

Bibliography

- ACNielsen (2005) *Television Facts 2004*.
- Adolescent Health Research Group (2008a) *Youth'07: The Health and Wellbeing of Secondary School Students in New Zealand. Initial Findings* The University of Auckland: Auckland.
- Adolescent Health Research Group (2008b) *Youth'07: The Health and Wellbeing of Secondary School Students in New Zealand: Technical Report* The University of Auckland: Auckland.
- Adolescent Health Research Group (2003) *New Zealand Youth: A Profile of their Health and Wellbeing* The University of Auckland: Auckland.
- AGB Nielsen Media Research (2010) *TV Trends 2009*.
- Alcohol Advisory Council of New Zealand (2008) *How much is too much? Low risk drinking guidelines*, <http://www.alac.org.nz/LowRiskDrinking.aspx> (accessed February 2008).
- Australia Council for the Arts (2010) *More than bums on seats: Australian participation in the arts*, Fact sheet: *Arts participation: How does Australia compare to other countries?* Australian Council for the Arts: Sydney.
- Australian Bureau of Statistics (2009a) *Births, Australia, 2008* ABS: Canberra.
- Australian Bureau of Statistics (2009b) *Measures of Australia's Progress: Summary Indicators*. Australian Bureau of Statistics: Canberra.
- Australian Bureau of Statistics (2009c) *National Health Survey: Summary of Results, 2007–2008 (Reissue)*. Australian Bureau of Statistics: Canberra.
- Babor, T., Higgins-Biddle, J., Saunders, J. et al (2001) *The Alcohol Use Disorders Identification Test: Guidelines for use in Primary Care* World Health Organization: Geneva.
- Baker, M., Goodyear, R. and Howden-Chapman, P. (2003) "Household Crowding and Health" in *Statistics New Zealand What is the extent of household crowding in New Zealand? An analysis of crowding in New Zealand households, 1986–2001* Statistics New Zealand: Wellington.
- Baker, M., McNicholas, A., Garrett, N., Jones, N., Stewart, J., Koberstein, V. and Lennon, D. (2000) "Household Crowding: A Major Risk Factor for Epidemic Meningococcal Disease in Auckland Children" *Paediatric Infectious Disease Journal* Volume 19 No 10, pp 983–990.
- Beautrais, A. (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* Ministry of Health: Wellington.
- Boocock, S. (1995) "Early Childhood Programs in Other Nations: Goals and Outcomes" *The Future of Children* Volume 5 No 3.
- Christakis, N. and Fowler, J. (2009) *Connected: The Amazing Power of Social Networks and How They Shape Our Lives* Little, Brown and Company: New York.
- Cole, T.J., Bellizzi, M.C., Flegal, K.M. and Dietz, W.H. (2000) "Establishing a standard definition for child overweight and obesity worldwide: international survey" *British Medical Journal* Volume 320 Issue 7244, pp 1240–1243.
- Conner, J., Broad, J., Jackson, R. et al (2005) *The burden of death, disease and disability due to alcohol in New Zealand* Alcohol Advisory Council of New Zealand: Wellington.
- Coombs, G. (2006) "Wellbeing and happiness in OECD countries" *Economic Roundup Autumn 2006*. The Treasury, Australian Government: Canberra.
- Creative New Zealand (2009) *New Zealanders and the arts: Attitudes, attendance and participation in 2008* Creative New Zealand: Wellington.
- Crothers, C. (2000) "Monitoring the Changing Social Conditions of New Zealanders" *Social Policy Journal of New Zealand* Issue 15, pp 102–120.
- Davey, J. (1998) *Tracking Social Change in New Zealand: From Birth to Death IV* Institute of Policy Studies: Wellington.
- Davey, J. (1993) *Tracking Social Change in New Zealand: From Birth to Death III* Institute of Policy Studies: Wellington.
- Deaton, A. (2008) "Income, Health, and Well-Being Around the World: Evidence From the Gallup World Poll" *Journal of Economic Perspectives* Volume 22 Number 2, Spring, <http://www.princeton.edu/chw/research/papers/>
- Department of Internal Affairs (2009) *Local Authority Election Statistics 2007* Department of Internal Affairs: Wellington.
- Department of Internal Affairs (2006) *Local Authority Election Statistics 2004* Department of Internal Affairs: Wellington.
- Department of Social Welfare/Ministry of Social Policy (various, 1993–1999) *Statistical Information Reports* Department of Social Welfare/Ministry of Social Policy: Wellington.
- Diener, E. (1984) "Subjective Well-being" *Psychological Bulletin*, Volume 95 Number 3, pp 542–575.

- Duncan, G. (2005) "What do we mean by 'Happiness'? The relevance of subjective wellbeing to social policy" *Social Policy Journal of New Zealand*, Issue 25.
- Durie, M. (2001) "A Framework for Considering Māori Educational Advancement", Opening Address to the Hui Taumata Matauranga Turangi/Taupo, 24 February 2001.
- Durie, M. (1999) "Mental Health and Māori Development" *Australian Journal of Psychiatry* Volume 33 No 1, pp 5–12.
- Durie, M., Fitzgerald, E., Kingi, T., McKinley, S. and Stevenson, B. (2002) *Māori Specific Outcomes and Indicators: A Report Prepared for Te Puni Kōkiri* Te Puni Kōkiri: Wellington.
- Electoral Commission (2008a) *2008 General Election – Official Results*, <http://www.electionresults.govt.nz>
- Electoral Commission (2008b) *Maori, Pacific and Asian MPs 1990–2005*, <http://www.elections.org.nz/democracy/electorates/ethnicity-mps.html>
- Electoral Commission (2006) *Electoral Compendium 2005* Electoral Commission: Wellington.
- Electoral Commission (2005) *2005 General Election – Official Results*, <http://www.electionresults.govt.nz>
- Electoral Commission (2002) *The New Zealand Electoral Compendium* 3rd edition, Electoral Commission: Wellington.
- European Commission (2009) *Discrimination in the EU in 2009* European Commission: Brussels.
- European Commission (2005) *Social Values, Science and Technology: Special Eurobarometer 225* European Commission: Brussels.
- Evans, G.W. (2003) "The Built Environment and Mental Health" *Journal of Urban Health: Bulletin of the New York Academy of Medicine* Volume 80 No 4, <http://cmbi.bjmu.edu.cn/news/report/2004/Urban/view/31.pdf>
- Giovannini, E., Hall, J. and Mira d'Ercole, M. (2007) *Measuring well-being and societal progress*. OECD: Paris.
- Gold, H. and Webster, A. (1990) *New Zealand Values Today* Alpha Publications: Palmerston North.
- Graham, C. (2008) "The Economics of Happiness", in Durlauf, S. and Blume, L. (eds), *The New Palgrave Dictionary of Economics*, Second Edition. www.dictionaryofeconomics.com http://www.dictionaryofeconomics.com/article?id=pde2008_H000015#citations
- Howden-Chapman, P. and Tobias, M. (eds) (2000) *Social Inequalities in Health: New Zealand 1999* Ministry of Health: Wellington.
- Human Rights Commission (2009) *Treaty of Waitangi and Perceived Discrimination: UMR Omnibus Results* December 2009, Report prepared for the Human Rights Commission by UMR Research Ltd.
- Institut national de la statistique et des études économiques (INSEE) (2007) *The French Demographic Situation in 2005: Population changes*. Insee Résultats No 66 Société, June 2007, INSEE: Paris.
- Inter-Parliamentary Union (2010a) PARLINE Database data from the most recent election as of 31 May 2010, <http://www.ipu.org/parline-e/parlinesearch.asp>
- Inter-Parliamentary Union (2010b) Women in National Parliaments, Situation as of 31 May 2010, <http://www.ipu.org/wmn-e/classif.htm>
- Jensen, J., Krishnan, V., Hodgson, R., Sathiyandra, S. and Templeton, R. (2006) *New Zealand Living Standards 2004 Nga Ahuatanga Noho o Aotearoa* Ministry of Social Development: Wellington.
- Kahneman, D. and Krueger, A.B. (2006) "Developments in the Measurement of Subjective Well-being" *Journal of Economic Perspectives* Volume 20 Number 2, pp 3–24.
- Knack, S. and Keefer, P. (1997) "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation" *Quarterly Journal of Economics* November 1997.
- Krishnan, V., Jensen, J. and Ballantyne, S. (2002) *New Zealand Living Standards 2000* Centre for Social Research and Evaluation, Ministry of Social Development: Wellington.
- Mayer, S. (2002) *The Explanatory Power of Parental Income on Children's Outcomes* Report to the Ministry of Social Development, Ministry of Social Development: Wellington.
- Mayhew, P. and Reilly, J. (2007a) *Community Safety: Findings from the New Zealand Crime and Safety Survey 2006* Ministry of Justice: Wellington.
- Mayhew, P. and Reilly, J. (2007b) *The New Zealand Crime and Safety Survey: 2006, Key Findings* Ministry of Justice: Wellington.
- Ministry of Education (various years) *Early Childhood Education Statistics* Ministry of Education: Wellington.
- Ministry of Education (various years) Education Counts website for statistical data and quantitative information about education in New Zealand, <http://www.educationcounts.govt.nz>
- Ministry of Education (various years) *Education Statistics of New Zealand* Ministry of Education: Wellington.
- Ministry of Education (various years) *Education Statistics of New Zealand: School Leaver Statistics* Ministry of Education: Wellington.
- Ministry of Education (2002a) *Participation in Tertiary Education* Ministry of Education: Wellington.
- Ministry of Education (2002b) *PISA 2000: Overview of Selected New Zealand Findings* Ministry of Education: Wellington.

