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# Changes to *The Social Report 2009*

No changes have been made to the outcome domains used in this year's edition of the social report. Changes have been made to a small number of indicators used in the report. These are detailed in Table AP1.

Table AP1 **Changes to the indicators in *The Social Report 2009***

OUTCOME DOMAIN	CHANGE
HEALTH	Provisional 2006 data in the health expectancy indicator has been replaced with final 2006 data.
KNOWLEDGE AND SKILLS	An indicator on adult literacy skills in English was published in the social report from 2001 to 2006, but it was not included in 2007 or 2008 because the 1996 data was quite old. The indicator has been reinstated in this edition because there is new 2006 data available from the 10-yearly survey.
PAID WORK	The unemployment and employment indicators in this edition are based on March years, rather than on December years. This change was made to capture more recent data.
ECONOMIC STANDARD OF LIVING	The market income per person indicator in this edition of the social report is based on March years, rather than on December years, and includes data up to March 2009.
CIVIL AND POLITICAL RIGHTS	A new indicator on the representation of ethnic groups in government has been added to the Civil and Political Rights domain. It is now feasible because time series data is available. The new indicator complements the indicator on the representation of women in government.

# Technical details

## PEOPLE

In this section we provide detailed information about the data used in the indicators.

We note any data limitations and we provide data sources. For the People section, which uses a wide range of descriptive statistics, we include data sources only. Further information on specific data issues is available in the Endnotes.

### Data sources:

**Population size and growth:** Statistics New Zealand, *National Population Estimates Information Release; Census of Population and Dwellings; National Population Projections, 2006(base), mid-range Series 5, assuming medium fertility, medium mortality, long-term annual net migration gain of 10,000, Series 2 (low fertility), assuming medium mortality and net migration gain of 10,000, Series 6 (high migration), assuming medium fertility and mortality; External Migration Information Release, Infoshare series VTB032AA (natural increase) and EMI008AA (net migration).*

**Overseas-born:** Statistics New Zealand (2007) *QuickStats About Culture and Identity: 2006 Census, Tables 6, 7, 12, 13.*

**Fertility:** Statistics New Zealand (2009) *Birth Tables: Age-specific fertility rates for the total and Māori populations; Age-specific fertility rates for the major ethnic groups, 2001 and 2006. International comparison for total fertility rate (TFR) and teenage (under 20 years) fertility rate – Australia: Australian Bureau of Statistics (2008) Births, Australia, 2007, Table 9; Canada: Statistics Canada (2008) Births, 2006; European Commission, Eurostat, Population and Social Conditions, Demography, Total fertility rate (updated 26 August 2008); Denmark: Statistics Denmark, StatBank, Population and elections, Births and Deaths, Table FOD3: Fertility rates by age (accessed 11 March 2009); Finland: Statistics Finland, Population, Births, Total fertility rate (updated 22 April 2009); France: INSEE (2008) Demographic Report 2008, Table 3 (TFR, metropolitan France); Japan: Statistics Bureau (2008) Japan Statistical Yearbook, 2008, Table 2-24 (15–19 years fertility rate), Statistical Handbook of Japan, 2008, Table 2.4 (TFR); Netherlands: Statistics Netherlands, Statline web database, Birth: Birth order, age mother and fertility rates (updated 28 August 2008); Norway: Statistics Norway (2009) Population Statistics, Births 2008, Table 3; Scotland: General Register Office for Scotland (2008) Annual Review 2007, Figure 1.12 (15–19 years fertility rate), Figure 1.14 (TFR); Sweden: Statistics Sweden, Summary of Population Statistics 1960–2008, Total fertility rate (updated 13 May 2009); Switzerland: Swiss Federal Statistics Office (2008) Indicators of fertility in Switzerland, Total fertility rate (accessed 11 March 2008); UK: United Kingdom Office for National Statistics (2009) Health Statistics Quarterly, 40, Table 3.1; US: United States Department of Health and Human Services, Centers for Disease Control and Prevention (2009) "Births: Final Data for 2006", National Vital Statistics Report, Volume 57 No 7, January 7, 2009, p 8 (TFR), Table 8 p 42 (15–19 years fertility rate).*

**Geographic and ethnic distribution of the population:** Statistics New Zealand (2002) 2001 Census: Regional Summary, Table 2; Statistics New Zealand (2006) 2006 Census: Regional Summary, Tables 1, 2; Statistics New Zealand (2008) National Ethnic Population Projections: 2006(base)–2026; Urban/rural distribution: Statistics New Zealand, 2006 Census, unpublished data.

**Age and sex structure of the population:** Statistics New Zealand (2009) National Population Estimates, by single year of age, mean for the year ended December 2008. Median age by ethnic group; Statistics New Zealand, Projected Population Characteristics, 2006(base)–2061 (Table Builder); Statistics New Zealand (2008) National Ethnic Population Projections: 2006(base)–2026, Information Release, 2 April, Tables 3a, 3e, 3m, 3p.

**Household structure:** Statistics New Zealand (1998) 1996 Census: Families and Households, Table 1; Statistics New Zealand (2002) 2001 Census of Population and Dwellings: National Summary, Table 36; Statistics New Zealand (2006) 2006 Census, Classification Counts, Table 55.

**Housing tenure:** Statistics New Zealand (2002) 2001 Census: National Summary, Tables 20, 41; Statistics New Zealand (2006) QuickStats About New Zealand's Population and Dwellings, 2006 Census; and unpublished 2006 Census data.

**Families with dependent children:** Sources for Table P4: Families with dependent children, by family type, 1976–2006: Statistics New Zealand, 1976, 1981, 1986, unpublished census data; 1991 Census: New Zealanders at Home, Tables 16, 17; 1996 Census: Families and Households, Tables 16, 21, 26; 2001 Census: Families and Households, Tables 13, 24; 2006 Census, unpublished data. International comparison for families with dependent children: UK: United Kingdom Office for National Statistics (2008) General Social Survey 2006, Table 3.6, Family type, and marital status of lone parents: 1971 to 2006 (families with dependent children under 18); US: United States Census Bureau (2007) Current Population Survey Reports, 2006 March CPS, America's Families and Living Arrangements, Table FG7, Family groups with own children under 18; Australia: Australian Bureau of Statistics, unpublished data from the 2006 Census (families with dependent children under 18); Canada: Statistics Canada (2007) 2006 Census, Cat. No 97-553-XCB2006022, Families with children under 18.

**Official languages:** Statistics New Zealand (2007) QuickStats About Culture and Identity, 2006 Census, Tables 6, 15, 17, 18, 19, 22, 23.

**People with disability:** Statistics New Zealand (2007) 2006 Disability Survey, Information Release, data downloaded from Table Builder on Statistics New Zealand website, [www.stats.govt.nz](http://www.stats.govt.nz), and unpublished customised data.

**Same-sex couples:** Statistics New Zealand (2002) 2001 Census: Families and Households, Tables 7, 11; Statistics New Zealand (2006) 2006 Census: Classification Counts, Table 63. Note: The number of adults has been derived by multiplying the number of couples by two. Information on the sexual orientation of secondary school students from Adolescent Health Research Group (2008), Youth'07: The Health and Wellbeing of Secondary School Students in New Zealand. Initial Findings p 28.

## HEALTH

### H1 HEALTH EXPECTANCY

**Definition/formulae:** The total number of years a newborn can expect to live without any self-reported functional limitation requiring the assistance of another person or a complex assistive device.

The 2006 figures were estimated by Sullivan's method using life tables supplied by Statistics New Zealand and disability rates from the 2006 Post-Censal Disability Survey (supplied by support need level by Statistics New Zealand).

**Limitations of data:** The ability to monitor health expectancy on a regular basis depends on the availability of mortality and disability data (the latter from the post-census disability survey). Both variables are required by narrow age group (at least 10-year age groups), sex and ethnicity, and the disability prevalence data is required by support need level. Hence both mortality and disability data is subject to smoothing before it can be used in the Sullivan life table. Comparability of the disability data over time cannot be guaranteed, even though efforts are made to ensure the comparability of the disability survey from wave to wave.

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**Data source:** Ministry of Health.

### H2 LIFE EXPECTANCY

**Definition/formulae:** The expected number of years a person would live if they were subject throughout their lives to the current age-specific mortality rates.

**Note:** Ethnic-specific estimates from the Ministry of Health for the period 1980–1982 to 1995–1997 have been adjusted for undercounting in the ethnic mortality statistics by linking census to mortality records. The figures differ from those published by Statistics New Zealand for the same period.

The analysis associating life expectancy with levels of deprivation is based on the NZDep2006, a small-area index of deprivation based on a principal-component analysis of nine socio-economic variables from the 2006 Census. The index has been converted to a scale ranging from 1 to 10, where 1 represents the least deprived 10 per cent of small areas, and 10 represents the most deprived 10 per cent. The small areas are about the size of a census meshblock and have populations of approximately 100 people.

In the international comparison section, New Zealand's ranking in 1960/1961 is based on complete period life table data for 1960–1962 (the 1961 figure in the OECD data). In addition, Canada and Italy are included in the comparison, using 1961 data. For all other countries, 1960 data is used. As a result of these changes, New Zealand's ranking is slightly different from that shown in social reports from 2004 to 2007.

**Limitations of data:** Available annually only for the total population. Official Māori/non-Māori data is available five-yearly only, based on a three-year period around census years.

