

SOCIOECONOMIC AND CULTURAL DETERMINANTS



HOUSEHOLD COMPOSITION



CHILDREN IN SOLE PARENT HOUSEHOLDS

Introduction

Over the past 20 years, New Zealand has seen a decline in the proportion of two parent families and an increase in the proportion of one-parent families. In 1976, 10.4% of families with dependent children had one resident parent, compared to 28.1% in 2006 [29]. It is estimated that a third of New Zealand children have lived with a solo mother by the time they are 17 years old [30]. Sole-parenthood is also more common among Māori and Pacific children than NZ European children [31]. For example in 2006, 36% of Māori babies and 32% of Pacific babies lived with a sole mother, compared to 14% of NZ European babies. One-parent families are a heterogeneous group however, that differ by their route into sole parenthood (which may result from bereavement, separation, imprisonment of a spouse, or birth outside of a live-in relationship), and by the parent's gender, age, health, and socioeconomic circumstances [31]. Many children in sole-parent families have a parent living in another household who is actively involved in their care and financial support.

Family composition however, is closely linked to the socioeconomic resources available to dependent children, an important underlying determinant of health. The proportion of sole-parent families experiencing disadvantage is consistently high, both compared to two-parent families, and in absolute terms [31]. During 2010–2011, 61% of all children in sole-parent households were in the bottom quintile of equivalised household income (annual household income equivalised with respect to household composition), compared to 19% of children in two-parent households [8]. In 2011, sole-parent households with dependent children had the highest income poverty rates of all household types at 58%, compared to 12% of two-parent families with dependent children. The New Zealand General Social Survey found that half of all households deemed 'high-risk' (5 or more risk factors which include cigarette smoking, living in a high deprivation area, housing problems and poor physical and mental health) were sole-parent households [32].

In addition, research suggests that parental separation is associated with a wide range of short and long term adverse effects on children's wellbeing, including: schooling, physical health, mental and emotional health, social conduct and behaviour, peer relations, cigarette smoking, substance use, early-onset sexual behaviour, early child-bearing, lone parenthood and low occupational status [33]. The Christchurch Health and Development Study found that while children whose parents separated were at increased risks of later internalizing (i.e. anxiety/depression, withdrawal, and somatic complaints) and externalizing (i.e. attention problems, aggressive and oppositional behaviour) problems, much of the increased risk was due to factors that were present before the separation or divorce [34]. These factors included socioeconomic disadvantage, elevated rates of adverse life events and higher levels of inter-parental conflict. There were small increased risks of later conduct problems, mood disorder and substance abuse in children exposed to parental separation.

As a consequence, not only do sole-parent families reflect a diversity of experience, but the impacts that changes in family composition have on children's physical and psychological wellbeing may also vary, depending on individual family circumstances and the impact parental separation has on their socioeconomic position.

The following section reviews the proportion of children living in sole parent households at the 2006 Census.



Data Source and Methods

Definition

Proportion of children aged 0–14 years living in sole parent households

Data Source

Numerator: NZ Census: Number of children 0–14 years living in sole parent households, where the child was home on Census night.

Denominator: NZ Census: Total number of children 0–14 years who were home on Census night

Notes on Interpretation

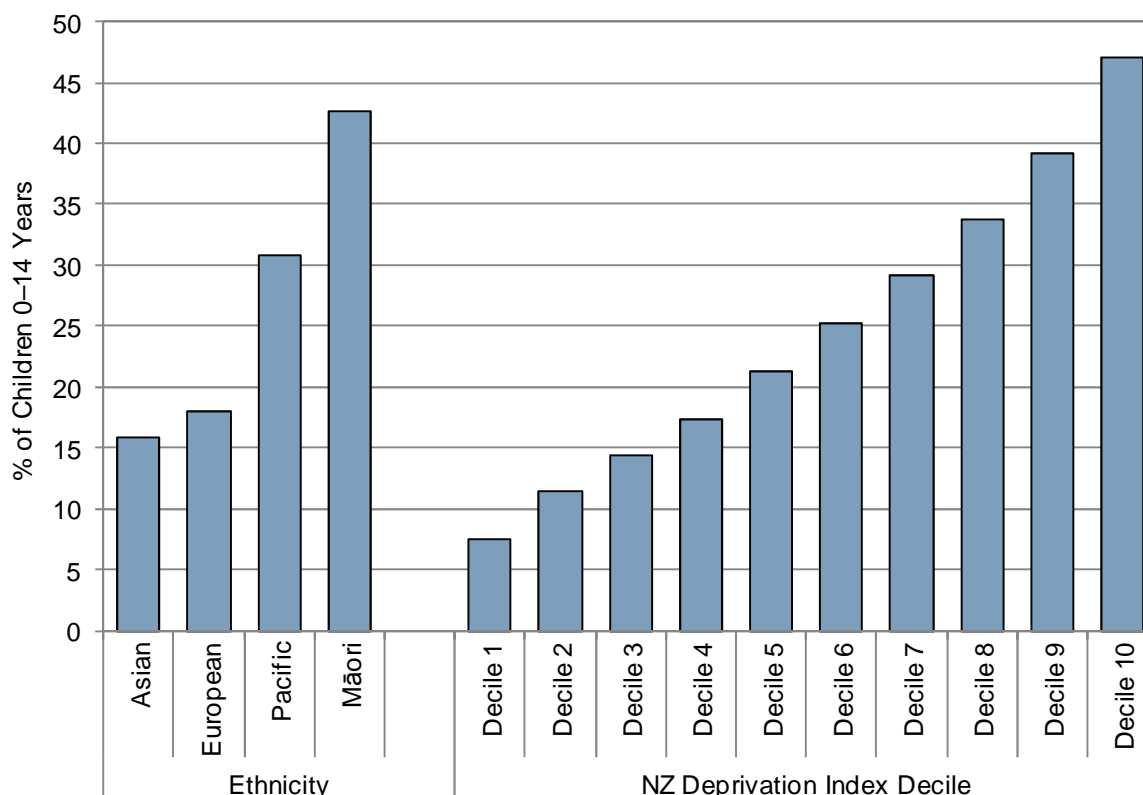
The breakdown into “Couple with Children” and “One Parent with Children” is made without regard to the relationship between the child and caregiver (e.g. a couple with children may refer to a de-facto couple, a married couple, grandparents caring for a dependent grandchild, a mother living with a partner who is not the child’s biological parent) and thus may underestimate the proportion of children who have experienced parental separation, as well as the proportion living in blended family settings.

New Zealand Distribution

New Zealand Distribution

In New Zealand during 2006, 25.2% of children aged 0–14 years lived in sole parent households.

Figure 27. Proportion of Children Aged 0–14 Years Living in Sole Parent Households by Ethnicity and NZ Deprivation Index Decile, New Zealand at the 2006 Census



Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

Distribution by Ethnicity

In New Zealand during 2006, 42.6% of Māori and 30.8% of Pacific children lived in sole parent households, as compared to 18.1% of European and 15.9% of Asian children (Figure 27).

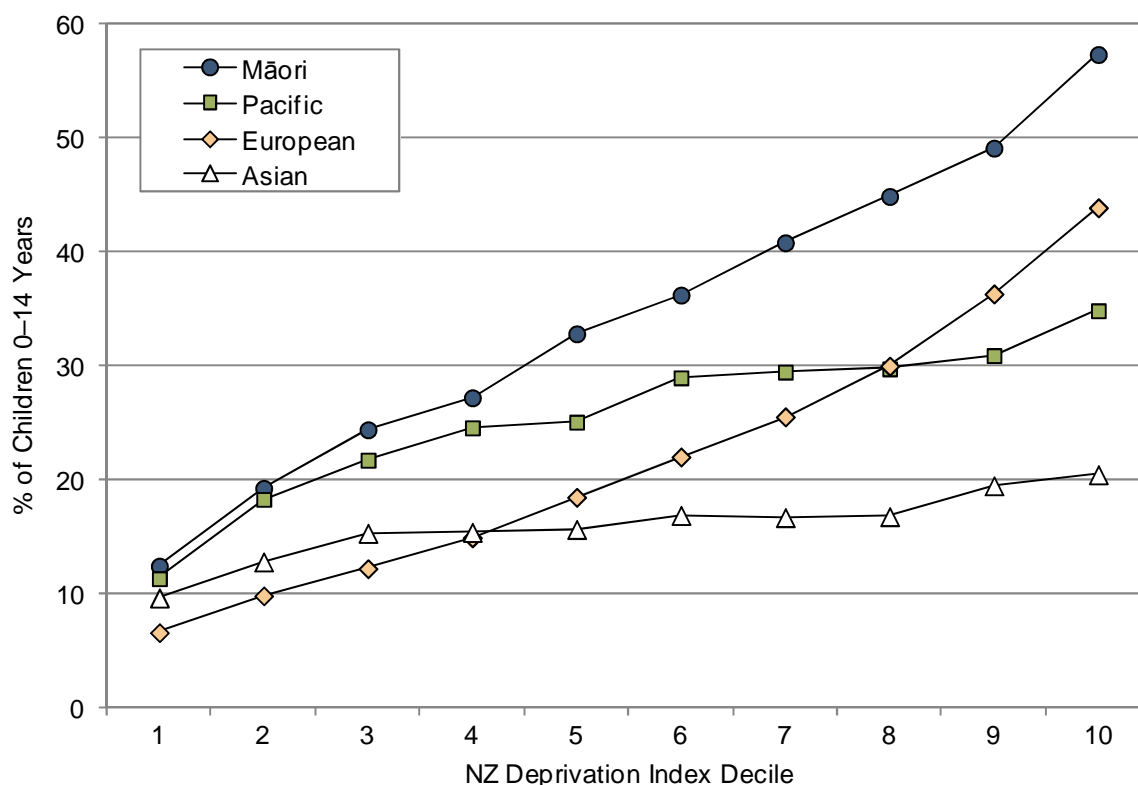
Distribution by NZ Deprivation Index Decile

In New Zealand during 2006, the proportion of children living in sole parent households increased progressively, from 7.4% for those living in the least deprived (NZDep decile 1) areas, to 47.1% for those living in the most deprived (NZDep decile 10) areas (Figure 27).

Distribution by Ethnicity and NZ Deprivation Index Decile

In New Zealand during 2006, while the proportion of children living in a sole parent household increased with increasing NZDep deprivation for each of New Zealand's largest ethnic groups, at each level of deprivation, the proportion living in sole parent households was higher for Māori, than for Pacific, than for Asian children. For European children, a lower proportion lived in sole parent households than Pacific or Asian children in the least deprived (NZDep deciles 1–3) areas, although a higher proportion lived in sole parent households in the most deprived (NZDep deciles 9–10) areas (**Figure 28**).

Figure 28. Proportion of Children Aged 0–14 Years Living in Sole Parent Households by Ethnicity and NZ Deprivation Index Decile, New Zealand at the 2006 Census



Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

South Island Distribution

Distribution by DHB

In Nelson Marlborough during 2006, 22.0% of children aged 0–14 years lived in sole parent households, as compared to 22.2% in the West Coast, 21.9% in Canterbury, 19.0% in South Canterbury, 20.4% in Otago and 20.7% in Southland.

Distribution by Ethnicity

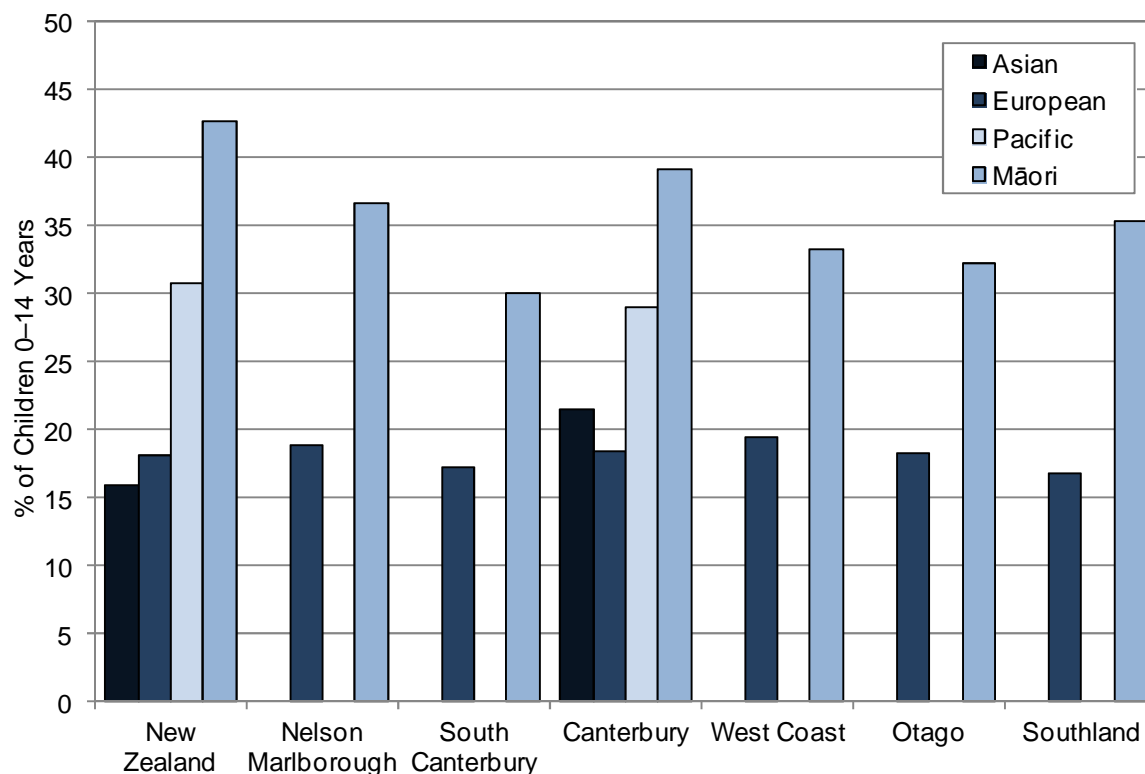
In Canterbury during 2006, a higher proportion of Māori > Pacific > European and Asian children lived in sole parent households, while in the other South Island DHBs, a higher proportion of Māori than European children lived in a sole parent household (**Figure 29**).

Distribution by NZ Deprivation Index Decile

In all of the South Island DHBs during 2006, the proportion of children living in sole parent households increased with increasing NZDep deprivation, with the highest rates being seen in those living in the most deprived (NZDep decile 10) areas. Of those living in the most deprived areas, 50.0% in Nelson Marlborough, 51.9% in South Canterbury, 49.9% in Canterbury, 43.6% in the West Coast, 53.5% in Otago and 57.5% in Southland lived in a sole parent household (**Figure 30**).

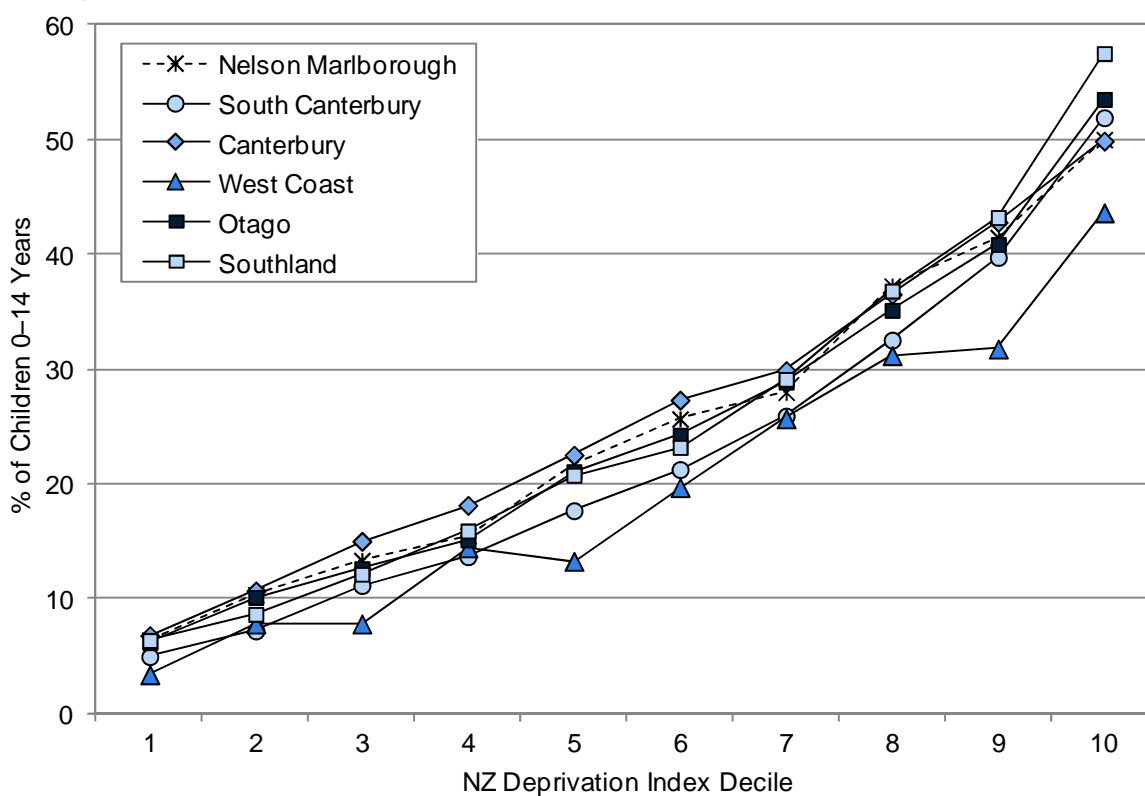


Figure 29. Proportion of Children Aged 0–14 Years Living in Sole Parent Households by Ethnicity, South Island DHBs vs. New Zealand at the 2006 Census



Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

Figure 30. Proportion of Children Aged 0–14 Years Living in Sole Parent Households by NZ Deprivation Index Decile, South Island DHBs at the 2006 Census



Source: Statistics New Zealand

Local Policy Documents and Reviews Relevant to Family Composition

There is little guidance for health professional in New Zealand on dealing with children undergoing changes in family composition. **Table 11** below provides an overview of recent Ministry of Social Development and Families Commission publications which consider family composition and resilience in separated, solo parent and step-parent families.

Table 11. Local Policy Documents and Evidence-Based Reviews Relevant to the Composition, Formation, and Dissolution of New Zealand Families

New Zealand Policy Documents and Literature Reviews
<p>Waldegrave C, et al. 2011. Resilience In Sole Parent Families: A Qualitative Study Of Relational Resilience In Māori, Pacific And Pakeha Sole Parent Families. Wellington: The Family Centre. http://www.familycentre.org.nz/Publications/PDF%27s/Resilience%20Sole%20Parents%20Final%20Report%20MSD.pdf?PHPSESSID=a3aefd29a6840de3dd6ea336176b0e7c</p> <p>This study aimed to identify the factors that enhance or impede successful social and economic outcomes for parents and their children. The research involved in-depth interviews with Māori, Pacific and Pakeha sole parent families, who had demonstrated resilience in their lives through their known success in having overcome difficulties and challenges. The study included 18 Māori families, 20 Pacific families and 20 Pakeha families. Positive views about work and education were common to all three groups and cultural frameworks were apparent among Pacific and Māori parents. All groups drew on external sources of support, but Māori used support relationships with whānau in preference to outside agencies much more than Pakeha and Pacific parents. Most parents were in paid employment although finding suitable work was challenging. A number of policy issues are identified including: the need for accessible healthcare and other services including drug and alcohol, education, employment, housing, and the need to invest in organisations that promote the wellbeing of children.</p>
<p>Centre for Social Research and Evaluation. 2010. Sole parenting in New Zealand: An update on key trends and what helps reduce disadvantage. Wellington: Ministry of Social Development. http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/sole-parenting/index.html</p> <p>This report draws together the findings from a cross-agency research programme which aimed to improve the knowledge base for public policy by increasing understanding of the vulnerability to disadvantage among some sole-parent families, identifying sources of resilience and identifying policies and interventions that are effective in reducing vulnerability and building resilience. Findings included: significantly higher poverty rates among sole parents and their children than two-parent families; higher levels of mental health problems among sole parents, associated with both socioeconomic position and not have a co-resident adult; significant associations between time spent receiving benefits in young adulthood and a range of disadvantages in childhood and adolescence. The report includes a literature review addressing approaches and interventions, focusing on measures to promote better mental health, measures to reduce disadvantage in the early life course, and measures to improve support for vulnerable young parents.</p>
<p>Families Commission. 2009. Separated Parenting - What separating parents need when making care arrangements for their children. Wellington: Families Commission. http://www.familiescommission.org.nz/publications/briefs-and-statistics/issues-paper-01-separated-parenting</p> <p>This paper discusses the challenges facing separated parents when deciding on care, contact and financial arrangements for their children. It is based on Families Commission research and a literature review, and was published to inform a review of the Child Support Scheme that was due to take place. Research confirmed that parents who were able to cooperate and make arrangements by themselves (without having these arrangements imposed by the Family Court or Inland Revenue), were more satisfied with the arrangements they made for their children than those with imposed arrangements. The importance of information and support (which is often informal) is highlighted and the development of a unified information and support strategy is suggested. The report recommends a more equitable formula for calculating child support payments to reduce perceived unfairness in the scheme.</p>
<p>Families Commission. 2008. The Kiwi Nest: 60 years of change in New Zealand families. Wellington: Families Commission. http://www.familiescommission.org.nz/sites/default/files/downloads/kiwi-nest.pdf</p> <p>This report aims to describe how families have changed over approximately 60 years, identify the pressures on families that influence their functioning and individual outcomes, and consider the implications of family change for New Zealand. The report describes current family forms (based on 2006 Census data), working patterns, incomes and housing and finds that family forms, sources of income, individual roles in families and the availability of housing have changed markedly over the past 60 years. However, the family's central function of bearing, raising and nurturing children remains constant. The report concludes that policies that are family centred and can reach families in all their diversity are essential for families to thrive and both produce and nurture future generations.</p>

Robertson J, et al. 2006. **Review of the Empirical Literature Assessing the Impacts of Government Policies on Family Form: A report for the Families Commission.** Wellington: Families Commission.
<http://www.familiescommission.org.nz/sites/default/files/downloads/empirical-lit.pdf>

This systematic review considered the effects of government policies on partnership formation, dissolution and reconstitution, fertility decision-making and family size, and family living arrangements. Research published between 1990 and 2005, and judged to be relevant to New Zealand's social, economic and political context, was included in the review. A range of caveats to attempts to draw conclusions from the research were identified, including difficulties generalising findings across contexts, countries and cultures, the limited follow up periods of many studies, and the difficulties establishing cause and effect, or causal mechanisms. For example, although there is evidence that no-fault divorce laws precede a rise in divorce rates, it is unclear whether these laws cause a rise in divorce levels, or whether more separations are formalised after the advent of no-fault divorce. There is limited and conflicting evidence regarding legislation relating to custody, child welfare and adoption. Overall, the review found that government policy is not the main driver of the recent demographic changes that have occurred in many Western countries. Instead, it is likely that the broader social and economic context, and individual values, preferences and attitudes are more important influences on family form, and these factors may interact in complex ways with legislation and policy.

Pryor J. 2004. **Stepfamilies and Resilience: Final report.** Wellington: Centre for Social Research and Evaluation, Ministry of Social Development. <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/stepfamilies-resilience/index.html>

This report describes a New Zealand study in which perspectives on relationships and wellbeing in stepfamilies were obtained from children, parents, stepparents, non-resident parents and teachers. The aim was to understand the impact of the quality of relationships on resilience in these families. The findings suggested that the affective, or emotional, quality of relationships in stepfamilies is important for positive family and child functioning. The author concludes that particular attention needs to be paid to the child-stepparent relationship and the perspectives of children, which are central to assessing wellbeing at the family and individual level.

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

HOUSEHOLD CROWDING

Introduction

It has been known for centuries that housing and health are linked and that housing is an important determinant of health [35]. The relationship between housing and health is complex, and poor housing conditions often coexist with other socioeconomic factors, such as low income, unemployment, poor education and social isolation [36]. However, associations between housing conditions and health have been identified in a variety of epidemiological studies [37]. In children, cold and damp housing has been linked to respiratory conditions, reduced educational achievement, emotional wellbeing and resilience [38]. In New Zealand, household crowding¹ has been linked to meningococcal disease and acute rheumatic fever in children [40,41]. Internationally, research has suggested correlations between crowding and tuberculosis, respiratory infections, hepatitis B and other enteric disease, conjunctivitis, and poor mental health outcomes [42]. Proposed mechanisms for these associations include closer and more prolonged and increased frequency of contact between children and infectious disease carriers, and increased exposure to second-hand tobacco smoke [42].

In New Zealand there are socioeconomic and ethnic disparities in access to healthy housing. A recent report found that some children in New Zealand are currently “exposed to housing in poor condition, housing that is unaffordable, housing that has insecure tenure and households that are crowded” [43]. At the time of the 2006 Census, one in twenty households were defined as crowded and rates of crowding were consistently higher among Māori (23%) and Pacific peoples (43%) compared to NZ Europeans (5%) [39]. Crowding is also more common among households on a low income, households in rental accommodation, particularly state owned rental accommodation, households with a younger age structure, and those that have more dependent children, contain two or more families, or a single parent family [44]. Māori and Pacific people are also more likely than NZ Europeans to live in rental properties, and home ownership between 1991 and 2006 declined more substantially for Māori (by 13.4%) and Pacific peoples (by 14.5%) than for NZ Europeans (by 9%) [45]. Research also suggests that rental accommodation is of lower quality than owner-occupied homes, and is more likely to lack insulation and to be prone to damp and mould [46].

The following section reviews the proportion of children and young people aged 0–24 years who were living in crowded households at the 2006 Census.

Data Source and Methods

Definition

The proportion of children and young people aged 0–24 years living in crowded households, as defined by the Canadian National Occupancy Standard

Data Source

Numerator: Census: The number of children and young people 0–24 years living in households which required one or more additional bedrooms.

Denominator: Census: The total number of children and young people 0–24 years at the Census for whom crowding status was known.

Notes on Interpretation

Information is for the usual resident population and relates to the household crowding status of individual children. Thus the number of children reported on will be greater than the number of households on Census night (i.e. the unit of reference is the child and thus 2 children from the same household will be counted twice in these statistics).

¹ Defined by Statistics New Zealand as a deficit of at least one bedroom, to the standard of no more than two people per bedroom; couples share a room; children under five of either gender, or under 18 of the same gender can share a room; children aged five to 17 should not share a room with a child under five of the opposite gender; single adults and unpaired children require a separate room [39].



Canadian National Occupancy Standard

The Canadian National Occupancy Standard (CNOS), developed in Canada in the 1980s, calculates appropriate person-to-bedroom ratios for households of differing sizes and compositions. It makes judgements on appropriate age limits for bedroom sharing (e.g. using the CNOS, children aged less than 5 years of different sexes may share a room, while those aged 5–17 years may only share a room if they are of the same sex). The CNOS compares the number of bedrooms in a household with its bedroom requirements based on the age, sex, marital status and relationship of household members to one another. Households are reported as having two plus, one or no bedrooms spare, or as requiring an additional one, or two plus bedrooms. Households needing one or two plus additional bedrooms are deemed to be crowded [44].

New Zealand Distribution

New Zealand Distribution

In New Zealand during 2006, 16.5% of children and young people aged 0–24 years lived in a crowded household.

