indicators that have separate information for the Other (excluding Asian) group, outcomes are similar to, or better than, the national average. These include the proportion of children under 18 living with parents without educational qualifications; the early childhood education participation rate; the proportion of school leavers with NCEA Level 2 or above; positive relationships with parents, witnessing family violence, and the proportion of secondary school students who reported being bullied at school. Children and young people in this group have higher than average household access to a telephone, but lower than average access to cellphones. Their access to the internet at home has increased and is similar to that of children generally for those under 18 years, and higher than average for those aged 18–24 years. The proportion of children under 18 living with a parent who regularly smokes is lower than average and has declined since 1996.

Less favourably, children in Other (excluding Asian) ethnic group category, along with Māori, have a relatively low immunisation coverage at age two years. In contrast to children and young people in all other ethnic groups, those in the Other (excluding Asian) group were more likely to live in crowded housing in 2006 than in 1986, particularly those aged 15–24 years.

Summary table of indicators

Summary table of indicators

Indicator	Most recent level	Trend ☺ better ☺ same ☹ worse ⊖ not updated ⊖ not comparable	Variation within the population	International comparison ☺ better ☺ same ☹ worse ⊖ not comparable
Health				
Low birth weight births	5.8 percent of live births weighed less than 2,500 grams (2006)	☺ Little change between 1993 and 2006	Higher for Māori; regional differences	☺ Lower than OECD median
Infant mortality	5.1 infant deaths per 1,000 live births (2006)	☺ More than halved since 1988	Higher for Māori, Pacific infants; those in deprived areas; regional differences	☹ Higher than OECD median
Immunisation	71 percent of children fully immunised at age two (2007)	☺ Improvement since 1991/1992	Lower for Māori children	☹ Lower than OECD median
Hearing test failure at school entry	6.6 percent of primary school entrants failed hearing screening test (2005/2006)	☺ Improvement since 1991/1992	Higher for Māori and Pacific children; regional differences	⊖ No comparison available
Oral health	Caries free at 5 years: 53 percent (2006); average number of decayed, missing or filled teeth per child at 12 years (Year 8): 1.6 (2006)	☺ Caries free at 5 years: little change since 1990; DMFT score at age 12 (Year 8): no change since 1997	Poorer outcomes for Māori and Pacific children; those in schools without fluoridated water	⊖ (Caries free at 5 years) ☹ Higher than OECD median on DMFT index
Obesity	8.4 percent of 5–14 year olds were obese (2006/07)	☺ No statistically significant change since 2002	Higher for Pacific, Māori, those in deprived areas	⊖ No comparison available
Physical activity	55 percent of 15–24 year olds physically active (2006/07)	☺ No statistically significant change since 2002/03	Higher for males, lowest for Asian youth	⊖ No comparison available
Cigarette smoking at 14–15 years	13 percent of 14–15 year olds smoked cigarettes regularly (at least monthly) (2007)	☺ Considerable improvement since 1999	Higher for females, Māori, those at low decile schools; regional differences	⊖ No comparison available
Youth suicide	Suicide deaths: Three-year moving average rate of 18.1 per 100,000 15–24 year olds (2003–2005); Suicide attempts: 299.9 per 100,000 15–24 year olds (2006)	☺ Suicide death rate declined substantially from 1995–1997 to 2003–2005 but still higher than 1984–1986 rate	Much higher suicide death rate for males and Māori; much higher attempted suicide rate for females	☹ Male rate second highest and female rate third highest among 13 OECD countries

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Care and support				
Positive relationships with parents	More than 90 percent of students reported that Mum and Dad cared about them a lot (2001)	⊖ No trend available	Lower proportion for Māori	⊖ No comparison available
Witnessing violence in the home	In last 12 months, youth witnessing (1) adults hurting other adults: 6 percent; (2) adults hurting children: 16 percent; (3) adults yelling/swearing at other adults: 49 percent; (4) adults yelling/swearing at children: 48 percent	⊖ No trend available	Māori, Pacific and Asian students more likely to witness adults hurting other adults; Māori and Pacific students more likely to witness adults hurting a child;	⊖ No comparison available
Early childbearing	31.6 births to females under 20 per 1,000 females aged 15–19 years (2007)	⊕ Increased between 2002 and 2007, but lower than rate in early-to-mid 1990s.	Higher rates for Māori and Pacific and those in deprived areas; wide regional differences	⊕ Fourth highest among 30 OECD countries in 2004–2006
Education				
Children of parents without educational qualifications	12 percent of dependent children under 18 years lived in families in which no parent had a formal qualification (2006)	☺ Considerable improvement since 1986	Higher for Māori and Pacific children; children living in one-parent families	⊖ No comparison available
Participation in early childhood education	'Apparent' participation rate of 97 percent for 3 year olds and 102 percent for 4 year olds (2007)	☺ Continuous increase since 1988	Lower for Pacific and Māori children and those in low decile schools; regional differences	☺ Higher than OECD median
School truancy	Standardised unjustified absence rate of 2.3 percent of students enrolled (2006)	⊕ Increased since 2004	Higher for Māori, Pacific and older students; those at low-decile schools; regional differences	⊖ No comparison available
Reading literacy at age 15	Combined mean reading literacy score of 521 (2006)	☺ No change between 2000 and 2006	Lower mean scores for Māori, Pacific and male students	☺ Higher than OECD average
Mathematical literacy at age 15	Mean score in mathematics literacy of 522 (2006)	☺ No change between 2003 and 2006	Lower mean scores for Māori and Pacific students	☺ Higher than OECD average
Scientific literacy at age 15	Mean score in science literacy of 530 (2006)	⊖ Different method of measuring scientific literacy	Lower mean scores for Māori and Pacific students	☺ Higher than OECD average

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Retention of students in senior secondary schools	71.1 percent of students stayed on at school to age 17 (2006, individuals); 60.8 percent of all students stayed at school to age 17.5 (2007, aggregate)	☹ Little change in past four years; similar to level in 1992	Lower proportions for Māori, European, males, and those from low-decile schools	⊖ No comparison available
School leavers with higher qualifications	66 percent of school leavers gained NCEA Level 2+ (2007)	☺ Improvement since 2003	Lower proportions for Māori, Pacific and male students, and those from low-decile schools	⊖ No comparison available
Participation in tertiary education	36.8 percent of 18–24 year olds enrolled at some time during 2007	☺ Steady	Lower proportions for Māori, Pacific, males	☺ Higher than OECD median for 18–24 year olds
Tertiary qualification completion	8.3 percent of 18–24 year olds in 2006	☺ Steady	Lower for Māori, males	⊖ No comparison available
Economic security				
Children without a parent in paid work	17 percent of children under 15 years had no parent in paid work in 2006	☺ Improved since 1991	Higher proportions for Māori, Pacific, children of sole parents	⊖ No comparison available
Children and young people with low incomes	16 percent of children under 18 years, 17 percent of 18–24 year olds live in households with incomes below 60 percent of the 1998 median adjusted for inflation and housing costs (2007)	☺ Considerable improvement since 2004 (children under 18 years, young people 18–24 years)	Higher rates for children in sole-parent families, households with 3 or more children, and workless households	⊗ Children: higher than OECD median (50 percent threshold) and Eurostat median (60 percent threshold)
Unemployment	Unemployment rate for 15–24 year olds: 9.7 percent in 2007	☺ Improved since 1998, steady from 2004	Higher rates for 15–19 year olds, for Māori and Pacific peoples; regional differences	☺ Lower than OECD average
Employment	Employment rate for 15–24 year olds: 58.6 percent in 2007	☺ Steady	Lower rates for females, Māori, Pacific	☺ Higher than OECD average
Median hourly earnings	Half of employees aged 15–19 years earned more than \$11.25 an hour and half of employees aged 20–24 years earned more than \$14.19 an hour (2007)	☺ Improved since 1997, particularly for 15–19 year olds since 2001	Lower for 15–19 year olds	⊖ No comparison available