Ministry of Education (2001a) *Education Statistics NewsSheet* Volume 10 No 1, Ministry of Education: Wellington.

Ministry of Education (2001b) *More Than Words: The New Zealand Adult Literacy Strategy* Ministry of Education: Wellington.

Ministry for the Environment (2010) *Environmental Report Cards* Ministry for the Environment: Wellington, <http://www.mfe.govt.nz/environmental-reporting/report-cards/>

Ministry for the Environment (2008) *Environment New Zealand 2007* Ministry for the Environment: Wellington.

Ministry of Foreign Affairs and Trade (1998) *The New Zealand Handbook on International Human Rights* Ministry of Foreign Affairs and Trade: Wellington.

Ministry of Health (various years) *Mortality and Demographic Data* Ministry of Health: Wellington.

Ministry of Health (2009a) *Annual Review of Drinking-water Quality in New Zealand 2007/08* Ministry of Health: Wellington.

Ministry of Health (2009b) *Environmental Health Indicators for New Zealand 2008* Ministry of Health: Wellington.

Ministry of Health (2009c) *Suicide Facts: Deaths and Intentional Self-harm Hospitalisations: 2007* Ministry of Health: Wellington.

Ministry of Health (2009d) *Tobacco Trends 2008: A brief update of tobacco use in New Zealand* Ministry of Health: Wellington.

Ministry of Health (2008a) *Body Size Technical Report: Measurements and classifications in the 2006/07 New Zealand Health Survey* Ministry of Health: Wellington.

Ministry of Health (2008b) *Methodology report for the 2006/07 New Zealand Health Survey* Ministry of Health: Wellington.

Ministry of Health (2008c) *A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey* Ministry of Health: Wellington.

Ministry of Health (2007) *Alcohol Use in New Zealand: Analysis of the 2004 New Zealand Health Behaviours Survey – Alcohol Use* Ministry of Health: Wellington.

Ministry of Health (2006a) *Suicide Facts: Provisional 2003 All-ages Statistics* Ministry of Health: Wellington.

Ministry of Health (2006b) *Tobacco Trends 2006: Monitoring tobacco use in New Zealand* Ministry of Health: Wellington.

Ministry of Health (2004a) *Living with Disability in New Zealand. A Descriptive Analysis* Ministry of Health: Wellington.

Ministry of Health (2004b) *A Portrait of Health: Key results of the 2002/2003 New Zealand Health Survey* Ministry of Health: Wellington.

Ministry of Health (2004c) *Tracking the Obesity Epidemic: New Zealand 1977–2003* Ministry of Health: Wellington.

Ministry of Health (2003a) *Decades of Disparity: Ethnic Mortality Trends in New Zealand 1980–1999* Ministry of Health: Wellington.

Ministry of Health (2003b) *NZ Food, NZ Children: Key results of the 2002 National Children's Nutrition Survey* Ministry of Health: Wellington.

Ministry of Health (2002) *An Indication of New Zealanders' Health* Ministry of Health: Wellington.

Ministry of Health (1999a) *NZ Food, NZ People: Key Results of the 1997 National Nutrition Survey* Ministry of Health: Wellington.

Ministry of Health (1999b) *Our Health, Our Future: Hauora Pakari, Koiroa Roa. The Health of New Zealanders 1999* Ministry of Health: Wellington.

Ministry of Health (1997) *National Nutrition Survey* Ministry of Health: Wellington.

Ministry of Social Development (2010) *Statistical Report*. Ministry of Social Development: Wellington.

Ministry of Social Development (2008) *Children and Young People: Indicators of wellbeing in New Zealand 2008* Ministry of Social Development: Wellington.

Ministry of Social Development (2007) *Positive Ageing Indicators 2007* Ministry of Social Development: Wellington.

Ministry of Social Development (2006) *New Zealand Living Standards 2004* Ministry of Social Development: Wellington.

Ministry of Social Development (2004) *Social Wellbeing Survey* Ministry of Social Development: Wellington.

Ministry of Social Development (2003a) *New Zealand Living Standards 2000* Ministry of Social Development: Wellington.

Ministry of Social Development (2003b) *The Social Report 2003* Ministry of Social Development: Wellington.

Ministry of Social Development (2002) *The Social Report 2002* Ministry of Social Development: Wellington.

Ministry of Social Development (2001) *The Social Report 2001* Ministry of Social Development: Wellington.

Ministry of Social Policy (2001) *Definitions of Crowding and the Effects of Crowding on Health: A Literature Review* Ministry of Social Policy: Wellington.

Ministry of Transport (2010, forthcoming) *Motor Vehicle Crashes in New Zealand, Annual Statistics 2009* Ministry of Transport: Wellington.

Morris, A., Reilly, J., Berry, S. and Ransom, R. (2003) *New Zealand National Survey of Crime Victims 2001* Ministry of Justice: Wellington.

- National Road Safety Committee (2000) *Road Safety Strategy 2010: A Consultation Document* National Road Safety Committee: Wellington.
- Noll, H. (1996) "Social Indicators Reporting: The International Experience", Presentation to Symposium on Measuring Wellbeing and Social Indicators, Canadian Council on Social Development.
- Noll, H. and Berger-Schmitt, R. (2000) *Conceptual Framework and Structure of a European System of Social Indicators* EU Reporting Working Paper No 9, Centre for Survey Research and Methodology (ZUMA), Social Indicators Department: Mannheim Germany.
- Nordic Council and Nordic Council of Ministers (2009) *Nordic Statistical Yearbook 2009*.
- NZ On Air (2010) *Local Content, New Zealand Television, 2009* NZ On Air: Wellington.
- NZ On Air (1999) *Local Content and Diversity: Television in Ten Countries* NZ On Air: Wellington.
- OECD (2010a) *OECD Employment Outlook: Moving beyond the Jobs Crisis*. OECD: Paris.
- OECD (2010b) *OECD Factbook 2010: Economic, Environmental and Social Statistics* OECD: Paris.
- OECD (2010c) *OECD Health Data 2010*. OECD: Paris.
- OECD (2010d) OECD Stats extract, Dataset: Harmonised unemployment rate, accessed 26 May 2010, <http://stats.oecd.org/WBOS/index.aspx>
- OECD (2010e) OECD Stats Extract, Dataset: National Accounts, Gross Domestic Product, <http://stats.oecd.org/WBOS/index.aspx>
- OECD (2009a) *Education at a Glance 2009: OECD Indicators* OECD: Paris, September 2009.
- OECD (2009b) *OECD Key ICT Indicators* OECD: Paris.
- OECD (2009c) *Society at a Glance 2009: OECD Social Indicators* OECD: Paris.
- OECD (2008) *Growing Unequal: income distribution and poverty in OECD countries* OECD: Paris.
- OECD (2007a) *Economic Survey of Greece* OECD: Paris.
- OECD (2007b) *Education at a Glance 2007* OECD: Paris, September 2007.
- OECD (2001) *OECD Communications Outlook* OECD: Paris.
- OECD (2000) *Literacy in the Information Age: Final Report of the Adult Literacy Survey* OECD: Paris.
- OECD (1995) *Environmental Data Compendium 1995* OECD: Paris.
- OECD/International Transport Forum (2009) *International Road Traffic and Accident Database (IRTAD Database)*, November 2009, www.internationaltransportforum.org/irtad/pdf/risk.pdf
- Paynter, J. (2010) *National Year 10 ASH Snapshot Survey, 1999–2009: Trends in tobacco use by students aged 14–15 years* Report for the Ministry of Health, Health Sponsorship Council and Action on Smoking and Health: Auckland.
- Perry, B. (2010) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009* Ministry of Social Development: Wellington.
- Perry, P. and Webster, A. (1999) *New Zealand Politics at the Turn of the Millennium: Attitudes and Values About Politics and Government* Alpha Publications: Auckland.
- Public Health Intelligence, Marfell-Jones, M. (2006) *Protocols for Collecting Height, Weight and Waist Measurements in New Zealand Health Monitor Surveys* Ministry of Health: Wellington.
- Quality of Life Project (2009) *Quality of Life Survey 2008: National Report* Quality of Life Project and the Ministry of Social Development: New Zealand.
- Quality of Life Project (2007) *Quality of Life Survey 2006: National Report* Quality of Life Project and the Ministry of Social Development: New Zealand.
- Quality of Life Project (2005) *Quality of Life in New Zealand's Largest Cities 2004* Quality of Life Project and the Ministry of Social Development: New Zealand.
- Royal Commission on Social Policy (1988) *The April Report* Royal Commission on Social Policy: Wellington.
- Royal Commission on Social Security in New Zealand (1972) *Social Security in New Zealand* Royal Commission on Social Security in New Zealand: Wellington.
- Salmond, C., Crampton, P. and Atkinson, J. (2007) *NZDep2006 Index of Deprivation* University of Otago, Department of Public Health: Wellington.
- Satherley, P. and Lawes, E. (2008a) *The Adult Literacy and Life Skills (ALL) Survey: Age and Literacy* Ministry of Education: Wellington.
- Satherley, P., Lawes, E. and Sok, S. (2008b) *The Adult Literacy and Life Skills (ALL) Survey: Overview and International Comparisons* Ministry of Education: Wellington.
- Satherley, P. and Lawes, E. (2008c) *The Adult Literacy and Life Skills (ALL) Survey: Gender, Ethnicity and Literacy* Ministry of Education: Wellington.
- Schuckit, M.A. (2005) "Alcohol and Alcoholism" in Kasper, D., Braunwald, E., Fauci, A. et al (eds) *Harrison's Online* The McGraw-Hill Companies.
- Social Monitoring Group (1989) *From Birth to Death: The Second Overview Report* New Zealand Planning Council: Wellington.
- Social Monitoring Group (1985) *From Birth to Death: The First Report of the Social Monitoring Group* New Zealand Planning Council: Wellington.