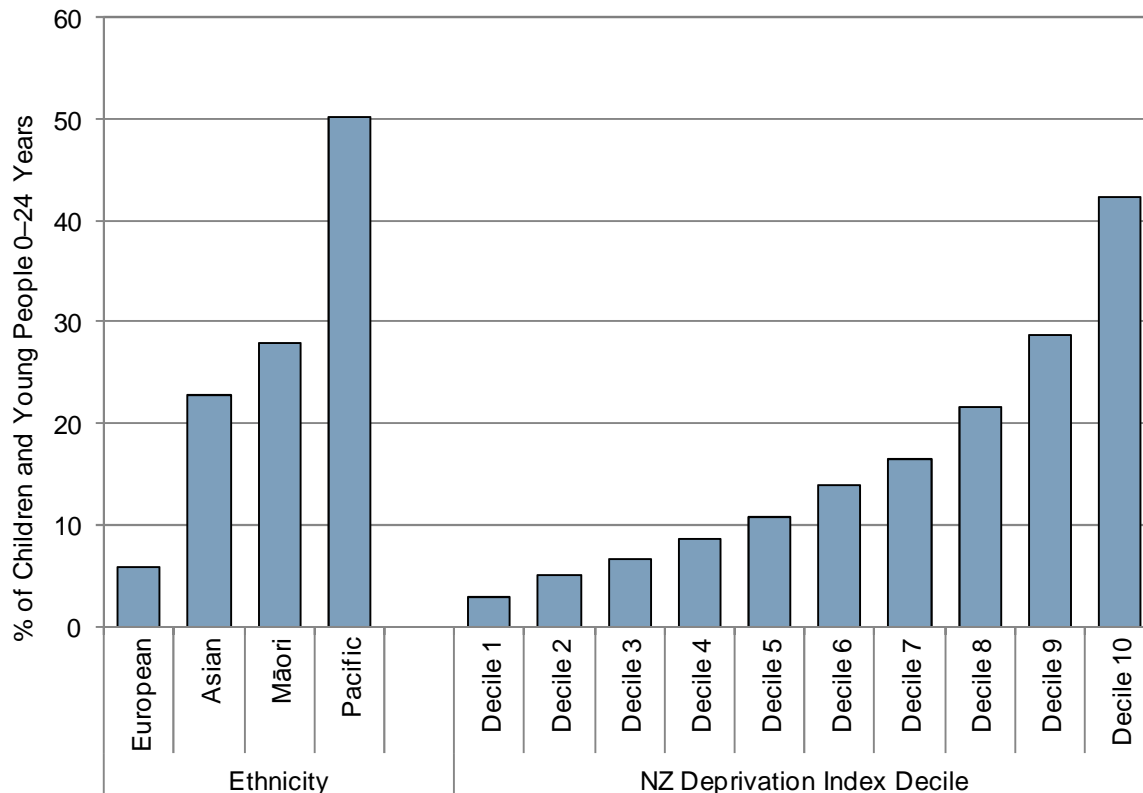
Distribution by Ethnicity

In New Zealand during 2006, 50.1% of Pacific and 27.8% of Māori children and young people lived in crowded households, as compared to 22.8% of Asian and 5.8% of European children and young people (**Figure 31**).

Distribution by NZ Deprivation Index Decile

In New Zealand during 2006, the proportion of children and young people living in crowded households increased progressively, from 2.8% for those living in the least deprived (NZDep decile 1) areas, to 42.4% for those living in the most deprived (NZDep decile 10) areas (**Figure 31**).

Figure 31. Proportion of Children and Young People Aged 0–24 Years Living in Crowded Households by Ethnicity and NZ Deprivation Index Decile, New Zealand at the 2006 Census

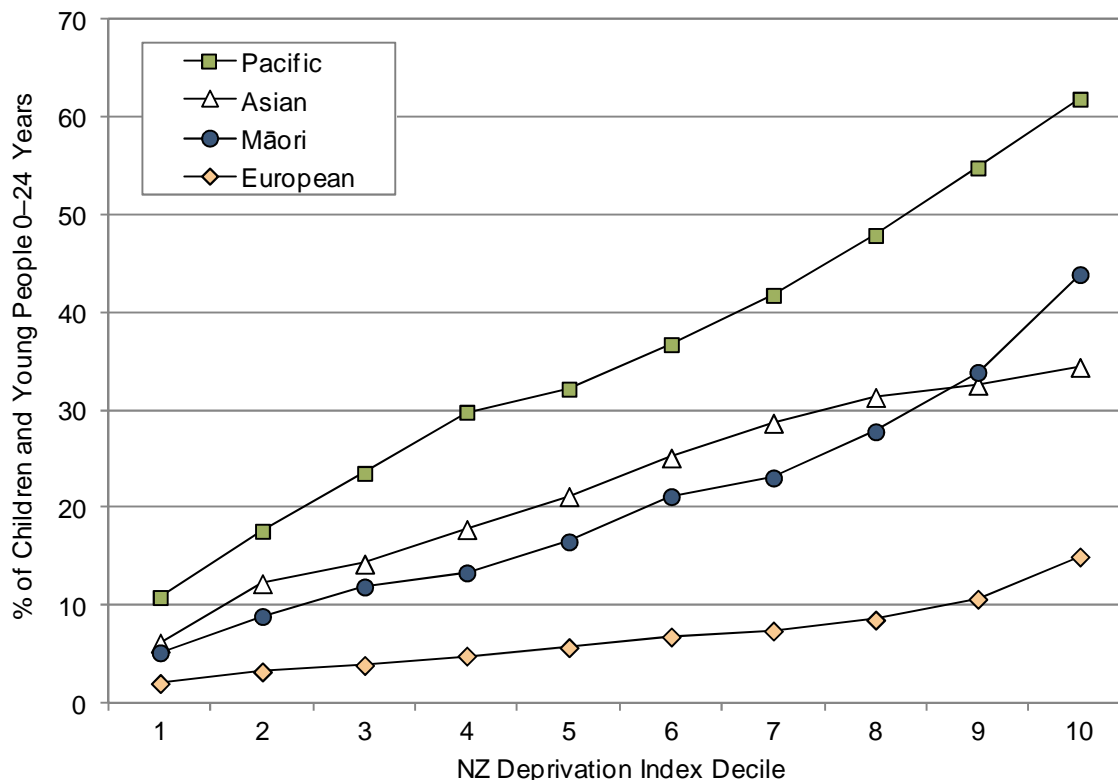


Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

Distribution by Ethnicity and NZ Deprivation Index Decile

In New Zealand during 2006, while the proportion of children and young people living in a crowded household increased with increasing NZDep deprivation for each of New Zealand's largest ethnic groups, at each level of deprivation, the proportion living in crowded households was higher for Pacific > Asian and Māori > European children and young people (**Figure 32**).

Figure 32. Proportion of Children and Young People Aged 0–24 Years Living in Crowded Households by Ethnicity and NZ Deprivation Index Decile, New Zealand at the 2006 Census



Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

South Island Distribution

Distribution by DHB

In Nelson Marlborough during 2006, 8.9% of children and young people lived in crowded households, as compared to 7.5% in the West Coast, 9.8% in Canterbury, 5.6% in South Canterbury, 7.0% in Otago and 7.4% in Southland.

Distribution by Ethnicity

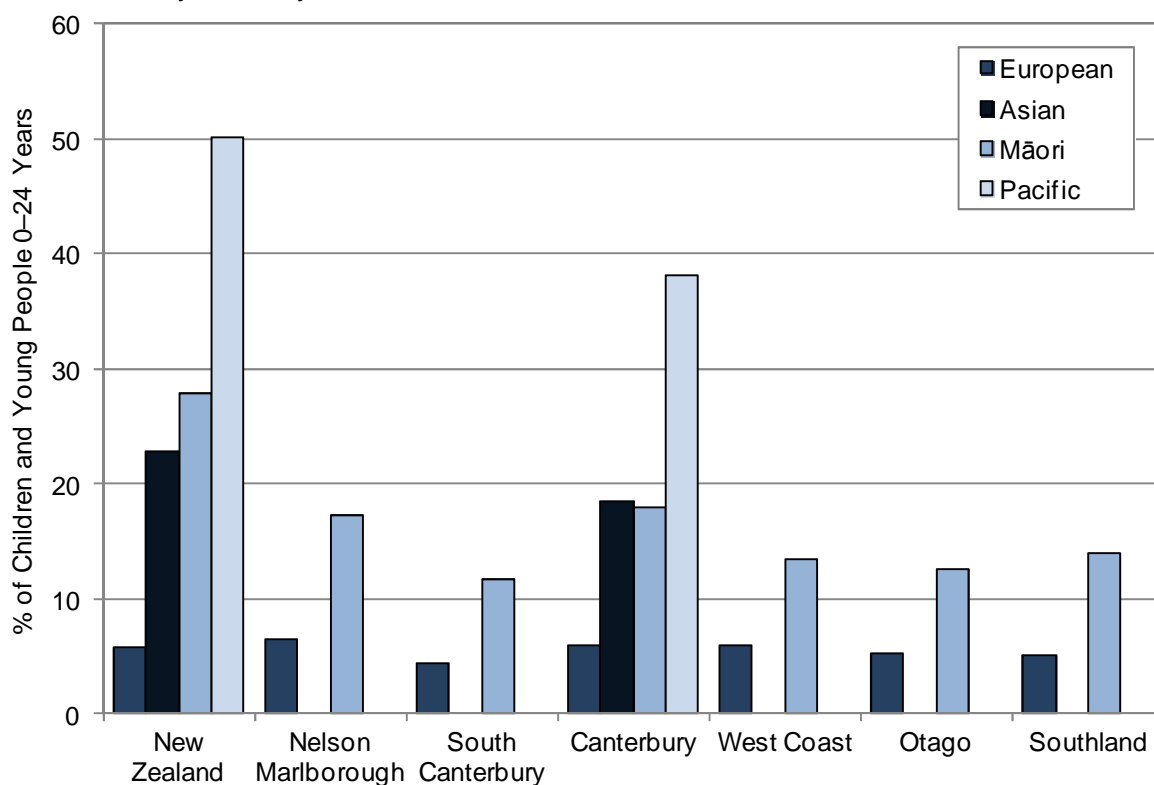
In Canterbury during 2006, a higher proportion of Pacific > Māori and Asian > European children and young people lived in crowded households, while in the other South Island DHBs, a higher proportion of Māori than European children and young people lived in crowded households. However rates for Māori children and young people were lower than the NZ Māori rate in all South Island DHBs (**Figure 33**).

Distribution by NZ Deprivation Index Decile

In the South Island DHBs during 2006, the proportion of children and young people living in crowded households increased with increasing NZDep deprivation, with the highest rates being seen in those the most deprived (NZDep decile 10) areas. While similar social gradients were seen nationally, at nearly every level of NZDep deprivation, household crowding in the South Island DHBs was lower than the New Zealand rate (**Figure 34**).

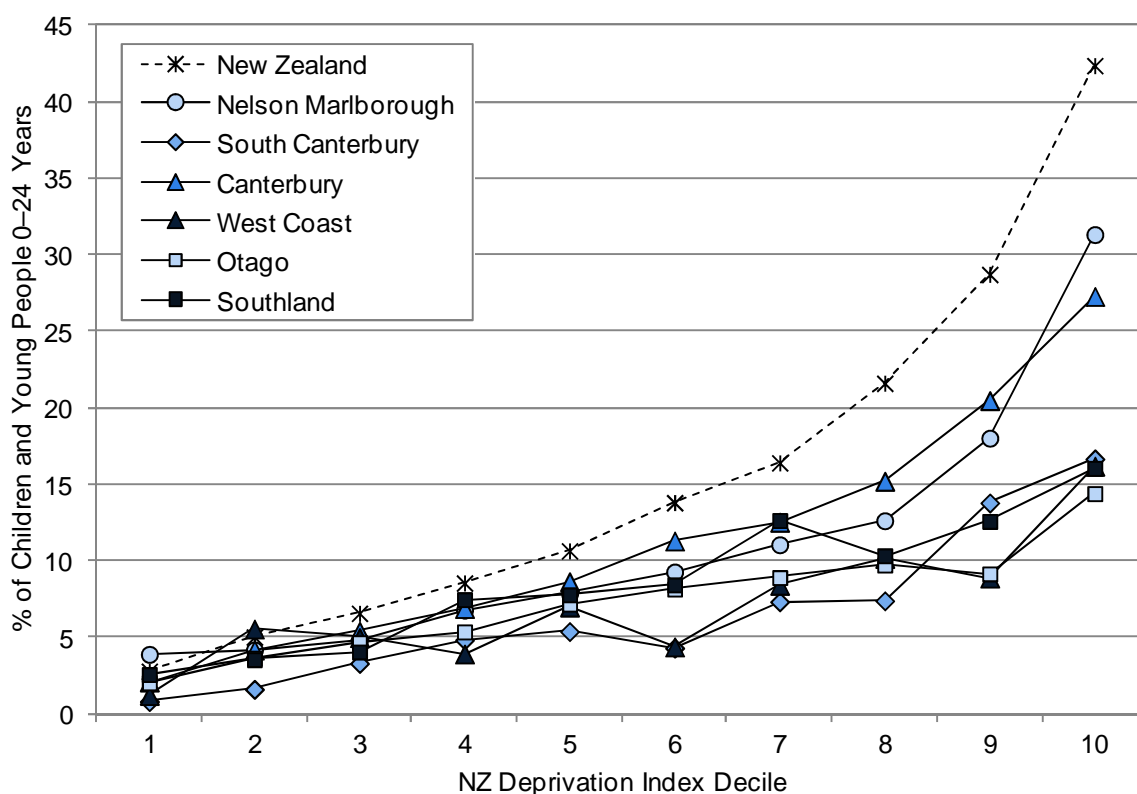


Figure 33. Proportion of Children and Young People Aged 0–24 Years Living in Crowded Households by Ethnicity, South Island DHBs vs. New Zealand at the 2006 Census



Source: Statistics New Zealand; Note: Ethnicity is Level 1 Prioritised

Figure 34. Proportion of Children and Young People Aged 0–24 Years Living in Crowded Households by NZ Deprivation Index Decile, South Island DHBs vs. New Zealand at the 2006 Census



Source: Statistics New Zealand

Local Policy Documents and Evidence-Based Reviews Relevant to the Provision of Healthy Housing

Table 12 below provides a brief overview of local policy documents and evidence-based reviews which consider the relationship between housing and health and the provision of healthy housing. There is a strong record of housing research in New Zealand and the table includes some local housing intervention studies.

Table 12. Local Policy Documents and Evidence-Based Reviews Relevant to the Provision of Healthy Housing

New Zealand Policy Documents
<p>Housing New Zealand Corporation. 2010. Strategic Plan 2010-15: Helping New Zealanders in their time of need. Wellington: Housing New Zealand Corporation. http://www.hnzc.co.nz/about-us/our-publications/housing-new-zealand-strategic-plan</p> <p>Housing New Zealand Corporation (HNZC) provides state houses and tenancy services to those most in need. This document identifies the challenges facing HNZC and establishes the direction and framework for addressing those challenges in coming years. Challenges include: increasing demand for housing assistance; a mismatch between the current distribution, concentration and standard of the housing portfolio and the changing needs of tenants (including larger families); a need to work more collaboratively with other providers; and financial constraints. Strategic goals to address these challenge are identified and include: to effectively provide for those most in need, for the duration of need; to develop the housing portfolio to be 'fit for purpose' by type and location; to develop partnerships that strengthen social housing and communities; and to deliver economic and social value. Strategies for achieving these goals are described.</p>
Cochrane Systematic Reviews
<p>Sauni R, et al. 2011. Remediating buildings damaged by dampness and mould for preventing or reducing respiratory tract symptoms, infections and asthma. Cochrane Database of Systematic Reviews doi:10.1002/14651858.CD007897.pub2 http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007897.pub2/abstract</p> <p>This systematic review assessed the effectiveness of remediating buildings damaged by dampness and mould in reducing or preventing respiratory tract symptoms, infections and symptoms of asthma. Eight studies (6538 participants) including two RCTs (294 participants), one cluster RCT (4407 participants) and five controlled before and after studies (1837 participants) were included in the review. In two of the studies participants were children and three other studies reported symptoms in adults and children. For children, there was moderate quality evidence that repairing houses was associated with a decrease in the number of acute care visits (mean difference -0.45; 95% CI -0.76 to -0.14). There was very low-quality evidence that although repairing schools did not significantly change respiratory symptoms in staff or children, pupils' visits to physicians due to a common cold were less frequent after remediation of the school. The authors conclude that better research, preferably with a cluster RCT design and validated outcome measures, is needed.</p>
Other Systematic Reviews
<p>Thomson H, et al. 2009. The Health Impacts of Housing Improvement: A Systematic Review of Intervention Studies From 1887 to 2007. American Journal of Public Health, 99(S3), S681-92.</p> <p>This systematic review assessed the health impacts of housing improvement interventions. Forty-five studies, using a variety of methodologies, were included in the narrative synthesis, which included an assessment of study quality. Health effects varied across the studies, but improvements in general, respiratory, and mental health were most commonly reported following warmth improvement measures. There were few reports of adverse health impacts following housing improvement. The authors conclude that housing improvements, especially warmth improvements, can generate health improvements, and there is little evidence of detrimental health effects. The potential for health benefits may depend on baseline housing conditions and careful targeting of the intervention. Investigation of longer-term health effects is needed.</p>
<p>Taske N, et al. 2005. Housing and public health: a review of reviews of interventions for improving health. London: National Institute of Clinical Excellence. http://www.nice.org.uk/nicemedia/pdf/housing_MAIN%20FINAL.pdf</p> <p>This UK focused briefing paper aimed to identify and review all the relevant systematic reviews, syntheses, meta-analyses and review-level papers on public health interventions relating to housing, to inform policy and decision makers, housing officials, and public health practitioners in the widest sense. It aimed to identify what housing-related interventions work to promote health for all population groups, with particular reference to disadvantaged and vulnerable groups. Fifteen review level papers were included, assessing re-housing and neighbourhood regeneration, and housing refurbishment and renovation. Findings for re-housing included: review-level evidence that anxiety and depression scores are reduced in people who are re-housed on the basis of medical need; review-level evidence that re-housing people from slum areas can improve self-reported physical and mental health outcomes in the longer term (18 months) but can adversely affect self-reported health outcomes in the short term (9 months); and review-level evidence from the US that rental voucher programmes can improve household safety by providing families with the choice to move to neighbourhoods with reduced exposure to violence. Findings for refurbishment included: review-level evidence that housing interventions involving improvements to energy efficiency measures, such as installation of new windows, can positively affect health outcomes. A number of research recommendations are made including a need for cost-effectiveness studies.</p>

Other Relevant Evidence

Marmot Review Team. 2011. **The Health Impacts of Cold Homes and Fuel Poverty**. London: Friends of the Earth & the Marmot Review Team. <http://www.instituteofhealthequity.org/projects/the-health-impacts-of-cold-homes-and-fuel-poverty>

This report reviewed the evidence base for the direct and indirect health effects suffered by those living in fuel poverty (defined as having to spend 10% or more of a household's net income to heat their home to an adequate standard of warmth) and cold housing (below the WHO recommendation of indoor temperatures maintained at 21 degrees in living rooms and 18 degrees in bedrooms for at least 9 hours a day). A review of the literature assessing the health effects of cold homes on children found significant negative effects on infants' weight gain, hospital admission rates, care-giver rated developmental status, and the severity and frequency of asthmatic symptoms. Among adolescents cold housing and fuel poverty was associated with a significantly increased risk of multiple mental health problems compared to adolescents who have always lived in warm homes. A variety of policy recommendations are given including: ensuring sustainable programmes to improve the thermal efficiency of homes for vulnerable households, including those in rental properties; developing legislation to ensure that private rental accommodation is thermally efficient; and development of national indicators for housing quality. The co-benefits of improvements to the thermal efficiency of housing on health and climate change mitigation are highlighted.

James B & Saville-Smith K. 2010. **Children's Housing Futures**. Wellington: Centre for Housing Research Aotearoa New Zealand. <http://www.chranz.co.nz/pdfs/childrens-housing-futures-report.pdf>

This research report examines the housing futures of New Zealand's children, with a view to improving New Zealand's capacity to address the housing needs of children now and into the future. The report consists of: a description of socio-demographic housing trends; a literature review on key housing issues affecting children, housing solutions workshops with key stakeholders; and identification of key priorities and recommendations. The exposure of children to unaffordable housing, houses in poor condition, crowding and insecure tenure; and the strong trend towards children to be housed in the rental market, are identified as key issues. Five key priorities are recommended: developing housing policy that treats children's housing needs as seriously as adult housing needs; developing policy and cross-sectoral services that integrate housing aware child services with child-centred housing delivery, including a standardised housing needs assessment tool; improving the quality and security of the rental market; transforming the housing stock by actively pursuing child wellbeing outcomes, for example retrofitting insulation; diversifying tenure shared ownership and non-speculative housing and housing provision and recruiting a range of different providers into the housing market. Several research priorities are identified.

Scottish Government Communities Analytical Services. 2010. **A select review of literature on the relationship between housing and health. Analytical Paper Series**. Edinburgh: Scottish Government. www.scotland.gov.uk/Resource/Doc/1035/0104565.doc

This pragmatic review of the relationships between housing and health found that housing conditions have been linked to a variety of health effects. Housing risk factors included cold and damp, indoor air quality, house type, overcrowding and neighbourhood effects. Studies were identified that linked housing improvements to health improvement. Local policy responses are reviewed. The report identified that housing problems were often a component of multiple disadvantage.

Clinton J, et al. 2006. **The Healthy Housing Programme: Report of the Outcomes Evaluation (year two)**. Auckland: Auckland UniServices Ltd. <http://www.cmdhb.org.nz/Funded-Services/Intersectoral/docs/HHP-finalreport-year2.pdf>

Healthy Housing is a joint project between the Housing New Zealand Corporation (HNZC) and DHBs that aims to: raise awareness of infectious diseases like meningococcal disease, rheumatic fever, tuberculosis, cellulitis and respiratory diseases; improve access to health and social services; reduce the risk of housing-related health problems; and reduce overcrowding. The programme works with HNZC tenants in selected areas by providing housing interventions (e.g. insulation and house extensions), health interventions (e.g. assessments and referrals) and joint interventions to link tenants to appropriate social services. The evaluation assessed changes in the risk of housing-related diseases, conditions and injuries, and self-assessed wellbeing as a result of participation in Healthy Housing and included case studies, surveys, and provider interviews. Overall, the programme was found to be beneficial and sustainable. Households reported improvements in health and wellbeing, with over half of the households reporting a reduction in the frequency of doctor and hospital contact. Overcrowding did not appear to have recurred and household occupancy had stabilised. Collaboration between the sectors was found to be a key to the success of the programme.

Chaudhuri N. 2004. **Interventions to improve children's health by improving the housing environment**. Reviews on Environmental Health, 19(3-4), 197-222.

This paper reviews factors shown to mediate housing and health interactions, including psychosocial, environmental, socioeconomic, behaviour-cultural, and physiological factors, and provides examples of housing-related interventions to improve child health. Examples include integrated energy-efficiency programmes to improve thermal comfort and to reduce allergens (e.g. mould, dust mites), housing and health policies, regulation and standard setting, and education and training.

Gray A. 2001. **Definitions of crowding and the effects of crowding on health: a Literature Review.** Wellington: Ministry of Social Policy. <http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/archive/2001-definitions-of-crowding.pdf>

This literature review aimed to assess the definitions and measures of crowding in current use and to summarise the knowledge-base of the adverse effects of crowding. The review examined statistical and research definitions and regulatory and administrative measures. A need for more work to establish the validity of various measures for different groups in New Zealand was identified. The review found that the evidence base for the relationship between crowding and health is longstanding and inconclusive and complex, with a variety of potential confounding variables and difficulties in measuring crowding. Some studies have identified associations between crowding and common infectious diseases, including colds, asthma, influenza, meningococcal disease and TB but further research is required to establish causality. Overseas research on crowding and mental health revealed mixed results but it appears to be stressful for children as well as adults. Crowding in New Zealand is linked to ethnicity and immigration, and low income in high cost areas.

Some New Zealand Housing and Health Studies

Jackson G, et al. 2011. **Reduced acute hospitalisation with the healthy housing programme.** *Journal of Epidemiology & Community Health*, 65(7), 588-93.

This study investigated the effect of the Healthy Housing Programme (see Clinton et al. 2006, above) on acute hospitalisation rates in South Auckland. The study included the 9736 residents (in 3410 homes) involved in the programme from 2001 to 2007. All of the participants lived areas of relative deprivation (NZDep 10) and most self-identified as of Pacific ethnicity. The main outcome measure was acute hospitalisation rates (collected from 1999 to 2009) before, during and after the health and housing intervention. The adjusted hazard ratios (HR) for acute hospitalisation after, compared to before the intervention were: and 0.77 (95% CI 0.70 to 0.85) people aged 5 to 34 years, 0.89 (95% CI 0.79 to 0.99) for children aged 0 to 4 years (a non-significant increase was seen in those aged 35 years and over). For housing-related causes of hospitalisation only, the HRs fell to 0.88 (95% CI 0.74 to 1.05) for 0 to 4 year olds and 0.73 (95% CI 0.58 to 0.91) for 5 to 34 year olds. The results suggested that the housing and health package was associated with significant reductions in acute hospitalisations among participants aged 0 to 34 years.

Howden-Chapman P, et al. 2008. **Effects of improved home heating on asthma in community dwelling children: randomised controlled trial.** *BMJ*, 337; doi:10.1136/bmj.a1411.

This RCT (409 children aged 6–12 years with doctor diagnosed asthma) aimed to assess whether installing non-polluting, more effective home heating (heat pump, wood pellet burner, flued gas) had a positive effect on the health of children with asthma. Homes were insulated before heater installation. The primary outcome was a change in lung function (peak expiratory flow rate and forced expiratory volume in one second, FEV₁) and secondary outcomes were child reported respiratory tract symptoms and daily use of preventer and reliever drugs. Follow up occurred at one year. There was no significant improvement in lung function (difference in mean FEV₁ 130.7 ml, 95% CI –20.3 to 281.7) but significant improvement in days off school (1.80 fewer days off school in intervention group compared to control, 95% CI 0.11 to 3.13), healthcare utilisation (0.40 fewer visits to a doctor for asthma, 95% CI 0.11 to 0.62), visits to a pharmacist (0.25 fewer visits to a pharmacist for asthma, 95% CI 0.09 to 0.32) and symptoms of asthma were found.

Howden-Chapman P, et al. 2007. **Effect of insulating existing houses on health inequality: cluster randomised study in the community.** *BMJ*, 334(7591), 460.

This cluster RCT involving 1350 households containing 4407 participants, aimed to determine whether insulating existing houses using a standard retrofit insulation package increased indoor temperatures and improved occupants' health and wellbeing. Outcome measures included indoor temperatures and relative humidity, energy consumption, self-reported health, wheezing, days of school and work, GP visits and hospital admissions. All household members aged over 11 years completed the questionnaire and data were also collected from GPs and hospital admission data. The study found that insulating existing houses led to a significantly warmer, drier indoor environment and resulted in improved self-rated health (adjusted OR 0.50, 95% CI 0.38 to 0.68) and wheezing (adjusted OR 0.57, 95% CI 0.47 to 0.70), fewer children taking days off school (adjusted OR 0.49, 95% CI 0.31 to 0.80), less frequent visits to GPs (adjusted OR 0.73, 95% CI 0.62 to 0.87), and a non-significant trend for fewer hospitalisations for respiratory conditions at one year follow-up.

Baker M, et al. 2000. **Household crowding a major risk factor for epidemic meningococcal disease in Auckland children.** *The Pediatric Infectious Disease Journal*, 19(10), 983-90.