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Safety				
Unintentional injury mortality	9 children per 100,000 under 15 years died as a result of an unintentional injury (2005)	☺ Improved	Higher rate for males, children under 5 years, Māori children	⊖ No comparison available
Assault mortality	Assault deaths in 2001–2005: 36 children under 15 years, five-year average rate of 0.8 per 100,000 0–14 year olds per year; 62 15–24 year olds, five-year average rate of 2.2 per 100,000 15–24 year olds per year	☺ 2001–2005 lower than 1996–2000 for children under 15 ☹ 2001–2005 slightly higher than 1996–2000 for 15–24 year olds Lower than 1986–1990 for both age groups	Higher for children under 5 years and Māori children; 15–24 years: higher for males and Māori	⊖ No recent comparison available
Bullying at school	30 percent of secondary school students reported that they were bullied at school in the last 12 months (2001)	⊖ No trend data available	Higher for younger students	☺ Similar to a range of mainly European countries
Criminal victimisation	55 percent of 15–24 year olds were victims of crime (2005)	⊖ Not comparable with earlier survey data	Victimisation of confrontational offences higher for Māori	⊖ No comparison available
Fear of crime	41 percent of 15–24 year olds reported that fear of crime had a moderate or high impact on their quality of life	⊖ No trend data available	Higher for females, Other ethnic groups (in this case including Pacific and Asian)	⊖ No comparison available
Road casualties	10 deaths per 100,000 population under 25 years; 21 deaths per 100,000 population 15–24 years (2007) 417 injuries per 100,000 aged under 25 years (2007)	☺ Road death rate: substantial decline since 1990; injury rate: substantial decline to 2000, little change since 2002	Higher for males, Māori	☹ Road death rate for 15–24 year olds above OECD median in 2006 (27 countries)
Civil and political rights				
Voter turnout	An estimated 76 percent of 18–24 year olds voted in the 2005 election; 85 percent of 18–29 year olds were registered on the electoral roll at the 2005 election	☺ Voter turnout and voter registration have fluctuated but were higher in 2005 than in 1987	Voter registration varied widely by electorate	⊖ No comparison available

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Justice				
Police apprehensions of 14–16 year olds	1,591 police apprehensions per 10,000 14–16 year olds (2006)	☺ Improved since 2003	Males and Māori over-represented	⊖ No comparison available
Cases proved in the Youth Court	88 cases proved per 10,000 14–16 year olds (2006)	☺ Improved since 2004 (new recording system in 2004 means not comparable with earlier years)	Males and Māori over-represented	⊖ No comparison available
Culture and identity				
Te reo Māori speakers	18 percent of Māori under 15 years and 23 percent of Māori aged 15–24 years able to speak te reo Māori (2006)	⊖ Census measure shows slight decline between 2001 and 2006	Higher for females, older age groups, those in regions with high proportions of Māori residents	⊖ No comparison available
Language retention	Varied from 6 percent of Cook Islands Māori to 81 percent of Koreans aged under 25 years (2006)	☺ Little change for most groups between 2001 and 2006	Not relevant	⊖ No comparison available
Social connectedness				
Telephone/mobile access in the home	98 percent of children under 18 years and 97 percent of 18–24 year olds had access to a telephone in the home (2006)	☺ Improved since 2001, particularly for Māori and Pacific children and young people	Lower for Māori, Pacific children and young people	⊖ No comparison available
Internet access in the home	70 percent of children under 18 years and 65 percent of 18–24 year olds had access to the internet at home (2006)	☺ Much improved since 2001, particularly for Māori and Pacific children and young people	Lower for Māori Pacific children and young people; one parent families, families without at least one parent employed full-time	☺ Higher than OECD average
Environment				
Children living with a parent who smokes	33 percent of dependent children under 18 years lived with at least one parent who was a regular smoker (2006)	☺ Improved since 1996	Higher for Māori, Pacific children, children in one-parent families, young children	⊖ No comparison available
Household crowding	17 percent of children under 15 years and 17 percent of 15–24 year olds were living in crowded households (2006)	☺ Steady for children under 15; ☺ Improved for 15–24 year olds	Higher for Pacific children and young people; wide regional differences	⊖ No comparison available

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Appendices

Appendix 1: Changes to the indicators

Appendix 2: Technical details

Appendix 1: Changes to the indicators

The following table sets out the changes to the 35 indicators used in the 2004 edition of Children and Young People: Indicators of Wellbeing in New Zealand, bringing the total number of indicators in this edition to 42.

Action	Indicator	Notes
Deleted (4)	Child abuse and neglect	This indicator does not meet the criterion of interpretability over time. It is not possible to say whether changes in the rate reflect changes in the prevalence of child abuse or changes in agency resources or administrative recording practices, or changes in public awareness and willingness to report. It has not been included in the annual social report since 2004.
	Reading achievement at Year 5	The data for this indicator comes from the Progress in International Reading Literacy Study (PIRLS). The survey covers a broader range of countries than the OECD countries used for comparison in the other indicators in this report. Although provisional results from the 2005/2006 survey had been published at the time the set of indicators for this report was being reviewed, ethnic data was not yet available. The indicator, with ethnic data, was published by the Ministry of Education in June 2008 and is available here: www.educationcounts.govt.nz/indicators/education_and_learning_outcomes/literacy/748 This report includes an indicator of reading literacy at age 15.
	Food security	It is unlikely that this indicator could be updated when the next child nutrition survey is undertaken in 2012 as the measure will change. The existing indicator is dated (1997) and the Ministry of Health supported its deletion.
	Children and young people with low living standards	The Ministry of Social Development's 2006 review of the ELSI scale on which this indicator is based found that, while ELSI provides good information on the relativities between different groups at a particular point in time, it is less well suited to tracking changes in living standards over time. The Ministry is currently investigating a suite of measures that may overcome this problem.
Revised or re-positioned (3)	Participation in sport and active leisure	This has been replaced with an indicator on Physical activity (for youth aged 15–24 years) and has been moved from the Social Connectedness domain to the Health domain.
	Under 18 birth rate	Reflecting New Zealand research findings (eg Boden, et al., 2008), this has been broadened to include births to females under 20, renamed Early childbearing, and moved from the Health domain to the Care and Support domain.

Action	Indicator	Notes
	Perceptions of safety	Consistent with the change in The Social Report 2007, this has been replaced by Fear of crime, a broader indicator of the effect of crime on wellbeing and quality of life, newly available in the 2006 Crime and Safety Survey.
New indicators added (11)	Immunisation	This was one of the preferred indicators for which there was no robust national data in 2004. The data is now available.
	Oral health	Caries free at age 5 and Year 8 is an established indicator of child health, recommended by MoH and supported by other agencies.
	Children living with a parent who smokes	Parental smoking influences adolescent smoking (Scragg R, 2003). MoH and Pediatric Society have similar measures on this topic. This one is census-based, comparing 1996 and 2006, and includes family type.
	Witnessing violence in the home	Based on the Ministry of Health's 2007 analysis of Youth2000 survey data, this is one of the few indicators we have from the perspective of youth themselves. A risk factor for a range of adverse outcomes.
	Children of parents without educational qualifications	Parental (and particularly maternal) education is related to child educational outcomes. This census-based indicator updates similar measures used in the inter-agency Report on Cross-sectoral Outcome Measures and Targets, 1999.
	Retention of students in senior secondary schools	An established indicator of student engagement and participation, related to other indicators such as educational achievement, youth justice and early childbearing.
	Participation in tertiary education	An important access measure; consistent with inclusion in The Social Report.
	Children without a parent in paid work	This indicator has been included to illustrate the impact of changes in the labour market on children over the period 1986 to 2006. It is an update of a census-based measure used in two Statistics New Zealand reports on children (1995, 1998) and the Report on Cross-sectoral Outcome Measures and Targets (1999).
	Employment	Completes the picture of youth participation in the labour market. Consistent with inclusion in The Social Report.
	Language retention	Consistent with the measure in The Social Report, this indicator in the Cultural Identity domain provides some visibility to a diverse range of ethnic groups usually subsumed into "Other".
	Telephone/mobile access in the home	A census-based measure, complementing the indicator on access to the internet in the home in the Social Connectedness domain.