- Spellerberg, A. (2001) *Framework for the Measurement of Social Capital in New Zealand* Research and Analytical Report 2001 No 14, Statistics New Zealand: Wellington.
- Statistics Canada (2007) *Families with Children Under 18, 2006 Census* Cat. No 97-553-XCB2006022, Statistics Canada: Ottawa.
- Statistics Canada (2004) *2003 General Social Survey on Social Engagement, Cycle 17 an Overview of Findings* Statistics Canada: Ottawa.
- Statistics New Zealand (2010a) *Alcohol and Tobacco Available for Consumption – Year ended December 2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010b) *Births and Deaths: December 2009 quarter Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010c) *Demographic Trends 2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010d) *External Migration: December 2009 year Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010e) *Household Labour Force Survey 1985–2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010f) *Household Use of Information and Communication Technology: 2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010g) *National Ethnic Population Projections 2006(base)–2026 update Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010h) *National Family and Household Projections: 2006(base)–2031 update Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010i) *National Population Estimates Tables* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010j) *National Population Estimates: December 2009 quarter Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010k) *New Zealand Abridged Life Tables: 2007–2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2010l) *New Zealand Income Survey (1997–2009)* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009a) *General Social Survey 2008* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009b) *Household Economic Survey 1988–2009* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009c) *Injury Statistics – Work-related Claims: 2008 Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009d) *National Population Projections, 2009(base)–2061* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009e) *New Zealand Income Survey: June 2009 quarter Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2009f) *New Zealand Life Tables: 2005–07* Statistics New Zealand: Wellington.
- Statistics New Zealand (2007a) *2006 Disability Survey Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2007b) *Estimated National Ethnic Population by Age and Sex at 30 June 1996, 2001 and 2006* Statistics New Zealand: Wellington.
- Statistics New Zealand (2007c) *QuickStats About Culture and Identity: 2006 Census* Statistics New Zealand: Wellington.
- Statistics New Zealand (2007d) *QuickStats About Housing: 2006 Census* Statistics New Zealand: Wellington.
- Statistics New Zealand (2007e) *QuickStats About Māori: 2006 Census* Statistics New Zealand: Wellington.
- Statistics New Zealand (2006a) *2006 Census of Population and Dwellings: National Summary* Statistics New Zealand: Wellington.
- Statistics New Zealand (2006b) *2006 Census: Regional Summary* Statistics New Zealand: Wellington.
- Statistics New Zealand (2006c) *QuickStats About New Zealand's Population and Dwellings: 2006 Census* Statistics New Zealand: Wellington.
- Statistics New Zealand (2004a) *Concerning Language* Statistics New Zealand: Wellington.
- Statistics New Zealand (2004b) *Injury Statistics 2003: Claims for Work-related Injuries Information Release* Statistics New Zealand: Wellington.
- Statistics New Zealand (2003) *What is the extent of crowding in New Zealand? An analysis of crowding in New Zealand households 1986–2001* Statistics New Zealand: Wellington.
- Statistics New Zealand (2002a) *2002 Cultural Experiences Survey* Statistics New Zealand: Wellington.
- Statistics New Zealand (2002b) *2001 Census of Population and Dwellings: National Summary* Statistics New Zealand: Wellington.
- Statistics New Zealand (2002c) *2001 Census: Regional Summary* Statistics New Zealand: Wellington.
- Statistics New Zealand (2001a) *Around the Clock: Findings from the New Zealand Time Use Survey 1998/1999* Statistics New Zealand: Wellington.
- Statistics New Zealand (2001b) *Measuring Unpaid Work in New Zealand 1999* Statistics New Zealand: Wellington.
- Statistics New Zealand (1999) *New Zealand Now – Incomes* Statistics New Zealand: Wellington.
- Statistics New Zealand (1998b) *New Zealand Now: Housing* Statistics New Zealand: Wellington.

- Stephens, R., Frater, P. and Waldegrave, C. (1995) "Measuring Poverty in New Zealand" *Social Policy Journal of New Zealand* Issue 5.
- Stiglitz, J.E., Sen, A. and Fitoussi, J-P. (2009) *Report by the Commission on the Measurement of Economic Performance and Social Progress*. The Commission: Paris. <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>
- Stutzer, A. and Frey, B.S. (2010) "Recent Advances in the Economics of Individual Subjective Wellbeing" Discussion Paper No. 4850. Institute for the Study of Labor (IZA): Zurich.
- Swiss Federal Statistics Office (OFS) (2010) *Indicators of fertility in Switzerland, Total fertility rate* OFS: Neuchâtel.
- Te Puni Kōkiri (2007) *The Māori Language Survey Fact Sheet* Te Puni Kōkiri: Wellington.
- Te Puni Kōkiri (2001) *Provisional results of the 2001 Survey of the Health of the Māori Language* Te Puni Kōkiri: Wellington.
- Te Puni Kōkiri (1998) *The National Māori Language Survey: Te Mahi Rangahau Reo Māori* Te Puni Kōkiri: Wellington.
- Tobias, M. and Cheung, J. (2003) "Monitoring Health Inequalities: Life Expectancy and Small Area Deprivation in New Zealand" *Population Health Metrics* Volume 1 No 2.
- Transparency International (2009) *Transparency International Corruption Perceptions Index 2009*, http://www.transparency.org/policy_research/surveys_indices/cpi
- UNICEF (2003) "A League Table of Child Maltreatment Deaths in Rich Nations" *Innocenti Report Card* UNICEF: Geneva.
- United Kingdom Office for National Statistics (2009) *Birth Statistics 2008* Series FM1 No 37, ONS: London.
- United Kingdom Office for National Statistics (2008) *General Social Survey 2006* ONS: London.
- United Kingdom Performance and Innovation Unit (2002) *Social Capital: A Discussion Paper* Prime Minister's Strategy Unit: United Kingdom.
- United States Census Bureau (2007) *America's Families and Living Arrangements 2006, Current Population Survey Reports* United States Census Bureau: Washington DC.
- United States Department of Health and Human Services, Centers for Disease Control and Prevention (2010) "Births: Preliminary Data for 2008" *National Vital Statistics Report* Volume 58 No 16, April 2010, United States Department of Health and Human Services: Washington DC.
- United States State Department Bureau of Democracy, Human Rights and Labor (2003) *New Zealand: Country Reports on Human Rights Practices* United States State Department: Washington DC.
- Vowles, J. and Aimer, P. (1993) *Voters' Vengeance: The 1990 Election in New Zealand and the Fate of the Fourth Labour Government* Auckland University Press: Auckland.
- Vowles, J., Aimer, P., Banducci, S., Karp, J. and Miller, R. (eds) (2004) *Voters' Veto: The 2002 Election in New Zealand and the Consolidation of Minority Government* Auckland University Press: Auckland.
- Wilson, J. and Anderson, G. (2008) *Final Results for the 2008 New Zealand General Election* Parliamentary Library Research Paper 2008/05: Wellington.
- Wilson, N. (1999) "Occupation and Health" in Tobias, M. and Howden-Chapman, P. (eds) *Social Inequalities in Health: New Zealand 1999* Ministry of Health: Wellington.
- Winkelmann, L. and Winkelmann, R. (1998) "Immigrants in the New Zealand Labour Market: A Cohort Analysis Using 1986, 1991 and 1996 Census Data" *Labour Market Bulletin* 1998, Volumes 1 and 2, pp 34-70.
- World Cancer Research Fund, American Institute for Cancer Research (2007) *Food, nutrition, physical activity, and the prevention of cancer: a global perspective* American Institute for Cancer Research: Washington DC.
- World Health Organization (2004) *Suicide Prevention: Country Reports and Charts* World Health Organization: Geneva.
- World Health Organization (2000) *Obesity: Preventing and Managing the Global Epidemic* World Health Organization: Geneva.
- Wylie, C. (1999) *Eight Years Old and Competent, The Third Stage of the Competent Children Project: A Summary of the Main Findings* New Zealand Council for Educational Research: Wellington.
- Wylie, C., Thompson, J., Hodgen, E., Ferral, H., Lythe, C. and Fijn, T. (2004) *Competent Children at 12* Ministry of Education and New Zealand Centre for Education Research: Wellington.
- Wylie, C., Thompson, J. and Lythe, C. (2001) *Competent Children at 10: Families, Early Childhood Education and Schools* Ministry of Education and New Zealand Centre for Education Research: Wellington.
- Young, W., Morris, A., Cameron, N. and Haslett, S. (1997) *New Zealand National Survey of Crime Victims 1996* Victoria University: Wellington.
- Zubrick, S., Williams, S. and Vimpani, G. (2000) *Indicators of Social and Family Functioning* Department of Family and Community Services: Canberra.