This case-control study compared the household and demographic characteristics of 202 meningococcal disease cases in Auckland children under eight years of age, recruited during 1997–1999, with matched 313 controls. After controlling for age, ethnicity, season and socioeconomic factors, the risk of disease was strongly associated with overcrowding (measured by the number household members aged 10 years and over per room) (OR 10.7, 95% CI 3.9 to 29.5). This indicated a doubling of risk with the addition of two adolescents or adults to an average six room house. Significant increase risk of disease was also associated with number of days at substantial social gatherings, number of smokers in the household, sharing an item of food, drink or a pacifier; and preceding symptoms of a respiratory infection in a household member, but crowding remained the strongest independent risk factor. The authors concluded that reducing overcrowding could have a marked effect on reducing the incidence of meningococcal disease in Auckland children.

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

EDUCATION: KNOWLEDGE AND SKILLS



EARLY CHILDHOOD EDUCATION

Introduction

Participation in high quality early childhood education (ECE) has significant long term benefits for children's academic performance, as well as school readiness, reduced grade retention and reduced special education placement [47]. Competencies and skills that enable children to keep learning have also been found to be associated with ECE participation. The benefits appear greatest for children from low income families, those who attend ECE regularly and those who have started ECE at a younger age (e.g. 2–3 years). A number of longitudinal studies however, have suggested that the relationship between ECE and subsequent outcomes may be complex and related to the age at which the child starts ECE, the number of hours in ECE each week, the quality of the ECE service and the socioeconomic background from which the child comes [48].

The Competent Children, Competent Learners Study, conducted in New Zealand, followed a cohort of children from preschool to age 14 years. It suggests that differences in the ECE environment continue to influence performance at age 14, although in general, ECE experience made the greatest impact at the time a child started school. The contribution was still evident, however, at 14 years, even after taking into account age-5-performance and factors identified as being influential, such as family income and maternal qualifications. Differences between those with the highest or most of a particular aspect of ECE and those with lower or less was, on average, 9% [48].

In New Zealand, early childhood education is provided by a variety of services. These include those that have been in existence for decades, such as Kindergartens and Te Kōhanga Reo, and which require a degree of parent involvement, and more recently developed services that cater for the needs of working parents who will not be present during the care, such as home-based services and Education and Care Services. A considerable increase in enrolments has been noted particularly for the latter services.

The following section uses Ministry of Education data to review enrolments in early childhood education (ECE), as well as the proportion of new entrants who had participated in ECE prior to school entry.

Data Source and Methods

Definitions

1. Number of enrolments in licensed early childhood education services
2. Average weekly hours attended by children at licensed early childhood education services
3. Proportion of new entrants who had previously attended early childhood education

Data Source

Ministry of Education <http://www.educationcounts.govt.nz/>

1. Number of enrolments in licensed early childhood education services

Numerator: Total number of enrolments in licensed early childhood education services

Denominator: Not applicable (see notes below)

2. Average weekly hours attended by children at licensed early childhood education services

The average weekly hours of attendance of regular enrolments in ECE by service type

3. Proportion of new entrants who had previously attended early childhood education

Numerator: The number of new entrants reporting participation in ECE prior to attending school

Denominator: The number of new entrants enrolled

Interpretation:

Note 1: Enrolment numbers overestimate participation in ECE because of double or triple counting of those children who attend more than one ECE service. This is particularly problematic for three and four year-olds, as they have fairly high rates of participation. To get a more accurate picture of the proportion of children participating in ECE, prior participation in ECE is a better indicator. Enrolment numbers however are a useful indicator of patterns of enrolment across different service types. For a description of ECE service types see

<http://www.educationcounts.govt.nz/statistics/ece>



Note 2: The number of new school entrants reporting participation in ECE prior to attending school is a useful measure of ECE participation as it overcomes some of the double counting problems associated with ECE enrolment measures. However no information is provided on the duration of, number of hours in, or the type of ECE attended prior to attending school.

School Socioeconomic Decile: All schools are assigned a decile ranking based on the socioeconomic status of the areas they serve. These rankings are based on Census data from families with school age children in the areas from which the school draws its students. Census variables used in the ranking procedure include equivalent household income, parent's occupation and educational qualifications, household crowding and income support payments. Using these variables, schools are assigned a decile ranking, with decile 1 schools being the 10% of schools with the highest proportion of students from low socioeconomic communities and decile 10 schools being the 10% of schools with the lowest proportion of these students. Decile ratings are used by the Ministry of Education to allocate targeted funding, as well as for analytical purposes.

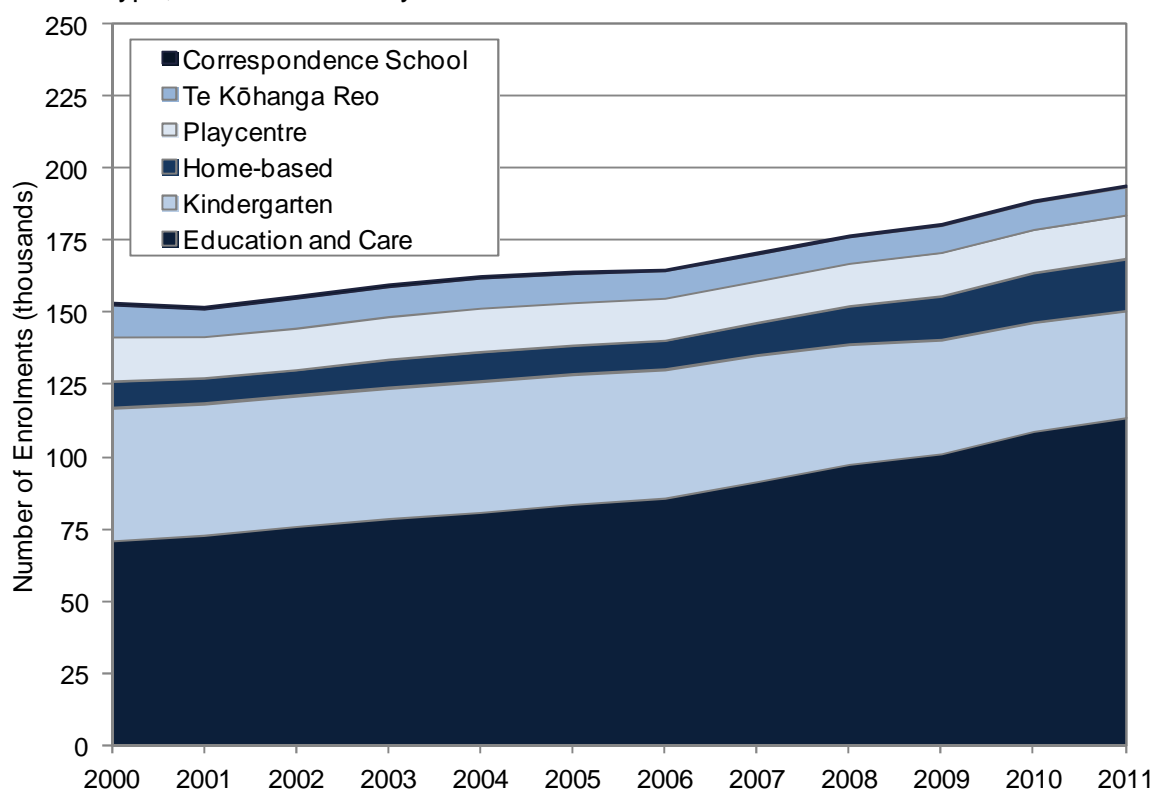
Enrolments in Early Childhood Education

New Zealand Distribution and Trends

Trends by Service Type

In New Zealand during 2000–2011, the number of enrolments in early childhood education increased by 26.1%. Changes varied markedly by service type however, with enrolments in Education and Care increasing by 59.9% and enrolments in Home Based Networks increasing by 101.0%. In contrast, enrolments in Te Kōhanga Reo decreased by 13.5%, enrolments in Kindergarten decreased by 19.4% and enrolments in Playcentre decreased by 4.4% (**Figure 35**).

Figure 35. Number of Enrolments in Licensed Early Childhood Education Services by Service Type, New Zealand July 2000–2011



Source: Ministry of Education

Hours Spent in Early Childhood Education

In addition to an increase in ECE enrolments, the average number of hours spent in ECE increased for all service types during 2000–2011, with the exception of Playcentres. The average number of hours spent increased from 16.2 hours in 2000 to 23.9 hours in 2011 for Education and Care facilities, from 11.2 hours to 15.5 hours for Kindergartens, and from 16.7 hours to 21.9 hours for home-based care (**Table 13**).

Table 13. Average Weekly Hours Attended by Children at Licensed Early Childhood Education Services by Service Type, New Zealand July 2000–2011

Year	Education and Care	Kindergarten	Home-Based	Playcentre
2000	16.2	11.2	16.7	4.4
2001	17.1	11.5	18.4	4.2
2002	18.3	11.8	18.1	4.3
2003	18.6	12.0	19.7	4.3
2004	19.5	12.5	21.3	4.4
2005	20.3	12.6	22.4	4.3
2006	20.8	12.6	22.0	4.4
2007	21.5	12.6	22.5	4.3
2008	22.9	13.4	22.8	4.2
2009	23.5	14.2	21.5	4.0
2010	23.7	15.1	21.9	4.0
2011	23.9	15.5	21.9	4.0

Source: Ministry of Education

Prior Participation in Early Childhood Education

New Zealand Distribution and Trends

Distribution by Ethnicity

In New Zealand, the proportion of new entrants reporting participation in ECE prior to school entry increased, from 90.3% in 2001 to 94.7% in 2011. While prior participation in ECE remained higher for European > Asian > Māori > Pacific children, prior participation increased for all ethnic groups during 2001–2011 (European children 94.9% to 97.8%; Asian children 89.8% to 95.9%; Māori children 83.6% to 90.0%; and Pacific children 76.0% to 86.2% (**Figure 36**)).

Distribution by School Socioeconomic Decile

In New Zealand during 2011, 18.0% of children attending schools in the most deprived (decile 1) areas had not attended ECE prior to school entry, as compared to only 1.0% of children attending schools in the least deprived (decile 10) areas. Nevertheless these figures suggest that on average, 82.0% of children attending schools in the most deprived areas had attended some form of ECE prior to school entry (**Figure 37**).

South Island Distribution and Trends

South Island Trends

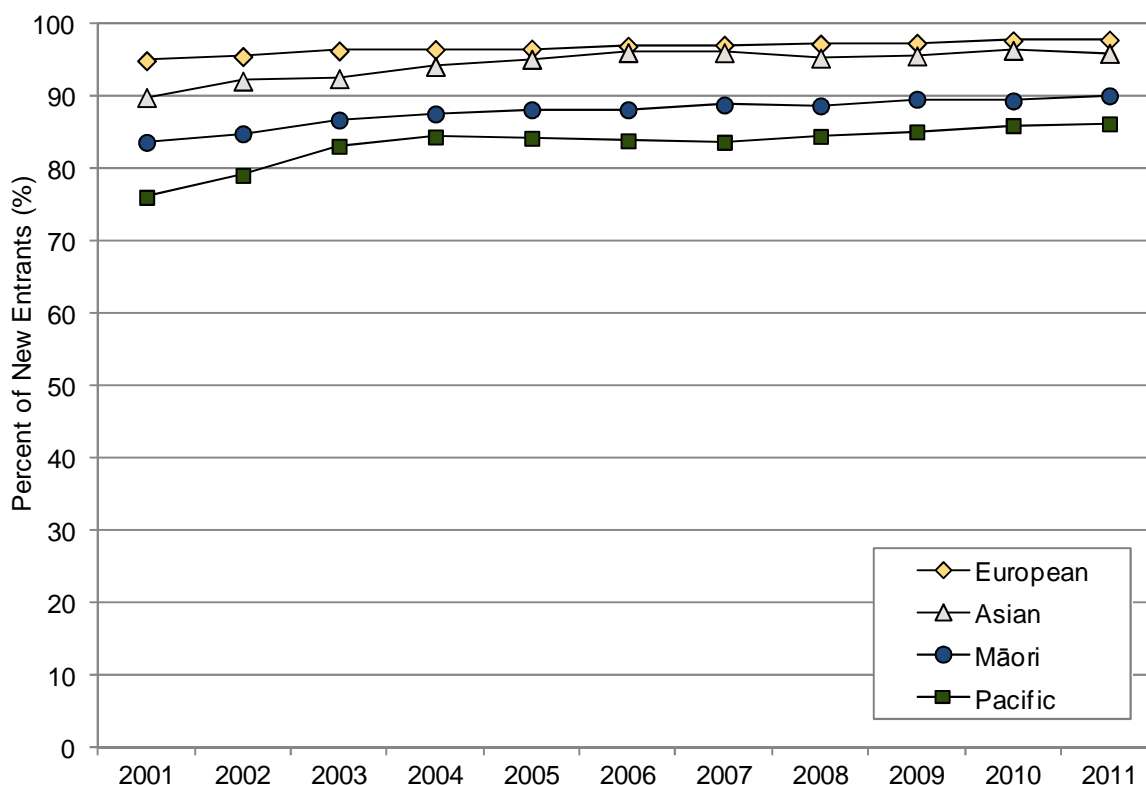
In all of the South Island DHBs during 2000–2011, prior participation in ECE amongst school entrants increased, with rates in Nelson Marlborough, Canterbury, South Canterbury and the Southern DHB being higher than the New Zealand rate throughout this period. Rates in the West Coast however, were similar to the New Zealand rate during the late 2000s (**Figure 38**).

Distribution by Ethnicity

In Nelson Marlborough, the West Coast, South Canterbury and the Southern DHB during 2000–2011, prior participation in ECE amongst school entrants was higher for European than for Māori children. Prior participation in Nelson Marlborough and Southern DHB Māori children however, was consistently higher than the NZ Māori rate. Ethnic differences in Canterbury were less consistent, although during 2009–2011 prior participation was generally higher for European > Asian and Māori > Pacific children (**Figure 39**).

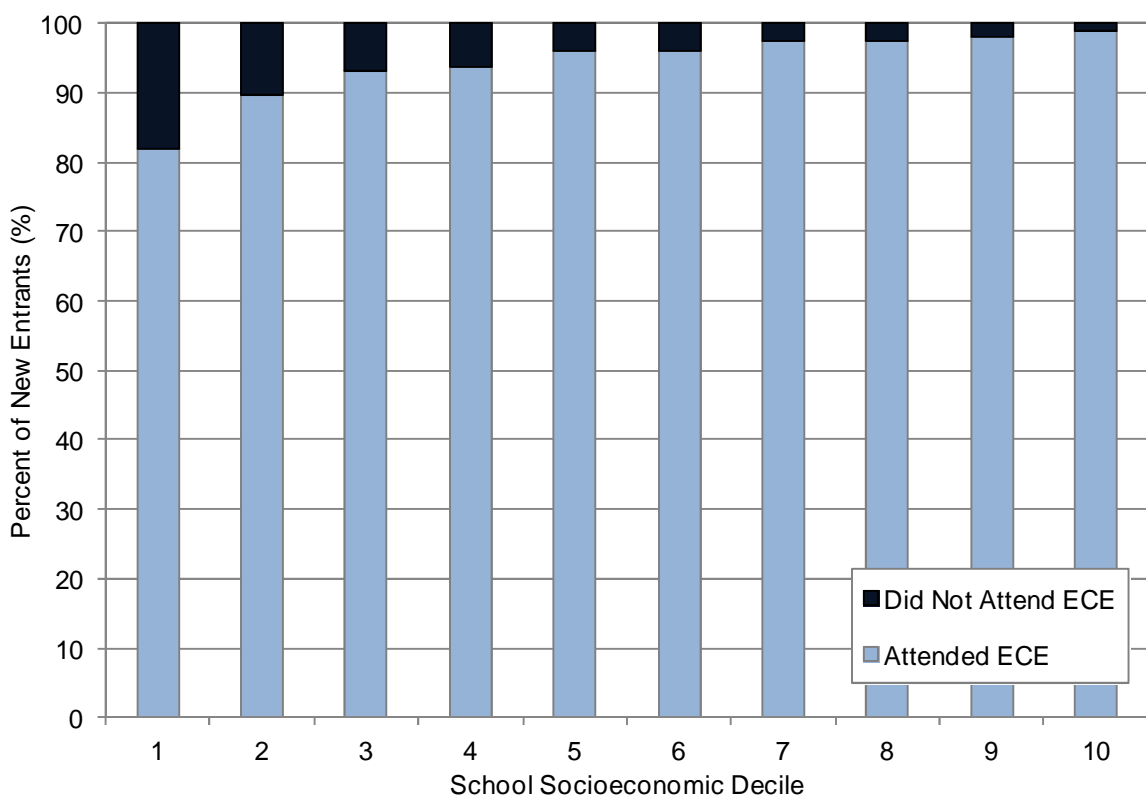


Figure 36. Proportion of New Entrants who had Previously Attended Early Childhood Education by Ethnicity, New Zealand 2001–2011



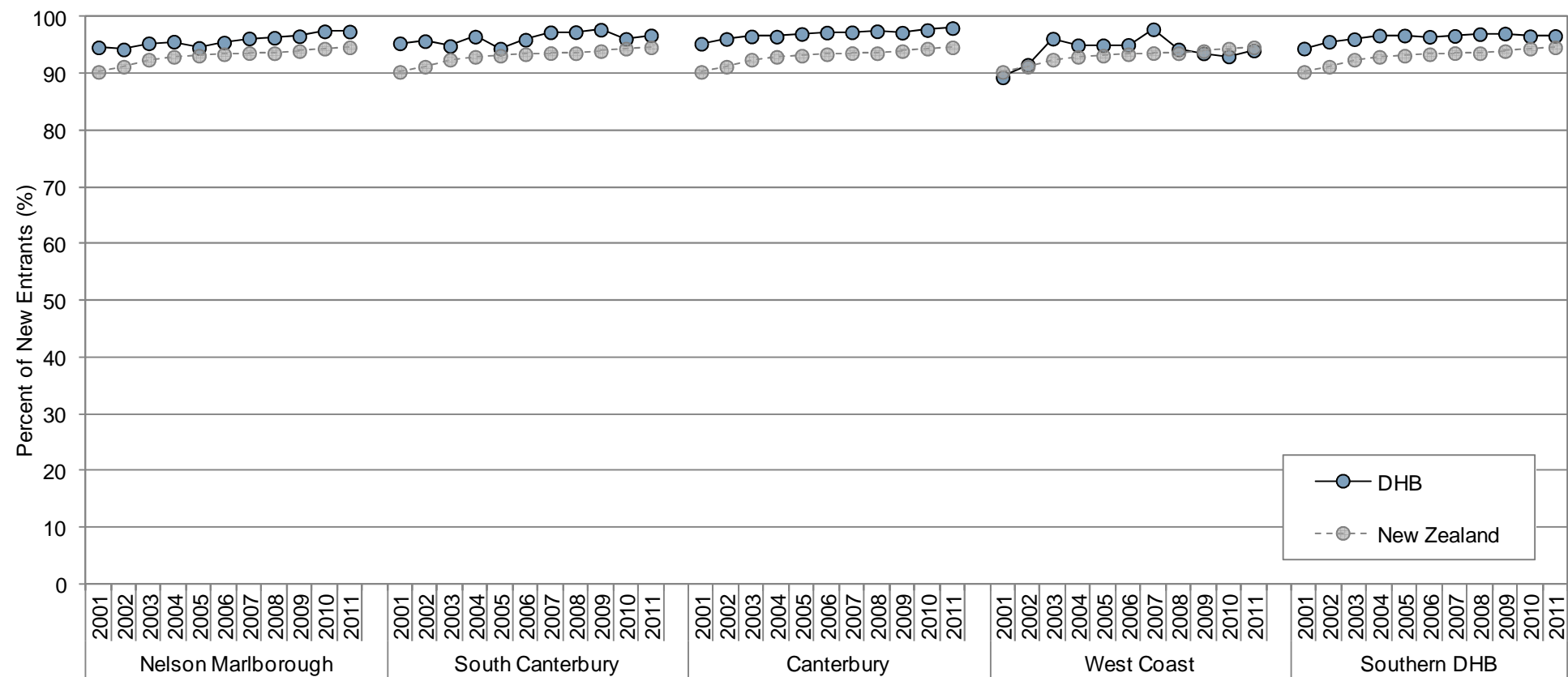
Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual children may appear in more than one ethnic group

Figure 37. Proportion of New Entrants who had Previously Attended and Not Attended Early Childhood Education by School Socioeconomic Decile, New Zealand June 2011



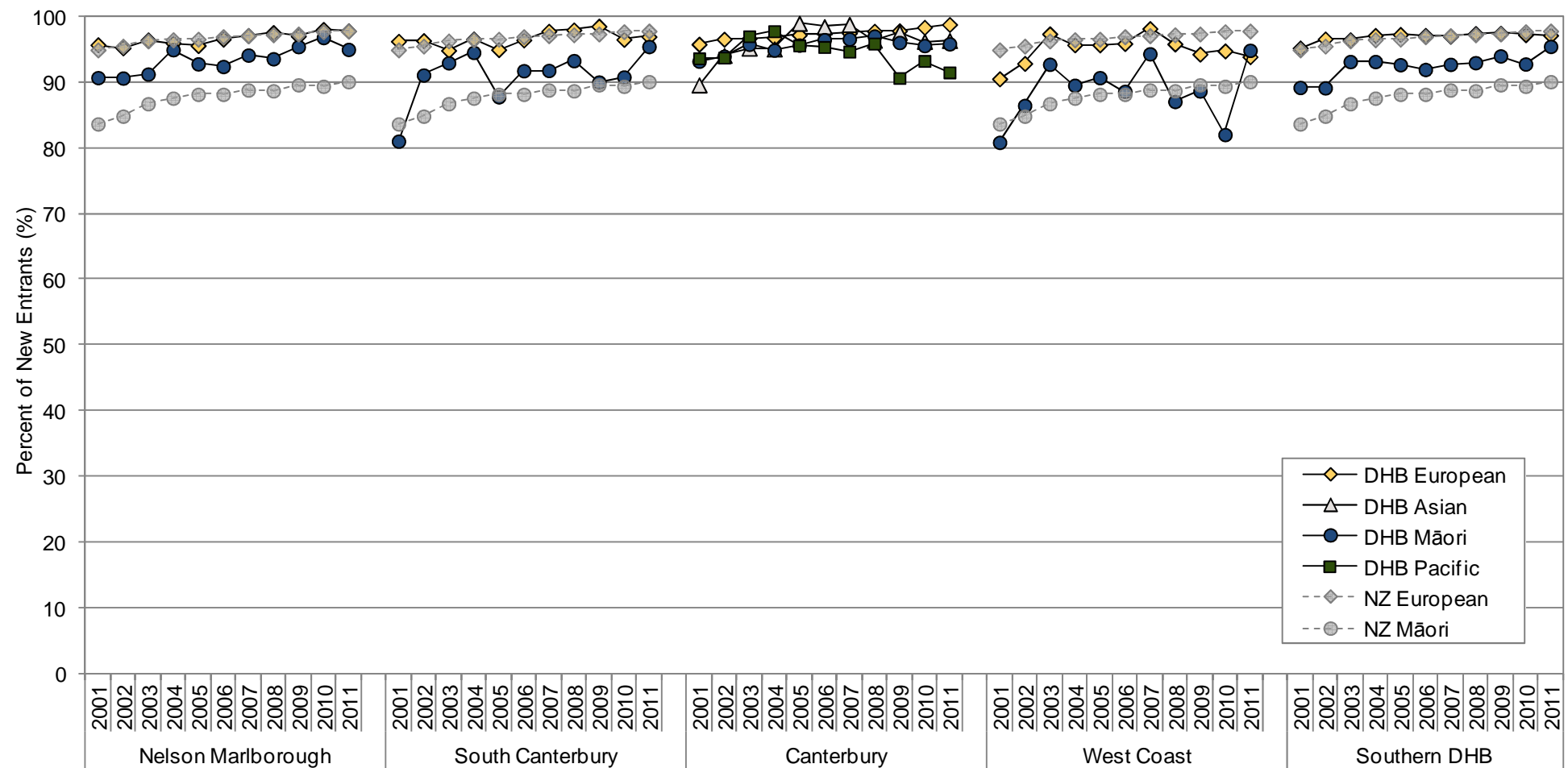
Source: Ministry of Education; Note: Decile 1 = Most deprived; Decile 10 = Least deprived

Figure 38. Proportion of New Entrants who had Previously Attended Early Childhood Education, South Island DHBs vs. New Zealand 2001–2011



Source: Ministry of Education

Figure 39. Proportion of New Entrants who had Previously Attended Early Childhood Education by Ethnicity, South Island DHBs vs. New Zealand 2001–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual children may appear in more than one ethnic group

Local Policy Documents and Evidence-Based Reviews Relevant to Early Childhood Education

Table 14 below provides a brief overview of local policy documents and evidence-based reviews which are relevant to Early Childhood Education.

Table 14. Local Policy Documents and Evidence-Based Reviews Relevant to Early Childhood Education

Ministry of Education Policy Documents
<p>Ministry of Education. 2012 Intent: 2012-2017. Wellington: Ministry of Education. http://www.minedu.govt.nz/~media/MinEdu/Files/TheMinistry/2012SOI/2012StatementOfIntent.pdf</p> <p>This document summarises the performance of the education sector to 2010 based on the previous strategic plan, and outlines the intent for the next five years. The strategic direction states that the learner must be the central focus of policy, funding and regulatory decisions, in order to ensure improvements in the performance of the education system as a whole. The importance of learners getting the best possible start, for the system to achieve education success is emphasised. This requires participation in high quality early childhood education, an approach that research supports. Five education targets are identified for the next five years, including: an “increase the proportion of children starting school who have participated in early childhood education” (the actual increase is not identified); and “improving outcomes for priority groups (Māori and Pasifika learners, learners with special education needs, and learners from low socioeconomic backgrounds)”.</p>
Other Government Publications
<p>Education Review Office. 2010. Quality in Early Childhood Services. Wellington: Education Review Office http://www.ero.govt.nz/National-Reports/Quality-in-Early-Childhood-Services-August-2010</p> <p>This report uses findings from the Education Review Office's (ERO) national evaluations of early childhood education (ECE) and individual services' education reviews to identify the factors that contribute to high quality early childhood education and care, and those that contribute to poor quality. National Education Review Office reports, including regular reviews of ECE services are available at: http://www.ero.govt.nz/index.php/National-Reports.</p>
<p>Education Review Office. 2010. Success for Māori Children in Early Childhood Services. Wellington: Education Review Office. http://www.ero.govt.nz/National-Reports/Success-for-Māori-Children-in-Early-Childhood-Services-May-2010</p> <p>Education strategies are focused on improving the way the education system assists Māori learners to realise their potential. Early childhood services are critical to this focus. This evaluation considers how well ECEs provide care and education for Māori children. In particular, how services “responded to the aspirations and expectations of the parents and whānau of Māori children” and “focus on realising the potential of Māori children to become competent and confident learners”. The conclusions drawn relate to: consultation and communication to become more responsive to parents and whānau; integration of Māori perspectives in planning assessment and evaluation; professional development and support for improving the ECEs ability to work in partnership with parents and whānau of Māori children; and skills in evaluation.</p>
<p>Mitchell L et al. 2008. Outcomes of Early Childhood Education: Literature Review. Report to the Ministry of Education, New Zealand Council for Educational Research, New Zealand. http://edcounts.squiz.net.nz/ data/assets/pdf file/0003/24456/885 Outcomes.pdf</p> <p>The Ministry of Education commissioned this literature review to provide a synthesis of research on the impact of early childhood education (ECE) for children and families. The review identifies benefits of ECE related to cognitive outcomes, and learning dispositions, with specific effects in relation to family income, English as an additional language, gender, and socioeconomic mix. Long duration of ECE experience was of benefit academically, particularly where the quality of ECE was high. Long duration in low quality ECE was negative for learning disposition, and poor quality ECE and early entry may be associated with higher levels of antisocial or worried behaviour around school entry. Positive outcomes have been found for parenting in parent/whānau-led ECE where parent training and involvement are core elements in the educational programme.</p>
Other New Zealand Evidence
<p>Office of the Children's Commissioner. 2012. Who gets to play? Promoting participation In ECE for all children. Children Winter 2012 No 81. Wellington: Office of the Children's Commissioner. http://www.occ.org.nz/ data/assets/pdf file/0019/9910/Children_81_web.pdf</p> <p>“Who gets to play” contains a series of articles by a number of New Zealand early childhood education specialists and researchers who examine the evidence, and explore the implementation and implications of decisions, policy and practice in the New Zealand early childhood education setting. Included are the rights of the child to high quality care, and how that is conceptualised and put into practice. A relationship between quality of early childhood education and child development is consistently found, with high quality services resulting in positive outcomes. Poor quality services, however, have a long-lasting negative impact. Issues such as universality and the impact of delivering high quality services to all are examined, particularly with respect to the future of a thriving society, and the definition of ‘high quality’.</p>

Carrol-Lind J & Angus J. 2011. **Through their lens: An inquiry into non-parental education and care of infants and toddlers.** Wellington: Office of the Children's Commissioner.

http://www.occ.org.nz/data/assets/pdf_file/0017/8108/CC_Through_their_lens_21032011.pdf

Increasing enrolments of infants and toddlers in formal non-parental early childhood services in New Zealand generated this inquiry by the Children's Commissioner into how these services might be delivered in the best interests of infants and toddlers. The well-being of the child is dependent on the quality of care, as high quality early childhood education and care predicts positive outcomes for young children. The report examines these as well as the risks identified in the literature such as disrupted attachment for example, from long periods away from the primary carer and the effects of greater exposure to infection and subsequent illness when immune systems are underdeveloped.