Appendix 2: Technical details

Population Overview

Data sources:

Number of children and young people: Statistics New Zealand (2002) 2001 Census: Population Structure and Internal Migration, Table 3; Statistics New Zealand (2007) QuickStats National Highlights: 2006 Census, Table 4, and age by single years downloaded from Table Builder on Statistics New Zealand website, www.stats.govt.nz; Statistics New Zealand, National Population Projections: 2006(base)–2061, Series 5 (Table Builder).

Births: Statistics New Zealand website, www.stats.govt.nz for Miscellaneous Birth and Fertility Rate Tables, Tables 1, 3, 10; Age-specific Fertility Rates, Total, Māori, 1962–2007; and Age-specific Fertility Rates for the Major Ethnic Groups, 1996, 2001, 2006. Statistics New Zealand (2008) Births and Deaths: December 2007 quarter, Information Release; Statistics New Zealand (2008) Demographic Trends 2007, p 36 and Table 2.05; Ministry of Health, New Zealand Health Information Service (2008) Statistical Information on Hospital-based Maternity Events, 2005, p 20, Table 2.5.

Note: The median age of women giving birth to their first child is based on information collected on other children from the birth registration form. Time-series data was disrupted in 1998 with a shift to collecting this information from all couples. Previously, parity information was collected from married couples only.

Migration and population growth: Statistics New Zealand, permanent and long-term (PLT) external migration data, downloaded from INFOS.

Children and young people born overseas: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Regional distribution: Statistics New Zealand, Census of Population and Dwellings, 2006, data downloaded from Table Builder on Statistics New Zealand website, www.stats.govt.nz.

Urban-rural distribution: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Sex distribution: Statistics New Zealand website, www.stats.govt.nz for Miscellaneous Birth and Fertility Rate Tables, Births by sex, 1971–2007; and Estimated resident population by age, mean for the year ended 31 December 1991–2007.

Ethnic distribution: Statistics New Zealand, five-year ethnic population estimates, 1996, 2001, 2006, downloaded from Table Builder on Statistics New Zealand website, www.stats.govt.nz; Statistics New Zealand (2008) Projected Ethnic Population of New Zealand, 2006(base)–2026 (Table Builder); Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data by age and region.

Official languages: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Children and young people with disabilities: Statistics New Zealand (2007) 2006 Disability Survey, Information Release; data downloaded from Table Builder on Statistics New Zealand website, www.stats.govt.nz and unpublished customised data.

Children's family circumstances: Source for Table P5: Statistics New Zealand, unpublished census data for dependent children under 18 years. International comparison for children under 18 living in one-parent families: UK: Office for National Statistics (2008) General Social Survey 2006, Table 3.7, Families with dependent children: 1972 to 2006 (dependent children under 18); US: Census Bureau (2007) Current Population Survey Reports, 2006 March CPS, America's Families and Living Arrangements, Table CH-1, Living arrangements of children under 18 years old; Australia: Australian Bureau of Statistics (2007), 2006 Census of Population and Housing, Cat. 2068.0: Age of dependent children by family composition and country of birth of parents (counting dependent children under 18); Canada: Statistics Canada, 2006 Census, Cat. 97-553-XCB2006011, Age group of child, census family structure and sex for children in census families (counting children under 18).

Ethnic differences in family structure: Source for Table P6: for the years 1991, 1996, 2001: Statistics New Zealand (2002) 2001 Census: Ethnic Groups, Tables 1a, 1b, 1c, 1d, 1e; for the years 1986 and 2006: unpublished census data. Source for Figure 8: unpublished census data; Source for Table P7: Statistics New Zealand, unpublished census data. Birth registration data from Statistics New Zealand, Population Statistics (unpublished data).

Children involved in divorce: Statistics New Zealand website, www.stats.govt.nz for Divorces, additional tables and Estimated resident population 0–16 years, mean for the year ended 31 December 1991–2007. Estimated de facto population 0–16 years, mean for the year ended 31 December 1981–1990 downloaded from INFOS.

Parental employment: Statistics New Zealand, (1998) New Zealand Now – Children, p 56; Statistics New Zealand (1995) New Zealand Now – Children, p 34 (figures cited from these two published sources are for children aged under 15 years); Statistics New Zealand, Census of Population and Dwellings, 2001, 2006, unpublished data.

Children's family incomes: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Living arrangements of young people aged 15–24: For the years 1981, 1991: Statistics New Zealand (1994) New Zealand Now: Families, p 59-60; for the years 1986, 1996, 2006: Statistics New Zealand, Census of Population and Dwellings, unpublished data (including 2006 Census data for young people living in same-sex couples). Same-sex attraction: Le Brun et al. (2004) Non-heterosexual Youth – A Profile of their Health and Wellbeing: Data from Youth2000.

Housing tenure: Statistics New Zealand, Census of Population and Dwellings, 2001 and 2006, unpublished data.

Household size: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Access to private transport: Statistics New Zealand, Census of Population and Dwellings, 2006, unpublished data.

Health

H1 Low birth weight births

Definition/formulae: The number of children who weighed less than 2,500 grams at birth, per 100 live births.

Limitations of data: The two factors that determine low birth weight (pre-term birth and small for gestational age, or SGA) have different causes, with different implications for later health outcomes, and they may follow different trends. Birth weight percentile charts used to calculate SGA rates relate to population birth weights at a particular time and become less meaningful as population birth weights change. As average birth weight varies by ethnic group, using the same measure of low birth weight for all ethnic groups may underestimate low birth weight rates for Pacific babies and overestimate them for Asian and Indian babies. For the same reason, comparisons between countries with different ethnic profiles may be difficult to interpret.

The data source uses a prioritised output method for ethnic data.

Data sources: New Zealand Health Information Service, unpublished data; Craig E, Jackson C, Han Y, NZCYES Steering Committee (2007) Monitoring the Health of New Zealand Children and Young People: Indicator Handbook, Auckland: Paediatric Society of New Zealand, New Zealand Child and Youth Epidemiology Service; OECD (2007) OECD Health at a Glance, 2007, Paris: OECD.

H2 Infant mortality

Definition: The annual number of deaths of infants aged less than one year, per 1,000 live births in that year. Infant deaths consist of early neonatal deaths (those occurring within seven days of birth), late neonatal deaths (after seven days and before 28 days) and post-neonatal deaths (after 28 days and before one year).

Limitations of data: The infant mortality rate published by the New Zealand Health Information Service (NZHIS) in Fetal and Infant Deaths, tends to be somewhat higher than the rate published annually by Statistics New Zealand. There are two main reasons for this. Firstly, NZHIS rates are based on total births and deaths, while Statistics New Zealand excludes births and deaths of people who are not usually resident in New Zealand. Secondly, because NZHIS publishes mortality data only when the cause of death has been recorded for all deaths registered in a particular year, there is often a long time lag between year of registration and publication. Statistics New Zealand's infant mortality rate is available sooner, but does not include late death registrations.

The data source uses a prioritised output method for ethnic data.

Data sources: New Zealand Health Information Service (2007) Fetal and Infant Deaths 2003 and 2004; New Zealand Health Information Service (2008) Mortality data: Fetal and infant mortality rates, 2003, 2004 and 2005, www.nzhis.govt.nz/moh.nsf/pagesns/530, and unpublished provisional data for 2006; OECD Health Data 2008, June 2008: www.oecd.org/document/16/0,3343,en_2649_34631_2085200_1_1_1_1,00.html

H3 Immunisation

Definition: Immunisation coverage is the proportion of children who are fully immunised against vaccine-preventable diseases at the age of two years, as measured by the National Immunisation Register (NIR). The NIR was rolled out in DHBs during 2005 from April to December. Fully immunised at age two years includes the following vaccinations:

- three doses of diphtheria, tetanus and acellular pertussis vaccine (DTaP)
- three doses of polio vaccine (IPV or OPV)
- three doses of Haemophilus influenzae type b vaccine (Hib)
- three doses of hepatitis B vaccine (or four doses including neonatal doses if required)
- one dose of measles, mumps and rubella vaccine (MMR)

Fully immunised status does not include bacillus Calmette-Guérin (BCG) vaccination. Children partially immunised overseas are considered to be not fully immunised.