Changes to *The Social Report 2010*

Changes made to the domains and indicators used in the report are detailed in the table below.

Table AP1 **Changes to the domains and indicators in *The Social Report 2010***

Outcome domain	Change
Knowledge and skills	In the participation in early childhood education indicator, the first measure is described as the "enrolment rate" (previously "apparent participation rate") for consistency with the Ministry of Education's reporting. The measure itself has not changed.
Paid work	<p>The unemployment and employment indicators in this edition are based on December years. In the 2009 report, data for March years was presented as a temporary measure to capture the initial effect of the economic recession.</p> <p>The workplace injury claims indicator has been renamed work-related injury claims, for consistency with the Statistics New Zealand data source.</p>
Economic standard of living	The market income per person indicator is based on December years, the latest data available at the time of production.
Civil and political rights	<p>The voter turnout indicator includes new information from the New Zealand General Social Survey (NZGSS) on voter characteristics.</p> <p>The perceptions of discrimination indicator includes new information on personal experience of discrimination from the NZGSS</p>
Leisure and recreation	The participation in arts and cultural activities is now based on data from Creative New Zealand's survey, <i>New Zealanders and the arts: Attitudes, attendance and participation in 2008</i> . The content of the indicator has changed accordingly.
Physical environment	<p>The two indicators in this domain – air quality and drinking water quality – have been deleted. Both indicators focus on particular areas of New Zealand and monitoring change at the national level is therefore not feasible. For air quality, it is difficult to estimate the populations affected, and this is a key requirement for a social report. For water quality, there are different levels of monitoring for different sizes of drinking-water supply and this makes it difficult to interpret the data. These indicators fit better in environmental monitoring reports and are reported by other agencies.</p> <p>For the latest environmental health indicators report refer to Ministry of Health. 2009. <i>Environmental Health Indicators for New Zealand 2008</i>. Wellington: Ministry of Health. http://www.moh.govt.nz/moh.nsf/indexmh/environmental-health-indicators-for-nz-2008</p> <p>For the most recent <i>Annual Review of Drinking-Water Quality In New Zealand</i>, see Ministry of Health: http://www.moh.govt.nz/moh.nsf/indexmh/annual-review-drinking-water-quality-nz-2007-08</p> <p>For the most recent environmental indicator report cards for air quality see: Ministry for the Environment. 2010. <i>Environmental Report Cards</i>. http://www.mfe.govt.nz/environmental-reporting/report-cards/</p> <p>Because these two indicators have been deleted and no other suitable indicators could be found in time, there is no Physical Environment domain in this report.</p>
Social connectedness	<p>The telephone and internet access indicator has been updated with household data from the 2009 Household Use of Information and Communications Technology survey.</p> <p>The indicator on regular contact with family or friends has been replaced with data from the New Zealand General Social Survey (NZGSS) and renamed contact with family and friends. The previous measure ("had family or friends over for a meal at least once a month") has been replaced with a subjective measure – that respondents felt the amount of contact they have with friends or family is "about right".</p> <p>A new indicator on voluntary work has been included in this domain, based on NZGSS data.</p>
Life satisfaction	This is a new domain, with one new indicator on overall life satisfaction, based on NZGSS data.

Technical details

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.

People

Data sources:

Population size and growth: Statistics New Zealand, *Estimated resident population, final data for December years (Infoshare series DPE045AA) and at 30 June (Infoshare series DAE017AA, for Figure P1); National Population Projections, 2009(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.*

Components of population change: Statistics New Zealand, *External Migration Information Release; Infoshare series VTB032AA (natural increase) and ITM048AA (net permanent and long-term migration), arrivals and departures by age and sex, by citizenship, by country of residence; arrivals by country of residence, citizenship and area of New Zealand.*

Overseas-born: Statistics New Zealand (2007) *QuickStats About Culture and Identity: 2006 Census, Tables 6, 7, 12, 13. Correction: In 1996, the proportion of the population born overseas was 17.52 percent, which rounds to 18 percent (incorrectly shown as 17 percent in previous reports).*

Fertility: Statistics New Zealand (2010) *Births and Deaths: December 2009 quarter; Total fertility rate (TFR) and age-specific fertility rates for the total, Māori and non-Māori populations from Infoshare and customised data; Age-specific fertility rates for the major ethnic groups, 2001 and 2006 from Births (website table). International comparison for TFR and teenage (under 20 years) fertility rate – Statistics New Zealand (2010) Demographic Trends 2009, Tables 2.12 and 2.13; Australia: Australian Bureau of Statistics (2009) Births, Australia, 2008, Table 9; Finland: Nordic Council and Nordic Council of Ministers, *Nordic Statistical Yearbook 2009*, p 38 (under 20 years fertility rate); France: Institut national de la statistique et des études économiques (INSEE) (2007) *The French Demographic Situation in 2005: Population changes, Births, Table 42, Fertility rate by mother's age group and marital status, 1960–2005 (under 20 years fertility rate), www.insee.fr (website table: http://www.insee.fr/en/themes/detail.asp?ref_id=ir-sd2005&page=irweb/sd2005/dd/sd2005_nais.htm); Switzerland: Swiss Federal Statistics Office, Live births by age of mother and total fertility rate, 1960–2008, Table T 1.2.2.4.2, www.bfs.admin.ch, (website table); UK: United Kingdom Office for National Statistics (2009) *Birth Statistics 2008, Series FM1 No 37, Table 3.1b; US: United States Department of Health and Human Services, Centers for Disease Control and Prevention (2010) "Births: Preliminary Data for 2008", National Vital Statistics Report, Volume 58 No 16, April 2010, p 3 (TFR), p 2 (15–19 years fertility rate).***

Geographic 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. Urban/rural distribution: Statistics New Zealand, 2006 Census, unpublished data.*

Ethnic composition: Statistics New Zealand (2010) *National Ethnic Population Projections: 2006(base)–2026 update; Statistics New Zealand, 2006 Census, unpublished data; Statistics New Zealand (2010) Demographic Trends 2009; Statistics New Zealand (2010) Births and Deaths: December 2009 quarter.*

Age and sex structure of the population: Statistics New Zealand (Infoshare), *Estimated resident population by age and sex, final data for December years and at 30 June (for Figure P4); Statistics New Zealand (2009) National Population Projections: 2009(base)–2061, p 6 and Table 3; Median age: Statistics New Zealand, Projected Population Characteristics, 2006(base)–2061 (Table Builder). Median age by ethnic group: Statistics New Zealand (2010) National Ethnic Population Projections: 2006(base)–2026 update, Information Release, 22 April, Tables 3a, 3e, 3m, 3p.*

Household composition: 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.*

Parents with dependent children living in other households: Statistics New Zealand, *General Social Survey 2008 (Table Builder).*

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. Projected share of one-parent families with dependent children: Statistics New Zealand (2010) National Family and Household Projections: 2006(base)–2031 update, p 5 (series 5B). Median age of parents: unpublished census 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, Families and Living Arrangements, Historical Table FM2, Family groups with children under 18, Historical Table UC3, Opposite-sex Unmarried Partner Households with Own Children Under 18 (used to adjust 2006 figure to exclude cohabiting parents); 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; Ireland: Central Statistical Office, Census, 2006, Volume 3: Household composition and family units, Table 34.**

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.*

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, 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. Statistics New Zealand advises: "Care should be taken when analysing family type data for same-sex couples, as the numbers involved are small and the information provided by respondents that was used to derive this data was not always consistent and correct." 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-census 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.