Cochrane Systematic Reviews

Zoritch B, et al. 2009. **Day care for pre-school children.** Cochrane Database of Systematic Reviews
doi:10.1002/14651858.CD000564

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000564/abstract>

Eight trials of interventions in which non-parental day care was provided for those <5 years were included in this systematic review of day care for pre-school children. Positive effects were noted, including increases in IQ, benefits to behavioural development and school achievement. Longer term effects were noted in lower teenage pregnancy rates, higher socioeconomic status and decreased criminal behaviour. Mothers' education, employment and interaction with children also benefited. All studies were conducted in the US among disadvantaged populations, limiting their generalisability.

Other Relevant Evidence

UNICEF. 2012. **Inequities in Early Childhood Development: What the data say. Evidence from the Multiple Indicator Cluster Surveys.** New York: United Nations Children's Fund (UNICEF).

http://www.unicef.org/publications/files/Inequities_in_Early_Childhood_Development_LoRes_PDF_EN_02082012.pdf

The Multiple Indicator Cluster Surveys (MICS) were developed to provide a composite picture of the status of child development in the early years. More than 100 low and middle income countries have participated in this household survey programme since 1995. As a result, comparable estimates have been produced in the areas of health, nutrition, education, child protection and HIV/AIDS. In 2005/2006 indicators were included for early childhood development with these indicators being specifically designed to assess the quality of care in a child's home environment and access to early childhood care and education outside the home.

National Audit Office. 2012. **Delivering the free entitlement to education for three- and four-year-olds.** London: Department for Education. <http://web.nao.org.uk/search/search.aspx?Schema=&terms=early+education>

In the UK, all three- and four-year-olds are entitled to 15 hours per week of free early childhood education (ECE), for 38 weeks per year. This National Audit Office review found there was good uptake of the free education, although uptake was lower among the most disadvantaged families compared to overall uptake. There was evidence that children's development measured at five years had improved (59% achieved a good level of development in 2010–11 compared with 45% in 2005–06). It found that the quality of the ECE experience was critical to the free entitlement being of benefit to the children. However, high quality provision depended on where children lived; areas of highest deprivation were less likely to have high-quality provision. Further development of the evidence base for the long term benefits of ECE was recommended.

The National Evaluation of Sure Start (NESS) Team. 2010. **The impact of Sure Start local programmes on seven year olds and their families.** London: Institute for the Study of Children, Families and Social Issues, Birkbeck, University of London. <http://www.ness.bbk.ac.uk/impact/documents/DFE-RR220.pdf>

Sure Start is a UK scheme that aims to give "children the best possible start in life" through improvement of childcare, early education, health and family support, with an emphasis on outreach and community development. Programmes are set up locally, in areas of high deprivation. The National Evaluation of Sure Start (NESS) has evaluated Sure Start local programmes regularly, investigating the effects of the programme at difference ages. This evaluation of a subset of the 5000 children in the follow-up group at seven years indicated that mothers in the programme engage in less harsh discipline, provide a more stimulating home learning environment, and provide a less chaotic home environment (for boys). Lone parent and workless households reported having better life satisfaction. However, the evaluation did not identify any impact on child outcomes.

UNICEF. 2008. **The child care transition, Innocenti Report Card 8.** Florence: UNICEF Innocenti Research Centre. http://www.unicef-irc.org/publications/pdf/rc8_eng.pdf

This UNICEF *Report Card* discusses child care transition, and proposes internationally applicable benchmarks for early childhood care and education - minimum standards for protecting the rights of children. The report identifies two main issues critical for current policy decisions being made around the wellbeing of the next generation. The generation who are children now is the first where a young group will spend, or have spent, a considerable proportion of their early years in some form of child care outside the home. Secondly, neuroscience is identifying the characteristics required of early childhood care that are critical for every aspect of a child's development: love, stability, security and stimulating relationships with caregivers. A set of ten benchmarks are identified including: minimum entitlement to paid parental leave; a national plan with priority for disadvantaged children; minimum levels of access; and minimum levels of staff training and staff to child ratios.

Sylva K, et al. 2004 **The Effective Provision of Pre-School Education (EPPE) Project**. London: University of London.

<http://media.education.gov.uk/assets/files/pdf/e/eppe%20final%20report%202004.pdf>

This longitudinal study was funded by the UK Department for Education to investigate the effects of preschool education on children's development (for 3 to 7 year olds). It examined: the impact of the preschool on intellectual and social/behavioural development; why there could be differences in effectiveness between the preschools; the characteristics of an effective preschool; the impact of home and childcare history on development; and whether preschool affected children's development at a later age. Key finding included: pre-school experience, compared to none, enhanced all-round development in children; full time attendance led to no better gains for children than part-time provision; High quality pre-schooling is related to better intellectual and social/behavioural development for children; quality indicators include warm interactive relationships with children, having a trained teacher as manager and a good proportion of trained teachers on the staff; and for all children, the quality of the home learning environment was more important for intellectual and social development than parental occupation, education or income.

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

MĀORI MEDIUM EDUCATION

Introduction

Cultural identity is a critical component of positive Māori development. It has been suggested that if someone identifies as Māori but is unable to access Māori language, custom, land, marae, whānau or community networks then it is unlikely that their cultural identity will be secure. A secure identity in turn is positively linked to health status, educational achievement and emotional and social adjustment [49].

Kura kaupapa Māori schools are total immersion schools designed by Māori for Māori which follow a curriculum that validates Māori knowledge, structures, processes, learning styles and learning practices. They offer a school environment that is immersed holistically in the Māori language and culture and are regarded as a key part of the strategy to assist in revitalising the Māori language and improving the participation and achievement levels of Māori in schooling [50]. They emerged in the 1970s, when aspects of Māori language and culture began to be included in mainstream programmes, although usually delivered within the context of a westernised curriculum and in the English language.

During the 1980s, schools and bilingual units (classes within schools) became established that were expected to deliver the curriculum in Māori and English. During this period, Nga Kōhanga Reo (Māori language and culture preschools) also began to appear in response to calls to regenerate Māori language and culture. These offered the autonomy to deliver a curriculum along cultural lines. As the number of Kōhanga Reo graduates grew, parental demand resulted in the growth of bilingual and Māori immersion units within the primary and secondary school sector [51]. While early Kōhanga Reo and kura kaupapa Māori were privately funded, the latter were officially recognised in 1989 when they were incorporated into the state education system and became eligible for state funding [51].

Currently Māori medium education takes place across the educational spectrum:

1. Kōhanga Reo and other bilingual and immersion programmes in the ECE sector
2. Kura kaupapa Māori (Years 1–8) and wharekura (Years 1–13)
3. Immersion and other bilingual programmes in mainstream schools
4. Wānanga in the tertiary sector.

The following section uses Ministry of Education data to review the number of students enrolled in Māori Medium Education.

Data Source and Methods

Definition

1. Number of enrolments in Māori Medium Early Childhood Education
2. Number of kura kaupapa Māori and kura teina
3. Number of enrolments in Māori Medium Education
4. Number of students enrolled in kura kaupapa Māori and kura teina

Data Source

Ministry of Education <http://www.educationcounts.govt.nz/>

Kura kaupapa Māori are schools where the teaching is in the Māori language and the school's aims, purposes and objectives reflect the Te Aho Matua philosophy. Kura Teina were initiatives by communities wishing to develop a kura kaupapa Māori, which had prepared a business case and been formally accepted by the Ministry of Education into the establishment process. During the establishment process, Kura teina were attached to and mentored by an established high performing kura kaupapa Māori [52]. Prior to 2001, kura teina were not counted as separate schools, and after 2010 they ceased to exist.

New Zealand Distribution and Trends

Enrolments in Māori Medium Early Childhood Education

In New Zealand during 2002–2011, the number of enrolments in licensed Te Kōhanga Reo decreased slightly, from 10,389 in 2002 to 9,631 in 2011. A number of children also attended Ngā Puna Kōhungahunga and licence-exempt Te Kōhanga Reo during this period (Table 15).

Table 15. Enrolments in Māori Medium Early Childhood Education by Type, New Zealand 2002–2011

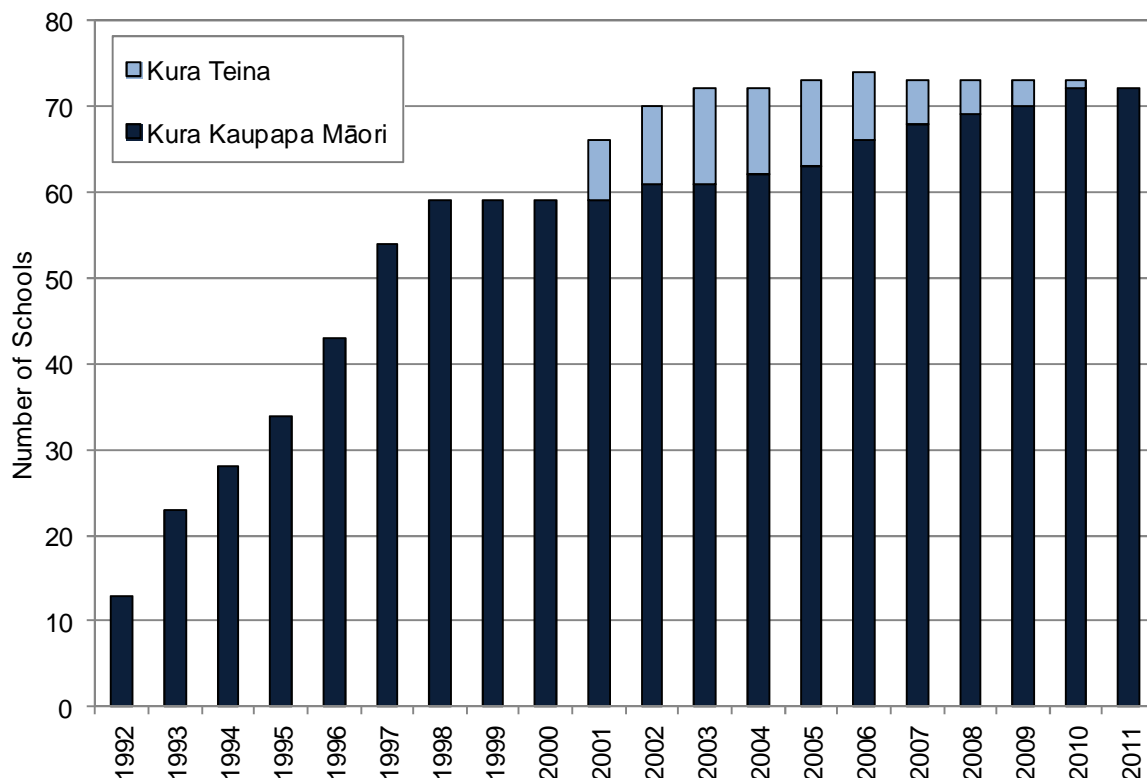
Year	Licensed Te Kōhanga Reo	Ngā Puna Kōhungahunga	Licence-Exempt Te Kōhanga Reo
2002	10,389	351	138
2003	10,319	408	130
2004	10,418	580	191
2005	10,070	519	146
2006	9,493	289	89
2007	9,236	343	69
2008	9,165	454	43
2009	9,288	277	0
2010	9,370	283	0
2011	9,631	278	0

Source: Ministry of Education

Number of Kura Kaupapa Māori and Kura Teina

In New Zealand since 1992, there has been a 4.5-fold increase in the number of kura kaupapa Māori and kura teina, with numbers increasing from 13 in 1992, to 72 in 2011. The most dramatic increases occurred during the 1990s however, with the rate of growth flattening off since then (**Figure 40**).

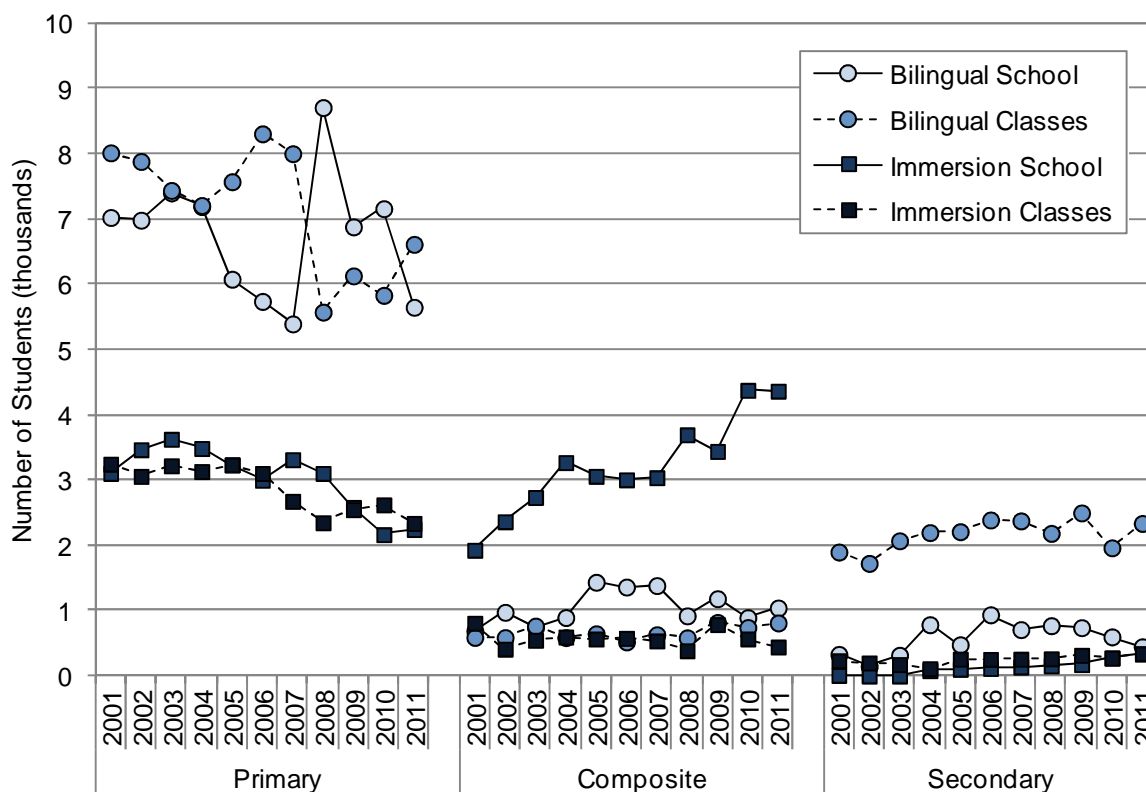
Figure 40. Number of Kura Kaupapa Māori and Kura Teina, New Zealand 1992–2011



Source: Ministry of Education; Note: Prior to 2001 Kura Teina were not counted as separate schools; Kura Teina no longer existed after 2010



Figure 41. Number of Students Involved in Māori Medium Education by School Sector and Form of Education as at 1 July, New Zealand 2001–2011



Source: Ministry of Education

Māori Medium Education in New Zealand

While kura kaupapa Māori and kura teina offer a Māori language immersion environment, a number of other New Zealand schools offer some of their curriculum in Māori, with the degree of Māori medium learning often being divided into 4 levels: Level 1: 81–100%; Level 2: 51–80%; Level 3: 31–50%; Level 4(a): 12–30%. Thus a number of New Zealand students also have access to some of their educational curriculum in the Māori language, as a result of attending a bilingual school or an immersion/bilingual class in a primary or secondary school setting (**Figure 41** and **Table 16**).

Table 16. Number of Students (Māori and non-Māori) Involved in Māori-Medium Education by Regional Council and Highest Level of Learning, New Zealand July 2011

Regional Council	Level of Learning								Total	
	Level 1		Level 2		Level 3		Level 4(a)			
	81–100%		51–80%		31–50%		12–30%			
	non-Māori	Māori	non-Māori	Māori	non-Māori	Māori	non-Māori	Māori	non-Māori	Māori
Northland	7	1,146	37	655	74	726	74	734	192	3,261
Auckland	47	2,049	57	883	154	1,126	377	552	635	4,610
Waikato	10	2,202	19	385	21	331	204	541	254	3,459
Bay of Plenty	7	2,546	50	903	56	684	466	1,321	579	5,454
Gisborne	5	736	<5	137	19	370	23	403	51	1,646
Hawke’s Bay	<5	730	15	346	5	335	17	175	40	1,586
Taranaki	<5	170	0	90	21	102	32	61	55	423
Manawatu-Wanganui	8	712	27	404	58	390	93	267	186	1,773
Wellington	13	1,065	7	146	17	138	65	142	102	1,491
Tasman	0	0	<5	47	0	0	0	0	<5	47
Nelson	0	0	38	180	0	0	0	0	38	180
Marlborough	0	0	0	0	11	12	0	0	11	12
Canterbury	5	216	25	176	63	89	6	11	99	492
West Coast	0	0	13	20	0	0	22	<5	35	23
Otago	0	7	<5	18	0	5	0	<5	<5	33
Southland	<5	131	9	33	0	0	0	48	10	212
New Zealand	108	11,710	306	4,423	499	4,308	1,379	4,261	2,292	24,702

Source: Ministry of Education

South Island Distribution and Trends

Kura Kaupapa Māori and Kura Teina in the South Island

In the South Island during 2011, there were four kura kaupapa Māori, which between them enrolled a total of 244 students (**Table 17**).

Table 17. Number of Kura Kaupapa Māori and Kura Teina Schools and Students, South Island DHBs vs. New Zealand 2000–2011

Year	Canterbury		Southern DHB		New Zealand	
	No. Schools	No. Students	No. Schools	No. Students	No. Schools	No. Students
2000	2	156	2	231	59	4,964
2001	2	156	2	160	66	5,018
2002	2	195	2	162	70	5,428
2003	2	211	2	154	72	5,794
2004	2	234	2	144	72	5,996
2005	2	225	2	138	73	6,181
2006	2	201	2	162	74	6,160
2007	2	209	2	136	73	6,272
2008	2	184	2	124	73	6,189
2009	2	190	2	120	73	6,015
2010	2	208	2	91	73	6,038
2011	2	151	2	93	72	6,132

Source: Ministry of Education; Note: There were no kura kaupapa or kura teina in the Nelson Marlborough, South Canterbury or West Coast DHBs from 2000 to 2011



Local Policy Documents which Consider Initiatives to Improve Educational Participation and Attainment for Māori Students

Table 18 below provides a brief overview of local policy documents and other reviews which consider initiatives to improve educational participation and attainment for Māori students.

Table 18. Local Policy Documents and Evidence-Based Reviews Relevant to Improving Educational Participation and Attainment for Māori Students

Ministry of Education Documents
<p>Education Information and Analysis Group/Group Māori. 2010 Ngā Haeata Mātauranga - The Annual Report on Māori Education, 2008/09. Wellington: Ministry of Education http://www.educationcounts.govt.nz/publications/Māori_education/Māori-medium-and-english-medium/5851/75954/introduction</p> <p>This is the most recent in a series of annual reports that monitor the achievement of Government priorities for the educational success of Māori learners. The priorities monitored include: increasing opportunity for children to participate in quality early childhood education; every child achieves literacy and numeracy levels that enable their success; every young person has the skills and qualifications to contribute to their and New Zealand's future; relevant and efficient tertiary education provision that meets student and labour market needs; Māori enjoying education success as Māori; and the Ministry is capable, efficient and responsive to achieve education priorities.</p>
<p>Ministry of Education. 2008. Ka Hikitia - Managing for Success: The Māori Education Strategy 2008-2012. Wellington: Ministry of Education. http://www.minedu.govt.nz/theMinistry/PolicyAndStrategy/KaHikitia.aspx</p> <p>The Māori Education Strategy is currently being redeveloped. Documents regarding engagement with the developmental process for Ka Hikitia – Accelerating Success 2013–2017 are available at the link below. Submissions closed 31 October 2012. http://www.minedu.govt.nz/theMinistry/PolicyAndStrategy/KaHikitia/MeKoreroLetsTalk.aspx.</p>
<p>Education Review Office. 2010. Success for Māori Children in Early Childhood Services. Wellington: Education Review Office. http://www.ero.govt.nz/National-Reports/Success-for-Māori-Children-in-Early-Childhood-Services-May-2010</p> <p>Education strategies are focused on improving the way the education system assists Māori learners to realise their potential. Early childhood services are critical to this focus. This evaluation considers how well ECEs provide care and education for Māori children. In particular, how services “responded to the aspirations and expectations of the parents and whānau of Māori children” and “focus on realising the potential of Māori children to become competent and confident learners”. The conclusions drawn relate to: consultation and communication to become more responsive to parents and whānau; integration of Māori perspectives in planning assessment and evaluation; professional development and support for improving the ECEs ability to work in partnership with parents and whānau of Māori children; and skills in evaluation.</p>
<p>Earle D. 2007. Te whai i ngā taumata atakura: Supporting Māori achievement in Bachelor's Degrees. Wellington. Ministry of Education. http://www.educationcounts.govt.nz/publications/Māori_education/10465</p> <p>This report examined what determines the success of first-time Māori students studying towards Bachelor's degrees. The report considered trends in degree attainment amongst Māori, and the key factors which contributed to success, with a view to building an understanding about how to increase the number of Māori attaining bachelor's degrees or above.</p>
<p>May S, et al. 2004. Bilingual/Immersion Education: Indicators of Good Practice. Wellington: Ministry of Education http://www.educationcounts.govt.nz/publications/Māori_education/5079</p> <p>This report provides an overview of national and international research on bilingualism and bilingual/immersion education. While the focus is on Māori-medium education, the indicators of good practice can also be applied to other bilingual contexts in Aotearoa/New Zealand, such as Pasifika bilingual education.</p>
<p>Bishop R, et al. (various years) Te Kōtahitanga Series. Education Counts. Wellington Ministry of Education http://www.educationcounts.govt.nz/publications/Māori_education/9977</p> <p>Te Kōtahitanga is a publication series that reports on an ongoing project investigating how to improve the educational achievement of Māori students in mainstream secondary school classrooms, by talking to Māori students and other participants in their education. The reports in this series are:</p> <p>Bishop R, et al. 2003. Te Kōtahitanga Phase 1: The Experiences of Year 9 and 10 Māori Students in Mainstream Classrooms. Wellington: Ministry of Education.</p> <p>Beginning with a short scoping exercise, narratives were gathered of the classroom experience of a range of engaged and non-engaged Māori students in four mainstream schools. Students identified the main influences on their educational achievement and explained how teachers, by changing how they related and interacted with Māori students, could create a context for learning through which students' educational achievement could improve. On the basis of these suggestions, information from the literature, and the narratives of the student's parents, principals and teachers, the research team developed an Effective Teaching Profile, which then formed the basis of a professional development intervention. When implemented with a group of 11 teachers in four schools, the intervention was associated with improved learning, behaviour and attendance for Māori students in the classrooms of the teachers who had participated.</p>

<p>Bishop R, et al. 2007. Te Kōtahitanga Phase 2: Towards a Whole School Approach. Wellington. Ministry of Education</p> <p>This research project built on Te Kōtahitanga Phase 1 and considered what happened when the professional development project was implemented in the whole school rather than a small number of teachers in a school.</p> <p>Bishop R, et al. 2007. Te Kōtahitanga Phase 3: Establishing a Culturally Responsive Pedagogy of Relations in Mainstream Secondary School Classrooms. Wellington. Ministry of Education</p> <p>The experiences of Phase 1 and Phase 2 were reviewed, with the conclusion that from a kaupapa Māori perspective, and from an examination of appropriate Māori cultural metaphors, the educational achievement of Māori students in mainstream secondary schools would be improved when educators created learning contexts within their classroom; where power was shared between self-determining individuals within non-dominating relations of interdependence; where culture counted; where learning was interactive, dialogic and spirals; where participants were connected to one another through the establishment of a common vision for what constituted excellence in educational outcomes.</p> <p>Bishop R, et al. 2012. Te Kōtahitanga: Maintaining, replicating and sustaining change. Wellington: Ministry of Education.</p> <p>This review found that schools that were high implementers and high maintainers of the project and those that had previously been high implementers although they were currently low maintainers were found to be, or had been, very effective implementers of the Effective Teaching Profile in the majority of classrooms. This was through the use of the project's central strategies, induction hui, observations, feedback, co-construction meetings and shadow coaching. These schools also reported steady gains in Māori student attendance, retention, engagement and achievement.</p>
<p>Earle D. 2007. Te whai i ngā taumata atakura: Supporting Māori achievement in Bachelor's Degrees. Wellington. Ministry of Education. http://www.educationcounts.govt.nz/publications/Māori_education/10465</p> <p>This report examined what determines the success of first-time Māori students studying towards Bachelor's degrees. The report considered trends in degree attainment amongst Māori, and the key factors which contributed to success, with a view to building an understanding about how to increase the number of Māori attaining bachelor's degrees or above.</p>
<p>May S, et al. 2004. Bilingual/Immersion Education: Indicators of Good Practice. Wellington: Ministry of Education http://www.educationcounts.govt.nz/publications/Māori_education/5079</p> <p>This report provides an overview of national and international research on bilingualism and bilingual/immersion education. While the focus is on Māori-medium education, the indicators of good practice can also be applied to other bilingual contexts in Aotearoa/New Zealand, such as Pasifika bilingual education.</p>
<p style="text-align: center;">Other Relevant Evidence</p>
<p>McKinley E. 2005. Locating the global: culture, language and science education for indigenous students. International Journal of Science Education, 27(2), 227-241.</p> <p>The author examines questions around the use of indigenous knowledge and traditional ecological knowledge in the global setting. She argues that indigenous knowledge systems do better if programmes are established and taught through indigenous languages, which directly links the language and the knowledge. The article concludes with a review of the situation in Aotearoa New Zealand.</p>

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

HIGHEST EDUCATIONAL ATTAINMENT AT SCHOOL LEAVING

Introduction

In a knowledge-based society such as New Zealand, access to tertiary education and entry level jobs requires young people to have formal school qualifications. In 2011, 16.2% of students left school with no formal qualification, although there appears to be a gradual reduction in this group, with a corresponding increase in the number leaving school with National Certificate of Educational Achievement (NCEA) Level 1 and 2 qualifications, or a University Entrance Standard [53].