Limitations of data: Data are based on a NIR which was rolled out to DHBs from April to December 2005 and therefore does not include children who were born before the NIR starting date in each DHB.

The data source uses a prioritised output method for ethnic data.

Data source: Ministry of Health (2007) The National Childhood Immunisation Coverage Survey 2005; Ministry of Health (2008) Immunisation coverage at milestone age (24 months of age), National Childhood Immunisation Register, 12 months to December 2007; WHO/UNICEF estimates of national immunization coverage, as of August 2007, www.who.int/immunization_monitoring/en/globalsummary/timeseries/tswucoveragedtp3.htm

H4 Hearing failure at school entry

Definition/formulae: The proportion of Year 1 students (children aged five) who failed the new entrant hearing screening (audiometry) test.

Limitations of data: New entrant school children are tested on both pure tone audiometry and tympanometry. Audiometry is a more direct measure of hearing, but it can be less reliable in the noisy test conditions frequently found in schools. The combination of tests ensures more valid identification of children with hearing loss and/or ear disease.

The data source uses a prioritised output method for ethnic data.

Data sources: Greville Consulting (2006) New Zealand Vision and Hearing Screening Report, July 2005 – July 2006; Craig E, Jackson C, Han DY, NZCYES Steering Committee (2007) Monitoring the Health of New Zealand Children and Young People: Indicator Handbook.

H5 Oral health

Definition/formulae: The proportion of children who are free of dental caries (tooth decay) at age 5; and the sum of decayed, missing or filled teeth for individual children in Year 8 (around age 12), expressed as an average number per child (DMFT score). For both measures, the denominator is the child population at the respective ages who completed treatment with the school dental service in the year.

Limitations of data: Dental health status data is collected on 5 year olds and children in Year 8 on completion of treatment. Unless treatment is completed prior to a child turning 6 years old or prior to discharge from the School Dental Service in Year 8, a child's dental status is not recorded in the dataset.

Note on the two measures:

Caries free at age 5 is a good measure of the prevalence of dental disease at entry to the school dental service in early childhood. By Year 8, measures of prevalence can be misleading. The DMFT score gives an indication of disease severity at the end of the period covered by the school dental service.

Fluoridation status refers to the water supply of the school which the student attended, rather than the fluoridation status of the area in which they lived.

The data source uses a prioritised output method for ethnic data.

Data source: Ministry of Health, data downloaded from www.moh.govt.nz/moh.nsf/by+unid/AC576F083066CD93CC25723400147B10?Open#related on 27 February 2008; OECD (2007) Health at a Glance 2007: OECD Indicators

H6 Obesity

Definition/formulae: The proportion of children aged 5–14 whose Body Mass Index (weight in kilograms / height in metres squared) met the IOTF BMI cut-off for obesity in the 2002 National Children's Nutrition Survey and the 2006/07 New Zealand Health Survey. The IOTF BMI cut-off points used to define thinness, overweight and obesity in children have been designed to coincide with the WHO BMI cut-off points for adults at age 18 years for underweight, overweight and obesity respectively. The IOTF BMI cut-off points are sex and age-specific.

Limitations of data: Survey estimates are subject to sampling error and small differences between groups may not be statistically significant.

Since BMI does not distinguish between weight associated with muscle and weight associated with fat, it provides only a crude measure of body fatness in individuals. However, it does provide a good estimate of the proportion of the population with increased risk of health conditions associated with obesity (World Health Organization 2000).

It is important to note that although BMI cut-off points have been used to define overweight and obesity, the risk of disease increases as BMI increases in all, even within the 'normal' range.

The same BMI cut-off points have been used for all ethnic groups, and no adjustment for clothing weight was made. All data presented in this report have been analysed using the same definitions and therefore time trends can be interpreted as real changes over time.

Data source: Ministry of Health, Public Health Intelligence data are from the 2002 Children's Nutrition Survey and the 2006/07 New Zealand Health Survey. Note 2002 figures may be different from those presented in NZ Food, NZ Children: Key Results of the 2002 National Children's Nutrition Survey (Ministry of Health 2003), due to updated analysis methodology. For further information regarding analysis methods please see www.moh.govt.nz/moh.nsf/indexmh/portrait-of-health

The data source uses a total response output method for ethnic data.

H7 Physical activity

Definition/formulae: The proportion of young people aged 15–24 years 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 2002/03 and 2006/07 New Zealand Health Surveys.

Physical activity refers to all movement produced by skeletal muscles that increases energy expenditure, whether it is incidental, occupational or recreational.

Limitations of data: Survey estimates are subject to sampling error and small differences between groups may not be statistically significant.

Physical activity levels are based on self-reported physical activity, using the NZ Physical Activity Questionnaire short form (NZPAQ-SF). The NZPAQ-SF asks participants on how many days in the previous seven days they had done brisk walking, moderate activity and vigorous activity, and how many hours and minutes they had done per day for each of those activities. Total physical activity is calculated as brisk walking + moderate + (vigorous x 2).

Data source: Ministry of Health, unpublished data from the 2002/03 and 2006/07 New Zealand Health Surveys.

The data source uses a total response output method for ethnic data.

H8 Cigarette smoking at 14–15 years

Definition/formulae: The proportion of Year 10 (14–15 year old) secondary school students who smoke cigarettes regularly (daily, weekly or monthly), as measured by the ASH National Year 10 Snapshot Survey conducted for the Ministry of Health.

The “regular smoker” definition used in this indicator is comparable with the “current smoker” definition used in the New Zealand Health Survey, but differs from the Population Census definition of “regular smoker” (smoking one or more cigarettes a day).

The Year 10 Snapshot Survey is a census-style survey of around 25,000 14–15 year olds. Students answer anonymous self-administered questionnaires about their smoking behaviour. Parental smoking and smoking in the home as reported by students are also measured because they increase the risk of a young person smoking. This survey has been conducted annually since 1999. The annual school response rate was 65–67 percent between 2002–2004, 57–58 percent in 2005–2006 and 47 percent in 2007.

Ethnicity is self-defined. As students were able to choose more than one ethnic group, a priority system of classifying ethnicity was used, in the order: Māori, Pacific, Asian, European/Other.

Limitations of data: Estimates from sample surveys are subject to sampling error.

The data source uses a prioritised output method for ethnic data.

Data source: Paynter, J. (2008) National Year 10 ASH Snapshot Survey, 1999–2007: Trends in tobacco use by students aged 14–15 years. A report for the Ministry of Health, Action on Smoking and Health New Zealand and the Health Sponsorship Council.

H9 Youth suicide

Definition: The number of suicide deaths per 100,000 population, expressed as a three-year moving average rate, for the population aged 15–24 years.

Limitations of data: Because suicide is a relatively rare event in statistical terms, rates of suicide can vary markedly from year to year. While three-year moving average rates smooth the variation, any interpretation of trends requires an examination of rates over several years.

The data for 2005 are provisional. Classification of a death as suicide is subject to a coroner’s inquiry, and only on completion of an inquest can a death be officially classified as suicide. This means there can be considerable delay in the publication of the final statistics and that often data differs between publications.

Hospitalisations for self-harm represent unique 'events' of self-harm, rather than people. People who are hospitalised several times for the same event are counted only once. People who are hospitalised for further separate intentional self-harm events are counted once for each event. People who intentionally harm themselves but are not admitted to hospital are not included in these data.

Population denominators are also subject to revision following the five-yearly Population Census.

The data source uses a prioritised output method for ethnic data.

Data sources: Ministry of Health (2007) Suicide Facts: 2005–2006 data; Ministry of Health, unpublished data.

Care and support

CS1 Positive relationships with parents

Definition/formulae: The proportion of secondary school students aged 12–18 years who reported that their Mum and/or Dad (or someone who acts as Mum and/or Dad) cares a lot about them, that they feel close to Mum and/or Dad most of the time, and that they are able to spend enough time with Mum and/or Dad.

