



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

# Annual Report on NCEA and New Zealand Scholarship Data and Statistics (2012)

*May 2013*



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# Contents

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<b>Introduction</b>	2	<b>Course Endorsement</b>	60
<b>Background</b>	4	<i>Courses Able to be Endorsed</i>	61
<i>Explanation of the Cohorts for which achievement statistics are reported</i>	4	Students with One or More Endorsable Courses	61
<b>NCEA Retentions 2008-2012</b>	6	Average Number of Endorsable Courses Per Student	65
Overall Retention Rates	7	<i>Course Endorsement Achievement rate</i>	69
Retention by Gender	8	Percentage of students with endorsable courses gaining endorsement	69
Retention by Ethnicity	9	Percentage of Merit and Excellence Endorsements	73
Retention by School Decile Band	10	<b>New Zealand Scholarship</b>	78
Roll Data and Retention	11	<i>Scholarship Monetary Awards</i>	78
<b>Achievement in NCEA and University Entrance</b>	12	<i>Scholarship Statistics for 2012</i>	79
<i>Performance of Participating Cohorts in NCEA and University Entrance</i>	12	<i>Scholarship Awarded in 2012 by Subject</i>	80
Analyses by Gender	14	<i>Premier Awards and Outstanding Scholar Awards</i>	83
Analyses by Ethnicity	18	<i>Scholarship Awards, Single Subject Awards and Top Subject Awards in 2012</i>	83
Analyses by School Decile Band	22	<b>Results Distribution for NZQF standards</b>	84
<i>Performance of the 2010 Tracked Year 11 Cohort</i>	26	<b>School Related Qualifications</b>	92
Analyses by Gender	30	<b>NCEA Administrative processes and data</b>	94
Analyses by Ethnicity	33	<i>The role of NZQA in the examination process</i>	94
Analyses by School Decile Band	36	<i>External Assessment</i>	94
<b>Literacy and Numeracy</b>	40	<i>Reviews and Reconsiderations</i>	95
<i>Literacy</i>	41	<i>External Moderation of Internal Assessment</i>	97
Analyses by Gender	42	<i>Breaches of Rules</i>	100
Analyses by Ethnicity	43	<b>Appendices</b>	104
Analyses by Decile Band	44	<i>Appendix 1. Explanation of how different Cohorts are constructed</i>	104
<i>Numeracy</i>	45	<i>Appendix 2. School Related Qualifications</i>	107
Analyses by Gender	46	<i>Appendix 3. Glossary</i>	109
Analyses by Ethnicity	47		
Analyses by School Decile Band	48		
<b>Certificate Endorsement</b>	50		
Analyses by Gender	53		
Analyses by Ethnicity	56		
Analyses by School Decile Band	58		



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# Introduction

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## *NCEA assessments are robust and credible*

NCEA examinations have acquired a high level of credibility among students, teachers and parents thanks to a rigorous monitoring of all the steps involved in the examination, and because of the high validity and reliability of the results.



**Source:**

OECD (2012). "Student assessment", in D. Nusche, D. Laveault, J. MacBeath & P. Santiago, OECD Reviews of Evaluation and Assessment in Education: New Zealand: Main Conclusions, OECD Publishing, p.49

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# Introduction

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This document, the Annual Report on NCEA and New Zealand Scholarship Data and Statistics (2012) has been prepared by the New Zealand Qualifications Authority. It summarises the attainments of New Zealand's National Certificate of Educational Achievement and New Zealand Scholarship candidates in 2012 with reference to achievement in previous years.

The introduction of standards-based assessment in New Zealand secondary schools has delivered an assessment system that compares favourably with equivalent systems in other countries. Students receive grades in accordance with how well they meet established standards. Each standard has an associated credit value. Qualifications, such as the National Certificate of Educational Achievement (NCEA), are awarded to students who have met the credit requirements and any other requirement of the qualification such as proficiency in Literacy and Numeracy.

In 2012 the National Certificate of Educational Achievement completed its ninth year of full implementation. During this time a number of enhancements have been delivered including the introduction of Certificate Endorsement in 2007 and Course Endorsement in 2011. Both of these enhancements have enabled students to demonstrate exceptional performance both in the Qualification as a whole and in specific courses.

The uptake of Course Endorsement has increased in 2012, the second year of its implementation. This is evident in both the number of candidates taking endorsable courses and in the number of Course Endorsements achieved.

Since 2009 there has been a strong and consistent increase in the rate of attainment of NCEA Level 1, 2 and 3 by Year 11, 12 and 13 students respectively. The rate of University Entrance increase over that period is slower, but still steady.



Richard Thornton  
Deputy Chief Executive  
Qualifications Division  
New Zealand Qualifications Authority

At Year 11 (Level 1) and Year 12 (Level 2), all ethnicities are showing steady improvement with significant improvement amongst Pasifika students.

New Zealand Scholarship provides the most able students the opportunity to further extend themselves as well as the possibility of monetary reward to help support their continued education.

In 2012 the number of students attempting New Zealand Scholarship climbed yet again, with 10,467 entered for one or more subject examinations.

As part of the Alignment of Standards with the New Zealand Curriculum project, changes to Level 2 standards were delivered in 2012 following on from the changes to Level 1 standards that were delivered in 2011. As with the Level 1 alignment, there was a marked increase in the use of Achievement Standards within schools as was anticipated.

The national moderation agreement rate was calculated using a new sampling method in 2012. The overall moderator-to-teacher agreement rate for candidates' work, both at the level of credit and the level of grade, continues to show a high level of agreement between the grades awarded by teachers and those checked by New Zealand Qualification Authority moderators.

This year, details of the outcome of Review and Reconsideration processing have been included in this report for both 2011 and 2012.

The improvement of retention rates and the establishment of relevant and meaningful learning pathways is enabling schools to focus on 'success for all'.

The New Zealand Qualifications Authority is pleased to report on the continued and significant improvement in performance of candidates.