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 percent of small areas, and 10 represents the most deprived 10 percent. 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 centred on census years.

Data sources: Statistics New Zealand (2010) *New Zealand Abridged Life Tables: 2007–2009*; 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 (2010) *Births and Deaths: December 2009 quarter, Information Release*. Ministry of Health (ethnic-specific data for 1985–1987, 1990–1992); Ministry of Health (1999) *Our Health, Our Future: Hauora Pakari, Kōiora Roa, The Health of New Zealanders 1999, Chapter 2*. OECD (2010) *OECD Health Data 2010, June 2010, Life expectancy at birth*.

H3 Suicide

Definition/formulae: The number of suicide deaths per 100,000 population.

Age-standardised to the World Health Organization standard population.

Note: The figures for 2007 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.

Where populations are small, the suicide death rate can be greatly inflated by one or two deaths.

Data on intentional self-harm hospitalisations provide an incomplete picture of self-harm events. The data 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. Also excluded are people re-admitted for intentional self-harm within two days of a previous such admission (Ministry of Health, 2009, p 23). As the motivation for intentional self-harm varies, hospitalisation data is not a measure of suicide attempts (Ministry of Health, 2009, p 41).

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, 2009, p 20).

Data sources: Ministry of Health (2009) *Suicide Facts: Deaths and intentional self-harm hospitalisations 2007*; Ministry of Health (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 who currently smoke cigarettes. Up to 2005, the survey population was people aged 15 years and over (ACNielsen survey). From 2006, the survey population is people aged 15–64 years (New Zealand Tobacco Use Survey, New Zealand Health Survey).

From 2006, a current smoker is someone who has smoked more than 100 cigarettes in their lifetime and at the time of the survey was smoking 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 the first half of 2008 and 2009. 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.

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.

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.

Data sources: Ministry of Health, media release, 1 April 2010, "Smoking rates track down"; 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 (2010) *National Year 10 ASH Snapshot Survey, 1999–2009: Trends in tobacco use by students aged 14–15 years, Tables 3a, 4 and 6, pp 21 and 23*. OECD (2010) *OECD Health Data 2010, June 2010, Tobacco consumption: percentage of population 15+ who are daily smokers*. Statistics New Zealand (2010) *Alcohol and Tobacco Available for Consumption, Year Ended December 2009, Information Release*; Statistics New Zealand, *Infoshare series SEP012AA; estimated resident population, mean for the year ended 31 December*.

H5 Obesity

Definition/formulae: The proportion of the population aged 15 years and over who are obese, as measured in the 1997 National Nutrition Survey and the 2002/2003 and 2006/2007 New Zealand Health Survey; and the proportion of children aged 5–14 years who are obese, as measured 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 (kg/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.

The data for Australia is for the population aged 18 years and over.

Data sources: Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey. OECD (2010) OECD Health Data 2010, June 2010, Obese population, measured percentage of total population. Australian Bureau of Statistics (2009) National Health Survey: Summary of Results, 2007–2008 (Reissue), Data cubes, Measured Body Mass Index—2007–08 and 1995.

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 Survey.

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 percent 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 Survey has been re-analysed using the same methodology as that used for the 2006/2007 New Zealand Health Survey. For further information on the analysis of the New Zealand Health Survey, see Ministry of Health (2008) Methodology report for the 2006/2007 New Zealand Health Survey.

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).

Data sources: Ministry of Health (2008) A Portrait of Health. Key Results of the 2006/07 New Zealand Health Survey. OECD (2010) OECD Health Data 2010, June 2010, Non-medical determinants of health, Alcohol consumption per capita, population aged 15 and over.

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 percent 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. Children enrolled in more than one early childhood service will be double-counted. We include an alternative measure which avoids double counting – the proportion of new school entrants (Year 1 students) reporting regular participation in early childhood education immediately before starting school.

Limitations of data: Children may be enrolled in more than one ECE service. The enrolment rates may therefore be inflated. Neither measure provides 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, enrolment rates are slightly lower than those published in previous social reports. In 2009, 90 percent of early childhood education enrolments of children aged 3 and 4 years were in licensed services.

Data sources: Ministry of Education: *Number of Enrolments in Licensed Early Childhood Education Services by Age (1997–2009)*; *Number of Enrolments in Licensed Early Childhood Education Service by Age, Gender and Type of Service (2009)*; *Percentage of Year 1 students who attended early childhood education services, 2000–2009*; 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.

From 2005, the data 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.

For this indicator, ethnicity is prioritised in the order of Māori, Pacific, Asian, MELAA, other groups except European, and European.

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, and Statistics, School leavers*; 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.

As in the 2009 social report, age-standardised rates have been used in the current level and trends section, and the sex and ethnic group differences sections. In social reports up to 2008, 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.

Limitations of data: 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.

Correction: In The Social Report 2009, there was an error in the last sentence, referring to participation in tertiary education among older adults. In 2006, New Zealand's participation in education at ages 30–39 years was 1.4 times higher than the median for 29 OECD countries, and at ages 40 and over, it was 2.4 times higher than the median for 26 countries.

Data sources: Ministry of Education, Education Counts website, Statistics, Tertiary, Participation, Provider-based enrolments, Table ENR.7, Participation rates, Tables PPN.1 and PPN.14, downloaded from www.educationcounts.govt.nz on 2 June 2010, and backdated data from Ministry of Education. OECD (2009) Education at a Glance 2009, Table C1.1.

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 was introduced in the 2009 edition of the social report. It differs from the definition used in previous editions 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 2008 and 2009 editions of OECD’s indicator report, *Education at a Glance*, the source of data for the international differences section. As a result of the classification revision, the figure reported in *Education at a Glance 2008* for the proportion of New Zealand adults with at least upper secondary level qualifications in 2006 (69 percent) was lower than the figures reported in previous editions of *Education at a Glance* and the social report.

In this report, the data for all years up to 2008 has been revised by Statistics New Zealand and does not match that published in *The Social Report 2009*.

Limitations of data: The data is subject to periodic revision because of changes to the ISCED classification.

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.

A major change in coding ethnicity in the Household Labour Force Survey occurred in the December 2007 quarter. In this indicator, we have used “total response” ethnicity output; people who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities. Ethnic group data from earlier quarters are concorded on a “best fit” basis and may not be directly comparable. People responding “New Zealander” from the December 2007 quarter are coded in Other. Before that quarter, they were coded in European.

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.

Data sources: Statistics New Zealand, *Household Labour Force Survey*, unpublished tables. OECD (2009) *Education at a Glance 2009*, 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 5 May 2010, via Statlink on p 38 of the online edition of *Education at a Glance 2009*.

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: 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 ALL Survey, which was conducted in New Zealand in 2006.

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 and Lawes E (2008) *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, as measured by the Household Labour Force Survey.

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 comparison are seasonally-adjusted rates. 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.

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.

A major change in coding ethnicity in the HLFs occurred in the December 2007 quarter. In this indicator, we have used “total response” ethnicity output; people who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities. Ethnic group data from earlier quarters are concorded on a “best fit” basis and may not be directly comparable. People responding “New Zealander” from the December 2007 quarter are coded in Other. Before that quarter, they were coded in European.

Data sources: Statistics New Zealand, Household Labour Force Survey, customised data and downloads from Infoshare at www.stats.govt.nz. OECD Frequently Requested Statistics, Harmonised Unemployment Rate, downloaded from www.oecd.org on 30 April 2010; OECD (2010) OECD Employment Outlook 2010, Statistical Annex, Table H: Incidence of long-term unemployment, p 292.

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, as measured by the Household Labour Force Survey. 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. This requires 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.

Data sources: Statistics New Zealand, Household Labour Force Survey, customised data and downloads from Infoshare at www.stats.govt.nz. OECD (2010) OECD Employment Outlook 2010, Statistical Annex, Table B: Employment/population ratios, activity and unemployment rates, persons aged 15–64 years, p 271.

PW3 Median hourly earnings

Definition/formulae: Median hourly earnings from all wages and salaries for employees aged 15 years and over earning income from wage and salary jobs, as measured by the New Zealand Income Survey, adjusted for inflation.

The survey is 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.