Youth2000 was a nationally-representative youth health and wellbeing survey administered during the 2001 school year using laptop computers. A total of 9,699 students from 114 New Zealand secondary schools were surveyed, representing approximately 4 percent of all New Zealand secondary school students. The schools were randomly selected from all 390 New Zealand schools with 50 or more students in Years 9–13 in the year 2000. From each school, students were randomly selected from the school roll. The resulting sample of young people was ethnically diverse and included students from throughout the country. A second survey was conducted in 2007 and the report will be published in late 2008.

Limitations of data: Estimates from sample surveys are subject to error.

Differences between groups should be interpreted with caution. The large sample size means that even small differences may be statistically significant.

The data source uses a prioritised output method for ethnic data.

Ethnic comparisons should be interpreted with caution. The classification of young people into discrete ethnic groups is not robust and may misclassify some participants. Comparisons between ethnic groups, while adjusting for some factors, may incorrectly lead to the assumption that remaining differences are due to ethnicity. There may, however, be remaining unaccounted for confounding factors that contribute to any perceived difference.

Data source: Adolescent Health Research Group (2003) New Zealand Youth: A Profile of their Health and Wellbeing, Tables 1–3, p 46.

CS2 Witnessing violence in the home

Definition/formulae: The proportion of secondary school students who reported witnessing violence committed by an adult towards another adult or child in their home in the last 12 months, as measured by the Youth2000 Survey. Violence was defined in the survey as yelling or swearing, or hitting or physically hurting another adult or child.

Youth2000 was a nationally-representative youth health and wellbeing survey administered during the 2001 school year using laptop computers. A total of 9,699 students from 114 New Zealand secondary schools were surveyed, representing approximately 4 percent of all New Zealand secondary school students. The schools were randomly selected from all 390 New Zealand schools with 50 or more students in Years 9–13 in the year 2000. From each school, students were randomly selected from the school roll. The resulting sample of young people was ethnically diverse and included students from throughout the country. A second survey was conducted in 2007 and the report will be published in late 2008.

Limitations of data: Estimates from sample surveys are subject to error.

Differences between groups should be interpreted with caution. The large sample size means that even small differences may be statistically significant.

The data source uses a prioritised output method for ethnic data.

Ethnic comparisons should be interpreted with caution. The classification of young people into discrete ethnic groups is not robust and may misclassify some participants. Comparisons between ethnic groups, while adjusting for some factors, may incorrectly lead to the assumption that remaining differences are due to ethnicity. There may, however, be remaining unaccounted for confounding factors that contribute to any perceived difference.

Data sources: Fleming TM, Watson PD, Robinson E, Ameratunga S, Dixon R, Clark TC, Crengle S (2007) Violence and New Zealand Young People: Findings of Youth2000 – A National Health and Wellbeing Survey. Auckland: The University of Auckland, www.youth2000.ac.nz/pdf/violence-nz-yp.pdf; Adolescent Health Research Group, unpublished data.

CS3 Early childbearing

Definition/formulae: The number of live births to females under 20 years of age, per 1,000 females aged 15–19 years.

Limitations of data: “Early childbearing” is relative to prevailing childbearing norms which change over time and differ between communities and ethnic groups. Age 20 years is an arbitrary upper level and the disadvantages associated with early childbearing may also be present for mothers in their early twenties.

Data sources: Statistics New Zealand, Age-specific Fertility Rates for the Total and Māori populations; Age-specific Fertility Rates for the Major Ethnic Groups, website tables, downloaded on 5 February 2007, www.stats.govt.nz/tables/births-tables.htm; Statistics New Zealand (2008) Births and Deaths: December 2007 quarter, Information Release; Statistics New Zealand (2008) Demographic Trends, 2007, Table 2.13; Craig, et al (2007) Monitoring the Health of New Zealand Children and Young People: Indicator Handbook; UK Office for National Statistics (2007) Births Statistics, England and Wales, 2006, Table 3.1; US Department of Health and Human Services, Centers for Disease Control and Prevention (2007), Births: Preliminary data for 2006, Table 2, National Vital Statistics Reports, v56 no7, December 2007; World Bank, World Development Indicators: Adolescent fertility rate. www.worldbank.org/data
http://siteresources.worldbank.org/DATASTATISTICS/Resources/WDI08_section2_intro.pdf

Education

E1 Children of parents without educational qualifications

Definition/formulae: Dependent children under the age of 18 who live in two-parent families where both parents have no educational qualifications or who live with in one-parent families where the parent has no educational qualification, as a proportion of all dependent children under the age of 18.

Limitations of data: The data used in this indicator excludes a number of children for whom there was no educational qualification information available for one or both parents in two-parent families, or for the sole parent in one-parent families. For children in one-parent families, information on parental qualifications is only available for the parent with whom the child usually lives.

The census ethnicity question has changed over time, affecting comparability.

Data source: Statistics New Zealand, Census of Population and Dwellings, unpublished data. The data source uses a total response output method for ethnic data.

E2 Participation in early childhood education

Definition/formulae: The number of children aged 3 and 4 years enrolled in early childhood education (ECE) programmes as a proportion of the estimated population aged 3 and 4 years. ECE programmes include: licensed ECE services (kindergartens, playcentres, education and care services, home-based services, casual education and care (no regular roll), correspondence school and te kōhanga reo); licence-exempt ECE services (early childhood development funded playgroups, Pacific peoples early childhood groups, and playcentres); and licence-exempt kōhanga reo.

Limitations of data: Rates of participation are only 'apparent' because children may be enrolled in more than one ECE centre. 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. Due to methodological changes in 2006, recent figures from licence-exempt groups are not directly comparable with earlier years.

The data source uses a prioritised output method for ethnic data.

Data sources: Ministry of Education, Early Childhood Education, Licensed Services and Licence-Exempt Groups 2007

www.educationcounts.govt.nz/statistics/ece/ece_staff_return/licensed_services_and_licence-exempt_groups/17812 Ministry of Education, Early Childhood Education Enrolments (Licensed Services & Licence-exempt ECE Groups): Time-series; Ministry of Education, Prior participation in early childhood education: new entrants, www.educationcounts.govt.nz/indicators/student_participation/early_childhood_education/prior_participation_in_early_childhood_education_new_entrants; Ministry of Education (various years) Education Statistics of New Zealand, Education Statistics News Sheet, v 10, no 1, March 2001; unpublished tables; OECD Family Database, Table PF11.1, Enrolment rates in childcare and early education for children under six, 2004, www.oecd.org/document/4/0,3343,en_2649_34819_37836996_1_1_1_1,00.html

E3 School truancy

Definition/formulae: The school truancy rate in this indicator is defined as the average (mean) daily number of unjustified absences from school per 100 students enrolled. Unjustified absences are absences for a half-day or more that are not explained to the satisfaction of the school. Students who were unjustifiably absent from school for a half-day or more on three or more days in the week of the survey are defined as frequent truants. Both the unjustified absence rate and the frequent truancy rate have been standardised by ethnic group, school decile, sex and year level. The data comes from the Ministry of Education's Attendance Survey, conducted during one week in August 2004 and 2006.

Intermittent unjustified absences, of less than half a day, which include arriving late and skipping classes, are not included in the indicator.

Limitations of data: There is some variation between schools in what is regarded as an unjustified absence. Events that happen during the survey week can affect the data (eg snow, floods, earthquakes).

The survey questionnaire allows single ethnicity responses only. The ethnicity of students was recorded by the schools completing the questionnaire. This may have affected the reliability of the ethnicity data. In particular, the count of 'Other' students among the unjustifiably absent was anomalously high in 2006, suggesting a discrepancy in the coding. Because of this, 'Other' has not been separately reported.

Data sources: Ministry of Education [2007] "Truancy from school", downloaded from the Education Counts website on 15 March, www.educationcounts.govt.nz unpublished data from the Ministry of Education.

