

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. A National Certificate of Educational Achievement (NCEA) Level 2 qualification is the desired minimum qualification for school leavers, giving them opportunities in terms of further education, employment, health outcomes and a better quality of life [70]. The New Zealand Government has set a target of 85% of 18-year-olds achieving NCEA Level 2 or an equivalent qualification in 2017; this target was met by 78.6% of 18-year-olds in 2013 [71].

The Government has identified Māori students, Pasifika students, students from low socio-economic families and students with special education needs as its priority students. Although many students from these groups achieve at high levels within education, student achievement data also show that students from these groups are over represented among those students the system has struggled to support [72].

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. A number of systemic improvements can assist in meeting national educational priorities, including school leadership, teacher professional learning and development, and the provision of quality teaching for diverse (all) learners [73].

The following section uses information from the Ministry of Education to review the highest educational attainment of school leavers during 2009–2013.

Data Source and Methods

Indicators

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

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

Data Source

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

Definition

The National Certificate of Educational Achievement (NCEA) is part of the National Qualifications Framework. 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 onwards, Level 3 NCEA replaced Higher School Certificate and University Entrance/University Bursaries. In 2004 the 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 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.

Further detail see <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/understanding-ncea/the-facts/factsheet-4/>

Notes on Interpretation

Note 1: These data follow a new definition of school leavers from the Ministry of Education's ENROL system utilised from 2009 onwards so comparison with previous years is not possible.

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

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

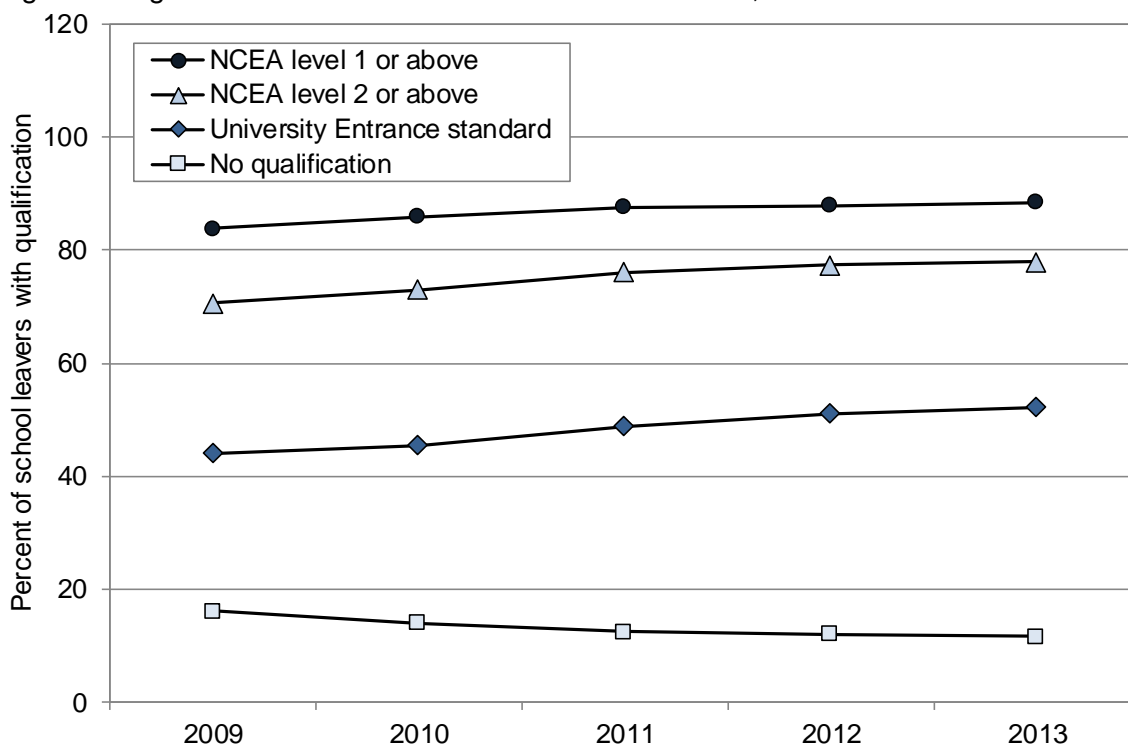
Note 4: **School Socioeconomic Decile:** All schools are assigned a decile ranking based on the socioeconomic status of the areas they serve. These rankings are based on Census data from families with school age children in the areas from which the school draws its students. Census variables used in 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 2013, 11.5% of students left school with no formal qualifications, while 88.5% left with NCEA Level 1 or above, 78.0% left with NCEA Level 2 or above, and 52.2% attained a University Entrance standard. While the proportion of students leaving with no formal qualifications declined during 2009–2013, the proportion attaining a University Entrance standard increased (Figure 1).