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**Data sources:** Statistics New Zealand (2009) *New Zealand Abridged Life Tables: 2006–2008*; Statistics New Zealand (2009) *New Zealand Life Tables: 2005–07, Table 2.01, and unpublished data for life expectancy by deprivation decile*; Statistics New Zealand (2009) *Births and Deaths: December 2008 quarter, Information Release*; Ministry of Health (ethnic-specific data for 1985–1987, 1990–1992); Ministry of Health (1999) *Our Health, Our Future: Hauora Pakari, Koiora Roa, The Health of New Zealanders 1999, Chapter 2*; OECD (2009) *OECD Factbook 2009, Quality of Life, Health, Life expectancy*.

### H3 SUICIDE

**Definition/formulae:** The number of suicide deaths per 100,000 population, for the population aged 5 years and over.

Age-standardised to the World Health Organization standard population.

*Note:* The figures for 2006 are provisional and subject to revision.

**Limitations of data:** Because suicide is a relatively rare event in statistical terms, rates of suicide death can vary markedly from year to year. Any interpretation of trends requires an examination of rates over several years. Deaths by suicide are subject to a coroner's inquiry and can only be officially deemed suicide once an inquest is complete. This means there can be a considerable delay in the publication of the final statistics.

Data on the rates of suicide death for geographical regions and cities may be of little value for reporting comparisons because of the low numbers, and hence highly variable suicide rates. For example, where populations are small, the suicide death rate can be greatly inflated by one or two deaths.

Data on intentional self-harm is available only for those admitted to hospital as inpatients or day patients for self-inflicted injury. Those cared for in hospital but not admitted and those cared for by primary or community care services are not reported. Therefore, the actual rate of attempted suicide is likely to be much higher than that reported in official statistics.

Comparability over time is affected by a change in the population concept in 1991 (from de facto to resident). Because of a change in the ethnicity classification in 1995, comparable data is available only from 1996 onwards. Ethnic-specific mortality data is subject to some uncertainty due to the differences in collection across different providers. Ethnic-specific data in New Zealand is also subject to uncertainty because of the small numbers in non-European ethnic groups. The small numbers tend to distort the rates used to compare populations.

A comparison of international trends in suicide death is problematic due to the different methods used to classify suicide. The New Zealand age-standardised rate in the international comparison data has been calculated in a manner consistent with the international figures available, and may differ slightly from the rates presented elsewhere (Ministry of Health (2008d) p 26).

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**Data sources:** Ministry of Health (2008) *Suicide Facts: Deaths and Intentional Self-harm Hospitalisations: 2006*; Ministry of Health, Information Directorate (unpublished tables); Ministry of Health (2006) *Suicide Facts: Provisional 2003 All-ages Statistics*; Beautrais (2000) *Restricting Access to Means of Suicide in New Zealand: A Report Prepared for the Ministry of Health on Methods of Suicide in New Zealand*; World Health Organization (2004).

### H4 CIGARETTE SMOKING

**Definition/formulae:** The proportion of the population aged 15 years and over who ever smoke any ready-made cigarettes or roll-your-own tobacco cigarettes. From 2006, "ever smoke" is defined as those who have ever smoked at least 100 cigarettes and currently smoke at least once a month.

The historic rates are all crude rates. Up until 2005, information on smoking prevalence was collected from quarterly surveys conducted by ACNielsen Ltd and reported by the Ministry of Health. In 2006 the data came from the New Zealand Tobacco Use Survey (NZTUS) which was run for the first time in the first quarter of 2006 and again in 2008. The 2006/2007 data comes from the New Zealand Health Survey conducted by the Ministry of Health. Data presented here may differ from previous reports, as data from the 2006 NZTUS and the 2006/2007 New Zealand Health Survey has been re-analysed using the same methodology.

In Figure H4.1, data for 1996 and 2006 comes from the Census of Population and Dwellings, in which regular smokers are defined as people who, at the time of the census, were regular smokers of one or more cigarettes per day.

Age-standardised rates use the WHO world standard population.

**Limitations of data:** The international comparison is affected by differences in the collection and classification of the data.

The classification of ethnicity information changed from 1997 onwards. Therefore, ethnic-specific data before and after 1997 may not be comparable.

The 2003 data was collected from people aged 18 years and over and adjusted for the expected proportion of smokers aged 15–24 years.

For Figure H4.1, the proportion of current smokers aged 15 years and over in 2008 has been estimated using the 2008 NZTUS data for 15–64 year olds and an estimate (adjusted for gender and ethnic group) based on the 2006/2007 New Zealand Health Survey for those aged 65 years and over.

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**Data sources:** Ministry of Health (2009) *Tobacco Trends 2008: A brief update of tobacco use in New Zealand*; Ministry of Health (2008) *A Portrait of Health 2008*. Paynter J (2008) *National Year 10 ASH Snapshot Survey, 1999–2007: Trends in tobacco use by students aged 14–15 years, Table 3a*; OECD (2009) *OECD Health Data 2009, June 2009, Non-medical determinants of health, Tobacco consumption: percentage of daily smokers among adult population*; Statistics New Zealand (2009) *Alcohol and Tobacco Available for Consumption, Year Ended December 2008, Information Release*; Statistics New Zealand, *Infoshare series SEPA.SBC3AD and SEPA.SBC3BD*; estimated resident population, mean for the year ended 31 December (provisional).

## H5 OBESITY

**Definition/formulae:** The proportion of the population aged 15 years and over who were obese in the 1997 National Nutrition Survey and the 2002/2003 and 2006/2007 New Zealand Health Surveys; and the proportion of children aged 5–14 years who were obese in the 2002 National Children's Nutrition Survey and the 2006/2007 New Zealand Health Survey.

Body mass index (BMI) is a measure of weight adjusted for height, and is calculated by dividing weight in kilograms by height in metres squared ( $\text{kg}/\text{m}^2$ ). For all adults aged 18 years and over, the World Health Organization defines obesity as having a BMI greater than or equal to  $30 \text{ kg}/\text{m}^2$  (WHO 2000). For participants under 18 years, BMI cut-off points developed by the International Taskforce on Obesity (IOTF) have been used to define obesity (Cole et al 2000). The IOTF BMI cut-off points are sex and age-specific, and have been designed to coincide with the WHO BMI cut-off points for overweight and obesity. In compliance with international practice, the same cut-off points have been used for all ethnic groups (Ministry of Health, 2008, A Portrait of Health, pp 104, 105).

Data presented here may differ from previous reports, as data from the 1997 National Nutrition Survey and the 2002/2003 New Zealand Health Survey has been re-analysed using the same methodology. In past surveys, higher BMI cut-off points were used to classify Māori and Pacific peoples aged 18 years and over as obese (greater than or equal to  $32 \text{ kg}/\text{m}^2$ ). When international BMI cut-off points are adopted for all adults aged 18 years and over, the proportion of Māori and Pacific adults classified as obese is approximately 11 percentage points higher, and the proportion of all adults classified as obese is 2 percentage points higher. For more information about BMI calculations using the New Zealand Health Survey, see Ministry of Health (2008) Body Size Technical Report: Measurements and classifications in the 2006/07 New Zealand Health Survey.

**Limitations of data:** BMI cut-offs are intended to identify populations at increased risk of poor health conditions associated with excess body fat, not to measure body fatness as such.

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**Data sources:** Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey; OECD (2009) OECD Health Data 2009, June 2009, Non-medical determinants of health, Body weight and composition, Overweight or obese population.

## H6 POTENTIALLY HAZARDOUS DRINKING

**Definition/formulae:** Potentially hazardous drinking is defined as the proportion of the population aged 15 years and over who drink alcohol, who scored eight or more on the Alcohol Use Disorders Identification Test (AUDIT). AUDIT is a 10-item questionnaire covering alcohol consumption, alcohol-related problems and abnormal drinking behaviour. It was developed by the World Health Organization as a screening tool for health professionals to identify people at risk of developing alcohol problems. Each question is scored from zero to four, so the questionnaire has a maximum score of 40. Potentially hazardous drinking is defined as an established pattern of drinking that carries a high risk of future damage to physical or mental health, but has not yet resulted in significant adverse affects. It is commonly identified from an AUDIT score of eight or more.

Information on hazardous drinking is based on the 1996/1997, 2002/2003 and 2006/2007 New Zealand Health Surveys.

**Limitations of data:** The information is self-reported and information from a sample survey is subject to sampling error. This has been minimised where possible and all differences commented on have been found to be significant using 95 per cent confidence intervals. Data presented here may differ from previous reports on potentially hazardous drinking, as data from the 1996/1997 and 2002/2003 New Zealand Health Surveys has been re-analysed using the same methodology as that used for the 2006/2007 New Zealand Health Survey. See Methodology report for the 2006/2007 New Zealand Health Survey (Ministry of Health 2008) for further information on the analysis of the New Zealand Health Surveys.

As men and women have been assigned the same cut-off score, this may underestimate potentially hazardous drinking in women, who generally have lower alcohol tolerance than men (Alcohol Advisory Council of New Zealand 2008).

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**Data sources:** Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey; OECD (2009) OECD Health Data 2009, June 2009, Non-medical determinants of health, Alcohol consumption.

## KNOWLEDGE AND SKILLS

### K1 PARTICIPATION IN EARLY CHILDHOOD EDUCATION

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

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

**Limitations of data:** Rates of participation are only “apparent” because children may be enrolled in more than one ECE service. The rates may therefore be inflated. The measure does not provide information on the length of participation or on the quality of the programmes, both of which are relevant to positive educational outcomes.