E4 Reading literacy at age 15

Definition/formulae: The mean scores for 15-year-old New Zealand students based on the international reading literacy scales set by the Programme for International Student Assessment (PISA) study in 2006. The overall reading literacy scale is derived from three separate scales that measure relative performance in retrieving information, interpreting texts, and “reflecting on and evaluating texts” (the ability of students to relate what they have read to their knowledge, experience and ideas).

Background: In 2000, 2003 and 2006 New Zealand took part in the international PISA study that assessed the skills and knowledge of 15-year-old students in three key areas of knowledge and skill: reading literacy, mathematical literacy and scientific literacy. The study was commissioned by the OECD. In 2006 New Zealand was one of 57 countries that took part. Thirty of these countries are members of the OECD. PISA was first administered in each participating country in 2000 and from then on a three-yearly basis. Although each area of knowledge and skill is assessed on each occasion, the focus of the study changes. The focus in 2000 was on reading literacy, in 2003 on mathematical literacy and in 2006 on scientific literacy.

Data source: Maree Telford and Robyn Caygill (2007) PISA 2006: How ready are our 15-year-olds for tomorrow's world? Wellington: Ministry of Education; OECD (2007) PISA 2006 Science Competencies for Tomorrow's World, online tables at: www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1_1,00.html

The data source uses a prioritised output method for ethnic data.

E5 Mathematical literacy at age 15

Definition/formulae: The mean scores for 15-year-old New Zealand students based on the international mathematics literacy scale set by the Programme for International Student Assessment (PISA) study in 2006. The combined mathematical literacy scale is derived from measurement of four content areas: quantity (related to number), change and relationships (related to algebra), space and shape (related to geometry) and uncertainty (related to statistics).

Background: See E3 Reading literacy of 15 year olds.

Data source: Maree Telford and Robyn Caygill (2007) PISA 2006: How ready are our 15-year-olds for tomorrow's world? Wellington: Ministry of Education; OECD (2007) PISA 2006 Science Competencies for Tomorrow's World, online tables at: www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1_1,00.html

The data source uses a prioritised output method for ethnic data.

E6 Scientific literacy at age 15

Definition/formulae: The mean scores for 15-year-old New Zealand students based on the international scientific literacy scale set by the Programme for International Student Assessment (PISA) study in 2006. The assessment examined three scientific competencies (identifying scientific issues, explaining phenomena scientifically and using scientific evidence) and two scientific knowledge areas (knowledge of science and knowledge about science.)

Background: See E3 Reading literacy of 15 year olds.

Data source: Maree Telford and Robyn Caygill (2007) PISA 2006: How ready are our 15-year-olds for tomorrow's world? Wellington: Ministry of Education; OECD (2007) PISA 2006 Science Competencies for Tomorrow's World, online tables at: www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1_1,00.html

The data source uses a prioritised output method for ethnic data.

E7 Retention of students in senior secondary schools

Definition/formulae: The percentage of students staying on at school to age 17.

Limitations of data: Two different measures are used in this indicator. The headline measure is calculated using the proportions of school leavers aged 17 or above, from a file of disaggregated school leaver records. As the data included just over 90 percent of school leavers all figures are estimates.

The measure used to monitor change over time (Figures E7.1 and E7.2) is calculated from aggregate roll return data which captures the age of the students in whole years. Therefore, a student aged 17 on 1 July, could be between 17 years and 0 days and 17 years and 364 days. Statistically it is a measure of those who stay at school to age 17.5 years on average. Since the denominator for the measure is the number of students in the 1 July roll return from the year students were aged 14.5 years, on average, net migration can also affect results.

The data source uses a prioritised output method for ethnic data.

Data sources: Ministry of Education [electronic resource] Retention of students in senior secondary schools
www.educationcounts.govt.nz/indicators/student_participation/schooling/1955

E8 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 E8.1, 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.

The data source uses a prioritised output method for ethnic data.

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; unpublished data from the Ministry of Education.

E9 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) at any time during the year in formal qualifications (or programmes of study) of greater than 0.03 Equivalent Full-time Tertiary Study (EFTS). The data excludes all non-formal learning, on-job industry training and private training establishments which did not receive tuition subsidies. Domestic students only are included.

Modern Apprenticeship students who are studying 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. Private tertiary education consists of: 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: The data in this edition relates to students enrolled at any time during the year (from 1994) and may differ from that published for earlier years.

Changes in the number of institutions, the status of institutions, and the types of courses offered affect comparisons over time.

Data sources: Ministry of Education, Education Counts (2008) Provider-based enrolments, Table ENR4; Participation Rates, Table PPN1, downloaded from www.educationcounts.govt.nz on 4 June 2008 and customised data for 18–24 year olds. OECD (2008) OECD Stat: Student enrolments by age (Total tertiary education, All education programmes); Total population by age.

The data source uses a total response output method for ethnic data.

E10 Tertiary qualification completion

Definition/formulae: The number of 18–24 year olds who graduated or completed a qualification at a tertiary education institution in the year, as a percentage of the estimated number of 18–24 year olds resident in New Zealand averaged over the year ended 31 December.

Limitations of data: Changes in the number of institutions, the status of institutions, and the types of courses offered affect comparisons over time.

Data source: Ministry of Education, Tertiary Education Statistics, online at http://educationcounts.govt.nz/statistics/tertiary_education/retention_and_achievement/Gaining_qualifications.xls

The data source uses a total response output method for ethnic data.

Economic security

ES1 Children without a parent in paid work

Definition: The proportion of children under 15 years whose resident parent(s) are not in paid work (either unemployed or not in the labour force). For two-parent families, this means neither parent is employed.

Limitations of data: For two parent families, the data includes only those for which the labour force status of both parents is known and where both parents are present on census night. This results in a greater loss of information for two-parent families than for one-parent families. The effect on proportions is likely to be small.

In the sources for the 1981–1996 data, a prioritised ethnicity classification was used. This assigns only one ethnicity to each person, with Māori accorded the highest priority. Pacific children and European children with multiple ethnicities are therefore likely to be under-represented in the data for those years. For 2001 and 2006, children identified with more than one ethnic group are counted once in each group reported. For all years, the Asian ethnic group includes children with one or more ethnicities.

Data sources: Statistics New Zealand (1995) New Zealand Now – Children; Statistics New Zealand (1998) New Zealand Now – Children; and unpublished census data. Rates based on unpublished data derived by MSD.

The data source uses a total response output method for ethnic data.

ES2 Children and young people 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 percent and 60 percent of the 1998 median household disposable income, less 25 percent 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 pp 61–66 and Appendices 4 and 5.)

Individuals are grouped according to selected individual, family or household characteristics for the different analyses. For this indicator, family (or 'economic family unit') means one- or two-parent families with dependent children, whether living in a separate household or with others in a wider household.

The methodology used to calculate the figures used in the international comparison section follows that used by the OECD and the EU: the income concept is equivalised household disposable income; 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 or 60 percent of this (contemporary) median, a "moving line" approach. There is no adjustment for housing costs. The equivalence scale for the OECD measure is the square root scale (ie equivalence scale elasticity = 0.5). The equivalence scale for the EU measure counts the first adult as 1.0, second and subsequent adults as 0.5, and children as 0.3.

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 shows 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 do not align with the information sources used for a cross-check. The Ministry of Social Development considers 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 children and young people with low incomes indicator, therefore, does not include a breakdown by ethnicity.

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 (2008) Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2007).) Source for international comparisons: Förster M and Mira d'Ercole M (2007).

ES3 Unemployment

Definition/formulae: The youth unemployment rate is the number of 15–24 year olds in the labour force who are not employed but are actively seeking and available for paid work, expressed as a percentage of 15–24 year olds in the labour force. The labour force is defined as the sum of those who are employed and those who are 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
- have actively sought work in the four weeks before completing the survey
- are available to take work or have a new job to start within the next four weeks.

The employed are those who:

- worked for pay or profit for one hour or more in the week before the survey
- worked unpaid in a relative's business
- have a job, but did not work in the week before the survey because of leave, sickness or industrial dispute.

"Actively seeking work" includes actions such as contacting an employer, asking friends or relatives about work opportunities, contacting an employment agency or contacting Work and Income. It excludes checking newspaper advertisements.