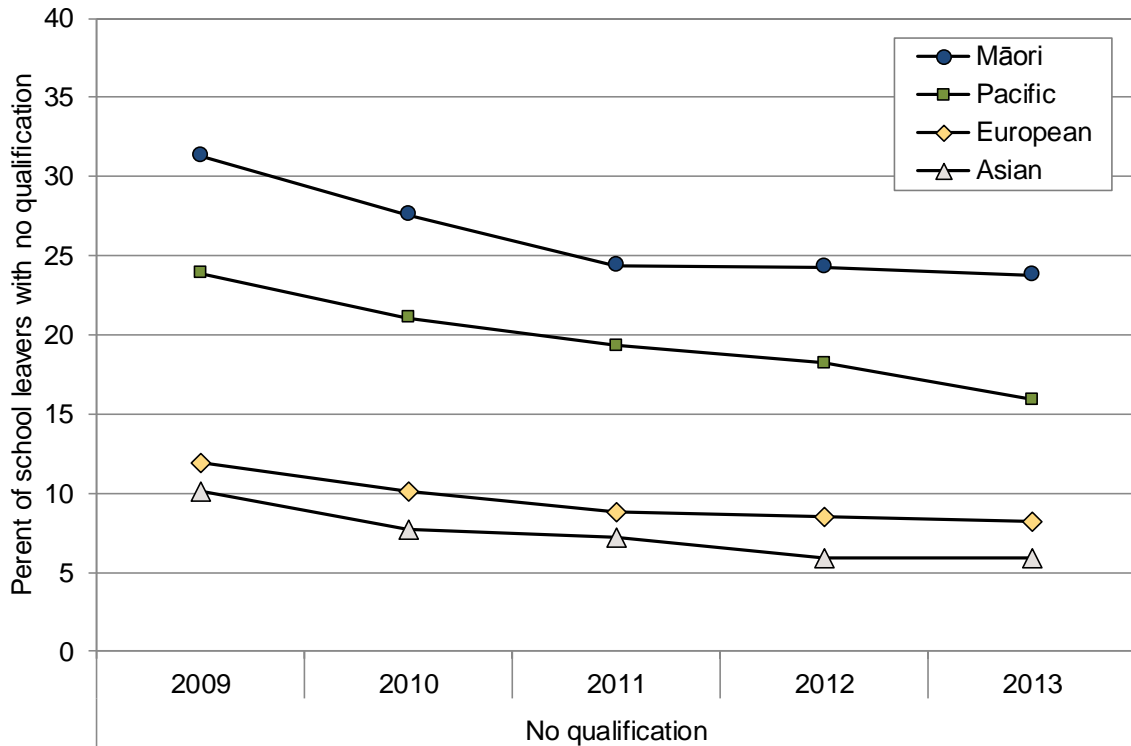
Figure 1. Highest educational attainment of school leavers, New Zealand 2009–2013