The indicator has changed to include licensed services only. This is because of inconsistencies over time in the licence-exempt data. As a result of this change, apparent participation rates are slightly lower than those published in previous social reports. In 2008, 94 per cent of early childhood education enrolments of children aged 3 and 4 years were in licensed services.

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**Data sources:** Ministry of Education: *Number of Enrolments in Licensed Early Childhood Education Services by Age (1997–2008)*; *Number of Enrolments in Licensed Early Childhood Education Service by Age, Gender and Type of Service (2008)*; *Percentage of Year 1 students who attended early childhood education services, 2000–2008*; Ministry of Education (various years) *Education Statistics of New Zealand, Education Statistics News Sheet, Volume 10 No 1, March 2001*.

### K2 SCHOOL LEAVERS WITH HIGHER QUALIFICATIONS

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

In Figure K2.1, the data up to 2002 includes school leavers with:

- National Certificate Level 4
- A or B Bursary/National Certificate Level 3
- Entrance Qualification/42 or more credits National Certificate Level 3 or above/Accelerated Christian Education Certificate or overseas award at Year 13 Level
- Higher School Certificate/14–41 credits National Certificate Level 3 or above
- National Certificate Level 2/1–13 credits National Certificate Level 3 or above.

The data for 2003 also includes leavers who attained NCEA Level 2.

The data for 2005 and 2006 includes qualifications at NCEA Level 2 or above.

**Limitations of data:** School leaver data collection was changed as a result of the introduction of NCEA in 2002. A direct comparison cannot be made between rates up to and including 2002 with rates for 2003 on, due to the change in the qualification structure. Previous qualifications, such as School Certificate, were awarded to students if they had completed the assessment and met attendance requirements, independent of the grade awarded. The new qualification structure is designed to award students credits when they have met achievement rather than participation criteria.

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**Data sources:** Ministry of Education (various years) *Education Statistics of New Zealand*; Ministry of Education, *Education Counts website, Indicators, Education and Learning, Qualifications, School leavers with NCEA Level 2 or above*, [www.educationcounts.govt.nz/indicators/education\\_and\\_learning\\_outcomes/qualifications/1781](http://www.educationcounts.govt.nz/indicators/education_and_learning_outcomes/qualifications/1781); unpublished data from the Ministry of Education.

### K3 PARTICIPATION IN TERTIARY EDUCATION

**Definition/formulae:** Participation in tertiary education is calculated by the number of students aged 15 years and over enrolled with a tertiary education provider (see below) in formal qualifications (or programmes of study) of greater than 0.03 equivalent full-time tertiary study at any time during the year. The data excludes all non-formal learning, on-the-job industry training and private training establishments that did not receive tuition subsidies. Domestic students only are included.

Modern Apprenticeship students and other industry trainees who are doing courses that fit into the above definition are included in the statistics (typically, doing block courses at a polytechnic). If their learning is totally on the job, they will not be included.

Community education courses are excluded from the statistics.

Public tertiary education institutions include: universities, polytechnics and wānanga. Formerly, they also included colleges of education but these were disestablished between 1992 and 2006. Private tertiary education providers include: private providers receiving a tuition subsidy and private providers receiving a grant as a result of a decision by the Minister of Education.

**Limitations of data:** Age-standardised rates have been used in this report in the current level and trends, and sex and ethnic group differences sections. In previous reports, age-standardised rates were reported only for ethnic group differences.

The data in this report relates to students enrolled at any time during the year (from 1994). In social reports up to 2006, it related to students enrolled at 31 July in each year.

Changes in the number of institutions, the status of institutions, and the types of courses offered affect comparisons over time.

Students who were enrolled in more than one qualification level have been counted in each level. Consequently, the sum of the students in each level may not add to the total number of students.

Students who identify with more than one ethnic group have been counted in each group. Consequently, the sum of the students in each ethnic group may not add to the total number of students.

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**Data sources:** Ministry of Education, Education Counts website, Statistics, Tertiary, Participation, Provider-based enrolments, Table ENR.7, Participation Rates, Tables PPN.1, PPN.2, PPN.5, PPN.7, downloaded from [www.educationcounts.govt.nz](http://www.educationcounts.govt.nz) on 4 June 2009, and backdated data from Ministry of Education; OECD (2008) Education at a Glance 2008, Table C2.1.

### K4 EDUCATIONAL ATTAINMENT OF THE ADULT POPULATION

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

**Note:** This definition differs from previous editions of the social report where "upper secondary school level" was defined as Level 3 and above of the International Standard Classification of Education (ISCED 1997). Because of a revision to this classification, qualifications such as New Zealand's NCEA Level 1 and School Certificate are not counted as "upper secondary education" attainment in the OECD's indicator report, Education at a Glance, 2008, the source of data for the international differences section in this report. The figure reported for the proportion of New Zealand adults with at least upper secondary level qualifications in 2006 (69 percent) is lower than the figures reported in previous editions of Education at a Glance and The Social Report.

**Limitations of data:** As a result of a change to the 2005 New Zealand standard classification of ethnicity in the December 2007 quarter of the Household Labour Force Survey, the category "New Zealander" is included in the Other ethnic group in the data for that quarter. Previously "New Zealander" was included in the European ethnic group.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census. This requires a revision of historical data. The latest revision was in April 2009.

The international comparison of the adult population with "at least upper secondary education" should be viewed with caution. There are substantial differences in the typical duration of ISCED Level 3 programmes between countries, ranging from two to five years of secondary schooling. The tertiary-type A (bachelor's degree and above) comparison is more robust.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey, unpublished tables; OECD (2008) Education at a Glance 2008, Tables A1.2a, A1.2b, A1.2c (at least upper secondary education) and A1.3a, A1.3b, A1.3c (tertiary-type A and advanced research programmes), downloaded 11 May 2009, via Statlink on p 42 of the online edition of Education at a Glance 2008, [www.oecd.org/dataoecd/23/46/41284038.pdf](http://www.oecd.org/dataoecd/23/46/41284038.pdf)

## K5 ADULT LITERACY SKILLS IN ENGLISH

**Definition/formulae:** The proportion of the population aged 16–65 years with higher literacy skills in English (defined as skills at Level 3 or above), as measured in the 1996 International Adult Literacy Survey (IALS) and the 2006 Adult Literacy and Life Skills Survey (ALL). Prose and document literacy were measured in both surveys; numeracy was measured in the ALL survey only.

The achievement attained in each of the literacy domains is grouped into one of five "skill levels". Level 1 represents the lowest ability range and level 5 the highest. Level 3 is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and university entry. Like the higher levels, it requires the ability to integrate several sources of information and solve more complex problems.

**Limitations of data:** It should be noted that the survey measures literacy in English. Those who most frequently spoke a language other than English in the home had substantially lower English literacy skills than those who most frequently spoke English. The reported statistics from the IALS survey for Pacific peoples and Asians are less robust.

For the international comparisons, the timing of the surveys is not consistent between countries. The first international adult literacy survey was conducted in 1994/1995; the New Zealand survey took place in 1996. Not all countries participated in the ALLS survey, which was conducted in New Zealand in 2006.

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**Data sources:** Satherley P, Lawes E and Sok S (2008) *The Adult Literacy and Life Skills (ALL) Survey: Overview and International Comparisons*; Satherley P and Lawes E (2008) *The Adult Literacy and Life Skills (ALL) Survey: Age and Literacy*; Satherley P, Lawes E and Sok S (2008) *The Adult Literacy and Life Skills (ALL) Survey: Education, Work and Literacy*; Satherley P and Lawes E (2008d) *The Adult Literacy and Life Skills (ALL) Survey: Gender, Ethnicity and Literacy*; and customised unpublished data.

## PAID WORK

### PW1 UNEMPLOYMENT

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

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

The unemployed are defined in the Household Labour Force Survey as those who are without a paid job (or unpaid work in a relative's business) and who have actively sought work in the four weeks before the survey, who are available to take work or have a new job to start within the next four weeks. "Actively seeking" includes any actions such as contacting an employer, asking friends and relatives and contacting an employment agency or Work and Income but excludes those who have only checked newspaper advertisements.

Harmonised unemployment rates used for international comparisons are seasonally-adjusted rates and conform with standard International Labour Organization guidelines for comparability. Harmonised unemployment rates were previously termed "standardised unemployment rates".

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. The definition of the unemployed excludes some people who regard themselves as unemployed, including the "discouraged unemployed" – those not meeting the "actively seeking work" criterion. This group is classified in the "not in the labour force" category. The unemployment rate also excludes those who have part-time employment but who are seeking to work more hours.

The unemployment rate is not specifically a measure of youth who are inactive or at risk of poor transitions into work or higher education.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census, requiring a revision of historical data. In April 2009, the Household Labour Force Survey (HLFS) was revised back to the start of the survey (March 1986). As a result, some figures published in this report may not match figures published in earlier editions of the social report.

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**Data sources:** Statistics New Zealand (2009) *Household Labour Force Survey*; OECD *Frequently Requested Statistics, Harmonised Unemployment Rate*, downloaded from [www.oecd.org](http://www.oecd.org) on 20 April 2009; OECD (2008) *OECD Employment Outlook 2008, Statistical Annex, Table G p 355*.

## PW2 EMPLOYMENT

**Definition/formulae:** The employment rate is the proportion of the population aged 15–64 years employed for at least one hour per week. The employed are those who worked for pay or profit for one hour or more in the week before the survey or who worked unpaid in a relative's business or who have a job but did not work that week because of leave, sickness or industrial disputes.