Limitations of data: Data are based on a sample survey and are 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 criterion of "actively seeking work". This group is classified as not being in the labour force.

The unemployment rate also excludes those who are currently employed part time but who are seeking to work more hours.

The data source uses a prioritised output method for ethnic data. From the September quarter 2008, the Household Labour Force Survey will publish ethnicity data using the single/combination output method, marking a complete break in the ethnicity series.

Data source: Household Labour Force Survey, Statistics New Zealand; OECD (2008), OECD.Stat, Online OECD Employment database.

ES4 Employment

Definition/formulae: The youth employment rate is the proportion of the population aged 15–24 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.

Limitations of data: Data are based on a sample survey and are therefore subject to sampling error. The definition of employment includes those working one hour or more per 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.

The data source uses a prioritised output method for ethnic data. From the September quarter 2008, the Household Labour Force Survey will publish ethnicity data using the single/combination output method, marking a complete break in the ethnicity series.

Data sources: Statistics New Zealand, Household Labour Force Survey; OECD (2008), OECD.Stat, Online OECD Employment database.

ES5 Hourly earnings from wage and salary jobs

Definition: Real median hourly earnings from all wages and salaries (before tax) for employees aged 15–24 years earning income from wage and salary jobs, as measured by the New Zealand Income Survey, an annual supplement to the Household Labour Force Survey. Inflation is measured using the Consumers Price Index All Groups plus Interest series for June quarters.

Limitations of data: Full non-response to the survey is imputed by Statistics New Zealand and typically the final dataset contains about 4,000 imputed person records. Hourly earnings relate to the number of hours usually worked and the usual earnings rather than the number of hours actually worked and the actual earnings. Proxy interviewing may be used to collect data on earnings under certain circumstances. Estimates from sample surveys are subject to error.

The data source uses a prioritised output method for ethnic data, which is being discontinued. From the June 2009 year, the New Zealand Income Survey will publish ethnicity data using the single/combination output method, marking a complete break in the ethnicity series.

Data source: Statistics New Zealand, New Zealand Income Survey, Information Release, June 1997 to June 2007 Table 10. CPI All Groups plus Interest series for June quarters. Ministry of Social Development: unpublished data from NZIS data set, June 1997–June 2007.

Safety

S1 Unintentional injury mortality rate

Definition/formulae: The number of children under 15 years of age who have died as a result of an unintentional injury, per 100,000 children under 15 years.

Limitations of data: Because of changes in the classification of ethnicity in death registration data since September 1995, ethnicity data for 1996 and later years are not comparable with data from previous years.

The data source uses a prioritised output method for ethnic data.

Data sources: 1981–1995, 2000, 2001, 2005 customised data from New Zealand Health Information Service (NZHIS); Ministry of Health (1999) Mortality and Demographic Data 1996, NZHIS, Table 4, pp 56–58; Ministry of Health (2000) Mortality and Demographic Data 1997, NZHIS, Table 4, pp 53–55; Ministry of Health (2001) Mortality and Demographic Data 1998, NZHIS, Table 4, pp 53–55; Ministry of Health (2003) Mortality and Demographic Data 1999, NZHIS, Table 4, pp 60–61; Ministry of Health (2006) Mortality and Demographic Data 2002–2003, NZHIS (website tables), Ministry of Health (2007) Mortality and Demographic Data 2004, NZHIS (website tables); Statistics New Zealand: mean population estimates for the year ended December, Total population by sex, 1991–2007, Māori population, 1991–2007, downloaded from website 7 July 2008
www.stats.govt.nz/datasets/population/population-estimates.htm
www.stats.govt.nz/tables/maori-poptn-est-tables.htm

S2 Assault mortality

Definition/formulae: The number of people aged under 15 years and the number of young people aged 15–24 years who have died as a result of assault, per 100,000 people in each age group.

The data was drawn from the following International Classification of Disease Codes: ICD-9, E960–E969, (up to 1999); ICD-10, X85–Y09 (from 2000).

Limitations of data: Because death from assault is a relatively rare event in statistical terms, rates can vary markedly from year to year. While five-year average annual rates help smooth the volatility, interpretation of trends can be difficult to discern over the short term.

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.

The data source uses a prioritised output method for ethnic data.

Data sources: New Zealand Health Information Service (NZHIS), Deaths from Homicide and injury purposely inflicted by other persons, ICD-9, E960–E969 (1996–1999), ICD-10, X85–Y09 (from 2000), for the Total, Māori and non-Māori populations; NZHIS population estimates.

S3 Bullying at school

Definition/formulae: The proportion of secondary school students aged 12–18 years who reported that they had been bullied at school, as measured by the Youth2000 Survey. According to the definition in the survey, bullying occurs when a student or group of students say nasty and unpleasant things to another student, or the student is kicked, threatened, pushed or shoved around, or when a group of students completely ignore somebody and leave them out on purpose.

Youth2000 was a nationally-representative youth health and wellbeing survey administered during the 2001 school year using laptop computers. A total of 9,699 students from 114 New Zealand secondary schools were surveyed, representing approximately 4 percent of all New Zealand secondary school students. (For further information on the survey, see the technical details for the indicator on Witnessing Violence in the Home.)

Limitations of data: Estimates from sample surveys are subject to error.

Differences between groups should be interpreted with caution. The large sample size means that even small differences may be statistically significant.

Ethnic comparisons should be interpreted with caution. The classification of young people into discrete ethnic groups is not robust and may misclassify some participants. Comparisons between ethnic groups, while adjusting for some factors, may incorrectly lead to the assumption that remaining differences are due to ethnicity. There may, however, be remaining unaccounted for confounding factors that contribute to any perceived difference.

The data source uses a prioritised output method for ethnic data.

Data sources: Adolescent Health Research Group (2003) *New Zealand Youth: A Profile of their Health and Wellbeing*, Tables 1–4, p 53; Fleming TM, Watson PD, Robinson E, Ameratunga S, Dixon R, Clark TC, Crengle S (2007) *Violence and New Zealand Young People: Findings of Youth2000 – A National Health and Wellbeing Survey*. Auckland: The University of Auckland. Downloaded from the Youth2000 website: www.youth2000.ac.nz/pdf/violence-nz-yp.pdf ; Currie C, Roberts C, Morgan A, Smith R, Settertobulte W, Samdal O, and Barnekow Rasmussen V (eds) (2004) *Young People's Health in Context. Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/2002 survey*. Downloaded from the HBSC website: www.hbsc.org/publications/reports.html

S4 Criminal victimisation

Definition/formulae: The proportion of the population aged 15–24 who have been the victim 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 under 15 years old.

Confrontational crime is defined in the NZCASS Key Findings report as assaults, robbery and threats to the person or personal property.¹²⁸

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.

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. Thirty-two percent 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 percent of vehicle thefts being reported compared with 9 percent of sexual offences.¹²⁹

The variables related with victimisation overlap. These victimisation findings do not control for other risk factors that are associated with high victimisation, such as living in more deprived areas and being unemployed.

Data source: Mayhew, P and Reilly, J (2007) *New Zealand Crime and Safety Survey 2006: Key Findings*.

¹²⁸ Mayhew and Reilly (2007a), p 119

¹²⁹ Mayhew and Reilly (2007a), p 35

S5 Fear of crime

Definition/formulae: The proportion of people aged 15–24 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?”.

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 demonstrated an ability to differentiate between groups, it is not a reliable measure of 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.

Data source: Mayhew, P and Reilly, J (2007) Community Safety: Findings from the New Zealand Crime and Safety Survey 2006. Wellington: Ministry of Justice.

S6 Road casualties

Definition/formulae: Number of deaths caused by motor vehicles per 100,000 population under 25 years. Number of persons injured as a result of motor vehicle crashes as reported to the police, per 100,000 population under 25 years. 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. The data source uses a prioritised output method for ethnic data.

Because of a revision of the International Classification of Diseases, rates for 2000 are not comparable with rates for 1996–1999.