Research indicates a number of determinants affect children's educational attainment either positively or negatively. These influences include ethnicity, socioeconomic factors, parental occupational class, family mobility, and family income (especially during a child's pre-school years). The interaction between these factors is often complex, with examples of positive influences on children's educational attainment including higher parental education, especially maternal education, with associated facilities for studying, and easy access to computers and other resources [54].

Achieving the desired outcomes in learning relies not only on the student or the family however, but also on their interactions with the education system itself, with the recent report from the New Zealand based Iterative Best Evidence Syntheses (BES) Programme [55] identifying a number of systemic improvements which would assist national educational priorities to be met. In this context, the critical components for achieving valued learning are inter-connected and include school leadership, teacher professional learning and development, and the provision of quality teaching for diverse (all) learners. The report thus notes that *"To understand teaching, professional learning, and leadership without activating educationally powerful connections with the lives, identities, families and communities of diverse (all) learners will not be enough"* (p. 12).

The following section thus uses information from the Ministry of Education to review the highest educational attainment of school leavers during 2009–2011.

Data Source and Methods

Definition

1. School leavers with no qualifications
2. School leavers with NCEA Level 1 or higher
3. School leavers with NCEA Level 2 or higher
4. School leavers with a University Entrance Standard

The National Certificate of Educational Achievement (NCEA) is part of the National Qualifications Framework and has replaced School Certificate, Sixth Form Certificate, University Entrance and University Bursaries qualifications. In 2002 all schools implemented NCEA Level 1, replacing School Certificate. In 2003 NCEA Level 2 was rolled out, however, schools were still able to offer a transitional Sixth Form Certificate Programme. From 2004, Level 3 NCEA replaced Higher School Certificate and University Entrance/University Bursaries. In 2004 a new Level 4 qualification, New Zealand Scholarship, was also offered (<http://www.educationcounts.govt.nz/indicators/definition/education-and-learning-outcomes/28879>).

There are three levels of NCEA certificate, depending on the difficulty of the standards achieved. At each level, students must achieve a certain number of credits, with credits being able to be gained over more than one year. The requirements for each level are:

NCEA Level 1: 80 credits at any level (level 1, 2 or 3) including literacy and numeracy.

NCEA Level 2: 60 credits at level 2 or above + 20 credits from any level

NCEA Level 3: 60 credits at level 3 or above + 20 credits from level 2 or above

Credits gained at one level can be used for more than one certificate and may also be used towards other qualifications. In addition, in order to attain a University Entrance standard, students must achieve 42–59 credits at NCEA Level 3 or above, or another National Certificate at Level 3 with University Entrance requirements; or an Accelerated Christian Education (ACE) or overseas award (including International Baccalaureate) at Year 13, or a NZ Scholarship or National Certificate at Level 4. For further detail see <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/understanding-ncea/the-facts/factsheet-4/>



Data Source

Ministry of Education <http://www.educationcounts.govt.nz/>

Numerator: Number of students leaving school with no qualifications, NCEA Level 1 or higher, NCEA Level 2 or higher, or a University Entrance Standard

Denominator: Number of school leavers in a given year

Notes on Interpretation

Note 1: This data follows a new definition of school leavers, from the Ministry of Education's ENROL system and is only available from 2009 onwards. Thus comparisons with previous years are not possible.

Note 2: Ethnicity is total response and thus individual students may appear in more than one ethnic group.

Note 3: Listed qualification levels include NZ Qualifications Framework (NZQF) qualifications as well as other equivalent qualifications which are non-NZQF (such as Cambridge).

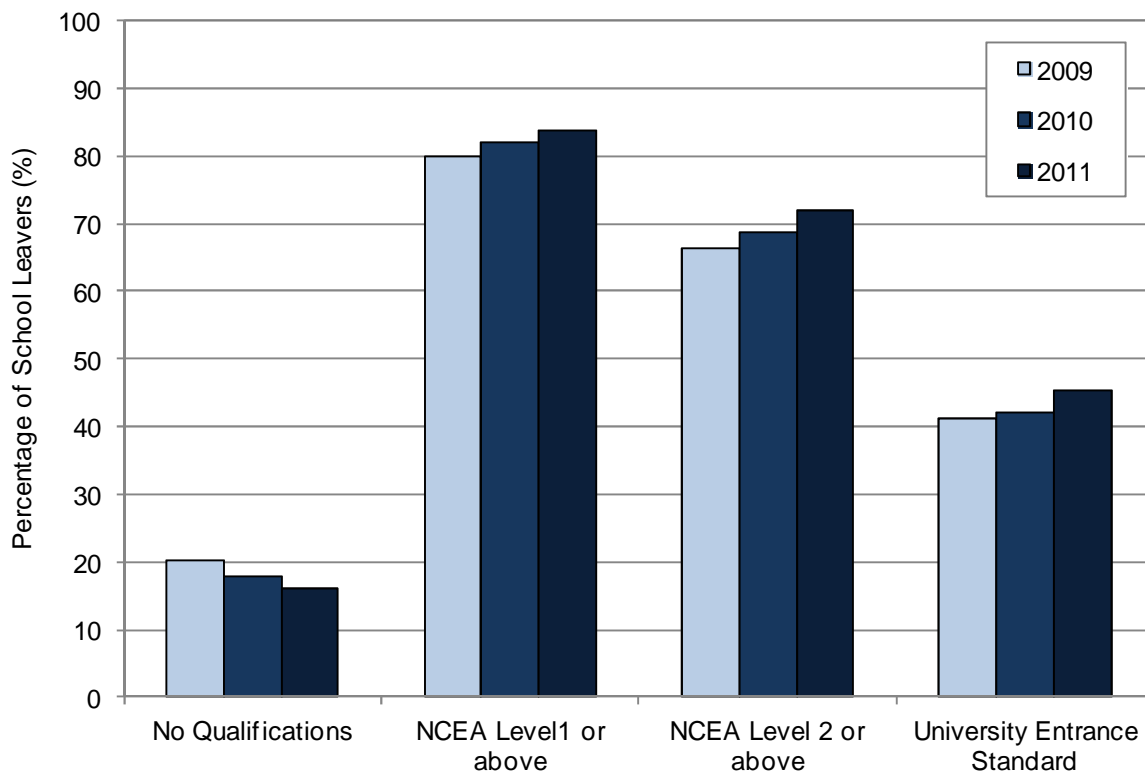
School Socioeconomic Decile: All schools are assigned a decile ranking based on the socioeconomic status of the areas they serve. These rankings are based on Census data from families with school age children in the areas from which the school draws its students. Census variables used in the ranking procedure include equivalent household income, parent's occupation and educational qualifications, household crowding and income support payments. Using these variables, schools are assigned a decile ranking, with decile 1 schools being the 10% of schools with the highest proportion of students from low socioeconomic communities and decile 10 schools being the 10% of schools with the lowest proportion of these students. Decile ratings are used by the Ministry of Education to allocate targeted funding, as well as for analytical purposes.

New Zealand Distribution and Trends

New Zealand Distribution

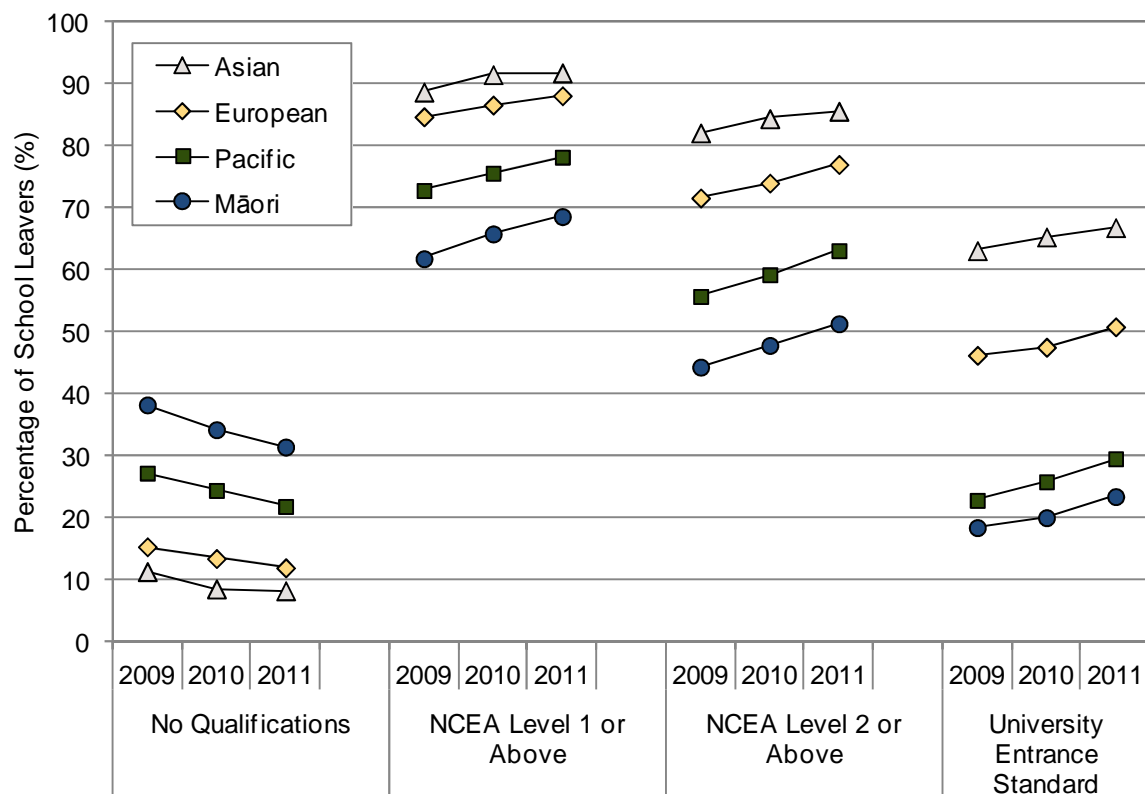
In New Zealand during 2011, 16.2% of students left school with no formal qualifications, while 83.8% left with NCEA Level 1 or above, 71.8% left with NCEA Level 2 or above and 45.4% attained a University Entrance standard. While the proportion of students leaving with no formal qualifications declined during 2009–2011, the proportion attaining a University Entrance standard increased (**Figure 42**).

Figure 42. Highest Educational Attainment of School Leavers, New Zealand 2009–2011



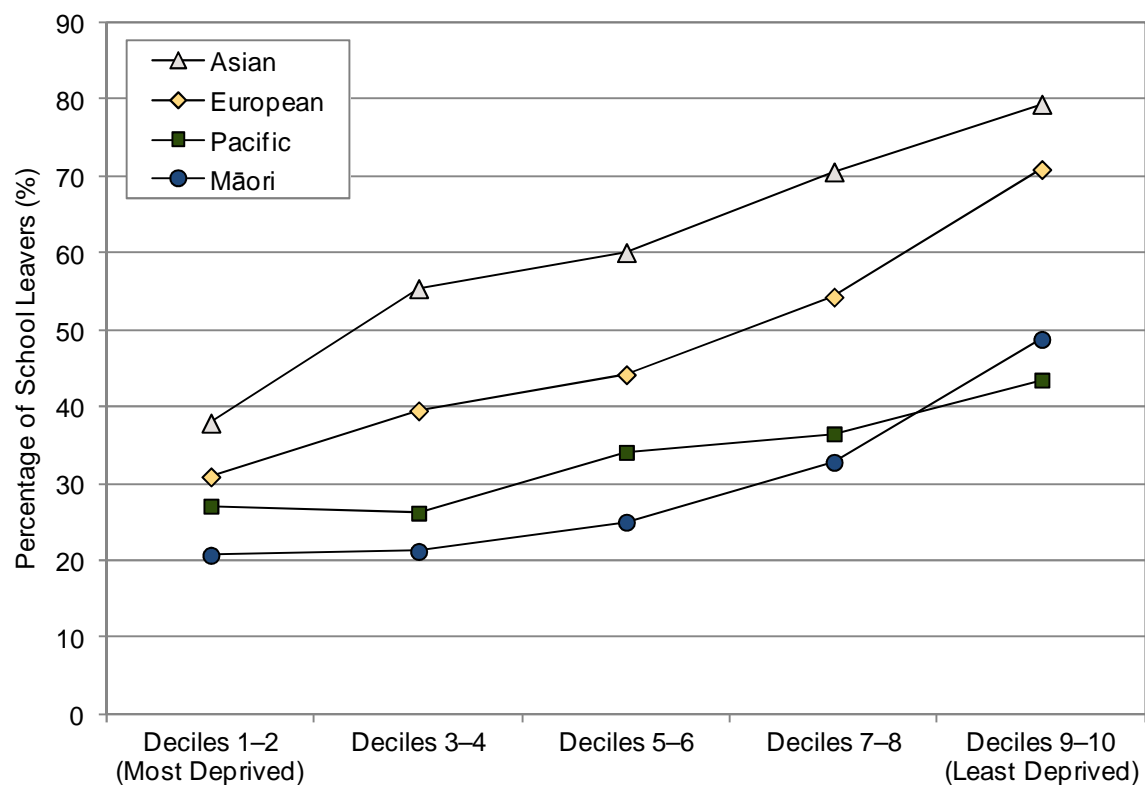
Source: Ministry of Education

Figure 43. Highest Educational Attainment of School Leavers by Ethnicity, New Zealand 2009–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual students may appear in more than one ethnic group

Figure 44. School Leavers with a University Entrance Standard by Ethnicity and School Socioeconomic Decile, New Zealand 2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual students may appear in more than one ethnic group



Distribution by Ethnicity

In New Zealand during 2009–2011, a higher proportion of Māori > Pacific > European > Asian students left school with no formal qualifications, while a higher proportion of Asian > European > Pacific > Māori students attained NCEA Level 1 or more, NCEA Level 2 or more, or a University Entrance standard. During this period, the proportion of students with no formal qualifications declined, while the proportion attaining a University Entrance standard increased for all ethnic groups (**Figure 43**).

Distribution by Ethnicity and School Socioeconomic Decile

In New Zealand during 2011, while the proportion of students achieving a University Entrance standard increased with increasing school socioeconomic decile, at each level of socioeconomic deprivation a higher proportion of Asian > European > Pacific and Māori students attained a University Entrance standard (**Figure 44**).

South Island Distribution and Trends

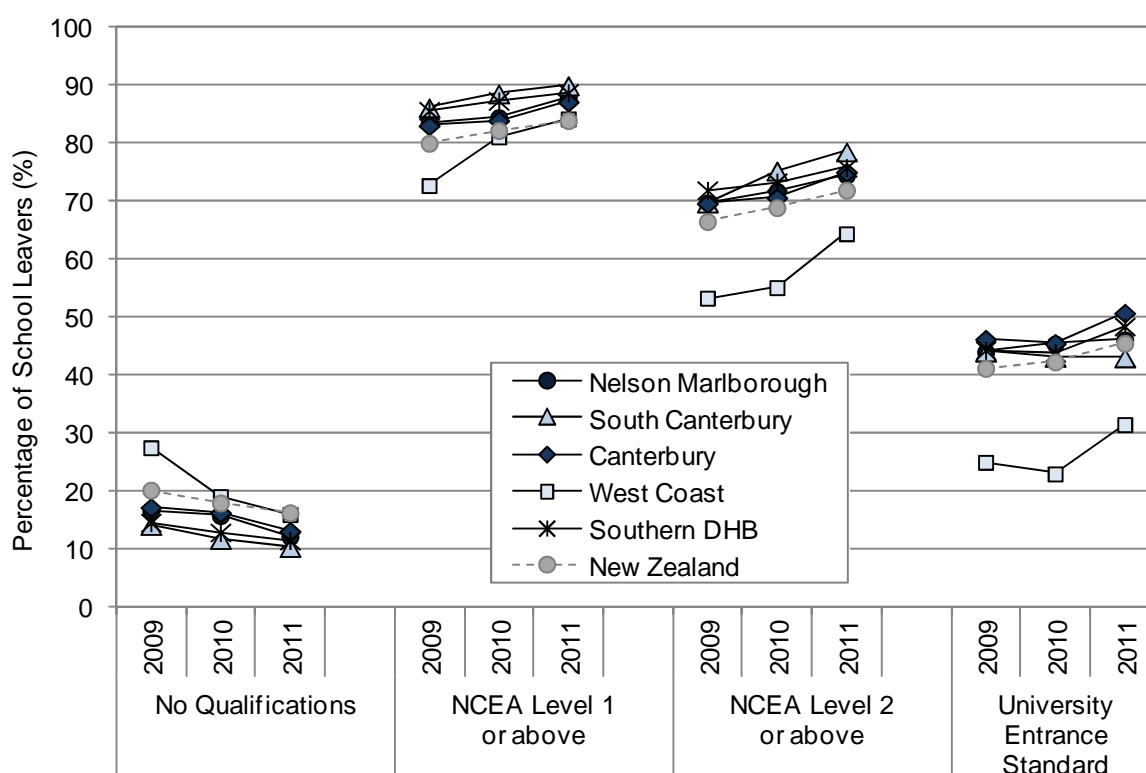
South Island Distribution

During 2011, the proportion of students leaving school with no formal qualifications declined in all South Island DHBs, although trends in the proportion leaving with a University Entrance standard were much less consistent. The West Coast had the highest proportion of students leaving with no formal qualifications, and the lowest proportion leaving with a University Entrance standard of all South Island DHBs, although these differences narrowed during the period (**Figure 45**).

Distribution by Ethnicity

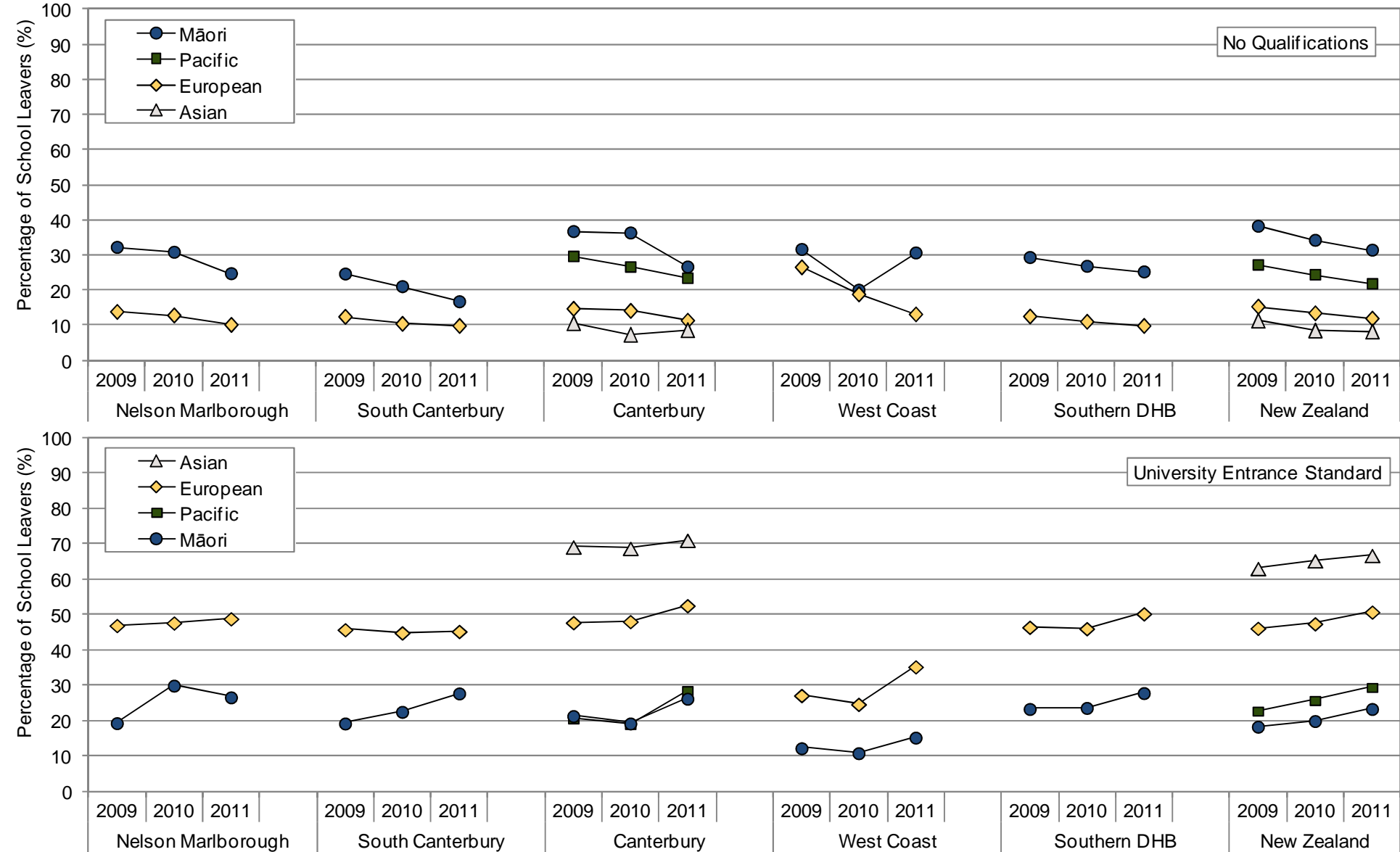
In Canterbury during 2009–2011, a higher proportion of Māori > Pacific > European > Asian students left school with no formal qualifications than, while a higher proportion of Asian > European > Māori and Pacific students left with a University Entrance standard. In the other South Island DHBs a higher proportion of Māori than European students left school with no formal qualifications, while a higher proportion of European than Māori students left school with a University Entrance standard (**Figure 46, Figure 47**).

Figure 45. Highest Educational Attainment of School Leavers, South Island DHBs vs. New Zealand 2009–2011



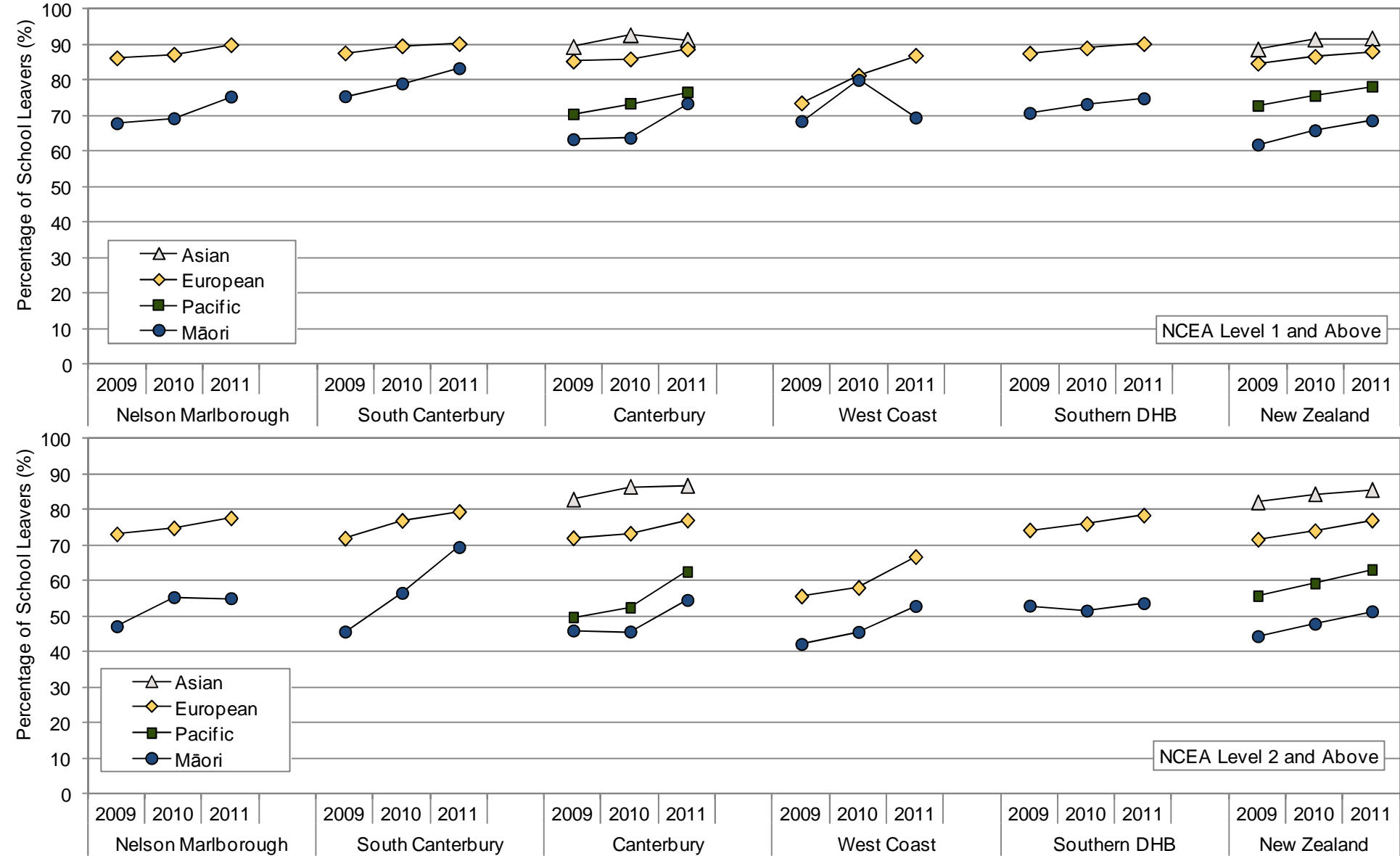
Source: Ministry of Education

Figure 46. Highest Educational Attainment of School Leavers by Ethnicity, South Island DHBs vs. New Zealand 2009–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual students may appear in more than one ethnic group

Figure 47. Highest Educational Attainment of School Leavers by Ethnicity, South Island DHBs vs. New Zealand 2009–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individual students may appear in more than one ethnic group

Local Policy Documents and Evidence-Based Reviews Relevant to Student's Educational Attainment

Table 19 below reviews local policy documents and evidence-based reviews which consider strategies to improve student's educational attainment. Student's attainment however, is also heavily influenced by prior participation in early childhood education, and a positive engagement with the education system. In this context, **Table 14** on **Page 115** provides an overview of publications which are relevant to early childhood education, while **Table 18** on **Page 123** reviews publications which consider initiatives to improve the educational participation and attainment of Māori students. **Table 20** on **Page 145** reviews publications relevant to the prevention of stand-downs, suspensions, exclusions and expulsions, while **Table 21** on **Page 150** considers publications relevant to improve school attendance.