Source: Ministry of Education

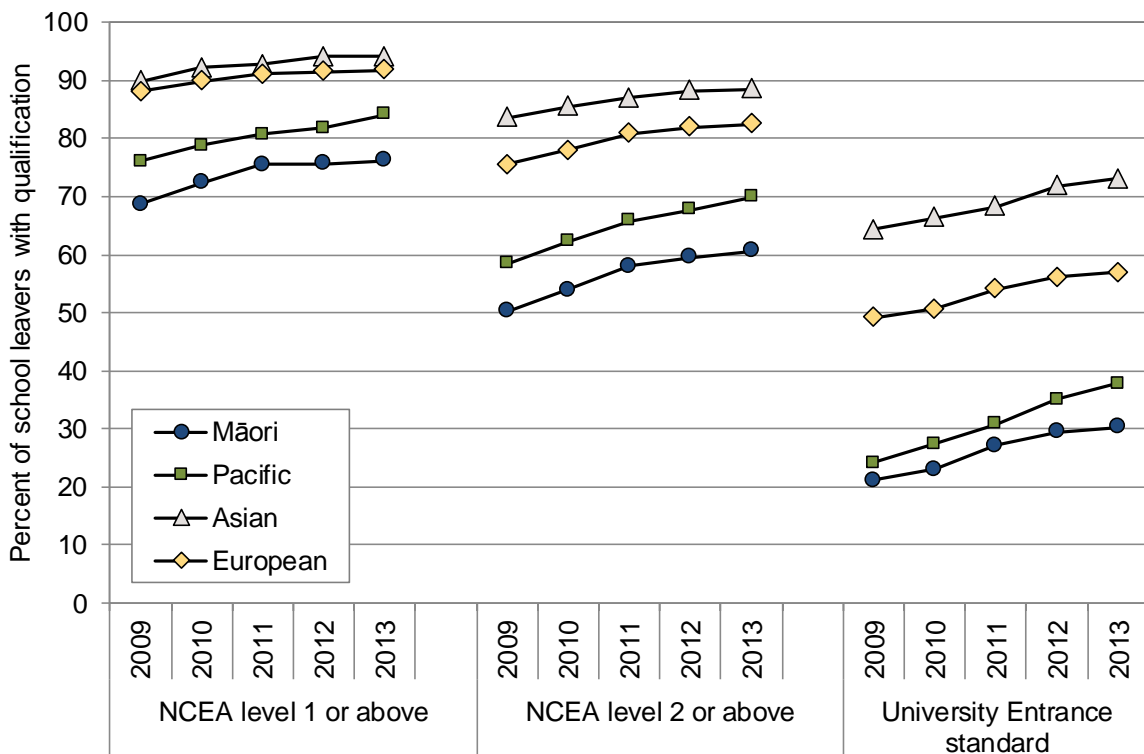


Figure 2. School leavers with no qualifications by ethnicity, New Zealand 2009–2013



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

Figure 3. Highest educational attainment of school leavers by ethnicity, New Zealand 2009–2013