Data sources: Ministry of Transport; Land Transport New Zealand; New Zealand Health Information Service; Statistics New Zealand, 2006-base resident population estimates; OECD (2008) International Traffic Safety Data and Analysis Group (IRTAD), IRTAD Database Statistics: Selected year 2006 road traffic data [February 2008], downloaded 13 March 2008 from <http://cemt.org/IRTAD/IRTADPublic/we2.html>

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.

Civil and political rights

CP1 Voter turnout

Definition/formulae: The proportion of young people aged 18–24 years who cast a vote in a New Zealand general election, as estimated by the New Zealand Election Study; and the proportion of young people aged 18–29 years who are registered on the electoral roll and are eligible to vote. To be eligible to vote in New Zealand, a person must be at least 18 years old and meet residential and certain other criteria.

Limitations of data: The voter turnout estimate in this indicator has been derived from the percentage of respondents to NZES post-election surveys who did not vote (based on inspection of the marked rolls for all elections but 1987, where the data is based on respondents' self-report). The data is also weighted by demographics and vote, correcting for nonresponse bias that always under-represents nonvoters. The estimates are subject to remaining sampling error. However, all of the election age-group cross-tabulations indicate statistically significant differences at a 99 per cent confidence interval, except for 2005, which is statistically significant at 95 per cent.

In the Regional Differences section, the October 2007 enrolment figures refer to the number of electors registered on the general electoral roll for that electorate. The estimated population used for the denominator is not the same as that used in the calculation of national enrolment rates, which is adjusted to exclude those who do not meet voter eligibility criteria.

Data sources: 2005 New Zealand Election Study, unpublished data; Electoral Enrolment Centre, Enrolment Statistics: Comparison of estimated eligible voting population to enrolled electors for the whole of New Zealand on writ day, by age group; Comparison of estimated eligible voting population to enrolled electors (general roll) for each electorate, age group 18–24 years, as at 31 October 2007.

Justice

J1 Police apprehensions of 14–16 year olds

Definition/formulae: The number of Police apprehensions of 14–16 year olds for all offences except non-imprisonable traffic offences, as a proportion of all 14–16 year olds. An apprehension for an offence indicates a formal contact between a young person and the Police in relation to an offence that has occurred. Apprehension in relation to an offence is not the same as being charged with or convicted for that offence.

Limitations of data: This measure overstates the true rate of apprehensions of youth of this age, because some individuals may have been apprehended for more than one offence.

The measurement of ethnicity data in justice statistics is subject to problems in the method of collection: "Official Police practice is for ethnicity to be self-identified by the offender (and then coded into the race categories: Caucasian, Māori, Pacific Island, Negro [sic], Indian, Asian, and Other). However, in practice, ethnicity is likely to be recorded by a mixture of self-identification and recorder judgement. Recording ethnicity by means other than self-identification can lead to people being classified in the wrong ethnic groups. Also, no allowance is made for people wanting to specify more than one ethnic group."¹³⁰

Data sources: Spier P (2001) Conviction and Sentencing of Offenders in New Zealand: 1991 to 2000, Table 7.1; Spier P (2002) Conviction and Sentencing of Offenders in New Zealand: 1992 to 2001, Table 7.1; Ministry of Justice, unpublished data; Chong J (2007). Youth Justice Statistics in New Zealand: 1992–2006, Tables 3.3 and 3.4.

J2 Cases proved in the Youth Court

Definition/formulae: The number of cases proved in the Youth Court, excluding cases involving non-imprisonable traffic offence cases, as a proportion (per 10,000) of all 14–16 year olds.

Limitations of data: The rate overstates the propensity of 14–16 year olds to have a case proved in the Youth Court because the numerator includes some young people who are aged over 16 at the time of sentencing, although they were aged between 14 and 16 years at the time of the offence. Also, individuals who have had more than one case proved in the same year will be counted more than once.

The measurement of ethnicity data in justice statistics is subject to problems in the method of collection: "Official Police practice is for ethnicity to be self-identified by the offender (and then coded into the race categories: Caucasian, Māori, Pacific Island, Negro [sic], Indian, Asian, and Other). However, in practice, ethnicity is likely to be recorded by a mixture of self-identification and recorder judgement. Recording ethnicity by means other than self-identification can lead to people being classified in the wrong ethnic groups. Also, no allowance is made for people wanting to specify more than one ethnic group."¹³¹

In 2004 the system used by the courts to log cases was updated from the Law Enforcement System (LES) to the Case Management System (CMS). The new system recorded a higher number of cases and so data collected before and after the changeover is not strictly comparable.¹³²

Data sources: Chong J (2007) Youth Justice Statistics in New Zealand: 1992–2006; Statistics New Zealand, Estimated National Ethnic Population by age and sex at 30 June 2006, downloaded using Table Builder, www.stats.govt.nz/tables/nat-pop-est-tables.htm

¹³⁰ Soboleva N, Kazakova N, & Chong J (2006) p 24.

¹³¹ Soboleva N, Kazakova N, & Chong J (2006) p 24.

¹³² Chong J (2007) pp 18-21.

Cultural identity

CI1 Te reo Māori speakers

Definition/formulae: The proportion of Māori children under 15 years and Māori young people aged 15–24 who can speak te reo Māori, as recorded in the New Zealand Census of Population and Dwellings 2006. The ability to speak te reo Māori is defined in the Census as being able to hold a conversation about a lot of everyday things in the Māori language.

Limitations of data: The data relies on self-reporting rather than 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.

Data sources: Statistics New Zealand, unpublished census data; Te Puni Kōkiri, unpublished results from the Survey of the Health of the Māori Language 2001 and 2006.

CI2 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 Population Census. 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. While English is an official language of some groups selected in these tables, the Census does not distinguish between different varieties of the English language. English has therefore been excluded as a first language within these tables. 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.

Data source: Statistics New Zealand, unpublished data from the Census of Population and Dwellings, 2001, 2006. Total response output method has been used for ethnic data.

Social connectedness

SC1 Telephone/mobile access in the home

Definition/formulae: The number of children under 18 years and young people aged 18–24 years living in households with access to telephones (either landline or cellphones), as a percentage of all children and young people.

Data source: Statistics New Zealand, Census of Population and Dwellings, 1986, 1991, 1996, 2001, 2006, unpublished data. Total response output method has been used for ethnic data.

SC2 Internet access in the home

Definition/formulae: The number of children under 18 years and young people aged 18–24 years living in households with access to the internet, as a percentage of all children and young people.

Limitations of data: Census data refers to internet access in the dwelling of usual residence only. It cannot provide information on internet access at home for children who live some of the time in other households (such as children of separated parents with shared care arrangements). Many children and young people have access to the Internet through schools and tertiary education institutions.

Data source: Statistics New Zealand, Census of Population and Dwellings, 2001, 2006, unpublished data; OECD database: <http://pisadata.acer.edu.au/2006>. Total response output method has been used for ethnic data.

Environment

EN1 Children living with a parent who smokes

Definition/formulae: The proportion of dependent children under the age of 18 living with at least one parent who is a regular smoker (smoking one or more cigarettes per day).

Limitations of data: The data cannot show the extent to which children living with a parent who smokes are actually exposed to cigarette smoke. Children living in a household with other adults who smoke may be exposed to cigarette smoke at home regardless of whether their parents smoke.

The data used in this indicator excludes a number of children for whom there was no smoking status information available for one or both parents in two-parent families, or for the sole parent in one-parent families. For children in one-parent families, information on parental smoking status is only available for the parent with whom the child usually lives.

The census ethnicity question has changed over time, affecting comparability.

Data source: Statistics New Zealand, Census of Population and Dwellings, unpublished data. Total response output method has been used for ethnic data.

EN2 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 one under 5 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 that 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 both sensitive to household size and composition. The measure sets a bedroom requirement for households based on precise criteria.

Data sources: Statistics New Zealand (1998) *New Zealand Now – Housing*, pp 56–63; Statistics New Zealand, unpublished data from the 1986, 1991, 2001 and 2006 population censuses. Total response output method has been used for ethnic data.