Table 19. Local Policy Documents and Evidence-Based Reviews which Consider Strategies to Improve Student's Educational Attainment

New Zealand Policy Documents
<p>Alton-Lee A. 2012 The use of evidence to improve education and serve the public good. Wellington: Hei Kete Raukura, Ministry of Education.</p> <p>http://www.educationcounts.govt.nz/_data/assets/pdf_file/0014/108023/Evidence-for-Improvement-and-Public-Good.pdf</p> <p>This report focuses on three approaches for mobilising research to improve outcomes for diverse learners across the school system: best evidence synthesis; effective leadership, professional learning, and development and teaching; and the use of enquiry and knowledge building tools and exemplars. Its conclusions emphasise using evidence to strategically resource improvements and to focus on improving valued outcomes for all learners. Accelerated improvement for those underserved by schooling or disadvantaged, and the value of local responsiveness are discussed. Having trustworthy evidence and knowledge of effective pedagogy should address the questions of what does or does not work and, as in health, the underlying principle is to first do no harm. For success in improving learner outcomes, attention has to be paid to fostering trustworthy relationships, stakeholder ownership and capacity building. Four major areas of influence for accelerated improvement are pedagogy, educationally powerful connections, professional learning, and leadership. In times of fiscal crisis, success requires all these influences to be acting together.</p>
<p>Biddulph F, Biddulph J, Biddulph C. 2003. The Complexity of Community and Family Influences on Children's Achievement in New Zealand: Best Evidence Synthesis. Wellington. Ministry of Education</p> <p>http://www.educationcounts.govt.nz/publications/series/2515/5947</p> <p>This report is one of a series of best evidence syntheses commissioned by the Ministry of Education. It considers the roles families/whānau and communities play in influencing outcomes for children. These outcomes include both social and academic achievement. The focus is on children from early childhood through to the end of secondary schooling. The synthesis is based on a wide range of New Zealand data (and cautiously informed by a number of overseas studies), with the findings being summarised into four categories: family attributes, family processes, community factors, and centre/school, family and community partnerships.</p>
<p>Alton-Lee A. 2003. Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis. 2003, Ministry of Education: Wellington. p. 1-103.http://www.educationcounts.govt.nz/publications/series/2515/5959</p> <p>Quality teaching is identified as a key influence on student outcomes, with up to 59% of variance in student performance being attributable to differences between teachers and classes and up to 21% being attributable to school level variables. This review presents ten characteristics of quality teaching derived from a synthesis of research findings of evidence linked to student outcomes. These ten characteristics are generic in that they reflect principles derived from research across the curriculum and for students across the range of schooling years (from age five to eighteen). How the principles apply in practice is however, dependent on the curriculum area, and the experience, prior knowledge and needs of the learners in any particular context.</p> <p>The concept of 'diversity' is central to the synthesis, with the authors suggesting that it is fundamental that the approach taken to diversity in New Zealand honours Articles 2 and 3 of the Treaty of Waitangi. Diversity also encompasses many other characteristics including ethnicity, socio-economic background, home language, gender, special needs, disability, and giftedness. The authors suggest that teaching needs to be responsive to diversity within ethnic groups and also needs to recognise the diversity within individual students influenced by gender, cultural heritage(s), socio-economic background, and talent, with evidence showing that teaching that is responsive to student diversity can have very positive impacts on low and high achievers at the same time.</p>

Other Government Publications

Buckley S & Maxwell G. 2007. **Respectful schools restorative practices in education**: A summary report. Office of the Children's Commissioner & Institute of Policy Studies, Victoria University: Wellington.

http://www.occ.org.nz/_data/assets/pdf_file/0011/3314/OCC_Respectful_Schools_Report.pdf

Respectful Schools summarises findings from a study of New Zealand secondary schools' restorative practices. Such practices, based on restorative justice principles, have been seen as a possible approach to behaviour problems and under achieving among students. Interviews and discussions were held in fifteen schools that had introduced restorative practices, and case studies showing successful practice are presented for five of the schools, briefly explaining how the system was introduced and used. The report provides a brief summary of the New Zealand context highlighting important reasons why New Zealand has the school failure rate it does. It notes that new educational approaches and strategies are emerging that involve the use of new practices which promote values and goals built around respect, inclusion and restoration. The main audience for this report is members of school communities interested in implementing restorative approaches within their own schools and communities, but the content is relevant to other sectors working with schools and young people.

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

SENIOR SECONDARY SCHOOL RETENTION AND TERTIARY PARTICIPATION

Introduction

A key factor for academic achievement at secondary school level is participation. To achieve, students need to be at school, experience a sense of belonging, and stay interested and engaged in learning. Research suggests that there are strong correlations between early school leaving, unemployment and lower incomes, and that these in turn influence later socioeconomic position [56]. One indicator of continuing participation is school retention i.e. the proportion of students attending school beyond the age they are legally required to do so [56]. In New Zealand, the minimum school leaving age rose from 15 to 16 years in 1993 [57]. Parents of students aged 15 years are able, however, to apply to the Ministry of Education for an exemption on the basis of educational problems, conduct, or the unlikelihood that a student will obtain benefit from attending school. In such cases, parents are required to give details about training programmes or employment that the student will move on to, if the exemption is granted [56]. The Ministry of Education however, strengthened its early leaving application in 2007, and there was a sharp drop from about 4000 early leavers in 2006, to 388 in 2011 [58].

Not all students who leave school prior to 18 years of age, or without formal qualifications, transition directly into the workforce, with many taking part in other forms of tertiary education. The participation rate of Māori students in tertiary education has more than doubled since 1998, with Māori now participating in tertiary education at a much higher rate than non-Māori [53]. After adjusting for differences in age distribution, 16.7% of Māori aged 15 years and over participated in tertiary education in 2010, as compared to 12.1% of Asian, 11.2% of European/Pākehā and 12.3% of Pasifika peoples. When broken down by level of study, Māori students had substantially higher rates of participation at non-degree level, while non-Māori participation rates were highest at degree level and above. Proportionately more Asian peoples were studying for tertiary qualifications at degree and post-graduate level than other ethnic groups, while European/Pākehā had the second highest rates of participation at the degree and post-graduate level [53].

The following section uses Ministry of Education data to review the proportion of senior secondary school students staying on at school until at least seventeen years of age. In addition, tertiary participation rates are reviewed, in order to provide some context for interpreting ethnic differences in senior secondary school retention rates.

Data Source and Methods

Definition

1. The proportion of secondary school students staying on at school until at least seventeen years of age
2. Age standardised participation rates in tertiary education

Data Source

1. The proportion of secondary school students staying on at school until at least seventeen years of age

Ministry of Education: ENROL

Numerator: The number of school leavers aged 17 years or above in a given year.

Denominator: The total number of school leavers in a given year.

Notes on Interpretation

Note 1: From 2009 a new way of categorising school leavers has been used which more accurately records school leaver numbers. Thus the data presented in this section are not comparable with previous years.

Note 2: DHB area is based on the school that students attended rather than their residential address.

Note 3: NZAID students (foreign students sponsored by the NZ Agency for International Development), and foreign fee paying students have been excluded.

Note 4: Ethnicity is total response and thus individual students may appear in more than one ethnic group.

For further detail see

<http://www.educationcounts.govt.nz/indicators/definition/student-engagement-participation/3945>



2. Age standardised participation rates in tertiary education

Ministry of Education

Numerator: The total number of students who were enrolled in a qualification, in either a public tertiary institution or publicly funded private tertiary institution, at some time during a particular year

Denominator: The estimated New Zealand population aged 15 years and over, as at 30 June of each year.

Notes on Interpretation

Note 1: The age-standardised participation rate is one where all subgroups being compared are artificially given the same age distribution, with the tertiary participation rates presented here being standardised to Statistics New Zealand's 2010 national population estimates. As participation is highest in the 18–24 age-group, standardising for age removes any differences arising from one group having a different age structure to another. As such, the standardised rate is an artificial measure, but it does provide an estimate of how groups might more fairly compare if they had the same age distribution.

Note 2: Data relates to domestic students enrolled at any time during the year with a tertiary education provider in formal qualifications of greater than 0.03 EFTS. Students who were enrolled at more than one qualification level have been counted in each level, but only once in the Total.

Note 3: Data excludes all non-formal learning and on-job industry training.

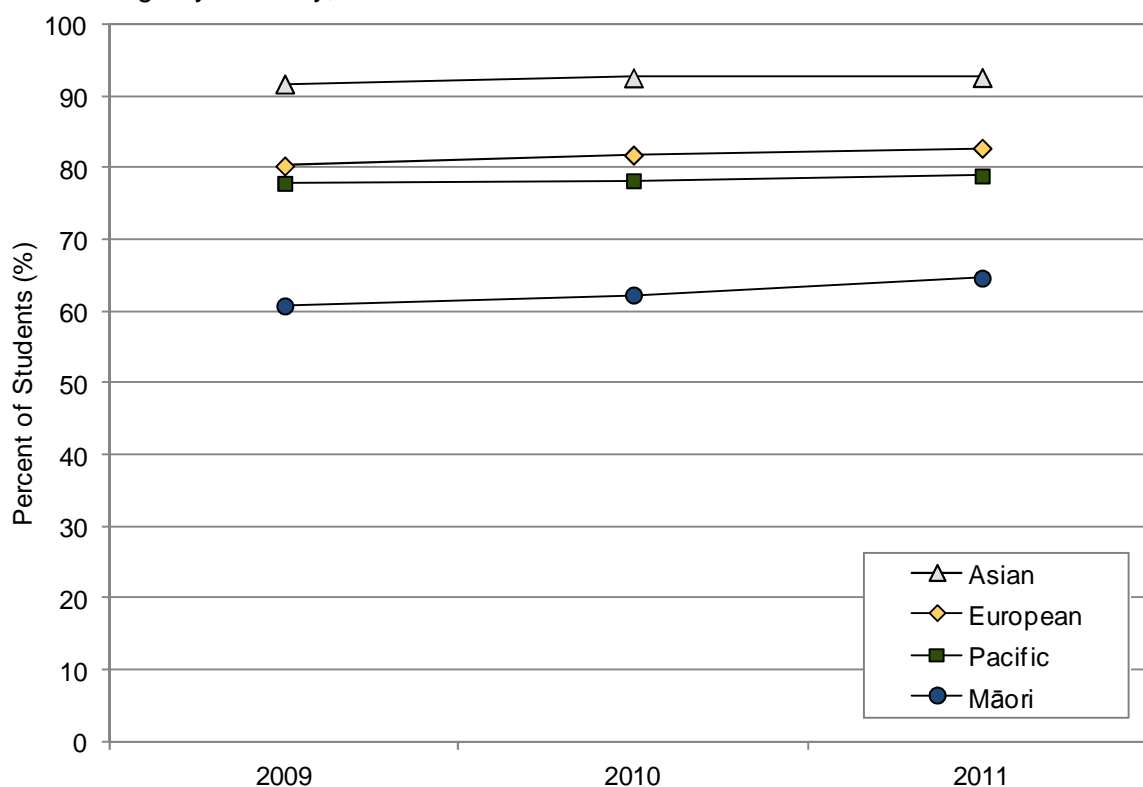
New Zealand Distribution and Trends

Senior Secondary School Retention

Distribution by Ethnicity

In New Zealand during 2009–2011, a higher proportion of Asian > European and Pacific > Māori students stayed on at school until at least 17 years of age. Thus during 2011, 92.7% of Asian students stayed on at school until at least 17 years of age, as compared to 82.8% of European, 78.9% of Pacific, and 64.7% of Māori students (**Figure 48**).

Figure 48. Proportion of Secondary School Students Staying at School Until at Least 17 Years of Age by Ethnicity, New Zealand 2009–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individuals may appear in more than one ethnic group

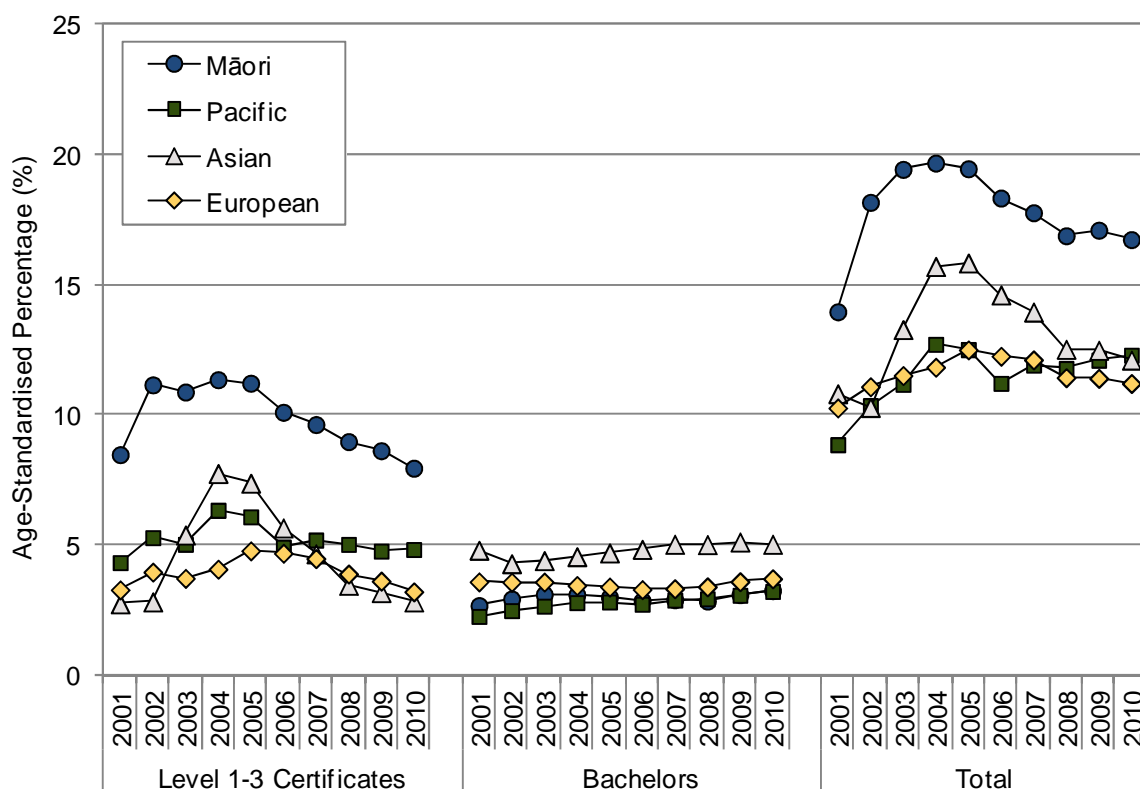
Participation in Tertiary Education

Distribution by Ethnicity

Ethnic differences in school retention rates at 17 years need to be viewed in the context of the alternative educational opportunities available to students. During 2001–2010, a large number of students participated in tertiary education, with participation rates for Māori students being high in Certificate Level 1–3 courses (**Figure 49**). While tertiary participation rates also include those 25+ years, such figures suggest that for many, participation in formal education does not cease at school leaving, although the income premiums achieved for completing various types of study need to be taken into consideration when assessing the longer term impacts educational participation has on economic security.

Note: Information on regional tertiary participation rates is not provided, due to the large shifts in the New Zealand youth population which occur after 17 years of age, when young people move from regional areas to large urban centres to take advantage of tertiary study opportunities. Thus regional participation rates are likely to reflect the number and type of tertiary institutions available in a region, rather than the participation rates of young people who have grown up in the South Island, and/or who return to the region during their study breaks or vacations.

Figure 49. Age-Standardised Participation Rates in Tertiary Education for Domestic Students by Ethnicity and Selected Qualification, New Zealand 2001–2010



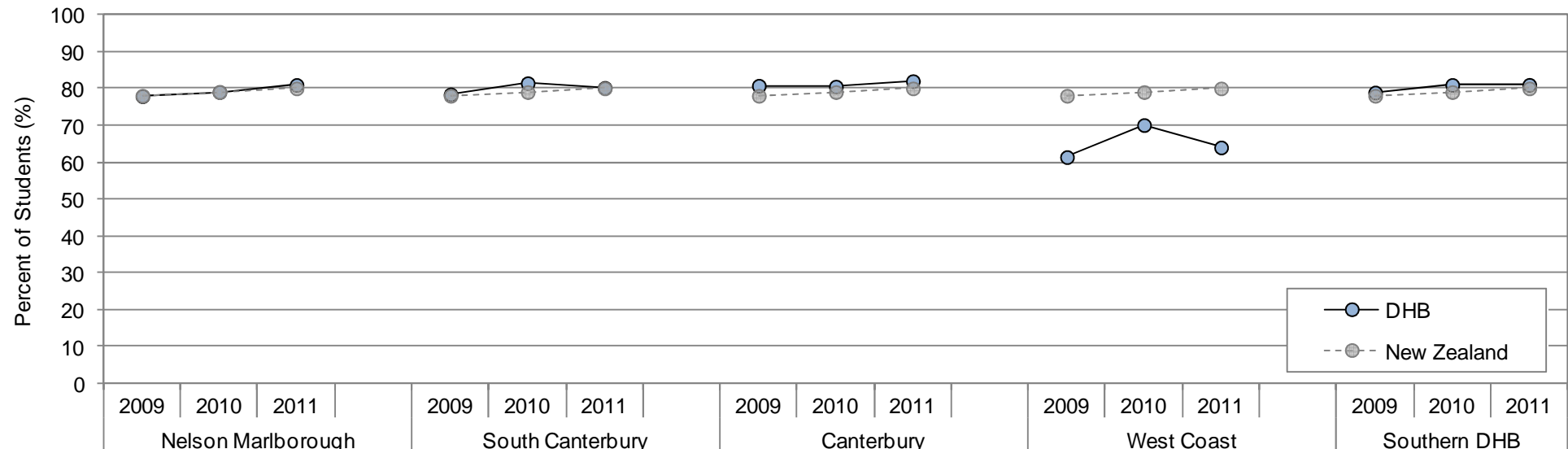
Source: Ministry of Education; Note: Ethnicity is Total Response and thus individuals may appear in more than one ethnic group; Total also includes Level 4 Certificates, Diplomas, Level 7 Graduate Certificates/Diplomas, Level 8 Honours/ Postgraduate Certificates/Diplomas, Masters, and Doctorates

South Island Distribution and Trends

South Island vs. New Zealand

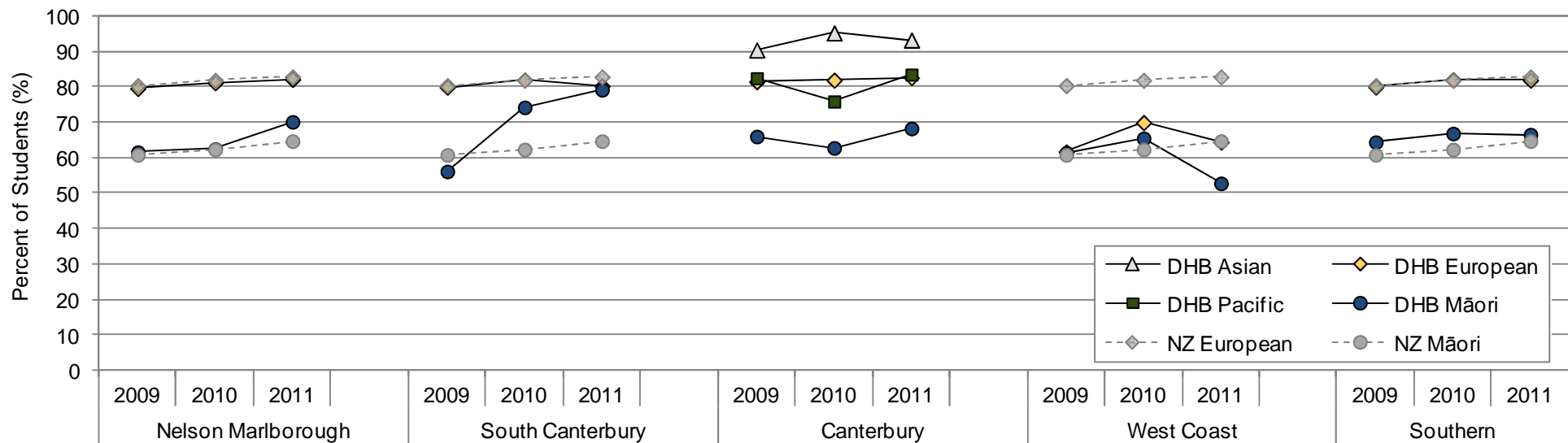
In the West Coast during 2009–2011, the proportion of students staying on at school until at least 17 years of age was consistently lower than the New Zealand rate, while in the other South Island DHBs, retention rates were very similar to the New Zealand rate (**Figure 50**).

Figure 50. Proportion of Secondary School Students Staying at School Until at Least 17 Years, South Island DHBs vs. New Zealand 2009–2011



Source: Ministry of Education

Figure 51. Proportion of Secondary School Students Staying at School Until at Least 17 Years by Ethnicity, South Island DHBs vs. New Zealand 2009–2011



Source: Ministry of Education; Note: Ethnicity is Total Response and thus individuals may appear in more than one ethnic group

Distribution by Ethnicity

In Canterbury during 2009–2011, a higher proportion of Asian > European and Pacific > Māori students stayed on at school until at least 17 years of age, while in Nelson Marlborough and the Southern DHB, retention rates at 17 years were higher for European than for Māori students. Ethnic differences in South Canterbury and the West Coast were less consistent across the period (**Figure 51**).

Local Policy Documents and Evidence-Based Reviews Relevant to Educational Participation in Young People

Educational participation is influenced by a range of factors including a student's previous educational experiences and engagement with the education system. In this context, **Table 14** on **Page 115** provides an overview of publications which are relevant to early childhood education, while **Table 18** on **Page 123** reviews publications which consider initiatives to improve the educational participation and attainment of Māori students. In addition, **Table 20** on **Page 145** reviews publications relevant to the prevention of stand-downs, suspensions, exclusions and expulsions, while **Table 21** on **Page 150** considers publications relevant to truancy and unjustified absences. Finally, **Table 19** on **Page 131** reviews publications which consider strategies to improve student's educational attainment.



SCHOOL STAND-DOWNS, SUSPENSIONS, EXCLUSIONS AND EXPULSIONS

Introduction

Participation in secondary school is vital for academic achievement, with factors that interrupt participation potentially impacting on students' educational outcomes. In New Zealand schools, stand-downs, suspensions, exclusions and expulsions are ways in which the system deals with student behaviour that disrupts the learning and wellbeing of other students or staff. These approaches are not used lightly, with the intention being to help students return to productive learning and relationships within the school community [59].

The level of stand-downs, suspensions exclusions and expulsions are indicative of an absence of engagement with learning. In New Zealand in 2011, the stand-down rates fell for a fifth consecutive year, with stand-down, suspension and exclusion rates being at their lowest level in 12 years [59]. Expulsion rates were equal with the previous lowest rate (from 2004). The most common reasons for suspensions and exclusions were for issues related to student conduct, including continual disobedience, physical or verbal assaults on staff or other students, and for other harmful or dangerous behaviours. In addition, a significant number were suspended or excluded as a result of alcohol, drug use, or cigarette smoking.

While for the majority of students a stand-down or suspension was a one off event, with the time spent away from school being fairly limited (e.g. a few days–weeks), both New Zealand and overseas research suggest that adolescent conduct problems are associated with poorer long term outcomes, including educational underachievement (e.g. leaving school early and without qualifications), unemployment and occupational instability during young adulthood [60]. In exploring the determinants of conduct problems and how they impact on educational achievement, the Christchurch Longitudinal study noted that [60]:

1. Conduct problems in middle childhood were associated with a range of factors including young maternal age, lack of maternal qualifications, low parental occupational status, below average living standards, living in a sole parent household or a household with significant conflict, lower IQ and attention problems.
2. In turn, conduct problems during childhood were associated with poorer school achievement (e.g. leaving school prior to 18 years with no qualifications). Some, but not all of this association could be explained by the fact that children with conduct problems came from more disadvantaged backgrounds, which in turn was associated with poorer educational performance. Adjusting for these factors reduced the associations between conduct problems and poorer school achievement from a 4.8 fold excess risk to a 1.8 fold excess risk (i.e. a significant, albeit reduced risk remained which could not be attributed to these factors).
3. Those with conduct problems in childhood also tended to develop patterns of behaviour during adolescence (e.g. cannabis use; suspension from school; affiliation with peers who used cannabis, tobacco or alcohol, truanted or broke the law) which predisposed to poorer educational outcomes, and once these behavioural patterns were taken into account, any residual associations between conduct problems and educational achievement disappeared.

The authors thus concluded that while socioeconomic, family and individual factors contributed significantly to the onset of conduct problems during childhood and as a consequence, accounted for a large part of the association between conduct problems and poorer educational achievement in adolescence, a significant amount of the association was also due to the tendency for children with conduct disorders to develop affiliations with delinquent peers, and patterns of substance use during adolescence, which reduced their commitment to continuing with their education [60].



The following section uses information from the Ministry of Education's Stand-down and Suspension database to review the proportion of students who were stood-down, suspended, excluded or expelled from school during 2000–2011.

Data Source and Methods

Definition

Information in this section is based on four Ministry of Education Student Participation Indicators which are defined as follows:

Stand-downs: A school principal may consider the formal removal of a student from school for a period of up to five school days. A stand-down can total no more than five school days in any term, or 10 days in a school year. Students return automatically to school following a stand-down.

Suspensions: A suspension is the formal removal of a student from school until the school Board of Trustees decides the outcome at a suspension meeting. Following a suspension, the Board of Trustees decides how to address the student's misbehaviour. The Board can either lift the suspension (with or without conditions), extend the suspension (with conditions), or terminate the student's enrolment at the school.

Exclusions and Expulsions: If a student is under 16 years, the Board of Trustees may decide to exclude them from the school, with the requirement that they enrol elsewhere. This decision is arrived at only in the most serious cases. If the student is aged 16 or over, the Board may decide to expel them from the school, and the student may enrol at another school. Exclusions and expulsions may lead to difficulties being accepted into other schools and may result in students accessing correspondence schooling, entering alternative education or dropping out of the education system altogether.

Data Source

Ministry of Education

<http://www.educationcounts.govt.nz/indicators/main/student-engagement-participation/80346>

Numerator: Total number of Stand-downs, Suspensions, Exclusions and Expulsions, per year of age

Denominator: Number of students on the school roll as at July 1st, per year of age

The following students were excluded from the analysis: Students from schools not receiving public funding; students at Correspondence School; adult students (older than 19); and international fee-paying students.

Notes on Interpretation

Note 1: Data were obtained from the Ministry of Education's Stand-down and Suspension database, which was developed in 1999, after the introduction of the Education (Suspension) Rules 1999. Rates were calculated by dividing the number of stand-downs, suspensions, exclusions or expulsions per individual year of age during the school year by the number of students on the school roll at July 1st, per individual year of age. All figures were then age standardised by the Ministry of Education, so that all subgroups in all years had the same age structure. In this process, the expected number of stand-downs, suspensions, exclusions and expulsions were calculated by looking at the age-dependence of each outcome nationally over each year, and then applying this to the age structure and population of respective schools. The age-standardised rate for each DHB was calculated by multiplying the 2011 national rate by the ratio of observed to expected outcomes for each DHB. As such, the standardised rate is an artificial measure, but does provide an estimate of how groups might compare over time if they had the same age distribution [61].

Note 2: As a number of students were stood-down, suspended, excluded or expelled on more than one occasion, the number of individual students experiencing these outcomes may be less than the number of cases reported in these figures.