The indicator relates to the population aged 15–64 years, rather than to those aged 15 years and over. As well as capturing the main working ages, restricting the subject population to ages 15–64 years helps adjust for differences in age structure between males and females, between ethnic groups, and between populations in different countries.

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. The definition of employment includes those working one hour or more a week, so this will include some people who are likely to regard their status as closer to unemployment than to employment. For example, people on the unemployment benefit and searching for work but working a few hours a week will be counted as employed.

Statistical weights used to rate sample data up to population estimates are updated every five years following each population census, requiring a revision of historical data. In April 2009, the Household Labour Force Survey (HLFS) was revised back to the start of the survey (March 1986). As a result, some figures published in this report may not match figures published in earlier editions of the social report.

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**Data sources:** Statistics New Zealand (2009) Household Labour Force Survey. OECD (2009) OECD Stats Extract, Dataset: Labour Force Status by sex and age – indicators, downloaded from <http://stats.oecd.org/WBOS/index.aspx> on 27 May 2009.

## PW3 MEDIAN HOURLY EARNINGS

**Definition/formulae:** Median hourly earnings for employees earning income from wage and salary jobs as measured by the New Zealand Income Survey, an annual supplement to the Household Labour Force Survey.

**Limitations of data:** The final data set consists of approximately 28,000 valid person records including 4,000 imputed person records. Hourly earnings relate to the number of hours usually worked and the usual income rather than to the number of hours actually worked and the actual income. Proxy interviewing may be used to collect data on income under certain circumstances. Estimates from sample surveys are subject to error.

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**Data sources:** Statistics New Zealand (2009) New Zealand Income Survey, Hot Off the Press, June 1997 quarter to June 2003 quarter (revised), June 2004 quarter to June 2008 quarter Table 10; and unpublished data derived by the Ministry of Social Development.

## PW4 WORKPLACE INJURY CLAIMS

**Definition/formulae:** The number of work-related accident claims reported to the ACC per 1,000 full-time equivalent employees (one part-time employee = 0.5 full-time employee).

Full-time equivalent employee data is as estimated by Statistics New Zealand's Household Labour Force Survey.

**Limitations of data:** The data does not include workplace accidents where no claim was made to the ACC. In some cases, there are also delays from when the accident happened to when the claim is reported to the ACC. For example, there were 240,500 injuries reported for the 2003 calendar year by March 2004, and 246,600 for the same year by March 2005, an increase of 3 per cent.

Information on workplace injuries for 2005, 2006 and 2007 is based on a new set of indicators developed by Statistics New Zealand. Comparable figures are available for 2001–2004 but information from these years is not directly comparable with previous figures on workplace injuries. The data for 2002–2004 was revised by Statistics New Zealand in 2006.

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**Data sources:** Statistics New Zealand (2008) Injury Statistics – Work-related Claims: 2007, Information Release; Statistics New Zealand (2004): Injury Statistics 2003: Claims for Work-related Injuries, Information Release.

## PW5 SATISFACTION WITH WORK-LIFE BALANCE

**Definition/formulae:** The proportion of employed people who are “satisfied” or “very satisfied” with their work-life balance according to the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009); Quality of Life Project (2007). The survey was commissioned by 12 of New Zealand’s cities and districts, in partnership with the Ministry of Social Development, to monitor trends in wellbeing. The total (national) sample size in the 2008 survey was 8,155, which has a maximum margin of error of +/- 1.1 per cent at the 95 per cent confidence interval. Interviews were conducted to meet gender, ethnicity, age and ward/region quotas to ensure the sample was representative of the New Zealand population as a whole. The response rate was 37 per cent.

## ECONOMIC STANDARD OF LIVING

### EC1 MARKET INCOME PER PERSON

**Definition/formulae:** Real Gross National Disposable Income (RGNDI) measures the real purchasing power of national disposable income. It takes into account changes in the terms of trade and real gains from net investment and transfer income with the rest of the world. GNDI is Gross National Income (GNI), plus net international transfers. Real Gross Domestic Product (GDP) per person (as used in the OECD comparisons) is real income produced inside the New Zealand economic boundary, excluding the international transfers included in GNDI.

**Derivation of RGNDI:** In the published tables, RGNDI is calculated as follows:

Chain-volume gross domestic product (production-based measure), plus  
Real trading gain/loss, plus  
Real total net investment income, plus  
Real total net transfers.

Real trading gain/loss is defined as current price exports deflated by an imports implicit price index less the chain-volume measure of exports. Real total net investment income equals investment income credits less investment income debits, both deflated by an imports implicit price index. Real net transfers equals transfers credits less transfers debits, both deflated by an imports implicit price index.

**Limitations of data:** Major limitations to the use of RGNDI as an indicator of wellbeing include its failure to include non-marketed (and, therefore, non-priced) activities (barring the exception of imputed rentals on owner-occupied dwellings). RGNDI provides no information on income distribution. Finally, evidence suggests monetary measures have a very weak cross-sectional and a limited time series correlation with self-assessed measures of wellbeing.

There is a discontinuity between 1991 and 1992 due to a change of population series from de facto population to resident population.

**Note:** The use of real GDP for OECD comparisons may overstate New Zealand’s relative position because of New Zealand’s growing and high per capita net external debt.

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**Data sources:** Statistics New Zealand, Real GNDI per capita (Infoshare series SNC039AA); Statistics New Zealand (2001) Measuring Unpaid Work in New Zealand 1999, Table 1 p 15, Table 4 p 17; OECD, Gross domestic product (expenditure approach), Table HCPC, per head at current prices and current PPPs (US dollars), and Table HVPVOB, per head at the price levels and PPPs of 2000 (US dollars), downloaded from OECD Stat on 29 April 2009; OECD (2009) OECD Factbook 2009: Economic, Environmental and Social Statistics, Gross national income per capita, time series table via Statlink on p 39.

## EC2 INCOME INEQUALITY

**Definition/formulae:** The ratio of the 80th percentile of equivalised disposable household income to the 20th percentile of equivalised disposable household income, when individuals are ranked by their household incomes. This indicator takes into account household size and composition. For international comparisons, we have compared Gini coefficients.

Adjustment for family size was made by means of a per capita equivalisation process based on the 1988 Revised Jensen Equivalence Scale.

**Limitations of data:** International comparisons have been made with data from years around 2004.

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**Data sources:** *Statistics New Zealand Household Economic Survey (Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the Ministry of Social Development.); Perry B (2009) Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008. Source for international comparisons: OECD (2008) Growing Unequal: income distribution and poverty in OECD countries.*

## EC3 POPULATION WITH LOW INCOMES

**Definition/formulae:** The income measure used is equivalised disposable household income after deducting housing costs. Equivalised disposable household income is the total income from all sources for all individuals in the household, after deducting tax, adding tax credits and adjusting for household size and composition.

The adjustment for household size and composition is based on the 1988 Revised Jensen Equivalence Scale.

Housing costs is the sum of annualised accommodation expenditure (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of a private dwelling, boarding house and student accommodation not paid with formal fees). In this indicator the Accommodation Supplement is counted as income.

Individuals are ranked by their household's equivalised disposable income (after deducting housing costs).

The two low-income thresholds used are of the "fixed line" type, set at 50 per cent and 60 per cent of the 1998 median household disposable income, less 25 per cent to allow for average housing costs. The two thresholds are held constant in real terms by an adjustment using the CPI. (See Perry (2008) for further details – especially Appendices 4 and 5.)

Individuals are grouped according to selected individual, family or household characteristics for the different analyses. For this indicator, family means one- or two-parent families with dependent children, whether living in a separate household or with others in a wider household.

In 2007 and 2008, the Other ethnic group includes the category "New Zealander".

The methodology used to calculate the figures used in the international comparison section follows that used by the OECD: the income concept is equivalised household disposable income; the equivalence scale is the square root scale (ie equivalence scale elasticity = 0.5); equivalent household income is attributed to all individuals in the household; individuals are ranked by their attributed equivalent disposable income to get the median for that year; the threshold is set at 50 per cent of this (contemporary) median, a "moving line" approach. There is no adjustment for housing costs.

*Note:* The data in Table EC3.1 is for March years in 1986–1998, and June years in 2001, 2004, 2007 and 2008. In this table, children refers to dependent children, aged under 18 years and not in full-time employment.

**Limitations of data:** The equivalised disposable income measure (whether before or after deducting housing costs) is taken as an indicator of a household's access to economic resources or of its potential living standards, all else being equal. The measure is an imperfect indicator of actual living standards, which are influenced by factors other than current income and housing cost. People with the same current income level can have different standards of living as a result of their different net assets, the extent to which they receive assistance from others, and the extent to which they have atypical expenditure commitments (eg unusually high medical costs, debt repayments, transport costs and electricity costs). People who experience a lengthy period of very low income are likely to have different life outcomes to those who experience only a transient episode.

Since 1994 the trend for those of Other ethnicity has been volatile, but up to 2004 the trends for Māori and Pacific peoples have moved in the expected positive direction and were consistent with information from other data sources. Reporting by ethnicity in these circumstances was considered to be justified. The volatility of the trend for those of Other ethnicity was explained in a footnote. Analysis of the 2007 Household Economic Survey data showed a very large improvement for Pacific peoples and for those in the Other ethnic grouping compared with 2004, while for Māori there was no measurable change. These results did not align with the information sources used for a cross-check. The Ministry of Social Development considered it would be misleading to report these improvements, as the small overall sample numbers for these groups and the decreasing numbers below the low-income threshold combine to increase the sampling error to unacceptable levels. The population with low incomes indicator, therefore, does not include a breakdown by ethnicity. Instead, it includes trends in median household incomes that show less volatility while still giving an idea of the relativities between ethnic groups.