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

Distribution by Ethnicity

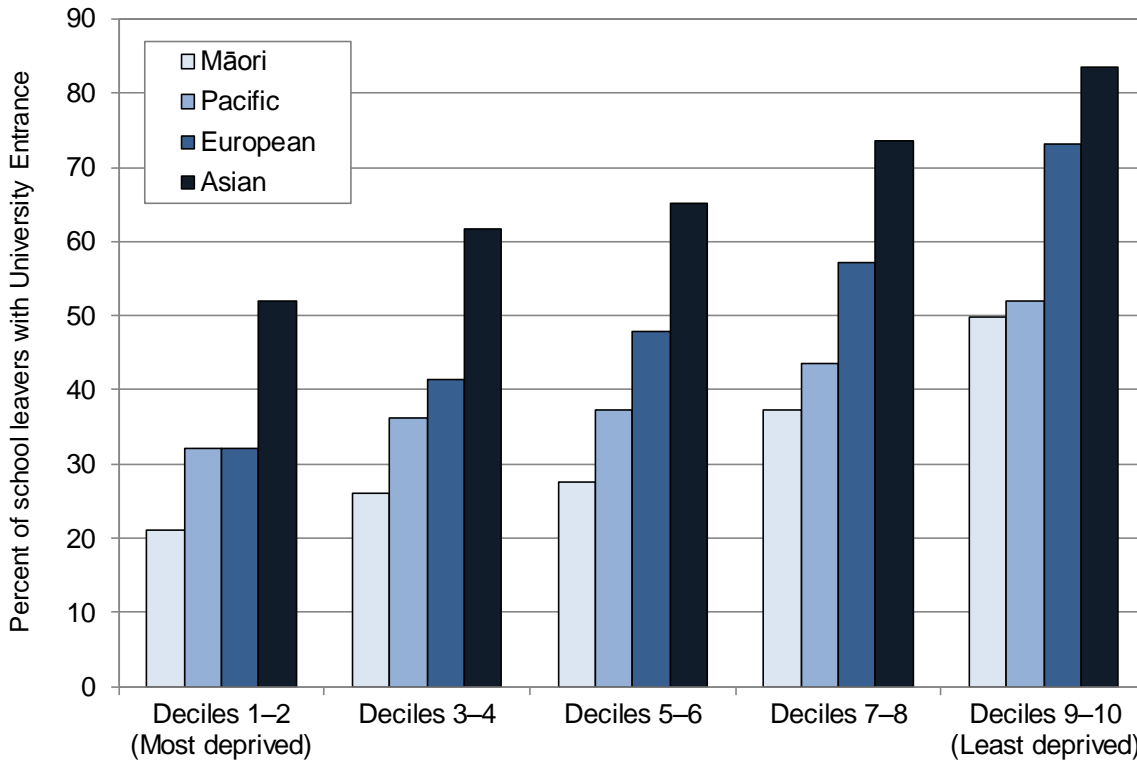
In New Zealand during 2009–2013, a higher proportion of Māori > Pacific > European > Asian students left school with no formal qualifications, while a higher proportion of Asian >

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 2, Figure 3).

Distribution by Ethnicity and School Socioeconomic Decile

In New Zealand during 2013, the proportion of students achieving a University Entrance standard increased with increasing school socioeconomic decile, however, at each level of socioeconomic deprivation a higher proportion of Asian > European > Pacific and Māori students attained a University Entrance standard (Figure 4).

Figure 4. School leavers with a University Entrance Standard by ethnicity and school socioeconomic decile, New Zealand 2013



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

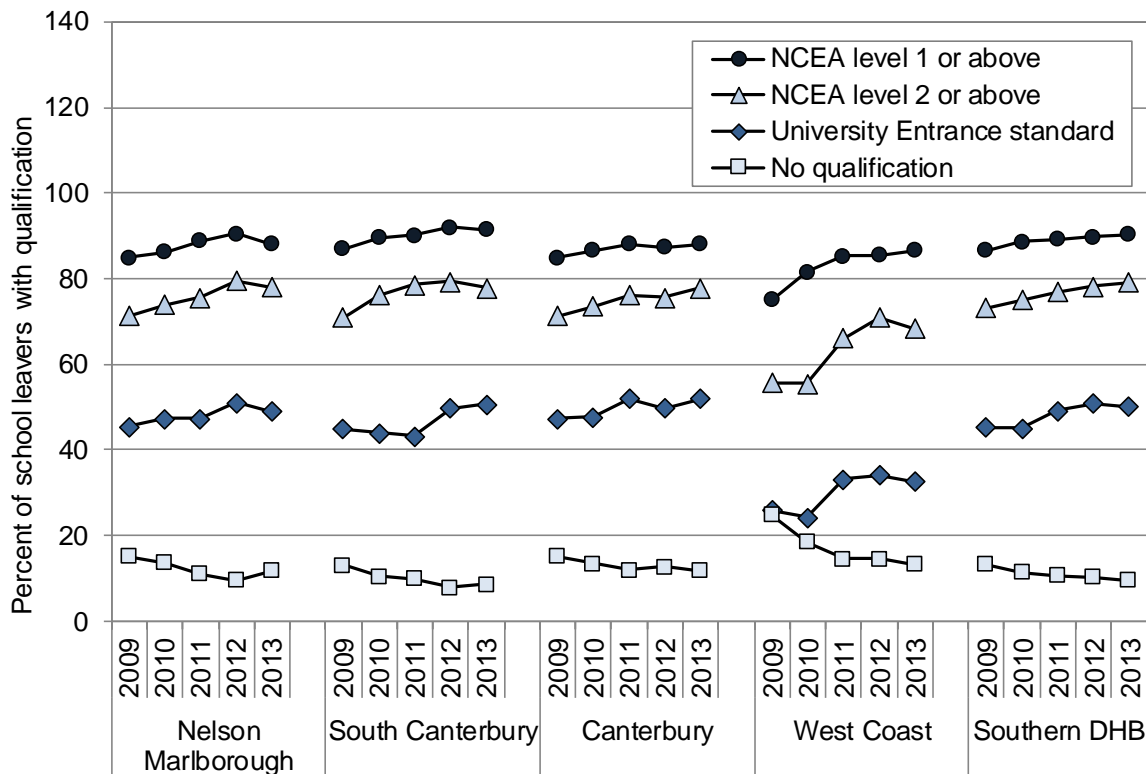
South Island DHBs Distribution and Trends