Note 3: Ethnicity is Level 1 Prioritised (i.e. one ethnic group per student)

New Zealand Distribution and Trends

New Zealand Trends

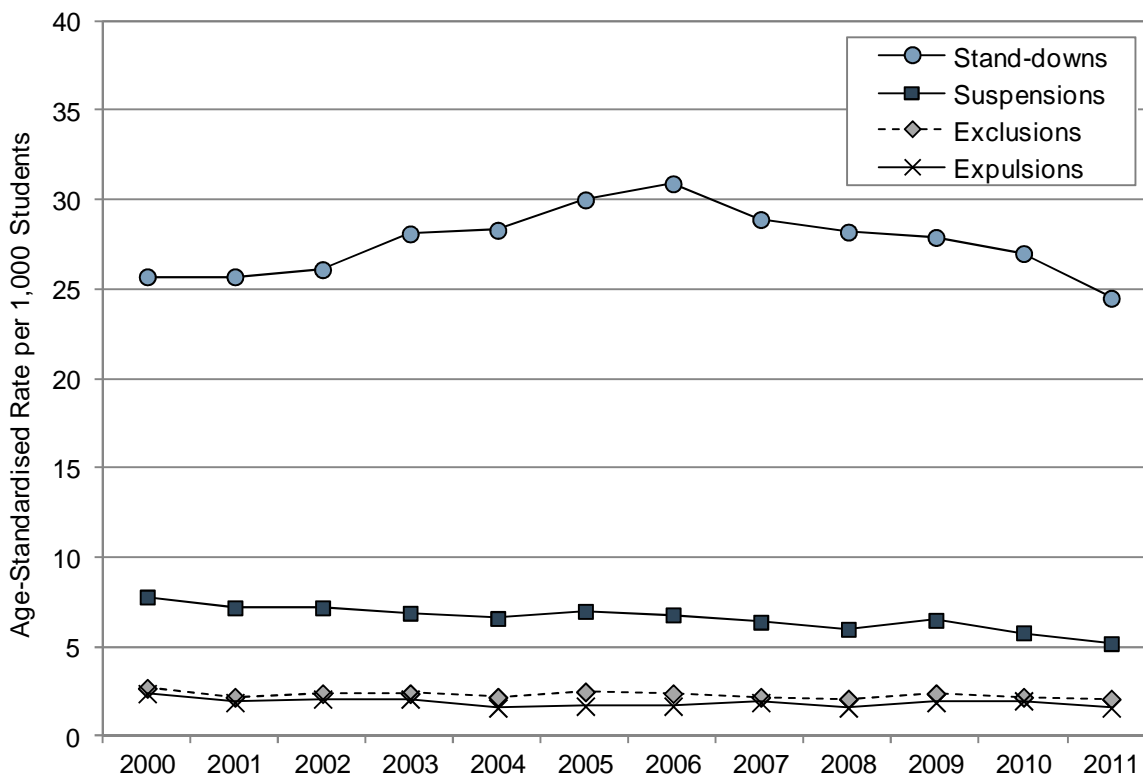
In New Zealand during 2000–2011, suspension rates gradually declined, while stand-down rates increased, reached a peak in 2006 and then declined. Exclusion and expulsion rates were more static. Throughout this period, the number of stand-downs greatly exceeded the number of suspensions, which in turn exceeded the number of exclusions and expulsions (Figure 52).

Distribution of Stand-downs and Suspensions by Ethnicity

In New Zealand during 2000–2011, stand-down and suspension rates were higher for Māori > Pacific > European > Asian students. Stand-down rates for Māori, Pacific and European students declined after 2006, with the largest declines in absolute terms being seen for Māori and Pacific students. Suspension rates also declined for all ethnic groups during 2000–2011, with the largest declines in absolute terms again being seen for Māori students (Figure 53).

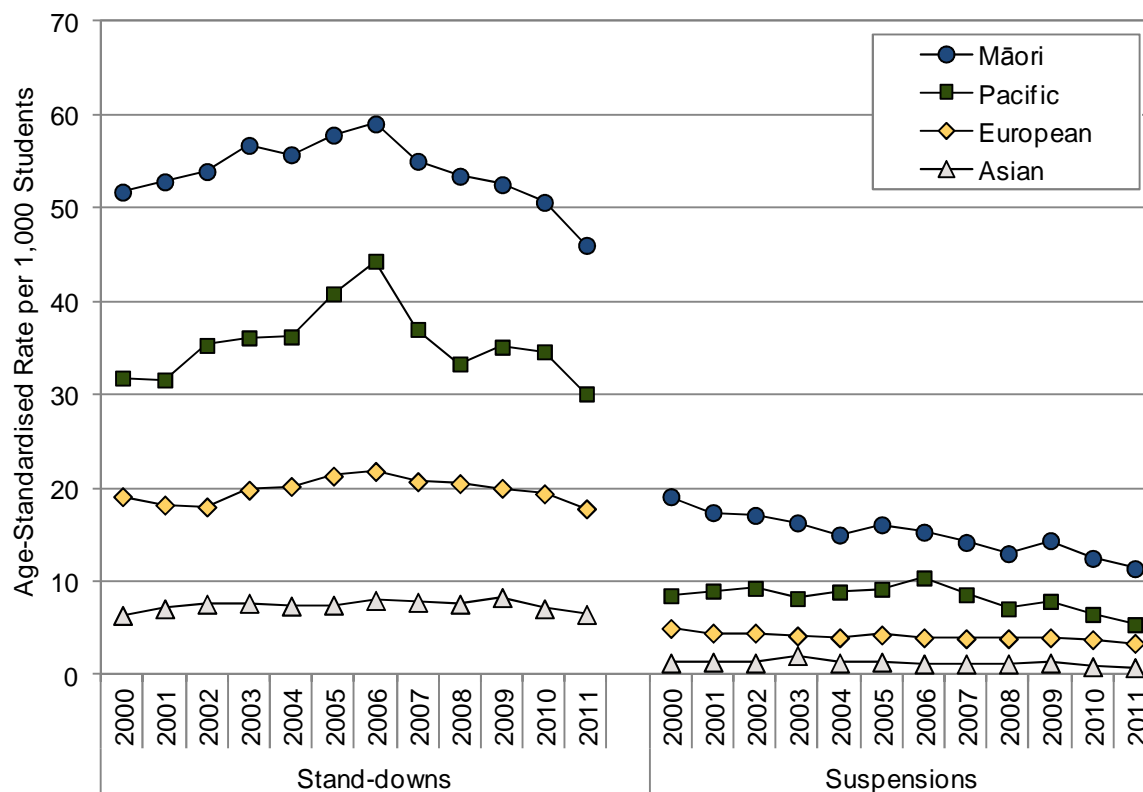


Figure 52. Age-Standardised Rates of Stand-downs, Suspensions, Exclusions and Expulsions, New Zealand 2000–2011



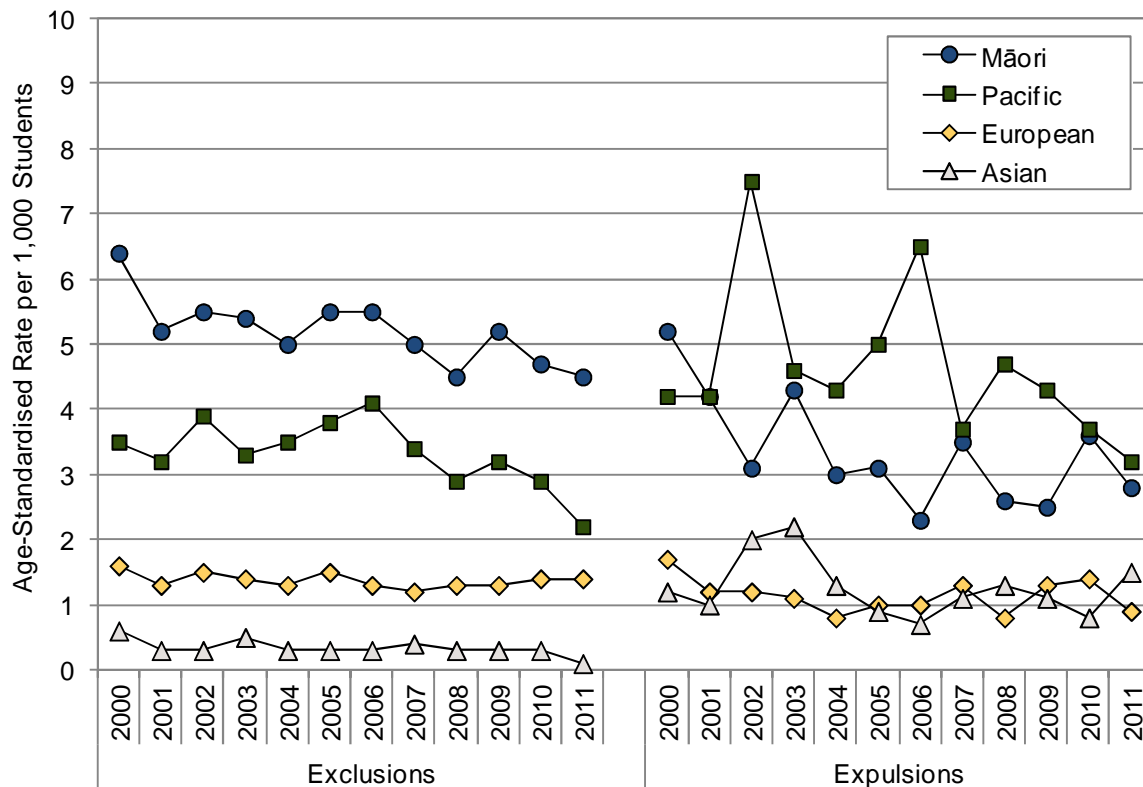
Source: Ministry of Education

Figure 53. Age-Standardised Rates of Stand-downs and Suspensions by Ethnicity, New Zealand 2000–2011



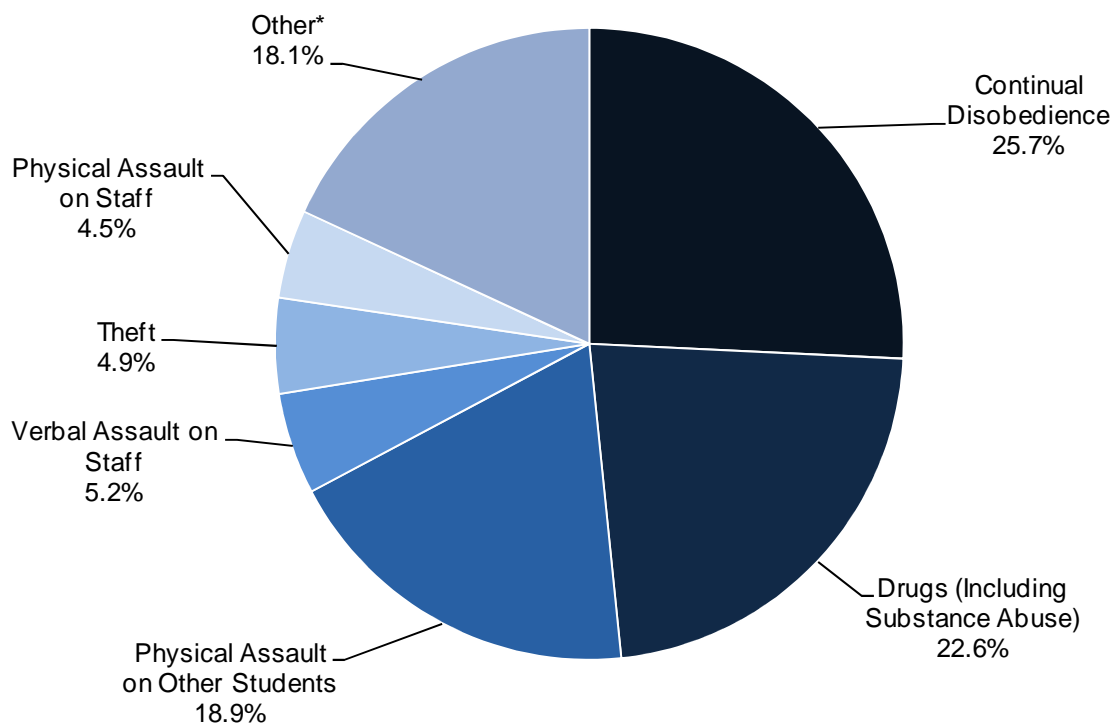
Source: Ministry of Education; Note: Ethnicity is Level 1 Prioritised

Figure 54. Age-Standardised Rates of Exclusions and Expulsions by Ethnicity, New Zealand 2000–2011



Source: Ministry of Education; Note: Ethnicity is Level 1 Prioritised

Figure 55. Distribution of Suspensions by Type of Behaviour, New Zealand 2011



Source: Ministry of Education; Note: *Other includes Weapons, Vandalism, Alcohol, Verbal Assault on Other Students, Sexual Misconduct and Harassment, Arson, Smoking and Other Harmful or Dangerous Behaviours



Distribution of Exclusions and Expulsions by Ethnicity

In New Zealand during 2000–2011, exclusion rates were higher for Māori > Pacific > European > Asian students, while expulsion rates were generally higher for Pacific > Māori > European and Asian students. Exclusion rates declined for Māori and Pacific students during this period, although exclusion and expulsion rates for European and Asian students were more static (**Figure 54**).

Suspensions by Behaviour

In New Zealand during 2011, the most common reasons for a suspension were continual disobedience (25.7%), the misuse of drugs or other substances (22.6%), or a physical assault on other students (18.9%), which together accounted for 67.2% of all suspensions. Verbal assaults on staff and theft also made a smaller contribution (**Figure 55**).

South Island Distribution and Trends

South Island vs. New Zealand

In the South Island during 2000–2011, while individual DHB trends varied, stand-down rates were generally higher than the New Zealand rate in the West Coast and lower than the New Zealand rate in Nelson Marlborough. Regional differences in suspension rates were less marked, although rates in South Canterbury were slightly higher than the New Zealand rate, and rates in Canterbury slightly lower during the late 2000s (**Figure 56**).

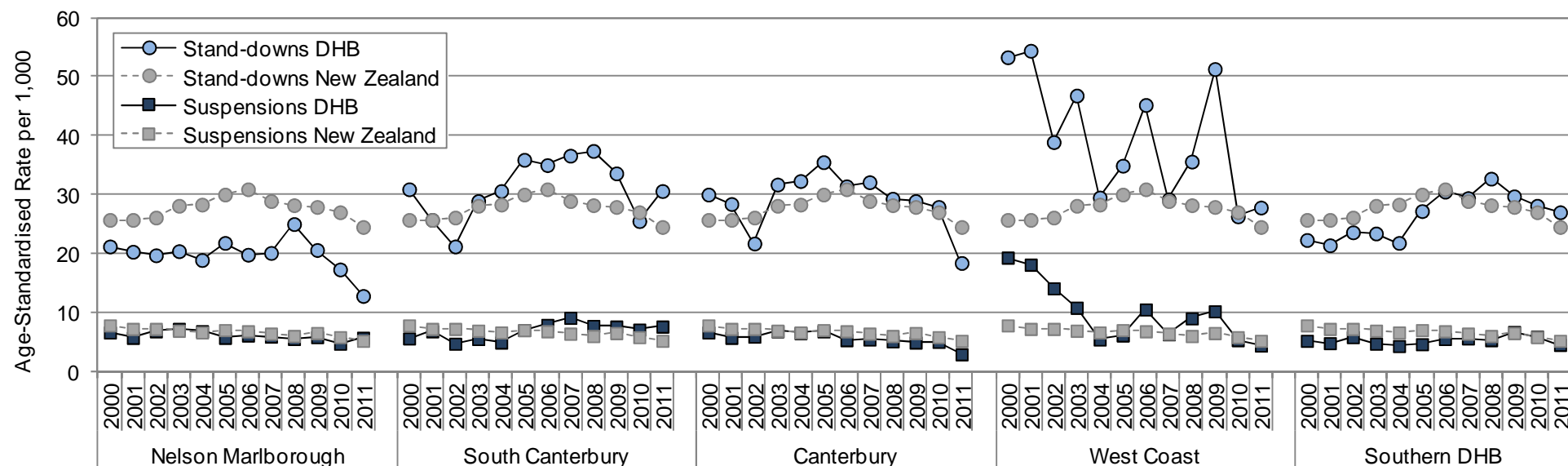
In the South Island DHBs during 2000–2011, large year to year variations in exclusion and expulsion rates precluded the interpretation of trends. However expulsion rates in all of the South Island DHBs (with the exception of the West Coast where small numbers precluded a valid analysis) were consistently lower than the New Zealand rate (**Figure 57**).

Distribution of Suspensions by Ethnicity

In Canterbury during 2000–2011, suspension rates were higher for Māori > Pacific > European > Asian students, while in the other South Island DHBs rates were higher for Māori than for European students (**Figure 58**).

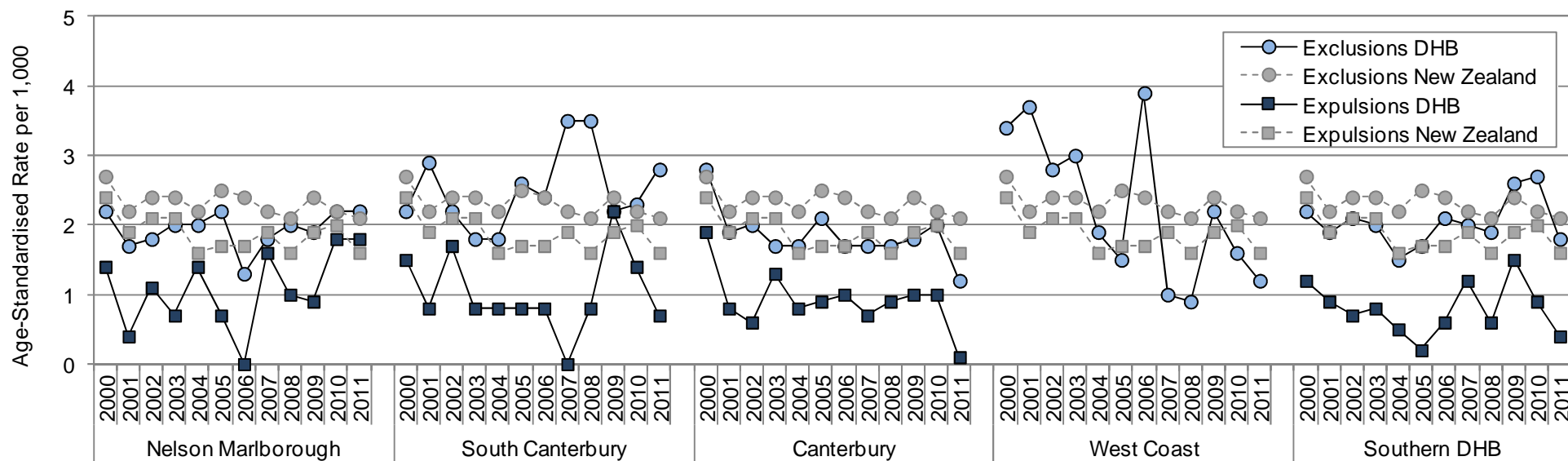


Figure 56. Age-Standardised School Stand-Down and Suspension Rates, South Island DHBs vs. New Zealand 2000–2011



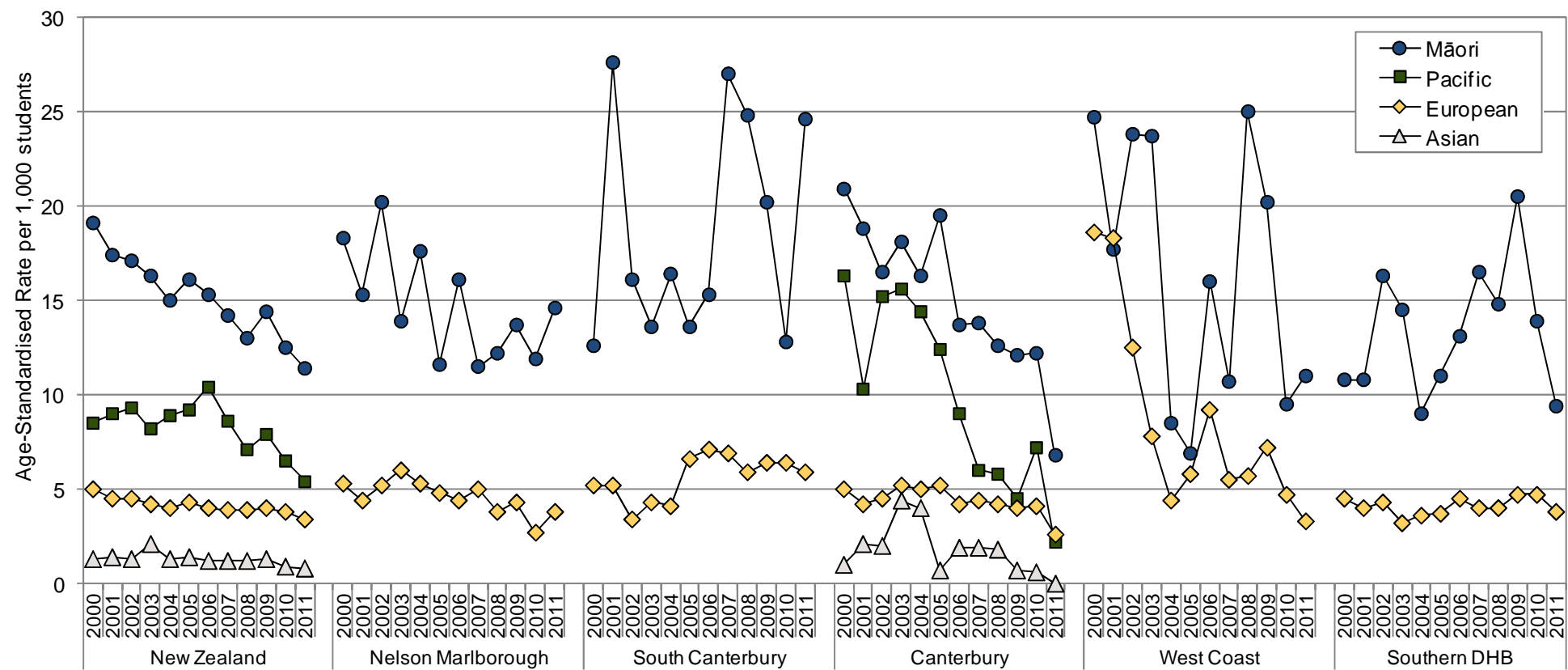
Source: Ministry of Education

Figure 57. Age-Standardised School Exclusion and Expulsion Rates, South Island DHBs vs. New Zealand 2000–2011



Source: Ministry of Education

Figure 58. Age-Standardised School Suspension Rates by Ethnicity, South Island DHBs vs. New Zealand 2000–2011



Source: Ministry of Education; Note: Ethnicity is Level 1 Prioritised

Local Policy Documents and Evidence-Based Reviews Relevant to Stand-Downs, Suspensions, Exclusions and Expulsions

As the section above suggests, conduct problems can significantly impair a young person's engagement with the education system. **Table 20** thus considers local policy documents relevant to the prevention of conduct problems in children and young people, as well as those which provide guidance to Boards of Trustees when considering suspending, standing down, excluding or expelling a student from school. Strategies to improve school attendance are considered in **Table 21** on **Page 150** in the Truancy and Unjustified Absences section.

Table 20. Local Policy Documents and Evidence-Based Reviews Relevant to Stand-Downs, Suspensions, Exclusions and Expulsions

Ministry of Education Policy Documents
<p>Ministry of Education. 2009. Guidelines for principals and boards of trustees on stand-downs, suspensions, exclusions and expulsions. Part I Legal options and duties. http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/StanddownsSuspensionsExclusionsExpulsions.aspx</p> <p>Schools have legal requirements and defined processes with respect to suspending, standing down or excluding students from school. This set of guidelines spells out the principles of being fair and flexible, and the interpretation of the principles of natural justice to which the Education Act 1989 and Education Rules (1999) directly refer with respect to the suspension, exclusion and standing-down of students. The guidelines define the processes required, as well as the legal responsibilities of principals and boards of trustees.</p>
<p>Ministry of Education. 2009. Good practice: Guidelines for principals and boards of trustees for managing behaviour that may or may not lead to stand-downs, suspensions, exclusions and expulsions. Part II. http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/StandDownSuspensionExclusionExpulsions/SuspensionGoodPracticeWEB.pdf</p> <p>Complementing the previous document, the Good Practice guidelines provide guidance for schools on alternative methods of improving engagement in schooling, in preference to students being suspended or excluded. Of particular concern is the high proportion of Māori and Pasifika learners excluded or suspended.</p>
Other Government Publications
<p>Advisory Group on Conduct Problems. 2009. Conduct Problems: Best Practice Report. Wellington. Ministry of Social Development http://www.ms.govt.nz/about-msd-and-our-work/publications-resources/research/conduct-problems-best-practice/index.html</p> <p>This report explores the issues relating to conduct problems and their treatment. It is presented in four parts: Part 1 introduces the report and addresses Treaty of Waitangi considerations, classifications and terminology, why it is important to address conduct problems, when to intervene, co-occurring conditions, and the policy implications. Part 2 provides a review of evidence on effective interventions, including the importance of RCTs for identifying effective programmes, the prevention of childhood conduct problems, the treatment and management of conduct problems in children and young people (including interventions for 3–12 year-olds and for adolescents and young adults), the role of medication and other treatment modalities, and makes policy recommendations. Part 3 examines the issues that need to be addressed in translating evidence into effective policy, the role of population screening, factors contributing to implementation fidelity and programme effectiveness, the management of co-morbid or associated childhood and adolescent problems, and the science of prevention and policy development. Part 4 comprises a series of sections prepared by expert Māori, Pacific and Asian authors, with a view to ensuring the voices of different ethnic groups are included in the report.</p>
<p>Ministries of Education, Health, Justice and Social Development. 2007. Inter-agency Plan for Conduct Disorder/Severe Antisocial Behaviour 2007-2012. Wellington: Ministry of Social Development. http://www.ms.govt.nz/about-msd-and-our-work/work-programmes/policy-development/anti-social-behaviour/index.html</p> <p>This inter-agency plan was developed to establish a more comprehensive and effective cross-government approach to conduct disorder/severe antisocial behaviour in children (behaviours which are defined as severe, persistent across contexts and over time, and which involve repeated violations of societal and age-appropriate norms). The report identifies key challenges facing services, including inconsistent mechanisms for identifying and determining eligibility for services, gaps in the availability of specialist services, and lack of alignment with the evidence base in some programmes. It sets out the four key proposals for 2007 to 2012: establishing leadership, co-ordination, monitoring and evaluation; transitioning existing service provision to evidence-based, best-practice interventions; establishing an intensive, comprehensive behavioural service for three to seven year-olds; and building a shared infrastructure for the delivery of specialist behavioural services.</p>

Cochrane Systematic Reviews

Petrosino A, et al. 2009. **"Scared Straight" and other juvenile awareness programs for preventing juvenile delinquency.** Cochrane Database of Systematic Reviews doi:10.1002/14651858.CD002796
<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD002796/frame.html>

There are regular calls for interventions that show young people at risk of exhibiting socially undesirable behaviour the consequences of their antisocial behaviour and delinquency by, for example, visiting prisons. Nine trials, all conducted in the USA, were identified as eligible for this systematic review which covered juvenile and young adults (aged 14–20 years). These studies had to have a no-treatment arm to their study and measure at least one criminal behaviour outcome 'post-visit'. Analysis indicated that the intervention did more harm than doing nothing, regardless of whether it was based on a fixed or random effect model. In conclusion therefore, organising visits to prison facilities by young delinquents is ineffective at best, and appears more likely to lead to more offending behaviour. The authors note that despite the consistently negative consequences of the intervention, the programmes have been continued, although the evaluations of them have been stopped.