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**Data sources:** Statistics New Zealand Household Economic Survey (Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the Ministry of Social Development; see Perry B (2009) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008*). Source for international comparisons: OECD (2008) *Growing Unequal: income distribution and poverty in OECD countries*.

**Definition/formulae:** The proportion of households and the proportion of people within households with housing cost outgoings-to-income ratio greater than 30 per cent of disposable income.

Household incomes have been equivalised using the 1988 Revised Jensen Equivalence Scale.

Housing costs are the sum of annualised accommodation expenditure (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of a private dwelling, boarding house and student accommodation not paid with formal fees). In this indicator the Accommodation Supplement is counted as income.

**Limitations of data:** Measures of housing affordability do not shed light on the issues of housing quality, suitability or sustainability; nor do they explain why affordability problems may exist, or the extent to which inadequate housing is occupied to avoid affordability problems. Furthermore, marginally-housed families are often hidden from official statistics and are not counted among those with an affordability problem.

Household ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The figures for households defined in this way are not mutually exclusive. In 2007 and 2008, the Other ethnic group includes the category "New Zealander".

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**Data source:** Derived from the Statistics New Zealand Household Economic Survey by the Ministry of Social Development. Perry B (2009) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2008, Table C2 p 45*.

## EC5 HOUSEHOLD CROWDING

**Definition/formulae:** The Canadian National Occupancy standard sets the bedroom requirements of a household according to the following compositional criteria:

- There should be no more than two people per bedroom
- Parents or couples share a bedroom
- Children under 5 years, either of the same or of the opposite sex, may reasonably share a bedroom
- Children under 18 years of the same sex may reasonably share a bedroom
- A child aged 5–17 years should not share a bedroom with a child aged under 5 years of the opposite sex
- Single adults 18 years and over and any unpaired children require a separate bedroom.

**Limitations of data:** There is no contemporary official statistic or index of household crowding in New Zealand. There are many frameworks or models used in many countries for analysing the incidence of crowding. It is unlikely any single measure of crowding could adequately summarise such a complex and multi-faceted issue as crowding.

There is no definitive evidence crowding leads to negative social outcomes, but there are associations between living in crowded circumstances and negative outcomes. The mechanisms by which these outcomes result are not clear.

The Canadian Crowding Index is not an objective index of crowding. The extent to which household members will perceive themselves as living in crowded circumstances is dependent on many factors including social and cultural expectations. Furthermore, it cannot be assumed households requiring one or more additional bedrooms (based on the Canadian index) will suffer negative social outcomes.

The Canadian Crowding Index is used here as it is sensitive to both household size and composition. The measure sets a bedroom requirement for households based on precise criteria.

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**Data sources:** Statistics New Zealand (1998) *New Zealand Now: Housing*, pp 56–63; Statistics New Zealand, unpublished data from the 1986, 1991, 1996, 2001 and 2006 population censuses.

## CIVIL AND POLITICAL RIGHTS

### CP1 VOTER TURNOUT

**Definition/formulae:** The total number of votes cast is divided by the estimated number of people who would have been eligible to vote (voting-age population) on election day, and expressed as a percentage. To be eligible to vote, a person must be at least 18 years old and meet residential and certain other criteria.

**Limitations of data:** The voting-age population is based on population estimates that are subject to revision. The 1984 figure is based on the estimated de facto population aged 18 years and over, as at 30 June 1984.

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**Data sources:** Electoral Commission (2008) [www.electionresults.govt.nz](http://www.electionresults.govt.nz); Department of Internal Affairs (2006) *Local Authority Election Statistics 2004*, and unpublished data for 2007; Inter-Parliamentary Union (2009) *PARLINE Database*, Last election.

### CP2 REPRESENTATION OF WOMEN IN GOVERNMENT

**Definition/formulae:** The proportion of elected members of parliament and local government bodies who are women.

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**Data sources:** Electoral Commission (2002) *The New Zealand Electoral Compendium*, 3rd edition; Department of Internal Affairs (2006) *Local Authority Election Statistics 2004*, and unpublished data for 2007; Wilson J and Anderson G (2008) *Final Results for the 2008 New Zealand General Election*; Inter-Parliamentary Union (2009) *Women in National Parliaments, Situation as of 31 March 2009*.

### CP3 REPRESENTATION OF ETHNIC GROUPS IN GOVERNMENT

**Definition/formulae:** The proportion of elected Members of Parliament (MPs) who identify themselves as being of Māori, Pacific peoples or Asian ethnicity.

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**Data sources:** Election New Zealand (2008) *Māori, Pacific and Asian MPs 1990–2005*; Wilson J and Anderson G (2008) *Final Results for the 2008 New Zealand General Election*; Statistics New Zealand (2007) *Estimated National Ethnic Population by Age and Sex at 30 June 1996, 2001 and 2006*.

### CP4 PERCEIVED DISCRIMINATION

**Definition/formulae:** The proportion of people aged 18 years and over who perceived selected groups as being the targets of discrimination (ie subject to “some discrimination” or “a great deal of discrimination”).

**Limitations of data:** Surveys on perceived discrimination do not measure actual levels of discrimination against groups.

The margin of error for a 50 per cent figure at the 95 per cent confidence level is 3.6 per cent.

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**Data source:** Human Rights Commission (2009) *Treaty of Waitangi, Personal/Group Discrimination and Disabilities: Omnibus Results, December 2008*.

### CP5 PERCEIVED CORRUPTION

**Definition/formulae:** The perceived level of corruption – defined as “the abuse of public office for private gain” – among New Zealand politicians and public officials, on a scale of 0 (highly corrupt) to 10 (highly clean). A country’s score in the Corruption Perceptions Index is derived by Transparency International from a number of different surveys of business people and country analysts.

The Corruption Perceptions Index (CPI) gathers data from sources that span the last two years. For the CPI 2008, this includes surveys from 2008 and 2007. The 2008 index is calculated using data from 13 sources originating from 11 independent institutions. All the sources measure the overall extent of corruption (frequency and/or size of bribes) in the public and political sectors and all the sources provide a ranking of countries, ie include an assessment of multiple countries. The New Zealand data for the CPI 2008 was drawn from six surveys: Economist Intelligence Unit (2008), Global Insights (2008), World Competitiveness Report of the Institute for Management Development (2008 and 2007), Merchant International Group (2007) and the Global Competitiveness Report of the World Economic Forum (2007). New Zealand’s overall score of 9.3 was within a confidence range of 9.2–9.5.

**Limitations of data:** The Corruption Perceptions Index score is a subjective measure; there is no hard empirical data on levels of corruption that can be used for cross-country comparison. The index was not designed to provide comparisons over time, since each year the surveys included in the index vary. The index is a relative measure: New Zealand’s ranking depends not only on perceptions of corruption in New Zealand but also on perceptions of corruption in the other countries surveyed. If comparisons with earlier years are made, they should be based on a country’s score, not its rank.

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**Data source:** Transparency International (2008) *Transparency International Corruption Perceptions Index 2008*, [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi)

## CULTURAL IDENTITY

### CI1 LOCAL CONTENT PROGRAMMING ON NEW ZEALAND TELEVISION

**Definition/formulae:** The hours of local content broadcast on TV One, TV2 and TV3 (to 2004), Prime Television, Māori Television (from 2005) and C4 (from 2006) in prime-time, expressed as a percentage of the total prime-time schedule. TV3 commenced in November 1989. New Zealand content programming includes first runs and repeats across all six channels.

**Limitations of data:** The number of local content hours broadcast on other free-to-air or pay channels is not included in the data presented here. Up until 2002 the hours data in Table CI1.1 was measured over 24 hours; from 2003 on it was measured over 18 hours (6am to midnight).

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**Data sources:** *NZ On Air (2009) Local Content, New Zealand Television, 2008 [7 May 2009]; NZ On Air (1999) Local Content and Diversity: Television in Ten Countries.*

### CI2 MĀORI LANGUAGE SPEAKERS

**Definition/formulae:** Māori language speakers as a proportion of the Māori ethnic group. Māori language speakers are defined as those able to hold a conversation about everyday things in Māori.

**Limitations of data:** The data relies on self-assessment rather than on measuring the actual level of fluency in the population. The census data comes from a single question about conversational language ability. More detailed information on the level of fluency among Māori language speakers is available from two nationwide surveys done in 2001 and 2006. This data is not directly comparable with the census data because of differences in the samples and methodology. For example, the Māori language surveys used face-to-face interviews, asked a range of questions about language skill, and asked respondents to place themselves on a five-category proficiency scale.

**Note:** The data behind Figure CI2.1 has been revised using published data. The graph in the 2008 social report, which was based on figures derived from customised data, was incorrect.

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**Data sources:** *Statistics New Zealand (2002) 2001 Census of Population and Dwellings: National Summary, Table 13a; Statistics New Zealand (2006) QuickStats About New Zealand's Population and Dwellings, National Highlights: 2006 Census, Tables 1, 9, 10; Statistics New Zealand (2007) QuickStats About Māori: 2006 Census, Tables 9, 10; Statistics New Zealand (2007) QuickStats About Culture and Identity: 2006 Census, Table 19; and unpublished data from the 2006 Census; Te Puni Kōkiri (2001) Provisional results of the 2001 Survey of the Health of the Māori Language; Te Puni Kōkiri (2007) The Māori Language Survey Fact Sheet.*

### CI3 LANGUAGE RETENTION

**Definition/formulae:** The proportion of people who can speak the "first language" (excluding English) of their ethnic group, for ethnic groups (other than Māori) with an established resident population in New Zealand, as recorded in the 2006 Census. The ability to speak a language is defined as being able to hold an everyday conversation in that language. "First language" refers to an indigenous language associated with a given ethnicity rather than the first language of an individual.