Karen Poutasi  
Chief Executive  
New Zealand Qualifications Authority



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# Background

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This report provides information about the secondary school qualifications administered by NZQA. Its primary focus is the main New Zealand secondary suite of qualifications, the National Certificates of Educational Achievement (NCEA) at levels 1, 2, and 3. It also reports on the achievement of Literacy and Numeracy, Certificate Endorsement, Course Endorsement, University Entrance and New Zealand Scholarship.

The second section of this report provides information and statistics related to the processes used to administer NCEA. These include the processing of requests for a review or reconsideration of candidates examination results, moderation of internally assessed standards, and investigating breaches of examination rules.

## ***Explanation of the Cohorts for which achievement statistics are reported***

Statistics are used for varying purposes, including monitoring of standards, student achievement, and the quality of assessments. The base cohort analysed will not be the same for each purpose. Cohorts are chosen to enhance the meaning and reduce misinterpretation of the analyses reported. There are four basic cohorts used in this report. These are the School Roll, the Participating Cohort, the Enrolled Student Cohort, and the Tracked Year 11 Cohort.

The four cohorts used in this report are briefly explained in this section. A more detailed explanation of how each cohort is constructed is included in Appendix 1.

### **School Roll Cohort**

Each year schools are required to complete four roll returns stating their school roll at key dates. These roll returns are sent to the Ministry of Education. The July 1st roll return data is subsequently supplied to NZQA for statistical reporting purposes.

Reporting NCEA attainment rates using the roll data is particularly useful when reporting school-level statistics as it provides a common basis for comparison. However, the school roll data do not necessarily include all students of secondary school age, nor does it consider that achieving NCEA Level 1, 2, or 3, or University Entrance is not the objective of all students. This means that statistics based

on the roll data can provide achievement rates that appear artificially low, because students not attempting the qualification are still counted within the denominator. But conversely the achievement rates may be slightly elevated because the roll does not include all students of secondary school age.

### **Enrolled Student Cohort**

Each year there are students at secondary school who are undertaking courses that are not assessed using standards administered by NZQA. These students will be included in the school roll counts but will not have an enrolment in the NZQA system. To be in the Enrolled Student Cohort, NZQA must have a record for the student of one or more entries in either a Unit Standard or an Achievement Standard for the academic year being reported. Use of this cohort reports the statistics in the traditional form of achievement rates related to entries.

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# Background

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## Tracked Year 11 Cohort

The third cohort used in this report is the Tracked Year 11 Cohort which is a special form of the Enrolled Student Cohort. This cohort is defined by using the enrolled candidates at a specific year level in an earlier year, and then tracking their attainment through to the current year. For example, in this report, Year 11 students in 2010 are tracked successively to Year 12 in 2011 and Year 13 in 2012.

Calculating percentages of students attaining qualifications using the Tracked Year 11 Cohort takes account of differences in retention between the demographic groups of interest. For example, in each year a greater proportion of male students than female students leave school without NCEA Level 1 during Years 11 and 12. Comparing the percentages of male and female students who have attained NCEA Level 1 by the end of Year 12, with only those students who were still at school, would therefore overestimate male students' level 1 performance, and consequently underestimate the level 1 performance gap between male students and female students. Using the original Year 11 students as a basis for calculating percentages right through to Year 13 avoids this problem, because all students are counted in the denominators for the percentages, whether or not they remain at school.

## Participating Cohort

Ideally the achievement rate for qualifications should be reported against candidates seeking to achieve the qualification. However, as there is no formal entry process for NCEA qualifications it is not possible to construct a real participation cohort. To resolve this issue, a proxy for entry to the qualification has been developed to provide an approximate participation cohort. Statistics for qualification achievement are more meaningful because they exclude those not attempting the qualification.

A candidate is considered to be participating and therefore to be in the Participating Cohort for a given qualification if they have a reasonable opportunity to achieve that qualification. A reasonable opportunity, in this context, exists if the candidate had the opportunity to achieve sufficient potential credits to be able to achieve the qualification by the end of that year. This is determined by counting the credits they were entered for during the year, regardless of the results they may have achieved, and adding this to any credits applicable to the qualification that they had already achieved in previous years. If the total potential credits that the student could have achieved are greater than the threshold set for the qualification then the student is considered to be participating in the qualification.

This cohort overcomes some of the issues of the School Roll Cohort by focusing on a subset of students whose entry behaviours signal that they are likely to be attempting the qualification. Students engaged in smaller programmes of assessment or having alternative education needs and objectives are not likely to meet the threshold of potential credits, and are left out of this cohort.



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# NCEA Retentions 2008-2012

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## Introduction

This section of the report provides some background information on retention of students in senior secondary education. The purpose of this section is to provide a context for understanding the achievement figures detailed in later sections of this report.

Each retention period is 3 years and tracks all the Year 11 students in the first year through to Year 12 and then Year 13. As with all other Tracked Cohort calculations, the original Year 11 students form the denominator for all subsequent calculations. Students coming into the senior secondary school system at years 12 and 13, perhaps due to recent immigration or as foreign-fee paying students, are ignored and not added to the calculation as they were not part of the original Year 11 cohort.

The Ministry of Education can provide data and detailed statistical analysis related to retention within the New Zealand Education system as a whole.

The information provided here is related to those students known to NZQA. A student will be known to NZQA if there is an enrolment record with a secondary school in the academic year of interest held in the NZQA main database for that student. Students who are in a secondary school but are not undertaking any standards based assessment will not necessarily have an enrolment recorded in the NZQA database.

Retention can have a significant bearing on how attainment statistics should be interpreted.



# NCEA Retentions 2008-2012

## Overall Retention Rates

Figure 1 shows the changes in student retention to Year 12 and Year 13 based on the Tracked Year 11 cohorts from 2008, 2009 and 2010. These graphs show that retention has remained stable since 2008 with a total gain of approximately one percentage point both for retention to Year 12 and to Year 13.