South Island DHBs Distribution

In all of the South Island DHBs during 2009–2013, the proportion of students leaving school with no qualifications declined, while the proportion leaving with a University Entrance standard increased (Figure 5).

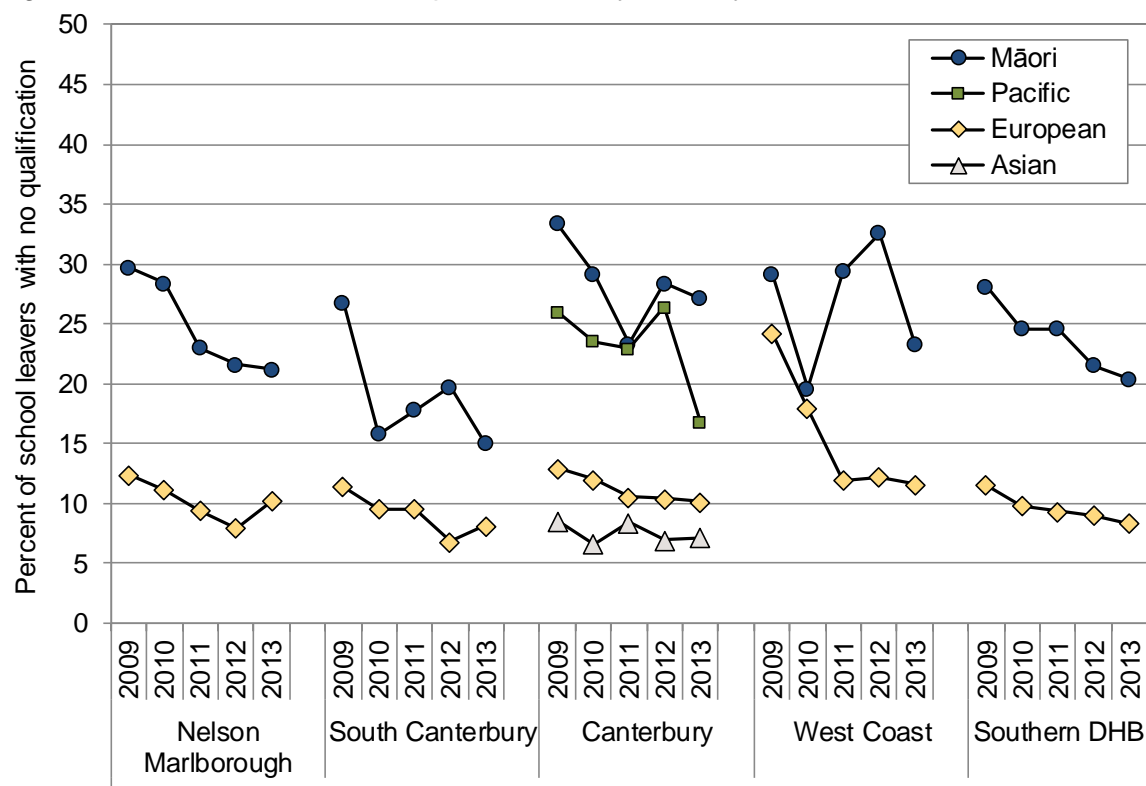


Figure 5. Educational attainment of school leavers, South Island DHBs 2009–2013



Source: Ministry of Education

Figure 6. School leavers with no qualifications by ethnicity, South Island DHBs 2009–2013