**Limitations of data:** While a direct link can usually be made between a language and an ethnic group, this is not always the case. Some ethnicities are associated with several languages and one language can span several ethnicities. Because both the ethnic group and language spoken census variables allow more than one response, there may be some individuals who appear in more than one ethnic group category.

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**Data source:** *Statistics New Zealand, unpublished data from the Census of Population and Dwellings, 2001, 2006.*

## LEISURE AND RECREATION

### L1 SATISFACTION WITH LEISURE TIME

**Definition/formulae:** The proportion of people aged 15 years and over who are “satisfied” or “very satisfied” with their leisure time, according to the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009); Quality of Life Project (2007). For more information see PW5 Satisfaction with work-life balance.

### L2 PARTICIPATION IN PHYSICAL ACTIVITY

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

**Limitations of the data:** Survey estimates are subject to sampling error and small differences between groups may not be statistically significant. This has been minimised where possible and all differences commented on have been found to be significant using 95 per cent confidence intervals and t-tests where these overlap. Data presented here may differ from previous reports, as data from the 2002/2003 New Zealand Health Survey has been re-analysed using the same methodology as that used for the 2006/2007 New Zealand Health Survey. See Methodology report for the 2006/2007 New Zealand Health Survey (Ministry of Health 2008) for further information on the analysis of the New Zealand Health Surveys.

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**Data source:** Ministry of Health, unpublished data from the 2002/2003 and 2006/2007 New Zealand Health Surveys.

### L3 PARTICIPATION IN CULTURAL AND ARTS ACTIVITIES

**Definition/formulae:** The proportion of the population aged 15 years and over who experienced a cultural activity as measured in the 2002 Cultural Experiences Survey. Respondents were asked to report on activities they experienced over either a 12-month period (for goods and services accessed or experienced relatively infrequently) or a four-week recall period (for activities experienced on a more regular basis). The survey was undertaken as a supplement to the 2002 March-quarter Household Labour Force Survey.

**Limitations of data:** This was an ad hoc survey, and is not comparable with the indicator in The Social Report 2001. The focus of this survey was on experience/consumption; it did not include participation such as acting or performing.

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**Data source:** Statistics New Zealand (2002) 2002 Cultural Experiences Survey.

## PHYSICAL ENVIRONMENT

### EN1 AIR QUALITY

**Definition/formulae:** The level of ambient concentrations of PM<sub>10</sub> averaged annually are reported for five major urban centres in New Zealand. These levels are compared with the government's PM10 guideline value of 20µg/m<sup>3</sup> (micrograms per cubic metre). PM<sub>10</sub> is particulate matter that is less than 10 microns in diameter. A new air quality standard based on average daily PM10 concentrations was introduced in 2005. This national environmental standard for PM<sub>10</sub> is 50 micrograms per cubic metre (50µg/m<sup>3</sup>), averaged daily over 24 hours (midnight to midnight). The standard can be exceeded on only one day a year. The standard is monitored by regional councils in "airsheds", areas within the region where air quality may, or is known to, exceed the standards or may require management in the future. The Ministry for the Environment's website contains information on airsheds including maps of airsheds within each region (<http://www.mfe.govt.nz/state/reporting/air/nes/index.html>).

**Limitations of data:** Annual average PM<sub>10</sub> data is reported only at specific sites in the five major cities. The data, being so location-specific, cannot be compared with an OECD median. In September 2005, the new air quality standards based on daily PM<sub>10</sub> concentrations were introduced. When sufficient time series data is available for this measure, we will expand the reporting against this standard. Any data used in this report that may be subject to volatile loss has been adjusted by a regionally-determined factor, where available.

The 2007 Dunedin average is based on an incomplete year of data. Data was not collected from 1 January 2007 until 23 March 2007 due to maintenance issues with the instrument.

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**Data sources:** Ministry for the Environment, data collated from regional councils; Ministry for the Environment (2009) *Air Quality (Particulate Matter – PM<sub>10</sub>) Environmental Report Card, February 2009*; Ministry for the Environment (2008) *Environment New Zealand 2007*; Department of Environment and Climate Change, New South Wales Government (2008) *Quarterly Air Quality Monitoring Reports*, <http://www.environment.nsw.gov.au/air/dataareports.htm#quarterlies>; Environment Protection Authority Victoria (2008) *Victoria's Air Quality 2007 – Air Monitoring Data*, <http://www.epa.vic.gov.au/air/monitoring/docs/vic-airquality2007-datatable-updated-dec08.pdf>

### EN2 DRINKING WATER QUALITY

**Definition/formulae:** The 2000 and 2005 Drinking-water Standards for New Zealand (DWSNZ:2000 and DWSNZ:2005) require that the water must receive adequate protozoa treatment and *E. coli* must not be detected in more than a specified proportion of 100 ml samples of water leaving a treatment plant. Adequate monitoring and the use of a registered laboratory are required to demonstrate full compliance with this standard. The indicator is the percentage of the estimated resident population receiving their water from community water supplies whose drinking water complies with either the 2000 or 2005 Drinking-water Standards of New Zealand relating to *E. coli* and *Cryptosporidium*. There is a transition period as the new DWSNZ:2005 is phased in. This transition is scheduled to take several years to complete and drinking water suppliers may elect which of the two standards to operate under. Compliance is assessed against the standard the supplier has chosen to comply with at this time. This approach is in line with the Health (Drinking Water) Amendment Act 2007. Section 14(3) of this Act allows suppliers to opt to comply with either the 2000 or 2005 Drinking Water Standards, to ease the transition for those suppliers who are more comfortable with the 2000 standards. Compliance is measured at the treatment plant for *Cryptosporidium* and at the tap for *E. coli*.

For the *Cryptosporidium* measure, the approach followed for the social report differs from that used by the Ministry of Health (MoH). The MoH measure is an estimate based on all treatment plants supplying each distribution zone. The measure used in the social report is based on the worst result from the various treatment plants supplying a distribution zone. The first approach double counts populations where a distribution zone is supplied by multiple plants; the later approach avoids this by measuring only one plant. The approach followed in the social report will become the standard measure when the transition to DWSNZ:2005 is completed.

The *E. coli* compliance results reported in the social report may also differ from those reported by MoH, as their results are based on district health board regions, while the social report results are based on regional council areas. When aggregating results from different geographic areas, sometimes there can be small discrepancies due to different population counts.

**Limitations of data:** Drinking water rated not fully compliant may be the result of failing one of the two microbiological criteria, of failing to adequately demonstrate compliance by using a non-registered laboratory, or of no or inadequate monitoring.

The measurement of compliance moved from a calendar year to the fiscal year in 2006. For this reason the data points jump from the 2005 calendar year to the 2006/2007 fiscal year. This change, combined with the transition in standards, will result in some lack of data continuity across these periods.

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**Data source:** Environmental Science and Research, customised data.

## SAFETY

### SS1 ASSAULT MORTALITY

**Definition/formulae:** The number of people who have died as a result of an assault, per 100,000 population.

The data was drawn from the following International Classification of Diseases codes: ICD-9, E960–E969 (up to 1999); ICD-10, X85–Y09 (from 2000).

**Limitations of data:** Because of the changes in the classification of ethnicity in death-registration data in September 1995, ethnicity data for 1996 and later years is not comparable with data from before 1996.

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**Data sources:** Ministry of Health, *Deaths from homicide and injury purposely inflicted by other persons (Assault mortality data in ICD-10), 1948–2006*; UNICEF (2003) “A League Table of Child Maltreatment Deaths in Rich Nations”, *Innocenti Report Card No 5, Table 1(a) p 4*; OECD (2009) *OECD Health Data 2009, Health Status, Mortality, Causes of Mortality, Assault, Deaths per 100,000 males/females (standardised rates)*.

## SS2 CRIMINAL VICTIMISATION

**Definition/formulae:** The proportion of the population aged 15 years and over who had been victims of one or more incidents of criminal offending in 2005 as measured by the New Zealand Crime and Safety Survey 2006 (NZCASS). The survey covers people in private households. It does not cover commercial victimisation, “victimless” crimes (such as drug or alcohol abuse), or crimes against people younger than 15 years.

**Limitations of data:** Changes in survey design limit the comparisons that can be made between NZCASS and the two earlier surveys, the 1996 and 2001 New Zealand National Survey of Crime Victims.

The overall response rate in the 2006 NZCASS was 59 per cent in the main sample and 56 per cent in the Māori booster sample. The respective figures in the 2001 survey were 65 per cent and 57 per cent and in the 1996 survey, 56 per cent and 66 per cent. In the authors’ view, it is difficult to say how the small drop in the response rate in the 2006 NZCASS has affected risk estimates (Mayhew and Reilly (2007b) p 23).

Victimisation surveys are subject to a number of methodological limitations such as selective recounting and differences between groups in willingness to report offences, particularly offences of a sexual or domestic nature where the offender is known. There are also limitations in asking people to remember victimisation incidents and to locate them accurately in time.