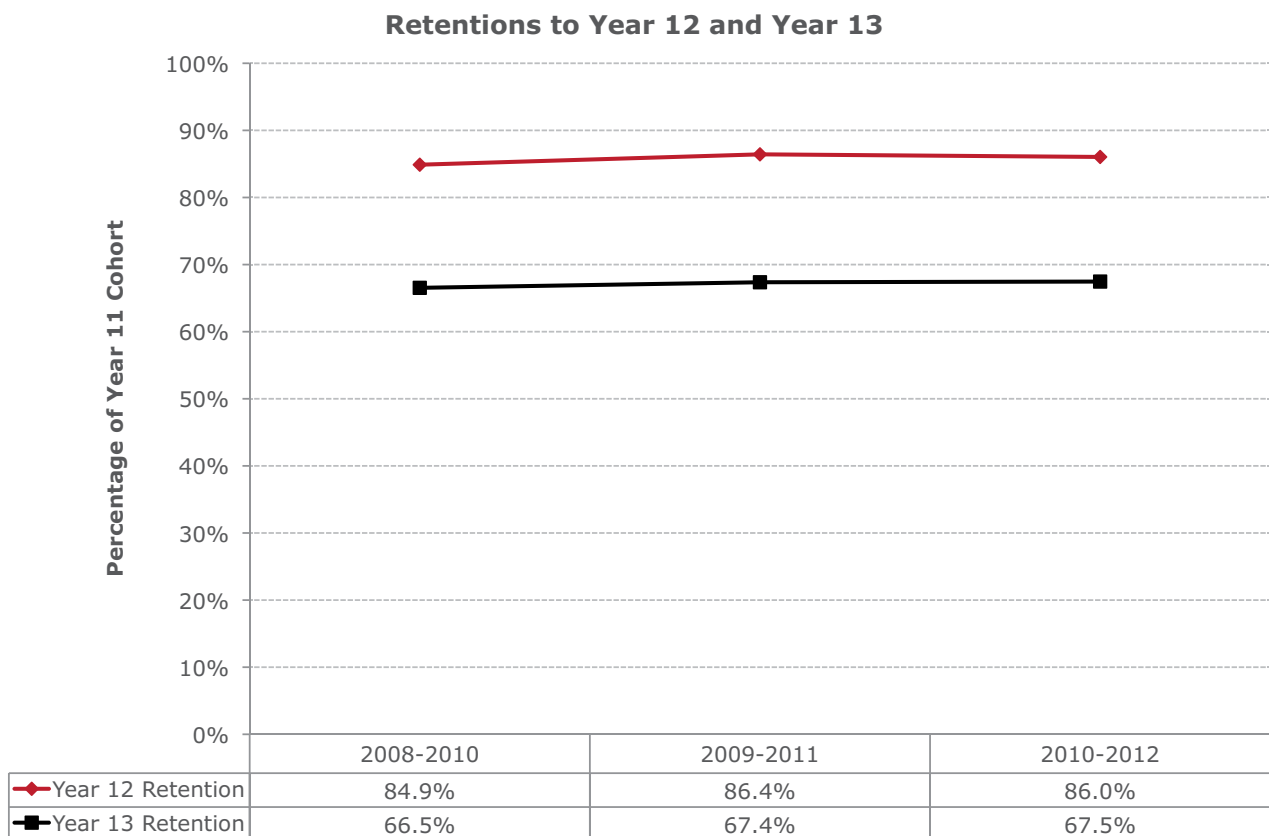


Figure 1. Retention rates to Year 12 and Year 13 for the 2008 to 2010, 2009 to 2011 and 2010 to 2012 Tracked Year 11 cohorts.



# NCEA Retentions 2008-2012

## Retention by Gender

As with the overall retention rate, the rates for males and females have remained stable for the Tracked Year 11 cohorts starting in each of the last 3 periods, 2008 to 2010, 2009 to 2011 and 2010 to 2012. This stability is apparent both in terms of the rates themselves and the gap between males and females. In the 2010 to 2012 period the rate for males was 64%, whilst the rate for females was nearly 7 percentage points higher at just under 71%.



Figure 2. Retention rates to Year 13 by gender for the 2008 to 2010, 2009 to 2011 and 2010 to 2012 Tracked Year 11 cohorts.

# NCEA Retentions 2008-2012

## Retention by Ethnicity

The breakdown of retention by ethnicity shows a little more change for Asian students but is stable for New Zealand European, New Zealand Māori, and Pasifika students. The retention rate for Asian students has risen from just over 77% in the 2009 to 2011 Tracked Year 11 Cohort period to just under 79% in the 2010 to 2012 Tracked Year 11 Cohort period.