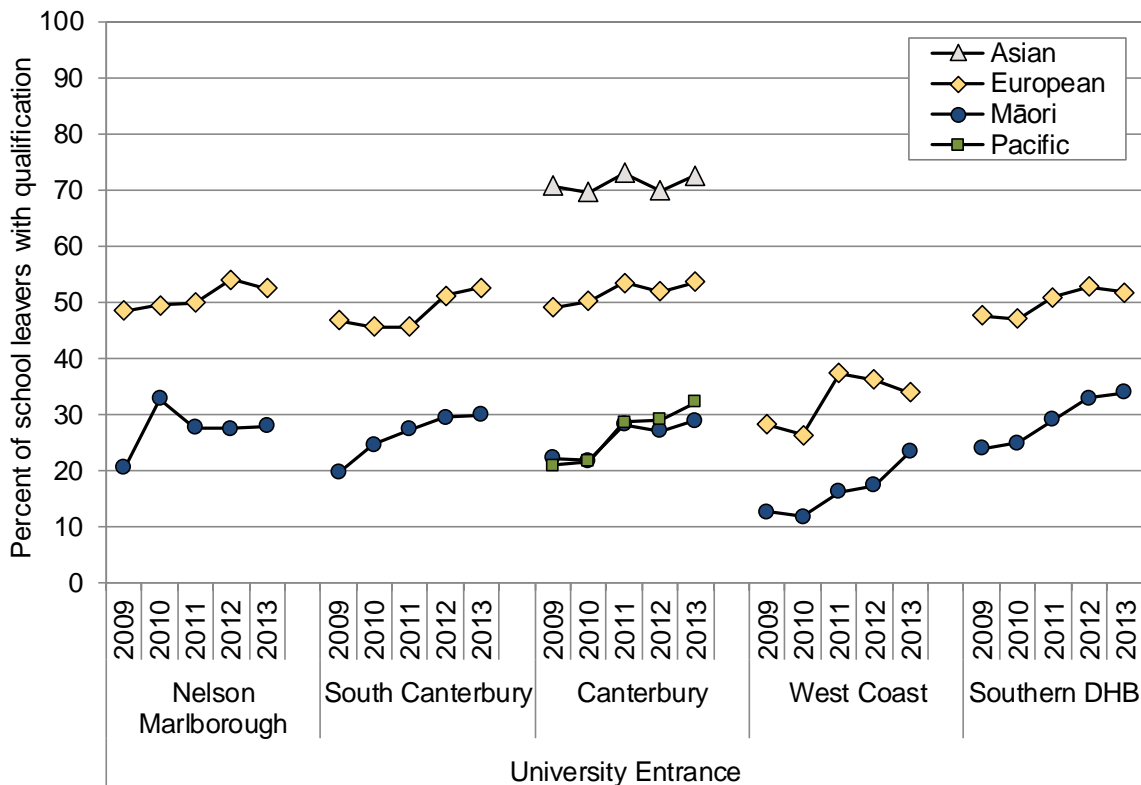
Source: Ministry of Education; Note: Ethnicity is total response and thus individual students may appear in more than one ethnic group

Distribution by Ethnicity

In Canterbury during 2009–2013, a higher proportion of Māori and Pacific students than European or Asian students left school with no qualifications, while in the remaining South Island DHBs rates were higher for Māori than for European students (**Figure 6**).