Data sources: Statistics New Zealand (2009) *New Zealand Income Survey, June 2009 quarter; June 1997 quarter to June 2009 quarter Table 10 (rebased); June 2008 quarter Table 11a (unpublished), June 2009 quarter Table 11, and unpublished data derived by the Ministry of Social Development; Statistics New Zealand, Consumer Price Index, All groups plus interest, Infoshare Table CPI017AA.*

PW4 Work-related injury claims

Definition/formulae: The number of work-related injury 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 work-related accidents where no claim was made to the ACC. Claims are included in the data under the calendar year in which the injury occurred. The final data contains claims where some costs were recorded within 15 months of the end of the calendar year. The provisional data contains claims where some costs were recorded within three months of the end of the calendar year. In some cases, there are delays between the accident happening and the claim being reported to the ACC. Claims made more than 15 months after the accident will not be included in the final data. The final figures generally increase from the provisional figures as the final figures include a longer reporting period. For example, there were 231,300 injuries reported for the 2007 calendar year by March 2008, and 235,000 for the same year by March 2009, an increase of 2 percent.

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

Data sources: Statistics New Zealand (2009) *Injury Statistics – Work-related Claims: 2008, 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.

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 percent at the 95 percent 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 percent.

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.

Data source: Quality of Life Project (2009).

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.

Data sources: Statistics New Zealand, Rolling RGNDI per capita, customised data (available from Infoshare from 25 June 2010: SNCQ.S6RB07NZ); 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 7 August 2010; OECD (2010) *OECD Factbook 2010: Economic, Environmental and Social Statistics*, Table 37: Gross national income per capita.

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 household size and composition was made using the 1988 Revised Jensen Equivalence Scale.

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

Note in relation to the income inequality, population with low incomes, and housing affordability indicators: The figures for 2008 published in The Social Report 2009 have been omitted in this 2010 report as a significant issue was discovered with the calculated disposable income variable in Statistics New Zealand's 2007/2008 Household Economic Survey (HES) Taxwell data. Initial investigations suggest the issue arose from the modelled Accommodation Supplement amounts used in calculating the household income variable. This led to household disposable incomes for that year being understated for many low-income households. Therefore the figures reported in The Social Report 2009 were inflated for the 2008 year. Statistics New Zealand and the Ministry of Social Development are working with the Treasury to address the issue so we can use 2008 HES data in the future for time series reporting. For further details, see Perry (2010) Household Incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009.

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 (2010) Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009. 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 percent and 60 percent of the 2007 median household disposable income, less 25 percent to allow for average housing costs. The two thresholds are held constant in real terms by an adjustment using the CPI. A "fixed line" measure of the proportion of the population in households with low incomes gives an indication of how low-income households are faring relative to their counterparts at other times. (See Perry (2010) 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-parent or two-parent families with dependent children, whether living in a separate household or with others in a wider household.

In 2007 and 2009 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 percent of this (contemporary) median, a "moving line" approach. There is no adjustment for housing costs.

Note re Table EC3.1: The data is for March years in 1986–1998, and June years in 2001, 2004, 2007 and 2009. In this table, children refers to dependent children aged under 18 years and not in full-time employment (sourced from Perry, 2010, Tables G.2 and G.4).

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.

The population with low incomes indicator uses two low-income thresholds of the “fixed line” type. Previous social reports have used 1998 as the reference year with thresholds set at 50 percent and 60 percent of the 1998 median household disposable income, less 25 percent to allow for average housing costs. The two thresholds are held constant in real terms for both the following and previous years by an adjustment using the CPI. The rationale for a “fixed line” approach is to set acceptable ‘relative’ thresholds in a reference year (such as the 50 percent and 60 percent of median thresholds used in the social report), then to track changes from that time to show how those in low-income households are faring compared with their counterparts in previous years. Once the thresholds move too far from the original relative settings, the reference year needs to be changed. Median household incomes have risen much more quickly than the CPI since 1998 which means the thresholds are now well below their original 50 percent and 60 percent settings. In 2009, the 1998 based low-income thresholds were equivalent to 47 percent and 39 percent of the 2009 median respectively. With the median likely to continue rising more quickly than the CPI in the next few years, these figures will fall even further. For The Social Report 2010 and for those in the next few years, the reference year will be 2007. Changing the reference year from 1998 to 2007 systematically raises the reported proportion of the population below the two thresholds, but does not alter the trends that show whether low-income households have fared better or worse in comparison to their counterparts in earlier years. For further details, see Perry (2010) Household Incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009.

For note relating to 2008 data, see Technical details for the income inequality indicator.

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 (2010) Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009, Table F.6. Source for international comparisons: OECD (2008) Growing Unequal: income distribution and poverty in OECD countries.

EC4 Housing affordability

Definition/formulae: The proportion of households and the proportion of people within households with housing cost outgoings-to-income ratio greater than 30 percent 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 2009, the Other ethnic group includes the category "New Zealander".

For note relating to 2008 data, see Technical details for the income inequality indicator.

Data source: Derived from the Statistics New Zealand Household Economic Survey by the Ministry of Social Development. Perry B (2010) *Household incomes in New Zealand: trends in indicators of inequality and hardship, 1982 to 2009*, 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.

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.

Data sources: Electoral Commission (2008) www.electionresults.govt.nz. Department of Internal Affairs (2006) *Local Authority Election Statistics 2004, and unpublished data for 2007*. Statistics New Zealand, *New Zealand General Social Survey, 2008, customised data*. Inter-Parliamentary Union (2010a) *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.

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 (2010) *Women in National Parliaments, Situation as of 31 May 2010*.

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.

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:

Personal discrimination: The proportion of people aged 15 years and over who had been treated unfairly or had had something nasty done to them because of the group they belonged to or seemed to belong to (hereafter called discriminated against) in the past 12 months, as reported in the New Zealand General Social Survey 2008.

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

The first New Zealand General Social Survey was done between April 2008 and March 2009, using computer-assisted personal interviews. A total of 8,721 individuals answered the personal questionnaire and the achieved response rate was 83 percent. The purpose of the survey, set to run every two years, is to collect data not available from other sources on the social and economic outcomes of New Zealanders aged 15 years and over.

Survey respondents were asked: “In the last 12 months, have you been treated unfairly or had something nasty done to you because of the group you belong to or seem to belong to?”

Limitations of data: Both measures used in this indicator are subjective measures of discrimination. They reflect personal experiences of discrimination by individuals and perceptions of discrimination against groups, rather than instances of discrimination established in law.

Data sources: Statistics New Zealand (2009) *New Zealand General Social Survey 2008, Information Release and customised data*. Human Rights Commission (2010) *Treaty of Waitangi and Perceived Discrimination: UMR Omnibus Results, December 2009*. European Commission (2009) *Discrimination in the EU in 2009, Table Qe3*.

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 2009, this includes surveys from 2009 and 2008. The CPI 2009 is calculated using data from 13 sources originated from 10 independent institutions. All sources measure the overall extent of corruption (frequency and/or size of bribes) in the public and political sectors and all sources provide a ranking of countries, ie include an assessment of multiple countries.

The New Zealand data for the CPI 2009 was drawn from six surveys: Country Risk Service and Country Forecast by the Economist Intelligence Unit (2009), Global Risk Service by IHS Global Insights (2009), World Competitiveness Report of the Institute for Management Development (2009 and 2008) and the Global Competitiveness Report of the World Economic Forum (2009 and 2008). New Zealand’s overall score of 9.4 was within a confidence range of 9.1–9.5.

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.

Data source: Transparency International (2009) *Transparency International Corruption Perceptions Index 2009*, 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 and 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).

Data sources: NZ On Air (2010) *Local Content, New Zealand Television, 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.

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*.

C13 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.

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.

For more information about the survey, see PW5 Satisfaction with work-life balance.

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.

Data source: Quality of Life Project (2009).

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 Survey.

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 percent 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. For further information on the analysis of the New Zealand Health Survey, see Ministry of Health (2008) Methodology report for the 2006/2007 New Zealand Health Survey.

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

L3 Participation in arts and cultural activities

Definition/formulae: The proportion of the population aged 15 years and over who had attended at least one arts event or who had actively participated in the arts in the previous 12 months, as measured by a national survey commissioned by Creative New Zealand: New Zealanders and the arts: Attitudes, attendance and participation in 2008.

The first survey was conducted in 2005. Both surveys were conducted by Colmar Brunton. For the 2008 survey, the sample of 2,099 people aged 15 years and over comprised:

- 1,022 nationwide telephone interviews
- 200 telephone interviews in four large population centres (Auckland region, Hamilton City, Wellington City, Christchurch City)
- 80 face-to-face interviews with Māori in Wellington and Auckland
- 80 face-to-face interviews with Pacific peoples in Wellington and Auckland
- 117 face-to-face interviews with Asian peoples in Wellington and Auckland.