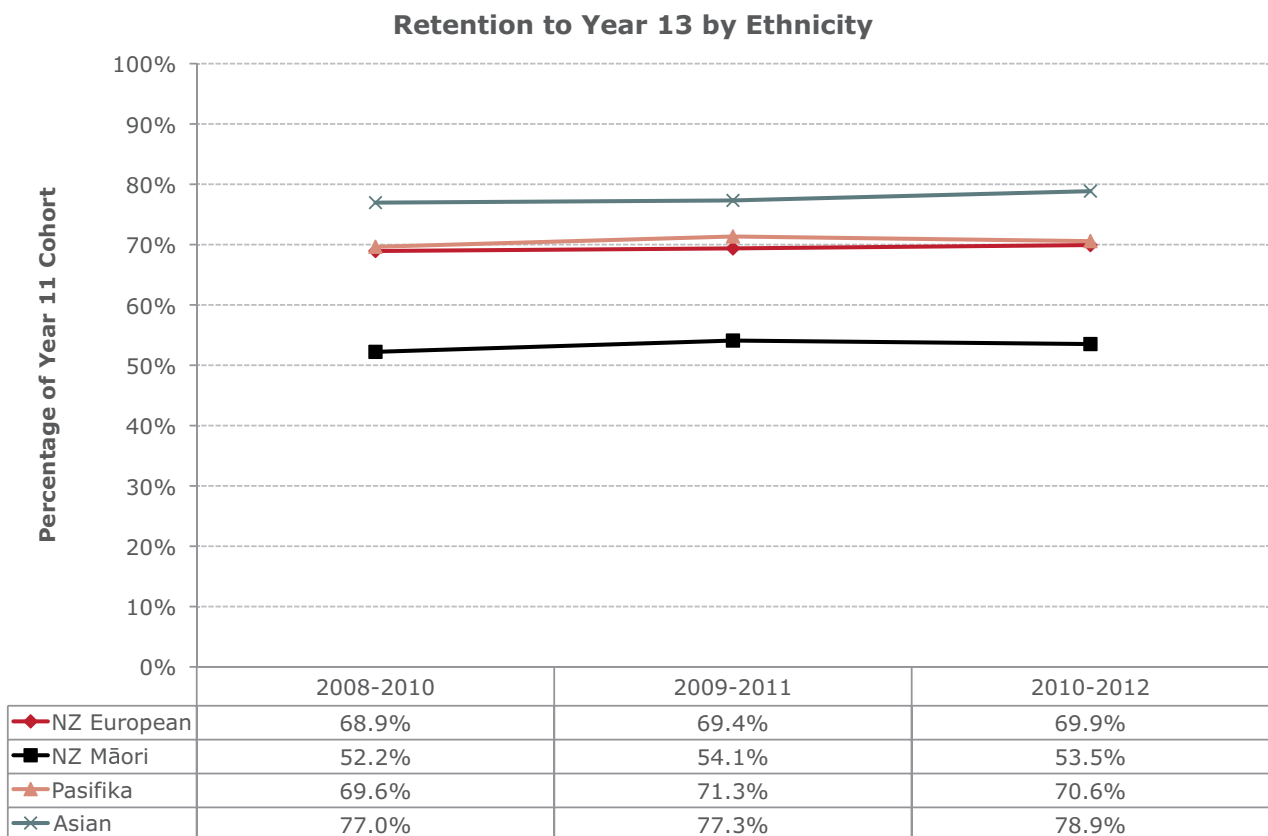


Figure 3. Retention rates to Year 13 by ethnicity for the 2008 to 2010, 2009 to 2011 and 2010 to 2012 Tracked Year 11 cohorts.

# NCEA Retentions 2008-2012

## Retention by School Decile Band

The retention rates to Year 13 of all school decile bands have shown minor increases during the last three periods. The retention rate to Year 13 for Decile Band 8-10 continues to be approximately 10 percentage points higher than for Decile Band 4-7, which in turn is approximately 5 percentage points above Decile Band 1-3.

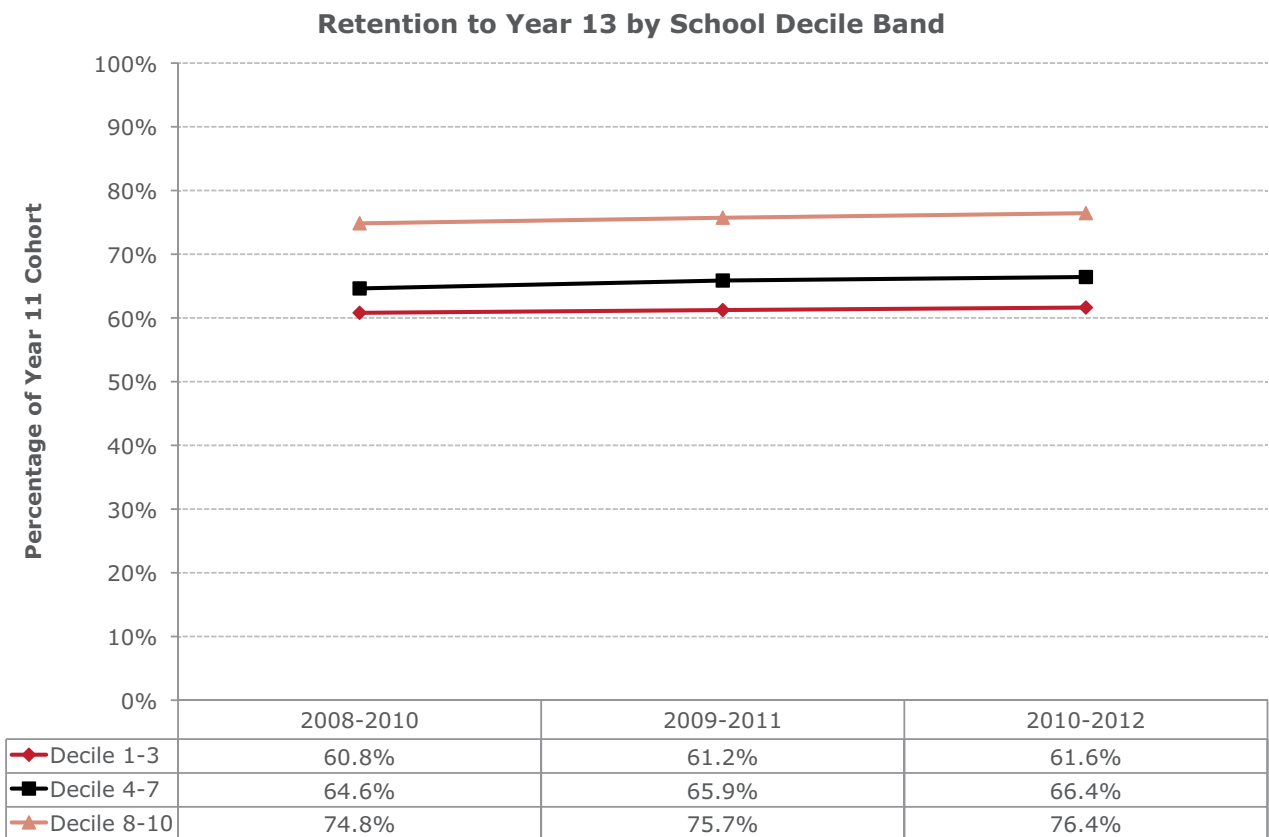


Figure 4. Retention rates to Year 13 by school Decile Band for the 2008 to 2010, 2009 to 2011 and 2010 to 2012 Tracked Year 11 cohorts.