A victimisation survey will give a higher count of crime because it counts unreported crime. A third of all NZCASS offences became known to the police. Offences regarded as serious were more likely to be reported, but there was a wide variation between offence types, with 84 per cent of vehicle thefts being reported compared with 9 per cent of sexual offences (Mayhew and Reilly (2007b) p 35).

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**Data source:** Mayhew and Reilly (2007) *New Zealand Crime and Safety Survey 2006: Key Findings*.

## SS3 FEAR OF CRIME

**Definition/formulae:** The proportion of people who reported that fear of crime had a moderate or high impact on their quality of life (scoring its effect at 4 or higher on a scale from 0–10, where 0 is no effect and 10 is total effect), as measured by the New Zealand Crime and Safety Survey 2006 (NZCASS).

The data comes from the survey question “How much is your own quality of life affected by fear of crime, on a scale from 0 to 10, where 0 is no effect and 10 is total effect on your quality of life?” The overall response rate in the 2006 NZCASS was 59 per cent in the main sample and 56 per cent in the Māori booster sample.

**Limitations of data:** The question elicits a subjective assessment of the extent to which fear of crime affects respondents’ quality of life, which is also subjectively defined. While the question demonstrates an ability to differentiate between groups, it is not a reliable measure of the actual status of respondents. Also, although the results reflect people’s perceptions of their own situation in a general and ongoing way, they may be influenced by significant events and subject to fluctuation over time.

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**Data source:** Mayhew and Reilly (2007) *Community Safety: Findings from the New Zealand Crime and Safety Survey 2006*.

## SS4 ROAD CASUALTIES

**Definition/formulae:** The number of deaths caused by motor vehicle crashes per 100,000 population. The number of persons injured as a result of motor vehicle crashes as reported to the police, per 100,000 population. Pedestrians or cyclists killed or injured by motor vehicles are included.

The data was drawn from the following International Classification of Diseases codes: ICD-9, 810–819 (1996–1999); ICD-10, V01–V89 (2000).

**Limitations of data:** The collection of ethnicity data changed during 1995 for both mortality and hospitalisation data. For mortality data, the basis of ethnicity has changed from a biological concept to a concept of self-identification; in mid-1995 hospitalisation data recorded multiple ethnic groups, whereas previously only one ethnic group could be recorded. Consequently, a comparison of 1996 ethnic-specific data with previous years is misleading: 1996 is the start of a new time series for ethnic-specific data.

Because of a revision of the International Classification of Diseases, rates for 2000 are not comparable with rates for 1996–1999.

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**Data sources:** Ministry of Transport; Land Transport New Zealand; New Zealand Health Information Service; New Zealand Travel Surveys; Statistics New Zealand; International Road Traffic and Accident Database (OECD), issued November 2008. Road casualty data comes from two main sources: injury data from the traffic crash reports completed by police officers who attend the fatal and injury crashes; and mortality and hospitalisation data from the New Zealand Health Information Service (NZHIS). Ethnic-specific rates of death or hospitalisation are only available from NZHIS. The New Zealand Travel Survey 1997/1998 was based on a sample of approximately 14,000 people and the survey report compared results from a similar survey conducted in 1989/1990.

## SOCIAL CONNECTEDNESS

### SC1 TELEPHONE AND INTERNET ACCESS IN THE HOME

**Definition/formulae:** The number of people living in households with access to telephones (either landlines or cellphones) and the internet, as a percentage of the total population.

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**Data sources:** Statistics New Zealand, *Census of Population and Dwellings, 2001 and 2006, unpublished data*; OECD (September 2008) *Key ICT Indicators, Table 6b, households with access to the Internet, 2000–2007*, [http://www.oecd.org/document/23/0,3343,en\\_2649\\_34449\\_33987543\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/23/0,3343,en_2649_34449_33987543_1_1_1_1,00.html)

### SC2 REGULAR CONTACT WITH FAMILY/FRIENDS

**Definition/formulae:** The proportion of the population who had family or friends over for a meal at least once a month, as measured by the 2000 and 2004 New Zealand Living Standards Surveys.

The 2000 survey was in two parts: one of 3,060 people aged 65 years and over and the other of 3,682 working-age adults (18–64 years). Both surveys involved face-to-face interviews with nationwide representative samples. The 2004 survey was a nationally representative sample of 4,989 respondents answering on behalf of their economic family.

Family ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The figures for families defined in this way are not mutually exclusive.

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**Data sources:** Ministry of Social Development 2004, and revised 2000, *Living Standards Surveys, unpublished analysis results produced by the Ministry of Social Development*.

### SC3 TRUST IN OTHERS

**Definition/formulae:** The proportion of the population reporting that people can “almost always” or “usually” be trusted, in the Quality of Life Surveys conducted in 2006 and 2008.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data sources:** Quality of Life Project (2009) Quality of Life Survey 2008 (data analysis by the Ministry of Social Development); Quality of Life Project (2007); European Commission (2005) Social Values, Science and Technology, Special Eurobarometer 225, QB8, p 156; Statistics Canada (2004) 2003 General Social Survey on Social Engagement, cycle 17: an overview of findings, Table 3 p 51. For more information see PWS Satisfaction with work-life balance.

### SC4 LONELINESS

**Definition/formulae:** The proportion of the population who are lonely “sometimes”, “most of the time”, or “always”, as reported in the Quality of Life Survey.

**Limitations of data:** Subjective measures of wellbeing reflect people’s perceptions of their own situation, which may differ from their objective status.

**Note:** Ethnicity is based on multiple responses and is sourced from unpublished tables produced by the Ministry of Social Development.

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**Data source:** Quality of Life Project (2009) Quality of Life Survey 2008 (data analysis by the Ministry of Social Development); Quality of Life Project (2007). For more information see PWS Satisfaction with work-life balance.

### SC5 CONTACT BETWEEN YOUNG PEOPLE AND THEIR PARENTS

**Definition/formulae:** The proportion of secondary school students aged 12–18 years who said they get enough time with Mum and/or Dad (or someone who acts as Mum and/or Dad), most of the time, as reported in the Youth2000 and Youth’07 surveys.

**Limitations of data:** Estimates from sample surveys are subject to error. The achieved sample size for the Youth’07 survey was 9,107 students, representing 3.4 per cent of the total 2007 New Zealand secondary school roll.

Questions asked in Youth’07 and Youth2000 (undertaken in 2001) differ slightly. In 2001 students were asked: “Most weeks do you get to spend enough time with your Dad (or someone who acts as your Dad)?” In 2007 students were asked: “Do you spend enough time with him (your Dad or someone who acts as your Dad)?” Both surveys had the same response options.

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**Data source:** Adolescent Health Research Group (2008) Youth’07: The Health and Wellbeing of Secondary School Students in New Zealand. Initial Findings, p 15; Adolescent Health Research Group (2008) Youth’07: The Health and Wellbeing of Secondary School Students in New Zealand. Technical Report, tables on pp 43–46, 48.

# Endnotes

## INTRODUCTION

- 1 *Economic Development Indicators 2007* is available at: <http://www.med.govt.nz/upload/53549/Indicators-Report-2007.pdf>
- 2 *Environment New Zealand 2007* is available at: <http://www.mfe.govt.nz/publications/ser/enz07-dec07/>
- 3 *Measuring New Zealand's Progress Using a Sustainable Development Approach: 2008* is available at: <http://www.stats.govt.nz/Publications/NationalAccounts/sustainable-development.aspx>

## PEOPLE

- 4 Statistics New Zealand (2009d)
- 5 Statistics New Zealand (2007d)
- 6 Statistics New Zealand (2008e) p 7
- 7 Statistics New Zealand (2009a) p 6
- 8 These figures are from 2006-based medium population projections (Series 5), assuming medium fertility, medium mortality and a long-term annual net migration gain of 10,000.
- 9 These figures are from 2006-based medium population projections (Series 6), assuming medium fertility, medium mortality, medium inter-ethnic mobility and medium long-term annual net migration of -3,000 for the European or Other population (from 2010), -3,000 for the Māori population (from 2010), 12,000 for the Asian population (from 2010) and 500 for Pacific peoples (from 2008).
- 10 Comparability between 2001 and 2006 data may be affected by a change in the census question. Before 2006, the census asked whether anyone who lived in the dwelling owned it with or without a mortgage. The 2006 Census included an additional question on whether any of the occupants held the dwelling in a family trust. People who did hold the dwelling in a trust in 2006 have been counted as owning the dwelling. In previous years, some people in this category may have simply said they did not own the dwelling and would not have been counted as homeowners. Consequently, the actual decline in home ownership between 2001 and 2006 may have been slightly greater than the census figures indicate.
- 11 The family data relates to families within households. In official statistics, a family is defined as two or more people living in the same household who comprise either a couple, with or without children, or one parent and their children. The children do not have partners or children of their own living in the same household. People who were temporarily away from home on census night are included as part of the family. There is no data available on parents and children who live in different households.
- 12 More information on speakers of te reo Māori is provided in the Māori language speakers indicator.
- 13 Disability is defined as any perceived limitation in activity resulting from a long-term condition or health problem; lasting or expected to last six months or more and not completely eliminated by an assistive device. See Statistics New Zealand (2007a) p 26
- 14 Statistics New Zealand (2007a)
- 15 These employment rates are for people in households.
- 16 Adolescent Health Research Group (2008a) p 28

## HEALTH

- 17 Howden-Chapman and Tobias (2000)
- 18 Ministry of Health (1999b) p 351
- 19 Ministry of Health (2007a)
- 20 Babor et al (2001)
- 21 Conner et al (2005)
- 22 OECD (2009b)
- 23 2005 figures have been revised; 2006 data is provisional
- 24 Age-standardised to the World Health Organization standard world population.
- 25 Ministry of Health (2006b) p 14
- 26 These countries have been selected because they are considered to have a reliable data collection process, and because they are the countries most often used in comparisons with New Zealand on health measures. The suicide data in Figure SU2 is based on 28 OECD countries from OECD (2009c).