In Canterbury during 2009–2013, a higher proportion of Asian > European > Māori and Pacific students left school with a University standard, while in the remaining South Island DHBs rates were higher for European than for Māori students (**Figure 7**).

Figure 7. School leavers with University Entrance standard by ethnicity, South Island DHBs 2009–2013



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 1 (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, an overview of publications which are relevant to early childhood education are provided in that chapter. Reviews can be found in the other educational sections of publications that examine initiatives to improve the educational participation and attainment of Māori students, prevent stand-downs, suspensions, exclusions and expulsions, and improve school attendance.



Table 1. Local policy documents and evidence based reviews on students' educational attainment

Ministry of Health publications
<p>Ministry of Health. 2014. Māori Participation and Attainment in Science Subjects (aged 15 to 17 years) 2008 to 2012. http://www.health.govt.nz/publication/maori-participation-and-attainment-science-subjects-aged-15-17-years-2008-2012 accessed 13 November 2014</p> <p>The Ministry of Health monitors Māori students' participation and achievement in science subjects as part of a wider workforce strategy. Increasing the number of Māori health professionals is essential to improve health outcomes for Māori at a population level, including the health of Māori children, and providing appropriate care to all New Zealanders. Studying science subjects at school remains a prerequisite for Māori candidates wanting to become health professionals and also opens doors into careers in a range of sport and science-related professions. The spreadsheet linked to this webpage provides details of the National Certificate of Educational Achievement (NCEA) participation and achievement in science of Māori students aged 15–17 years nationally and in each DHB. At a national level from 2008–2012 there was an increase in the number of Māori candidates who attained 14 or more credits in a science subject in each age group. However a significant disparity was evident between the attainment rate for Māori candidates compared with non-Māori at all ages in each year. At age 15 only, the percentage increase in attainment for Māori candidates was greater than the percentage increase for non-Māori candidates (5% rate increase for Māori compared with 3.7% for non-Māori). There was no lessening of disparity at ages 16 or 17.</p>
Ministry of Education publications
<p>Alton-Lee A. 2012 The use of evidence to improve education and serve the public good. Wellington: Hei Kete Raukura, Ministry of Education. 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. The authors emphasise using evidence to strategically resource improvements and to focus on improving valued outcomes for all learners, with accelerated improvement for those underserved by schooling or disadvantaged, and enabling local responsiveness. 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, et al. 2003. The Complexity of Community and Family Influences on Children's Achievement in New Zealand: Best Evidence Synthesis. Wellington. Ministry of Education. 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>
Ministry of Social Development documents
<p>Ministry of Social Development. 2014. Youth Service Evaluation Report. Wellington: Ministry of Social Development. http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/evaluation/youth-service/evaluation-report.html</p> <p>Since August 2012 the Ministry of Social Development has contracted community-based service providers to work intensively with young people aged 16–18 years who are at risk of long-term benefit dependency, to provide a wrap-around service (Youth Service: YS) that supports them into education, training or work-based learning. In the first 12 months since enrolment YS participants were more likely than non-enrolled peers to increase the number of National Certificate in Educational Achievement (NCEA) credits that they held, but were less likely than the comparison group to have met the requirements of NCEA level 2 (partly because of a lower baseline qualification level between the two groups). Most YS participants have experienced difficulties with mainstream education, and it can take several months of support to enrol a participant in educational activity.</p>
International guidelines
<p>National Institute for Health and Clinical Excellence. 2009. Social and emotional wellbeing in secondary education. London: National Institute for Health and Clinical Excellence. https://www.nice.org.uk/guidance/PH20</p> <p>Good social skills, positive relationships and resilience can protect young people against low self-esteem and problematic behaviour and help them to benefit from educational opportunities. While recognising that a range of factors, including individual make-up, family background, local community characteristics and society at large affect young peoples' development, secondary education establishments can provide an environment that fosters social and emotional wellbeing and equips young people with the knowledge and skills they need to learn effectively. This National Institute for Health and Clinical Excellence (NICE) guidance focuses on universal interventions used to support all</p>