# NCEA Retentions 2008-2012

## Roll Data and Retention

The retention data provided above is based on a tracked cohort approach. However, roll based data can also provide a context for understanding the achievement statistics.

Over the last 3 years the overall roll has remained fairly constant. In 2012 the overall roll took a slight dip to 163,349, down from 164,612 in the prior year. This change was largely due to a reduction in the number of Year 11 students which dropped from 62,527 down to 60,444. Population dips, such as this, are not uncommon and can either reduce or increase the number of students abruptly. This reduced population will move on into Year 12 in 2013 and then Year 13 in 2014.

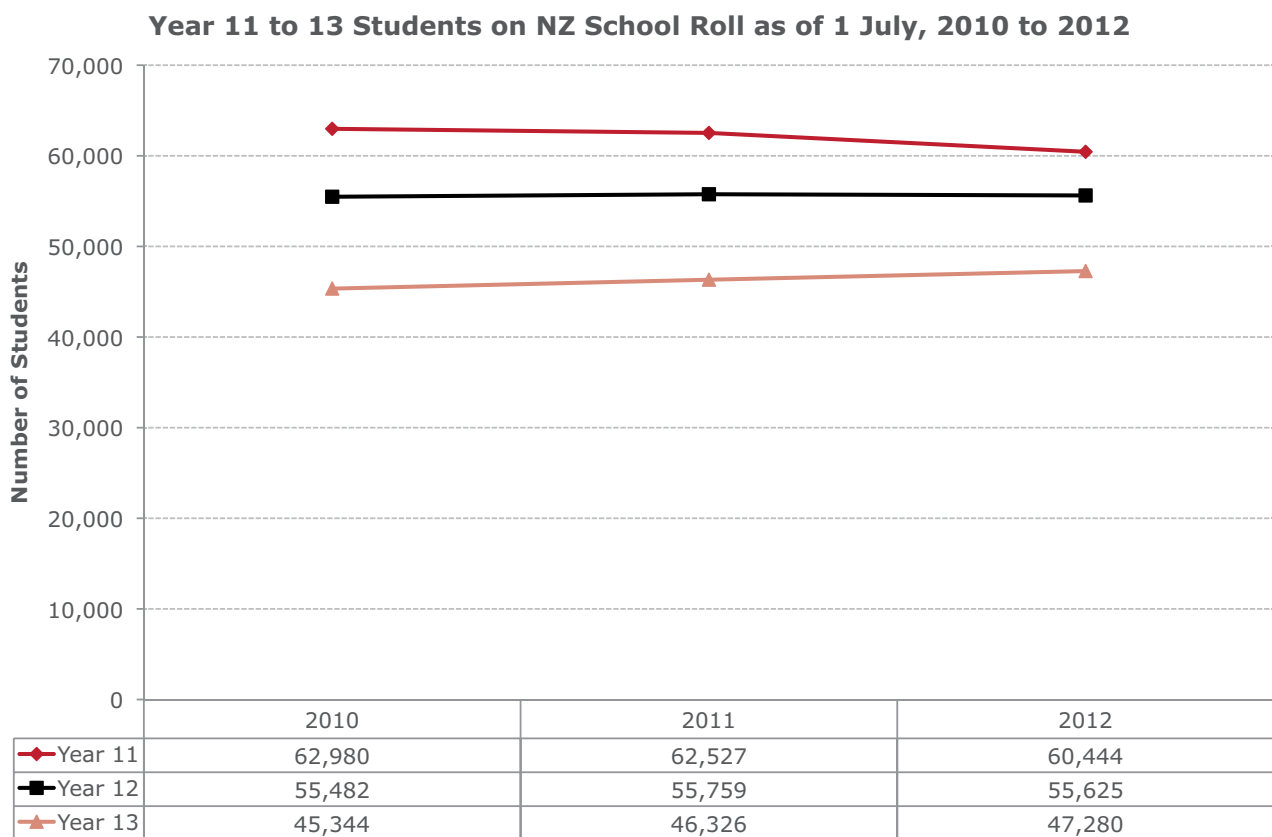


Figure 5. Numbers of students in senior secondary school, Years 11-13, on New Zealand School roll as of 1 July, from 2010 to 2012. Foreign fee paying students are included.



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# Achievement in NCEA and University Entrance

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## *Performance of Participating Cohorts in NCEA and University Entrance*

Attainment of the three NCEA qualifications and University Entrance are reported as percentages of the Participating Cohort. The Participating Cohort for each qualification is a proxy for candidates seeking to attain that qualification. This cohort has been constructed because there is no formal entry process for the NCEA qualifications or for University Entrance (UE).

A student is considered to be a participant and therefore included in the Participating Cohort, if they had yet to achieve the qualification at the start of the year being reported and they had entered or achieved sufficient potential credits to be able to achieve the qualification.

A more detailed explanation of how the Participating Cohort is calculated is available in Appendix 1.

It should also be noted that in some schools students may pursue qualifications other than NCEA, including those registered on the New Zealand Qualification Framework (NZQF), as well as non-NZQF qualifications. These other qualifications have not been included in this report.

Typically, Years 11, 12 and 13 students seek NCEA Level 1, NCEA Level 2, NCEA Level 3 and UE as their respective goals. However, some students may be working at a higher or lower NCEA level than is typical of their Year Level. The numbers of students working towards a qualification at a different level to the typical pattern are relatively small and consequently the data presented in this report cover only the typical achievement patterns.