Limitations of data: Data is based on a sample survey and is therefore subject to sampling error. The international comparison is affected by differences in the collection and classification of the data.

Data source: Creative New Zealand (2009) *New Zealanders and the arts: Attitudes, attendance and participation in 2008*. Australia Council for the Arts (2010) *More than bums on seats: Australian participation in the arts, Fact sheet: Arts participation: How does Australia compare to other countries?*

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.

Data sources: Ministry of Health, *Deaths from homicide and injury purposely inflicted by other persons (Assault mortality data in ICD-10), 1948–2007*. 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 (NZCASS) 2006. 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 percent in the main sample and 56 percent in the Māori booster sample. The respective figures in the 2001 survey were 65 percent and 57 percent and in the 1996 survey, 56 percent and 66 percent. 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 their 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 percent of vehicle thefts being reported compared with 9 percent of sexual offences (Mayhew and Reilly, 2007b, p 35).

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 (NZCASS) 2006.

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 percent in the main sample and 56 percent 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, those perceptions may be influenced by significant events and subject to fluctuation over time.

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 for land transport accident deaths are drawn from the following International Classification of Diseases codes: ICD-10, V01–V89 (from 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.

Data sources: Ministry of Transport; Ministry of Health; Statistics New Zealand. OECD/International Transport Forum, *International Road Traffic and Accident Database, IRTAD Database, November 2009 – Risk indicators: Road User Fatalities*.

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 Ministry of Health. Ethnic-specific rates of death or hospitalisation are only available from the Ministry of Health.

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 for whom access to communications was available.

Limitations of the data: This data is collected at the household level, not at the individual or family level. The circumstances of each individual or family in a household may differ.

Data sources: Statistics New Zealand, *Census of Population and Dwellings, 2001 and 2006, unpublished data*; Statistics New Zealand, *Household Use of Information and Communication Technology 2009, Tables 1, 2, 12*. OECD (2009) *Frequently requested statistics, Key ICT Indicators, Table 6a, Households with access to the Internet, 2000–2008*, http://www.oecd.org/document/23/0,3343,en_2649_34449_33987543_1_1_1_1,00.html; Household Use of Information Technology, Australia, 2008–09 <http://abs.gov.au/ausstats/abs@.nsf/mf/8146.0/>

SC2 Contact with family and friends

Definition/formulae: The proportion of people aged 15 years and over who say the amount of contact they have with family and friends who don't live with them is "about right", as measured by the New Zealand General Social Survey. Contact includes face-to-face meetings as well as telephone calls, letters, emails, texting, and other forms of electronic communication.

The first New Zealand General Social Survey (NZGSS) was done between April 2008 and March 2009, using computer-assisted personal interviews. A total of 8,721 individuals answered the personal questionnaire and the achieved response rate was 83 percent. The purpose of the survey, set to run every two years, is to collect data not available from other sources on the social and economic outcomes of New Zealanders aged 15 years and over.

The indicator combines the responses to two survey questions, the first about contact with non-resident family, the second about contact with non-resident friends: "Think about all the types of contact you have with family [friends] [who don't live with you]. Would you say that you have too much contact, about the right amount of contact, or not enough contact with them?"

Data sources: Statistics New Zealand, *New Zealand General Social Survey, 2008, unpublished data*.

SC3 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 percent 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.

Data sources: 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.

SC4 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 Survey conducted in 2006 and 2008.

For more information on the survey, see PW5 Satisfaction with work-life balance.

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.

Data sources: Quality of Life Project (2009) *Quality of Life Survey 2008 (data analysis by the Ministry of Social Development)*. 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*.

SC5 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.

For more information on the survey, see PW5 Satisfaction with work-life balance.

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.

Data source: Quality of Life Project (2009) Quality of Life Survey 2008 (data analysis by the Ministry of Social Development).

SC6 Voluntary work

Definition/formulae: The proportion of the population aged 15 years and over who reported having done voluntary work for a group or organisation in the last four weeks in the New Zealand General Social Survey (NZGSS) 2008.

For more information about the survey, see SC2 Contact with family and friends.

Survey respondents were asked: “In the last four weeks, did you do any voluntary work for a group or organisation?”

Limitations of the data: Voluntary work covers a wide range of activities. Participation by age, sex, ethnic group or socio-economic status may vary across different types of voluntary work in ways that are not captured at the aggregate level.

The concept of “voluntary work” has different meanings across cultures and this may affect survey responses.

The NZGSS data does not show the amount of time spent on voluntary work.

The NZGSS included separate questions on voluntary work, unpaid work and passive participation in groups. Voluntary work is defined as activities carried out for people living outside the respondent’s own household, which is done for or through an organisation or group. This differs slightly from the definitions used in the Time Use Survey and in the New Zealand Census of Population and Dwellings. The Time Use Survey collects data on three types of unpaid work: for own household, for another household (informal voluntary work) and for an organisation (formal voluntary work).

Data sources: Statistics New Zealand (2009) New Zealand General Social Survey: 2008, Information Release, 29 October; customised data. Australian Bureau of Statistics (2009) Measures of Australia’s Progress: Summary Indicators.

Life satisfaction

LS1 Overall life satisfaction

Definition/formulae: The proportion of the population aged 15 years and over who reported that they were “very satisfied” or “satisfied” with their life overall in the New Zealand General Social Survey (NZGSS) 2008.

For more information about the survey, see SC2 Contact with family and friends.

Survey respondents were asked: “How do you feel about your life as a whole right now?”

Limitations of the data: The question on overall life satisfaction was a single-item question asked at the beginning of the survey, ahead of and separate to the individual satisfaction questions asked for different life domains, such as education and health. Therefore, the single-item question on overall life satisfaction is not an aggregate of responses to these later questions.

Data sources: Statistics New Zealand (2009) New Zealand General Social Survey: 2008, Information Release, 29 October; customised data. OECD (2009) Society at a Glance 2009: OECD Social Indicators, Chapter 8, Social Cohesion Indicators, Table CO1: Life satisfaction.

Endnotes

Introduction

- 1 *Economic Development Indicators 2007* is available at: <http://www.med.govt.nz/upload/53549/Indicators-Report-2007.pdf>
 - 2 *Environmental Health Indicators for New Zealand 2008* is available at: <http://www.moh.govt.nz/moh.nsf/indexmh/environmental-health-indicators-for-nz-2008>
 - 3 *Environment New Zealand 2007* is available at: <http://www.mfe.govt.nz/publications/ser/enz07-dec07/>
 - 4 *Measuring New Zealand's Progress Using a Sustainable Development Approach: 2008* is available at: <http://www.stats.govt.nz/Publications/NationalAccounts/sustainable-development.aspx>
 - 5 *Children and Young People: Indicators of wellbeing in New Zealand 2008* is available at: <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/children-young-indicators-wellbeing/index.html>
- Positive Ageing Indicators 2007* is available at: <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/positive-ageing-indicators/>

People

- 6 Statistics New Zealand (2010j) and final data accessed 14 May 2010
- 7 Statistics New Zealand (2009d)
- 8 Statistics New Zealand (2010g) These figures are from 2006-based medium ethnic population projections (Series 6, updated in April 2010), 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 2013), -3,000 for the Māori population (from 2012), 12,000 for the Asian population (from 2010) and 500 for Pacific peoples (from 2008). For further information on the projection assumptions, see Statistics New Zealand (2010) National Ethnic Population Projections: 2006(base)–2026 update, pp 2 and 3.
- 9 Statistics New Zealand (2010g) pp 6–8
- 10 Statistics New Zealand (2010b)

- 11 Statistics New Zealand (2009d) These figures are from 2009-based medium population projections (Series 5), assuming medium fertility, medium mortality and a long-term annual net migration gain of 10,000.
- 12 Statistics New Zealand (2010g)
- 13 The census data in this section refers to families with any dependent children usually resident in the household. A dependent child is a 'child in a family nucleus' who is under 18 years of age and who is not employed full time. Families refers to families within households. A family nucleus is defined as a couple, with or without child(ren), or one parent and their child(ren) usually resident in the same dwelling. The children do not have partners or children of their own living in the same household. People who usually live in a particular dwelling, and are members of a family nucleus in that dwelling, but who are absent on census night, are included, as long as they are reported as being absent by the reference person on the dwelling form. See Statistics New Zealand, www.stats.govt.nz, Family definitions.
- 14 The United States Census Bureau family data series used for comparison excludes cohabiting parents from 2007 onwards. In previous years, they were counted as single (ie non-married) parents. The 2006 figure reported here has been adjusted to exclude cohabiting parents for better comparison with New Zealand data (see data sources). With cohabiting parents included, the United States figure for 2006 is 33 percent, the figure reported in the last three editions of this report. For further information about the change in the United States family data, see United States Census Bureau, Current Population Survey (CPS), 2007 March CPS, America's Families and Living Arrangements, "Improvements to data collection about families in CPS 2007": <http://www.census.gov/population/www/socdemo/hh-fam.html>
- 15 Comparability between 2001 and 2006 data may be affected by a change in the census question. The 2006 Census included an additional question on whether any of the household members held the dwelling in a family trust. Where this was the case, the household would have been counted as owning the dwelling. In 2001, households in this situation were instructed to say that they did not own the dwelling and so should not have been counted as homeowners. Consequently, the actual decline in home ownership between 2001 and 2006, with family trusts included, may have been slightly greater than the census figures indicate.