Hassiotis AA & Hall I. 2008. **Behavioural and cognitive-behavioural interventions for outwardly-directed aggressive behaviour in people with learning disabilities.** Cochrane Database of Systematic Reviews 2008, Issue 3. Art. No.: CD003406. DOI: 10.1002/14651858.CD003406.pub3

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003406.pub3/pdf/standard>

Outward directed aggressive behaviour in people with learning disabilities is a cause of social exclusion. This systematic review sought to find evidence of efficacious interventions to reduce the behaviour. Two types of interventions were examined: behaviour modification interventions and cognitive-behavioural treatment. No meta-analysis was possible because of the heterogeneity of the studies. Outcome measures had to include at least one of ten measures related to reduction in aggressive behaviour, improvement of mental state, reduction in care needs, and improvement in adaptive functioning. Despite being cautious because of the limitations of small studies, both types of intervention may be potentially efficacious on their own in the long term management of outwardly-directed aggression. However, while interventions for both adults and children were considered eligible for the review, the four studies included were for adults only. The conclusion is that there is a real paucity of rigorous research to identify efficacious interventions for such behaviour.

Further Reading

Bennett D S & Gibbons T A. 2000. **Efficacy of child cognitive-behavioural interventions for antisocial behavior: a meta-analysis** (Structured abstract). Child and Family Behaviour Therapy. 22(1):1-15

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003406.pub3/pdf/standard>

These authors examine the efficacy of child cognitive behaviour therapies (CBT) for antisocial behaviour. Thirty studies were included which: used a child-based intervention for anti-social behaviour; had subjects ≤18 years, had a no-treatment, attention or wait-list control group; and utilised at least one of a number of recognised measures for antisocial behaviour. Child-based CBT interventions appear to have a small to moderate effect in decreasing antisocial behaviour. Few studies had a follow-up, but those that did suggest that the effects are maintained over time. A trend for a positive relationship between child age and effect size was found, but CBT may be more effective for older elementary school aged children and adolescents than for those younger. Most of the studies included were group based, although four were for individual training which is potentially more effective. None of the studies included girls or were too small to identify gender differences. The study concluded 'that child-based CBT interventions may be an effective part of a multimodal treatment for children, particularly older children, who exhibit antisocial behaviour.

Eyberg SM, Nelson MM, Boggs SR. 2008. **Evidence-Based Psychosocial Treatments for Children and Adolescents with Disruptive Behavior**, Journal of Clinical Child & Adolescent Psychology, 37:1, 215-237

<http://dx.doi.org/10.1080/15374410701820117>

Twenty eight studies presenting evidence-based psychosocial treatment (EBTs) for child and adolescent disruptive behaviour from 1996–2007 were examined in this review. Included were 16 EBTs and 9 'possibly efficacious' treatments (treatments that are potentially worth implementing but do not have the same level of evidence as the EBTs). Medication treatments were not included nor interventions for behaviours associated with autism or ADHD, or isolated problems such as firelighting or truancy all of which have their own literature. Individual child, parent, and family and group treatments were eligible. The EBTs included multiple modalities: anger control management, group assertive training, helping the non-compliant child, Webster-Stratton et al's Incredible Years interventions, multidimensional treatment foster care, multisystemic therapy, parent-child interactive therapy, parent management training Oregon model, different levels of Positive Parenting Program (Triple P), problem solving skills training and a rational-emotive mental health program. Combinations of treatment components were included where these had been appropriately evaluated. In conclusion, the review indicated that, for adolescents, a range of treatments can be efficacious for particular children with disruptive behaviour disorders. It also noted a variety of direct treatment providers being used in the EBTs, including teachers, foster parents, and peers as well as mental health professionals.

Note: The publications listed above were identified using the search methodology outlined in **Appendix 1**

TRUANCY AND UNJUSTIFIED ABSENCES

Introduction

Research suggests that sustained truancy significantly affects educational attainment, with student attendance being one of the most important predictors of educational achievement in senior secondary school [62]. Longitudinal studies in Dunedin and Christchurch also suggest that truancy is a strong predictor of substance abuse, suicidal risk, unemployment, early parenting and violence in later life [60] [63].

The Ministry of Education intermittently undertakes Surveys of School Attendances. The most recent School Attendance Survey for which data is available occurred in June 2011 [64]. The following section uses data from the Ministry of Education's School Attendance Survey to explore truancy and unjustified absences in New Zealand secondary school students.

Data Source and Methods

Definitions

1. *Total Unjustified Absence Rate*

2. *Frequent Truancy Rate*

Absences were classified using the following definitions:

Justified Absences: Absences recorded in the register and marked as having being satisfactorily explained. As the school principal has to make a judgement as to which explanations they will accept, the balance of justified and unjustified absences may vary slightly from school to school.

Unjustified Absences: Absences which are not explained, or not explained to the satisfaction of the school. For schools with an electronic Attendance Register (eAR), students who attended less than 120 minutes of their classes and had at least one unjustified absence were counted as an unjustified absence.

Intermittent Unjustified Absences: Where a student is absent for part of a morning (or afternoon) or part of a period without justification (e.g. arriving 15 minutes late to school without a reason, or with a reason that is not acceptable to the principal). For schools with eAR data, students who attended classes for more than 120 minutes and had two or more unjustified absences were counted as an intermittent unjustified absence.

Total Unjustified Absences: The sum of unjustified and intermittent unjustified absences.

Frequent Truants: Students were classified as frequent truants if they had three or more unjustified absences during the survey week.

Absence data was collected for each student for each day of the week. The rate for each absence type was calculated based on the total school rolls for the participating schools and relates to an average (mean) daily absence for the week per 100 students. It should be noted that this does not tell us whether it is the same students that are absent, or whether different students are involved each day.

Data Source

Ministry of Education Student Attendance Surveys (2006, 2009 and 2011)

1. *Total Unjustified Absence Rate*

Numerator: Number of unjustified absences and intermittent unjustified absences per week

Denominator: Total number of enrolled students in participating schools

The rate was calculated by dividing the number of absences, by the total rolls of participating schools and is expressed as an average (mean) daily absence for the week per 100 students.

2. *Frequent Truancy Rate*

Numerator: Number of students with three or more unjustified absences during the survey week

Denominator: Total number of enrolled students in participating schools

Notes on Interpretation

The 2011 Ministry of Education Attendance Survey gathered data on student attendance during the week of 13–17 June 2011. Of the 2470 schools invited to participate, completed returns were received from 2180, a response rate of 88%. The responding schools had approximately 625,000 students on their rolls, equating to 87% of the student population in all state and state integrated schools on 1 July 2011. In the 2009 Survey, to reduce compliance costs, a representative sample of 768 schools was invited to participate, with the response rate being 85%. All state and state integrated schools were invited to participate in the 2006 survey. Two forms of data collection were used. Schools that use a module in their Student Management Systems to enter their attendance records electronically were asked to provide an extract from the electronic Attendance Register (eAR). Schools that do not use eAR were invited to take part in the paper version of the survey.



The schools recording absences on the paper form were required to make their own judgement of whether a student was absent for all or part of a day, and whether that absence was justified based on the definitions and instructions supplied. For further detail see

<http://www.educationcounts.govt.nz/publications/series/2503/attendance-in-new-zealand-schools-2011>

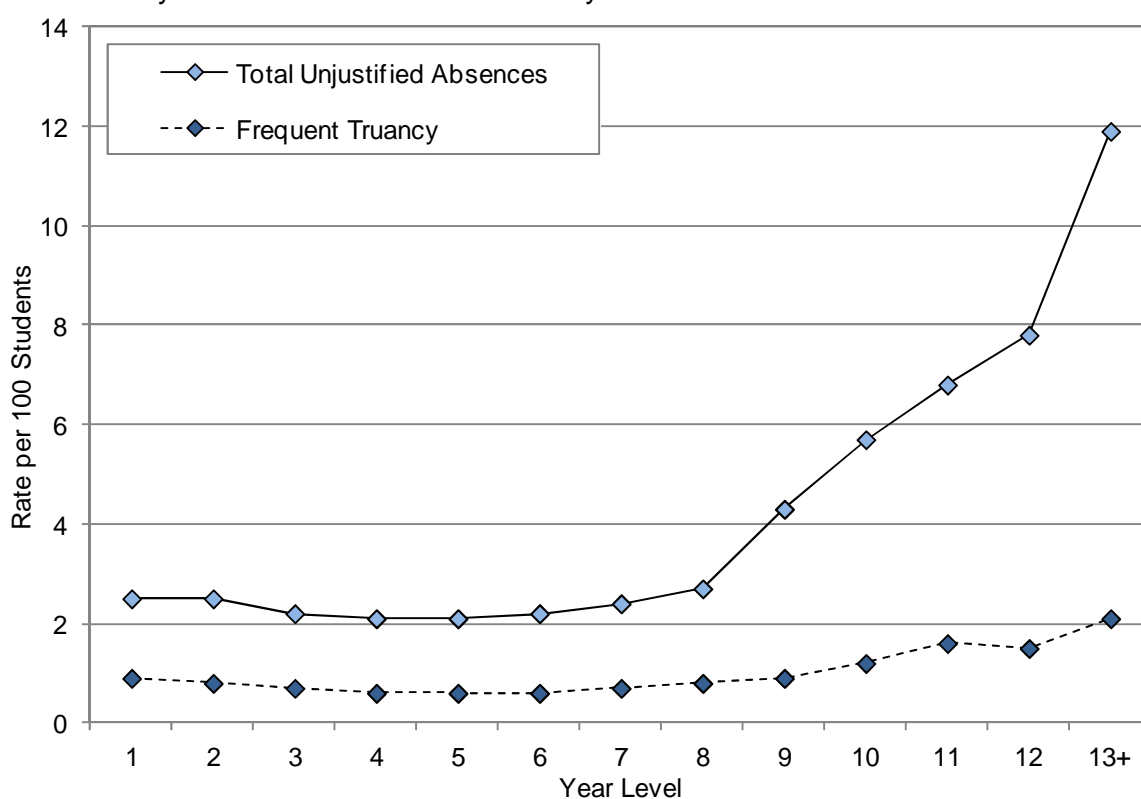
Note: All ethnic groups across each year have been standardised to 2011 year-level rates to allow for comparison between survey years and ethnic groups

New Zealand Distribution

Distribution by Year of Schooling

In New Zealand during 2011, total unjustified absences were relatively infrequent during the primary school years (Years 1–6), but increased progressively during secondary school (Years 9–13), with the highest rates being seen in those in Year 13+. While frequent truancy rates also increased during the secondary school years, the rate of increase was less marked than for total unjustified absences (**Figure 59**).

Figure 59. Total Unjustified Absences and Frequent Truancy by Year Level, New Zealand 2011 Ministry of Education Attendance Survey

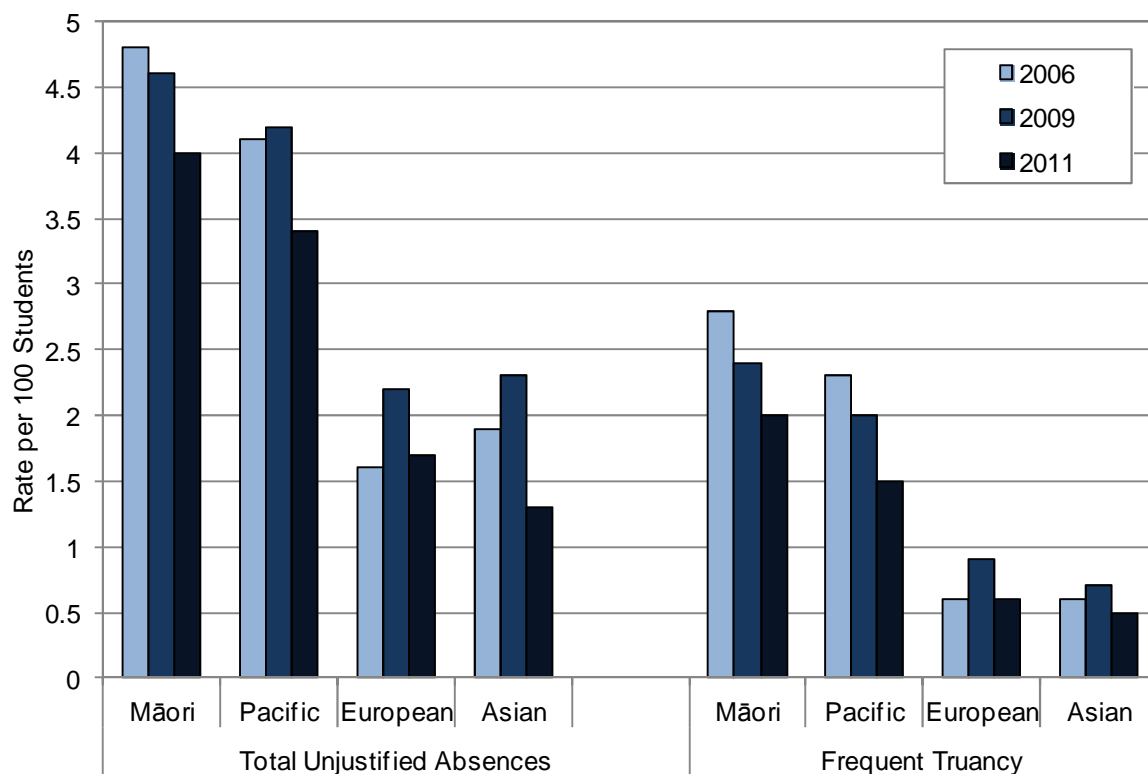


Source: Ministry of Education Attendance Survey 2011; Note: Total Unjustified Absence Rate is the mean number of daily absences per week per 100 students; Frequent Truant Rate is the number of students with 3+ unjustified absences per week per 100 student

Distribution by Ethnicity

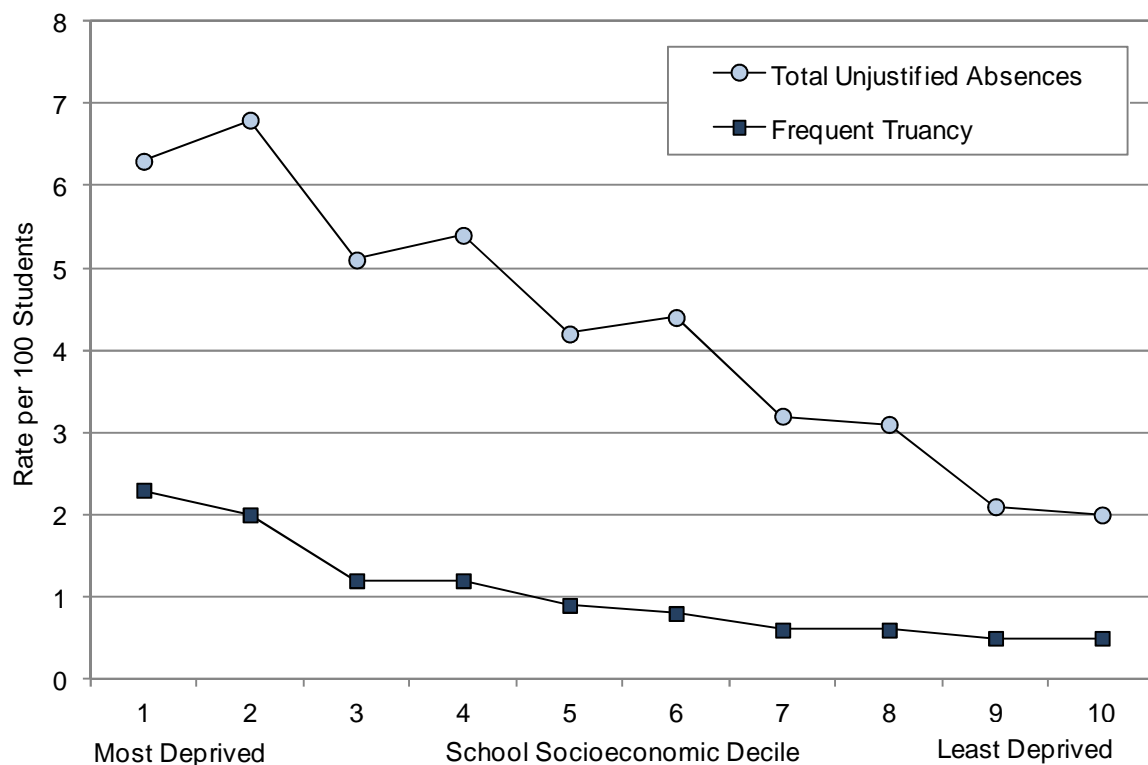
In New Zealand during each of the years surveyed (2006, 2009 and 2011), total unjustified absences and frequent truancy were higher for Māori and Pacific students than for European and Asian students. Total unjustified absences were lower in 2011 than they were in 2006 for Māori, Pacific and Asian students, although rates for European students were more similar. Similarly frequent truancy rates were lower in 2011 than in 2006 for Māori and Pacific students, although rates for European and Asian students were similar during the two periods (**Figure 60**).

Figure 60. Total Unjustified Absences and Frequent Truancy by Ethnicity, New Zealand 2006, 2009 and 2011 Ministry of Education Attendance Surveys



Source: Ministry of Education Attendance Surveys; Note: Total Unjustified Absence Rate is the mean number of daily absences per week per 100 students; Frequent Truant Rate is the number of students with 3+ unjustified absences per week per 100 students

Figure 61. Total Unjustified Absences and Frequent Truancy by School Socioeconomic Decile, New Zealand 2011 Ministry of Education Attendance Survey



Source: Ministry of Education Attendance Survey 2011; Note: Total Unjustified Absence Rate is the mean number of daily absences per week per 100 students; Frequent Truant Rate is the number of students with 3+ unjustified absences per week per 100 students



Distribution by School Socioeconomic Decile

In New Zealand during 2011, total unjustified absences and frequent truancy decreased as the degree of deprivation of the school catchment decreased, with the lowest rates for both outcomes being seen in those in the least deprived (deciles 9–10) areas (**Figure 61**).

South Island Distribution

South Island vs. New Zealand

In Nelson Marlborough during 2011, the total unjustified absence rate was 1.5 days per week per 100 students, as compared to 2.0 days in Canterbury and South Canterbury, 2.4 days in the West Coast, 1.6 days in the Southern DHB, and 2.3 days for New Zealand as a whole. Similarly, the frequent truancy rate in Nelson Marlborough in 2011 was 0.6 per 100 students, as compared to 0.7 in Canterbury and South Canterbury, 1.0 in the West Coast, 0.8 in the Southern DHB and 1.0 per 100 students nationally (**Figure 62**).

Distribution by Ethnicity

In Canterbury during 2011, total unjustified absences and frequent truancy were higher for Māori and Pacific students than for European and Asian students. In Nelson Marlborough, the West Coast and the Southern DHB rates for both measures were higher for Māori students than for European students, while in South Canterbury, total unjustified absences were higher for Māori than for European students, but frequent truancy was similar for both ethnic groups (**Figure 63**).

Local Policy Documents and Evidence-Based Reviews Which Consider Interventions to Improve School Attendance

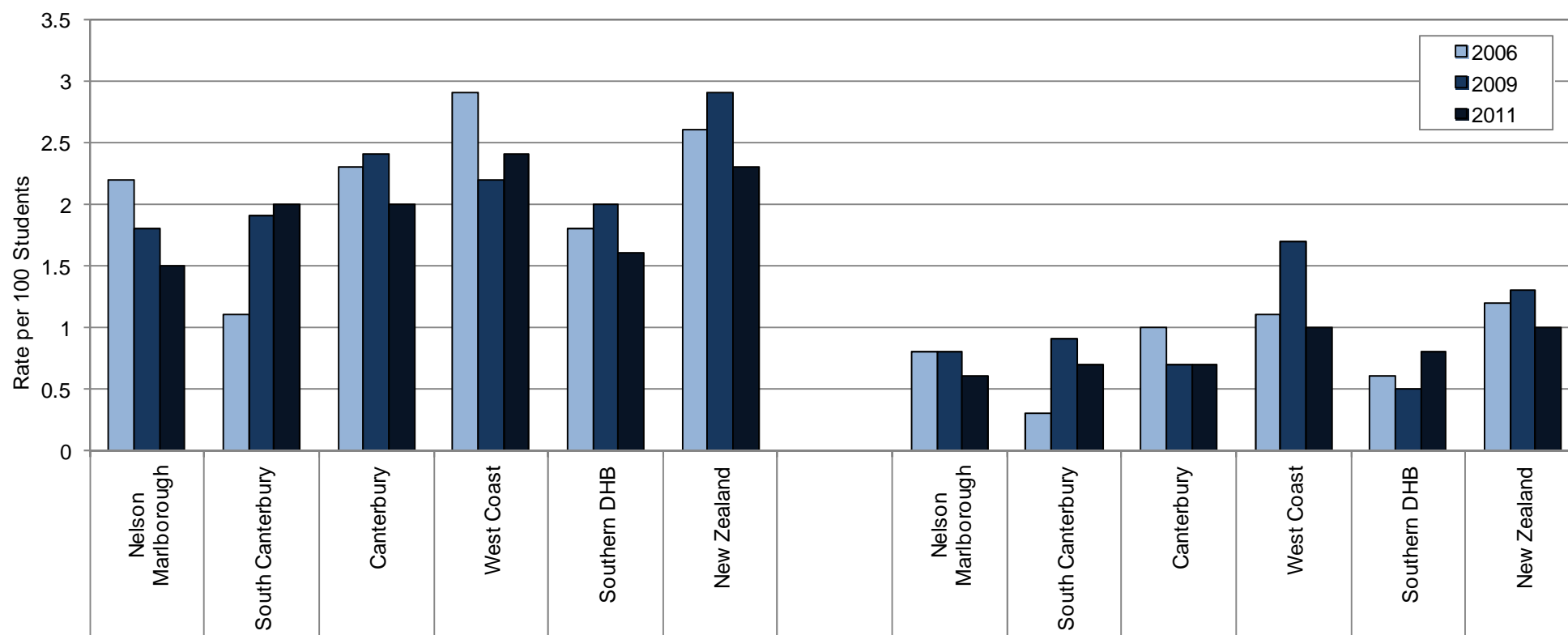
Table 21 below considers overseas publications relevant to the improvement of school attendance. Educational participation however is also influenced by a range of other factors including a student's previous educational experiences and engagement with the education system. Thus **Table 14** on **Page 115** provides an overview of publications which are relevant to early childhood education, while **Table 18** on **Page 123** reviews publications which consider initiatives to improve the educational participation and attainment of Māori students. In addition, **Table 20** on **Page 145** reviews publications relevant to the prevention of stand-downs, suspensions, exclusions and expulsions, while **Table 19** on **Page 131** reviews publications which consider strategies to improve student's educational attainment.

Table 21. Policy Documents Relevant to the Improvement of School Attendance

Publication Relevant to Improving School Attendance
National Audit Office. 2005. Improving School Attendance in England . National Audit Office: London. http://www.nao.org.uk/publications/0405/improving_school_attendance.aspx?alreadysearchfor=yes The Department for Education and Skills has overall responsibility for school attendance in England and also sets national policy and funds local authorities and schools. Reducing total absence and unauthorised absence from school are among the Department's highest priorities. This report examines attendance in state schools in England for children of compulsory school age. It examines the factors associated with absence from school, and considers whether initiatives undertaken by the Department, local authorities and schools to reduce absence have been successful. In order to achieve this aim, the authors carried out statistical analysis of school absence in 2002–03, visited 17 schools, and through surveys and discussions obtained the views of head teachers, local authority staff, school inspectors and policymakers.

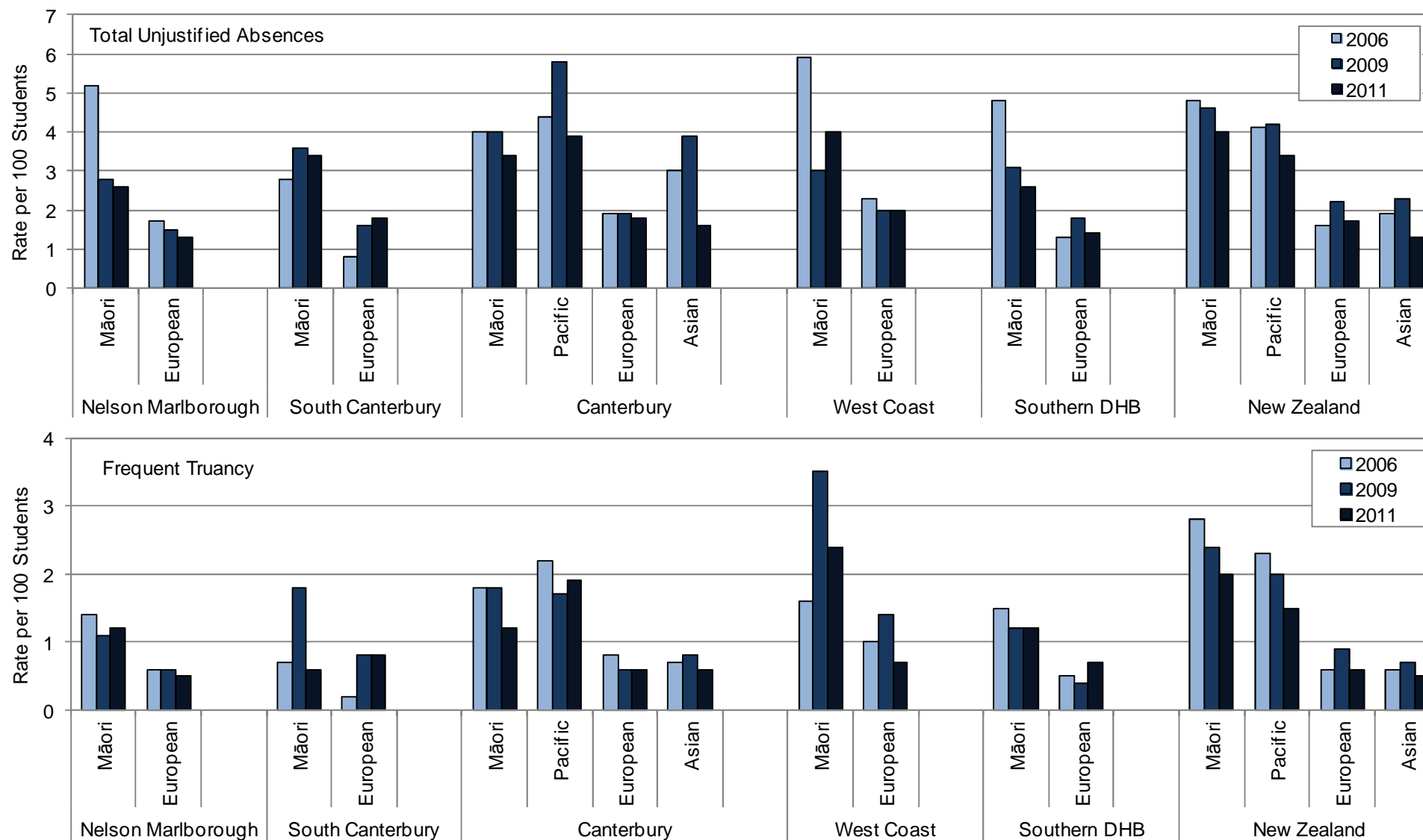
Note: The above publication was identified using the search methodology outlined in **Appendix 1**

Figure 62. Total Unjustified Absences and Frequent Truancy, South Island DHBs vs. New Zealand 2006, 2009 and 2011 Ministry of Education Attendance Surveys



Source: Ministry of Education Attendance Surveys; Note: Total Unjustified Absence Rate is the mean number of daily absences per week per 100 students; Frequent Truant Rate is the number of students with 3+ unjustified absences per week per 100 students

Figure 63. Total Unjustified Absences and Frequent Truancy by Ethnicity, South Island DHBs vs. New Zealand 2006, 2009 and 2011 Ministry of Education Attendance Surveys



Source: Ministry of Education Attendance Surveys; Note: *Total Unjustified Absence Rate* is the mean number of daily absences per week per 100 students; *Frequent Truant Rate* is the number of students with 3+ unjustified absences per week per 100 students