Figures 6-18 compare attainment rates over time, between genders, ethnicities and decile bands for the NCEA qualifications and UE in the year most typical for attaining each: Year 11 for NCEA Level 1, Year 12 for NCEA Level 2, Year 13 for NCEA Level 3 and UE.

Figure 6 shows that since 2009 there has been a strong and consistent increase in the rate of attainment of NCEA Level 1, 2 and 3 by Year 11, 12 and 13 students respectively. The rate of UE increase over that period is slower, but still steady.

It should be noted that between 2008 and 2009 there was a significant change in the policy related to the reporting of Not Achieved result. From 2009 onwards schools were required to report these Not Achieved results where previously they had only been required to report Achieved, Merit and Excellence results. The impact of this change can be seen in the comparison of 2008 and 2009 achievement rates. For NCEA Level 2 and 3 the rates appeared to remain stable. NCEA Level 1 increased, whilst UE decreased. It is likely that this was due, in part to an increased number of students being included in the Participating Cohorts for each of these qualifications. This arises because students who did not achieve the qualification due to insufficient Achieved credits would also have been left out of the cohort prior to 2009 because they did not have enough potential credits to be included. Students who achieved the qualification would automatically have been included in the cohort as they must have had enough credits to achieve the qualification and therefore to be in the cohort.

# Achievement in NCEA and University Entrance

**Participating Year 11 Candidates Attaining NCEA Level 1, Year 12 Candidates Attaining NCEA Level 2, Year 13 Candidates Attaining NCEA Level 3 and University Entrance**

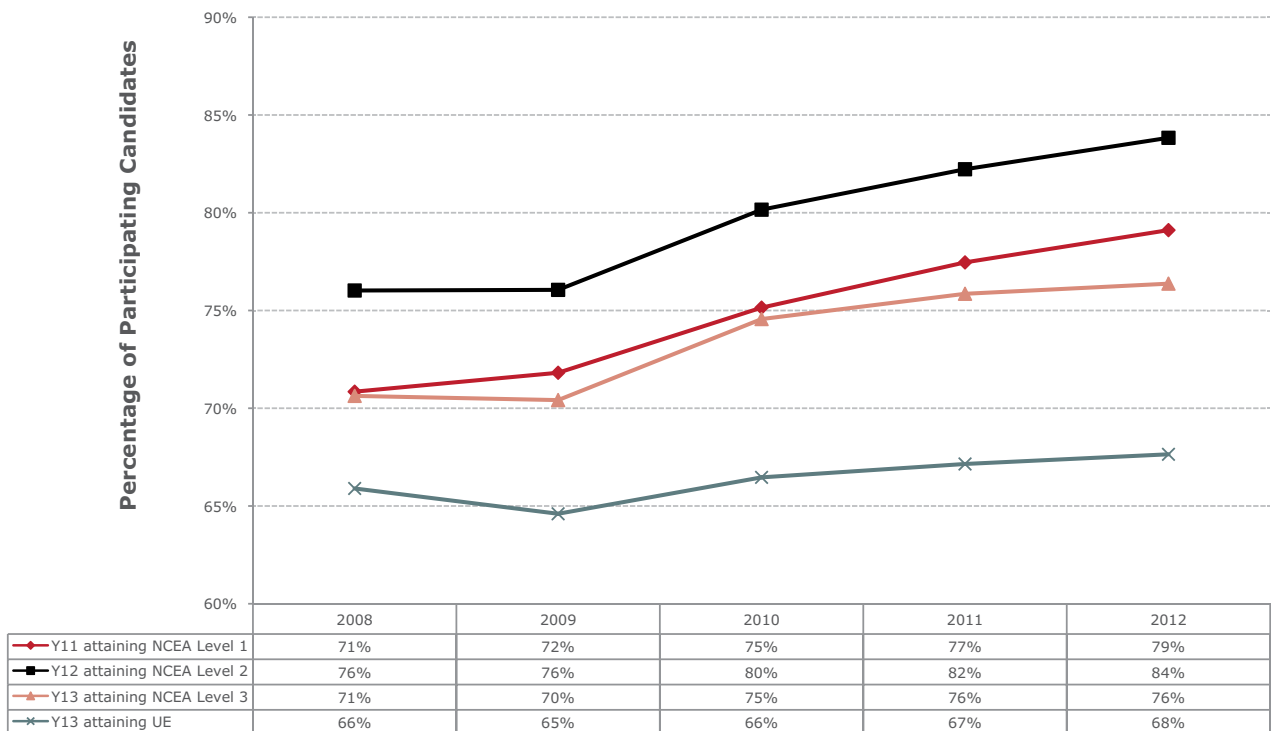


Figure 6. Overall percentages of Year 11 candidates attaining NCEA Level 1, Year 12 candidates attaining NCEA Level 2, Year 13 candidates attaining NCEA Level 3 and UE.



# Achievement in NCEA and University Entrance

## Analyses by Gender

Figures 7-10 compare the performance of males and females in the Participating Cohort in attaining NCEA Levels 1, 2 and 3, and University Entrance in the typical year for doing so, between 2008 and 2012.

At all three levels there is a 7-14 percentage point difference in male and female achievement, with females consistently ahead.

Figure 7 shows that females are more likely to attain NCEA Level 1 in Year 11 than males. However the gender difference has been slowly closing over the years and reached its lowest of 6 percentage points in 2012.

Even though an increasing trend was still there for both genders, the decreased rate of growth of the achievement of NCEA Level 1 by Year 11 students is reflected in the breakdown by gender.