young people rather than targeted approaches. Despite limitations of the evidence, NICE identified a number of principles for good practice and developed recommendations using expert advice, stakeholder comments and fieldwork alongside a review of the evidence and an economic analysis. Strong leadership and good management and organisation appear to be prerequisites for successful interventions. Other key factors in promoting social and emotional wellbeing in secondary education include a supportive and secure environment, an ethos that avoids stigma and discrimination in relation to mental health and social and emotional difficulties, support for students with special needs, access to the specialist skills, advice and support that secondary schools require, staff with the knowledge, understanding and skills they need to develop young people's social and emotional wellbeing and social and emotional skills education tailored to the developmental needs of young people.

Evidence-based medicine reviews

Langford R, et al. 2014. **The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement.** Cochrane Database of Systematic Reviews(4). Art. No.: CD008958. DOI: 10.1002/14651858.CD008958.pub2.

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008958.pub2/abstract>

The strong relationship between health and education, whereby healthy children achieve better results at school which are associated with improved health throughout life, forms the basis of the World Health Organization's (WHO) Health Promoting Schools (HPS) framework which is a holistic, settings-based approach to promoting health and educational attainment in school. The effectiveness of this approach has not been previously rigorously reviewed. The authors included 67 eligible cluster trials, randomising 1,443 schools or districts which tackled a range of health issues. The quality of evidence overall was low to moderate with heavy reliance on self-reported data, high attrition rates for some studies and a lack of long-term follow-up data for most studies. Where there were sufficient data for meta-analysis the authors found small but positive effects with potential to produce public health benefits at the population level in some interventions for body mass index (BMI), physical activity, physical fitness, fruit and vegetable intake, tobacco use, and being bullied. There was little evidence of effectiveness for standardised body mass index (zBMI) and no evidence of effectiveness for fat intake, alcohol use, drug use, mental health, violence and bullying others; however, only a small number of studies focused on these latter outcomes. Unfortunately few studies included any academic, attendance or school-related outcomes and it was not possible to draw any clear conclusions as to the effectiveness of this approach for improving academic achievement.

Other relevant publications

Education Review Office. 2014. **Achievement 2013–2017: Success for students in 2013.** Wellington: New Government. <http://www.ero.govt.nz/National-Reports/Achievement-2013-2017-Success-for-students-in-2013-November-2014>

This report presents the findings of an evaluation of the Ministry of Education's initiative Achievement 2013–2017, which involved schools and the Ministry working together to improve student achievement. In 2013, 2,701 students from 129 schools who were unlikely to gain NCEA Level 2 without additional support were given additional support by leaders and teachers. Sixty percent of the students achieved NCEA Level 2 in 2013. Leaders also reported that attendance had improved and the students were more engaged as a result of the support. Key components of the intervention were carefully matching each student with a caring, supportive adult who had regular conversations with them regarding their learning; timely monitoring of students' progress and achievement and maximising learning opportunities for students with extra targeted teaching provided both during and outside regular school hours. A few schools actively fostered family and whānau support with some schools using texting to maintain regular contact with parents and whānau. As this was an uncontrolled study it is not possible to analyse the effect of the intervention compared with usual practice.

Buckley S & Maxwell G. 2007. **Respectful schools restorative practices in education: A summary report.** Wellington: Office of the Children's Commissioner & Institute of Policy Studies, Victoria University. <http://www.occ.org.nz/assets/Uploads/Reports/Education/Respectful-schools.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 underachieving 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 were identified using the search methodology outlined in Appendix 1.