- 27 The international rates are annual rates recalculated by the New Zealand Health Information Service to enable geographic comparisons of data collected by the World Health Organization. These rates are therefore different to those used elsewhere in this chapter.
- 28 World Health Organization (2004)
- 29 Ministry of Health (1999b) p 344
- 30 Ministry of Health (2006c) Table C2 p 39
- 31 Ministry of Health (2009b) Data tables, Prevalence data, Age-standardised rates by gender and NZDep2006 quintile for current smokers.
- 32 OECD (2009c)
- 33 OECD (2009c)
- 34 The World Health Organization defines obesity as having a BMI greater than or equal to 30 kg/m<sup>2</sup> (WHO 2000). In compliance with international practice, the same cut-off points have been used for all ethnic groups (Ministry of Health (2008c) pp 104, 105)
- 35 Cole et al (2000)
- 36 Ministry of Health (2008c) p 104
- 37 Rates for 1997 and 2002/2003 were revised by Public Health Intelligence, Ministry of Health.
- 38 The rate for 2002 was revised by Public Health Intelligence, Ministry of Health.
- 39 Ministry of Health (2004c) p 36
- 40 OECD (2009c)
- 41 Babor et al (2001)
- 42 Conner et al (2005)
- 43 Age-standardised rates have been used for comparison over time.
- 44 OECD (2009c)

#### KNOWLEDGE AND SKILLS

- 45 See, for example, Wylie (1999)
- 46 OECD (2007b)
- 47 Wylie (1999); Boocock (1995); Wylie et al (2001); Wylie et al (2004)
- 48 OECD (2007b)
- 49 Due to methodological changes in the allocation of attainment levels in 2004, the percentage of leavers with qualifications higher than NCEA Level 2 in 2004 is not comparable with other years and has been omitted.
- 50 OECD (2008a). The OECD data used here also includes international students. This group is not included in the analysis in this section.

- 51 OECD (2008a). The figure reported for the proportion of New Zealand adults with at least upper secondary level qualifications in 2006 (69 per cent) is lower than the figures reported in previous editions of Education at a Glance. This is due to a revision in ISCED classifications used by the OECD. The removal of School Certificate as an ISCED 3 classification by the OECD accounts for most of this change.
- 52 Ministry of Education (2001b)
- 53 Satherley P, Lawes E and Sok S (2008b) pp 7, 9, 11
- 54 Satherley P, Lawes E and Sok S (2008b) pp 16, 18, 21

#### PAID WORK

- 55 This includes wages and other payments to employees and entrepreneurial income. 1999 Statistics New Zealand data, cited in Department of Labour (1999)
- 56 Wilson (1999)
- 57 OECD Stats extract, Harmonised unemployment rate, accessed 20 April 2009
- 58 OECD (2008d) Statistical Annex, Table G p 355
- 59 OECD Stats extract, Labour force status by sex and age, accessed 27 May 2009
- 60 In The Social Report 2008, this figure was incorrectly shown as 143.

#### ECONOMIC STANDARD OF LIVING

- 61 Royal Commission on Social Security in New Zealand (1972)
- 62 Between 2000 and 2004, New Zealand ranked 21st on real GDP per capita. A major revision of national accounts in Greece lifted real GDP per capita in that country, lowering New Zealand's ranking from 21st to 22nd in subsequent years. See OECD (2007a) Economic Survey of Greece, Chapter 1.
- 63 Statistics New Zealand (2001b) Table 1 p 15, Table 4 p 17. Per person value calculated by the Ministry of Social Development.
- 64 Perry B (2009) p 49
- 65 For a description of the Gini coefficient, see Statistics New Zealand (1999) p 118
- 66 OECD (2008b) Table 1.A2.4
- 67 OECD (2008b) Annex Table 5.A2.1
- 68 While the data is robust enough to give a general indication of relativities between ethnic groups, the relatively small sample sizes for the non-European ethnic groups can lead to some volatility in trends for each group separately. Robust data is not available for low-income households by ethnicity.

- 69 Baker et al (2000)
- 70 Evans (2003)
- 71 The trend in household crowding for the total population cannot be inferred from the trends for the ethnic groupings because some census respondents did not provide ethnicity data.
- 72 Statistics New Zealand (2003) p 33
- 73 Percentages do not add to 100 as some people identified with more than one ethnic group.
- 74 Persons who received income support in the 12 months before the census. Excludes those who received ACC or New Zealand Superannuation.

#### CIVIL AND POLITICAL RIGHTS

- 75 Ministry of Foreign Affairs and Trade (1998)
- 76 The 1988 Royal Commission on Social Policy found that New Zealanders felt wellbeing was strongly associated with the ability to make choices and to not have choices imposed on them. Royal Commission on Social Policy (1988)
- 77 For example, see the section on New Zealand in the United States State Department Bureau of Democracy, Human Rights and Labour (2003) Country Reports on Human Rights Practices
- 78 Human Rights Act 1993, Part 2, section 21. Reprint as at 1 October 2008.
- 79 Marsh and Sahin-Dikmen (2002) pp 40, 41
- 80 Inter-Parliamentary Union, PARLINE database, Last election
- 81 From 1989, overall turnout data is based on mayoral election turnout only. See Department of Internal Affairs (2006) p 17.
- 82 Inter-Parliamentary Union, Women in National Parliaments
- 83 These figures exclude Trusts, which are not local authorities. See Department of Internal Affairs (2009) p 10.
- 84 The 1989 elections were the first to be held following a major restructuring of local government.

#### CULTURAL IDENTITY

- 85 Durie et al (2002); Durie (1999)
- 86 Statistics New Zealand (2001a)
- 87 ACNielsen (2005)
- 88 NZ On Air (1999) p 3
- 89 All those who identified as Māori in the census are counted as part of the Māori ethnic group in this indicator.

- 90 “Very well” means being able to talk about almost anything in Māori. “Well” means being able to talk about many things in Māori. “Fairly well” refers to being able to talk about some things in Māori. “Not very well” refers to only being able to talk about simple/basic things in Māori.
- 91 The census ethnicity question is a multiple-response question and the high proportion of Pacific peoples who can speak Māori may reflect the high proportion of people who identified with both ethnic groups in the last census. This is also the case for the European ethnic group. In this section, “New Zealanders” have been included with the European ethnic group, using customised data that counts individuals once only.

#### PHYSICAL ENVIRONMENT

- 92 The 1988 Royal Commission on Social Policy identified “guardianship of the physical resource” as a major part of the “safe prospect” aspect of social wellbeing.
- 93 Fisher et al (2007)
- 94 Ministry for the Environment (2009)
- 95 Department of Environment and Climate Change, New South Wales Government (2008); Environment Protection Authority Victoria (2008)
- 96 Ministry of Health (2009a) p 6
- 97 Baker et al (2009b)
- 98 Baker et al (2009a)

#### SAFETY

- 99 Morris et al (2003) pp 222–224
- 100 National Road Safety Committee (2000)
- 101 OECD (2009c)
- 102 Mayhew and Reilly (2007b) pp 24–26
- 103 Mayhew and Reilly (2007b) p 54. The incidence figure for men for this type of offence [confrontational offences committed by partners] has a relative standard error between 15 per cent and 25 per cent and should be viewed with caution.
- 104 The 2007 injury and death data has been revised.
- 105 Land Transport Safety Authority (2000)
- 106 OECD (2008c) International Road Traffic and Accident Database (accessed 2 March 2009)

## SOCIAL CONNECTEDNESS

- 107 Spellerberg (2001)
- 108 Donovan and Halpern (2002) p 27
- 109 Noll and Berger-Schmitt (2000)
- 110 OECD (2008f)
- 111 Statistics Canada (2004); European Commission (2005)
- 112 Adolescent Health Group (2008a) p 14
- 113 Questions asked in Youth'07 and Youth2000 (undertaken in 2001) differ slightly. In 2001 students were asked: "Most weeks do you get to spend enough time with your Dad (or someone who acts as your Dad)?" In 2007 students were asked: "Do you get to spend enough time with him (your Dad or someone who acts as your Dad)?" Both surveys had the same response options.

## SUMMARY

114 NZDep gives a deprivation score to each small area of New Zealand, using socio-economic information from the five-yearly population census. Scores range from 1–10, where 1 equals the 10th of areas with the least deprived scores and 10 equals the 10th of areas with the most deprived scores. The range of scores can also be expressed as fifths (quintiles). This index is used for several indicators in the Health and Safety domains. <http://www.uow.otago.ac.nz/academic/dph/research/NZDep/NZDep2006%20research%20report%2004%20September%202007.pdf>, pp 8, 16

The school decile index is based on census information about the community from which a school draws its students. Decile 1 schools are the 10th of schools with the highest proportion of students from low socio-economic communities, while decile 10 schools are the 10th of schools with the lowest proportion of students from such areas. A school's decile does not indicate the overall socio-economic mix of the school.

<http://www.minedu.govt.nz/educationSectors/Schools/SchoolOperations/Resourcing/OperationalFunding/Deciles/HowTheDecileIsCalculated.aspx>