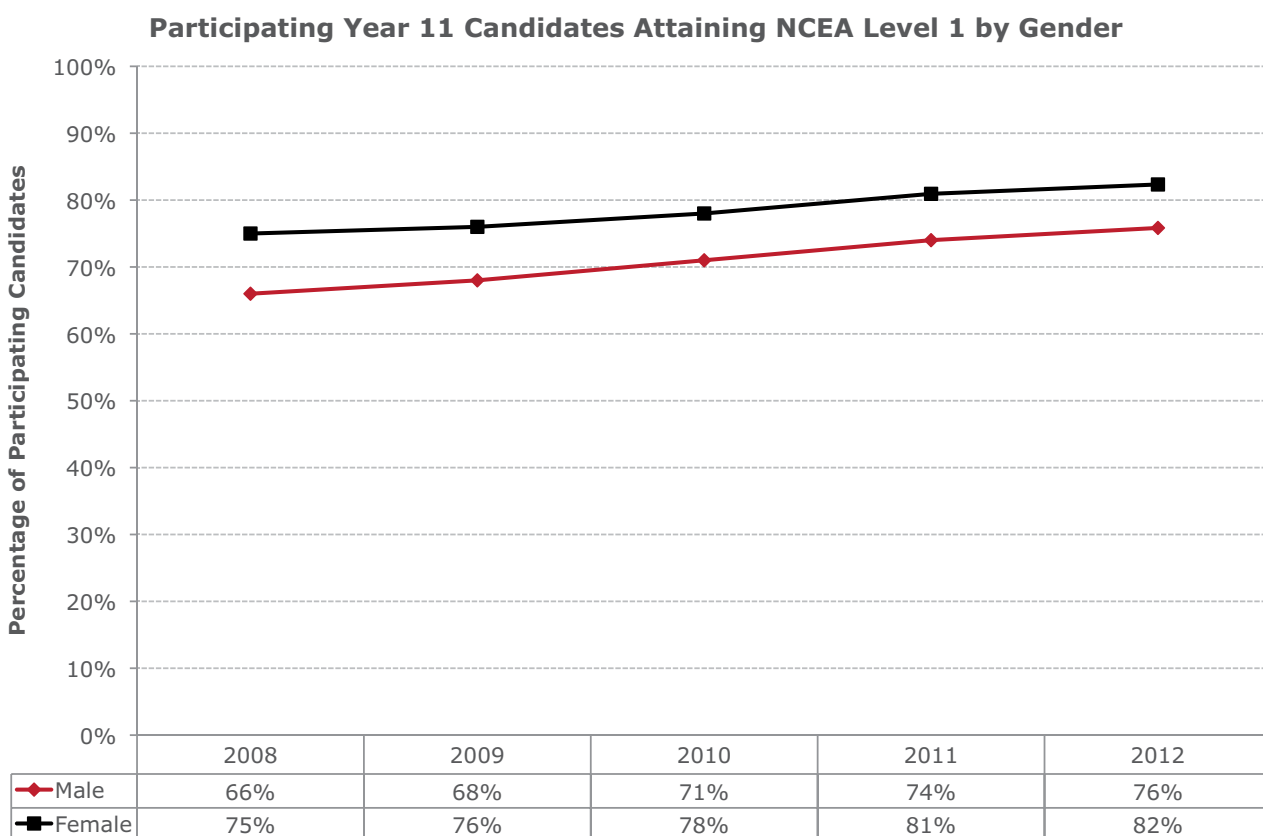


Figure 7. Percentages of Year 11 male and female participating candidates attaining NCEA Level 1 from 2008 to 2012.



# Achievement in NCEA and University Entrance

Figure 8 shows that between 2008 and 2012, there is a consistent difference at Year 12 in favour of female students. This difference has decreased from 10 percentage points in 2008 to just 7 percentage points in 2012. A steady increase in the male achievement rate coupled with the beginning of what might be a slowing of the growth rate for females means that males are closing the gap at this level.

Again, the stable increasing trend for both genders closely resembles that of the overall Figure 6.