- 16 More information on speakers of te reo Māori is provided in the Māori language speakers indicator.
- 17 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.
- 18 Statistics New Zealand (2007a)
- 19 All the figures in this paragraph are for people in households.
- 20 Adolescent Health Research Group (2008a) p 28

Health

- 21 Howden-Chapman and Tobias (2000)
- 22 Ministry of Health (1999b) p 351
- 23 Ministry of Health (2007)
- 24 Babor et al (2001)
- 25 Conner et al (2005)
- 26 OECD (2010c)
- 27 2006 figures have been revised; 2007 data is provisional
- 28 Age-standardised to the World Health Organization standard world population.
- 29 Ministry of Health (2006a) p 14
- 30 Ministry of Health (2009c) p 20. 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.
- 31 The international rates are annual rates re-calculated by the Ministry of Health to enable geographic comparisons of data collected by the World Health Organization.
- 32 Ministry of Health (1999b) p 344
- 33 Ministry of Health (2006b) Table C2 p 39
- 34 Ministry of Health (2009b) Data tables, Prevalence data, Age-standardised rates by gender and NZDep2006 quintile for current smokers.

- 35 OECD (2010c) The New Zealand rate reported by the OECD (18.1 percent) is the crude daily smoking rate. This differs from the daily smoking rate published in the Ministry of Health's report, A Portrait of Health: Key Results of the 2006/07 New Zealand Survey, which is the age-standardised rate (18.7 percent).
- 36 OECD (2010c)
- 37 The World Health Organization defines obesity as having a BMI greater than or equal to 30 kg/m² (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).
- 38 Cole et al (2000)
- 39 Ministry of Health (2008c) p 104
- 40 Rates for 1997 and 2002/2003 were revised by Public Health Intelligence, Ministry of Health.
- 41 The rate for 2002 was revised by Public Health Intelligence, Ministry of Health.
- 42 Ministry of Health (2004c) p 36
- 43 OECD (2010c) The 12 countries which use actual measurements to estimate the prevalence of obesity are: Australia, Canada, Czech Republic, Ireland, Japan, Korea, Luxembourg, Mexico, New Zealand, Slovak Republic, United Kingdom, United States. Some of these countries also use the self-reporting method.
- 44 Babor et al (2001)
- 45 Conner et al (2005)
- 46 Age-standardised rates have been used for comparison over time.
- 47 OECD (2010b)

Knowledge and skills

- 48 See, for example, Wylie (1999)
- 49 OECD (2007b)
- 50 Wylie (1999); Boocock (1995); Wylie et al (2001); Wylie et al (2004)
- 51 OECD (2007b)
- 52 Due to methodological changes in the allocation of attainment levels in 2004, the percentage of leavers with qualifications higher than NCEA Level 1 in 2004 is not comparable with other years and has been omitted.

- 53 OECD (2009a). The OECD data used here also includes international students. This group is not included in the analysis in this section.
- 54 Ministry of Education (2001b)
- 55 Satherley P, Lawes E and Sok S (2008b) pp 7, 9, 11
- 56 Satherley P, Lawes E and Sok S (2008b) pp 16, 18, 21

Paid work

- 57 Statistics New Zealand (2009e) p 3
- 58 Wilson (1999)
- 59 OECD (2010d) OECD Stats extract, Harmonised unemployment rate, accessed 26 May 2010
- 60 OECD (2010a) Statistical Annex, Table H, p 292
- 61 OECD (2010a) Statistical Annex, Table B, p 271

Economic standard of living

- 62 Royal Commission on Social Security in New Zealand (1972)
- 63 OECD (2010e). 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) Chapter 1.
- 64 Statistics New Zealand (2001b) Table 1 p 15, Table 4 p 17. Per person value calculated by the Ministry of Social Development.
- 65 Perry B (2010) p 53
- 66 For a description of the Gini coefficient, see Statistics New Zealand (1999) p 118.
- 67 OECD (2008b) Table 1.A2.4
- 68 OECD (2008b) Annex Table 5.A2.1
- 69 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.
- 70 Baker et al (2000)
- 71 Evans (2003)
- 72 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.

- 73 Statistics New Zealand (2003) p 33
- 74 Percentages do not add to 100 as some people identified with more than one ethnic group.
- 75 People who received income support in the 12 months before the census. Excludes those who received ACC or New Zealand Superannuation.

Civil and political rights

- 76 Ministry of Foreign Affairs and Trade (1998)
- 77 The 1988 Royal Commission on Social Policy found that New Zealanders felt wellbeing was strongly associated with the freedom to make choices for oneself and to have a voice in decisions that affect them. Royal Commission on Social Policy (1988) Volume III Part One, pp 487–488
- 78 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.
- 79 Human Rights Act 1993, Part 2, section 21. Reprint as at 1 October 2008.
- 80 Marsh and Sahin-Dikmen (2002) pp 40, 41
- 81 Inter-Parliamentary Union, PARLINE database, Last election
- 82 From 1989, overall turnout data is based on mayoral election turnout only. See Department of Internal Affairs (2006) p 17.
- 83 Inter-Parliamentary Union, Women in National Parliaments
- 84 These figures exclude Trusts, which are not local authorities. See Department of Internal Affairs (2009) p 10.
- 85 The 1989 elections were the first to be held following a major restructuring of local government.
- 86 European Commission (2009)

Cultural identity

- 87 Durie et al (2002); Durie (1999)
- 88 AGB Nielsen Media Research (2010)
- 89 ACNielsen (2005)
- 90 NZ On Air (1999) p 3
- 91 All those who identified as Māori in the census are counted as part of the Māori ethnic group in this indicator.

- 92 “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.
- 93 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.

Leisure and recreation

- 94 Australia Council for the Arts (2010)

Safety

- 95 Morris et al (2003) pp 222–224
- 96 National Road Safety Committee (2000)
- 97 OECD (2010c)
- 98 Mayhew and Reilly (2007b) pp 24–26
- 99 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 percent and 25 percent and should be viewed with caution.
- 100 The 2008 injury rate has been revised, using final data.
- 101 OECD/International Transport Forum (2009)

Social connectedness

- 102 Spellerberg (2001)
- 103 Noll and Berger-Schmitt (2000)
- 104 Christakis and Fowler (2009)
- 105 OECD (2009c)
- 106 Adolescent Health Research Group (2008a) p 14

- 107 Questions asked in Youth’07 and Youth2000 (conducted in 2001) surveys 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.
- 108 Statistics Canada (2004); European Commission (2005)
- 109 Australian Bureau of Statistics (2009c)

Life satisfaction

- 110 Giovannini, E., Hall, J. and Mira d’Ercole, M. (2007), p16. The “Istanbul Declaration”, signed by representatives of a number of supranational bodies at a conference in Istanbul in 2007, refers to this emerging consensus.
- 111 Diener, E. (1984). In psychology, a distinction is made between “cognitive judgements” (such as life evaluations) and “affects” (positive or negative feelings) but the distinction is often blurred and the terms life satisfaction and happiness are frequently used interchangeably in the research literature on subjective wellbeing.
- 112 For example, the World Values Survey and the Gallup World Poll.
- 113 Graham, C. (2008)
- 114 Stiglitz, J.E., Sen, A. and Fitoussi, J-P. (2009), Chapter 2; Deaton, A. (2008)
- 115 Kahneman, D. and Krueger, A.B. (2006); Stutzer, A. and Frey, B.S. (2010). Shortcomings noted in the literature include the susceptibility of self-reported measures of subjective wellbeing to mood, context and question order, and the finding that answers may reflect norms of social desirability and self-representation (people saying what they think they should). Also, the meaning of the underlying concept of “happiness” in much subjective wellbeing research is contested (Duncan, 2005).
- 116 Deaton, A. (2008); Coombes, G. (2006)
- 117 Diener, E. (1984); Graham, C. (2008); Stutzer, A. and Frey, B.S. (2010)

Summary

118 1995–1997 has been chosen for the reference period because it allows the maximum number of indicators to be compared over time, including those which use data from the 1996, 2001 and 2006 population censuses.

119 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>