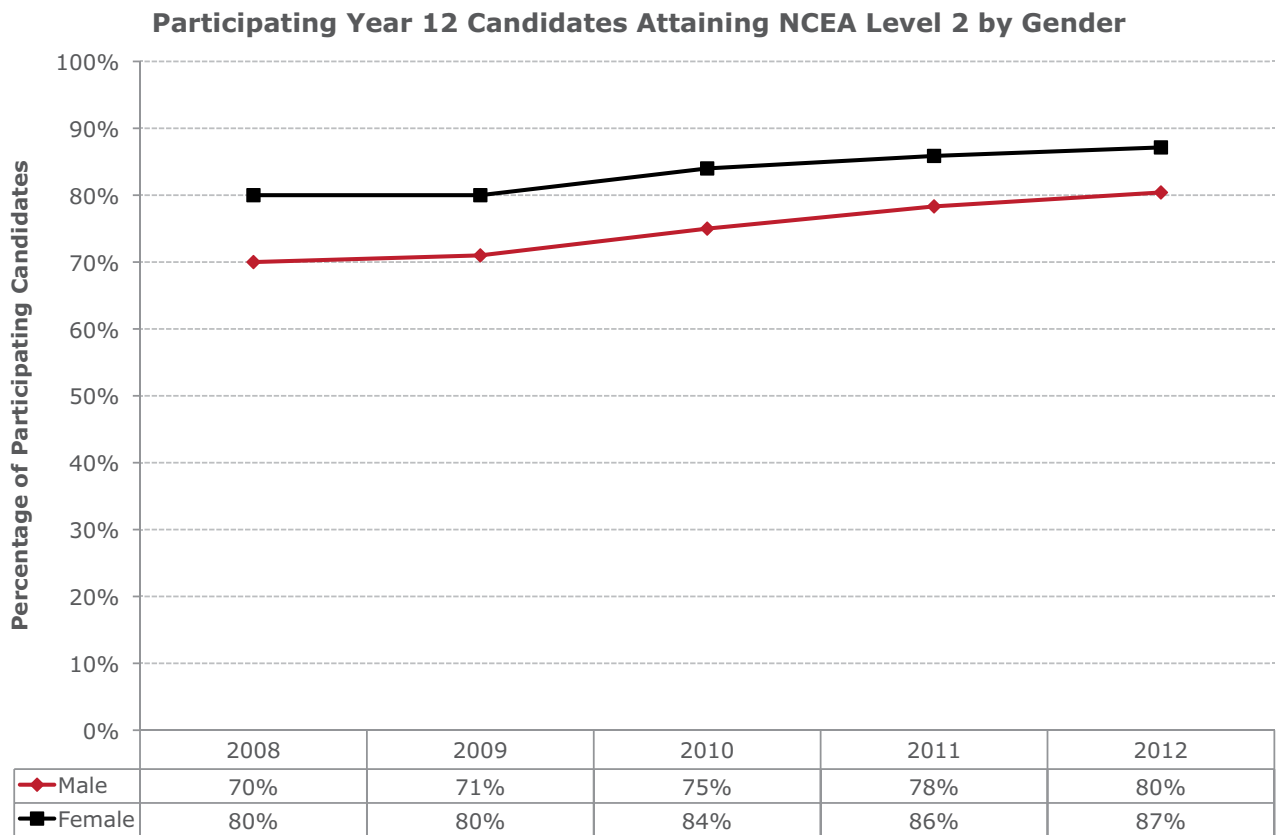


Figure 8. Percentage of Year 12 male and female participating candidates attaining NCEA Level 2 from 2008 to 2012.



# Achievement in NCEA and University Entrance

Figure 9 shows that while Year 13 females have maintained a steady increase in attainment rate since 2009, males have been less consistent. The slowing in male attainment growth from 2010 to 2011 has plateaued in 2012. As a result, the gender difference of participating Year 13 candidates attaining NCEA Level 3, that had decreased between 2009 and 2011 from 12 to 9 percentage points, has now increased again to 10 percentage points.

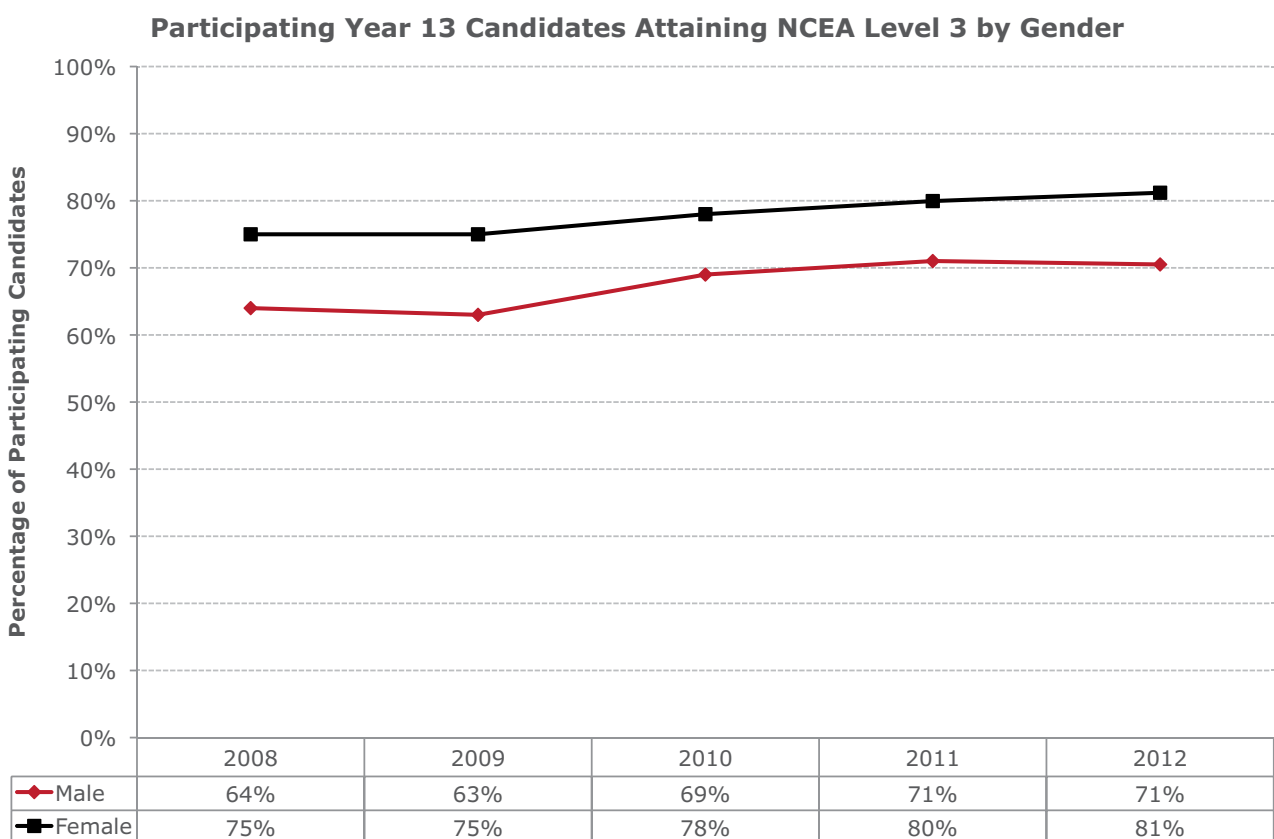


Figure 9. Percentages of Year 13 male and female participating candidates attaining NCEA Level 3 from 2008 to 2012.

# Achievement in NCEA and University Entrance

The pattern of UE attainment evident in Figure 10 is parallel to that of NCEA Level 3. Between 2009 and 2011, the difference in favour of female candidates fell from 10 percentage points to 9 percentage points. As for NCEA Level 3, an increase in female attainment rate and a fall for males, led to a 12 percentage point difference in 2012.

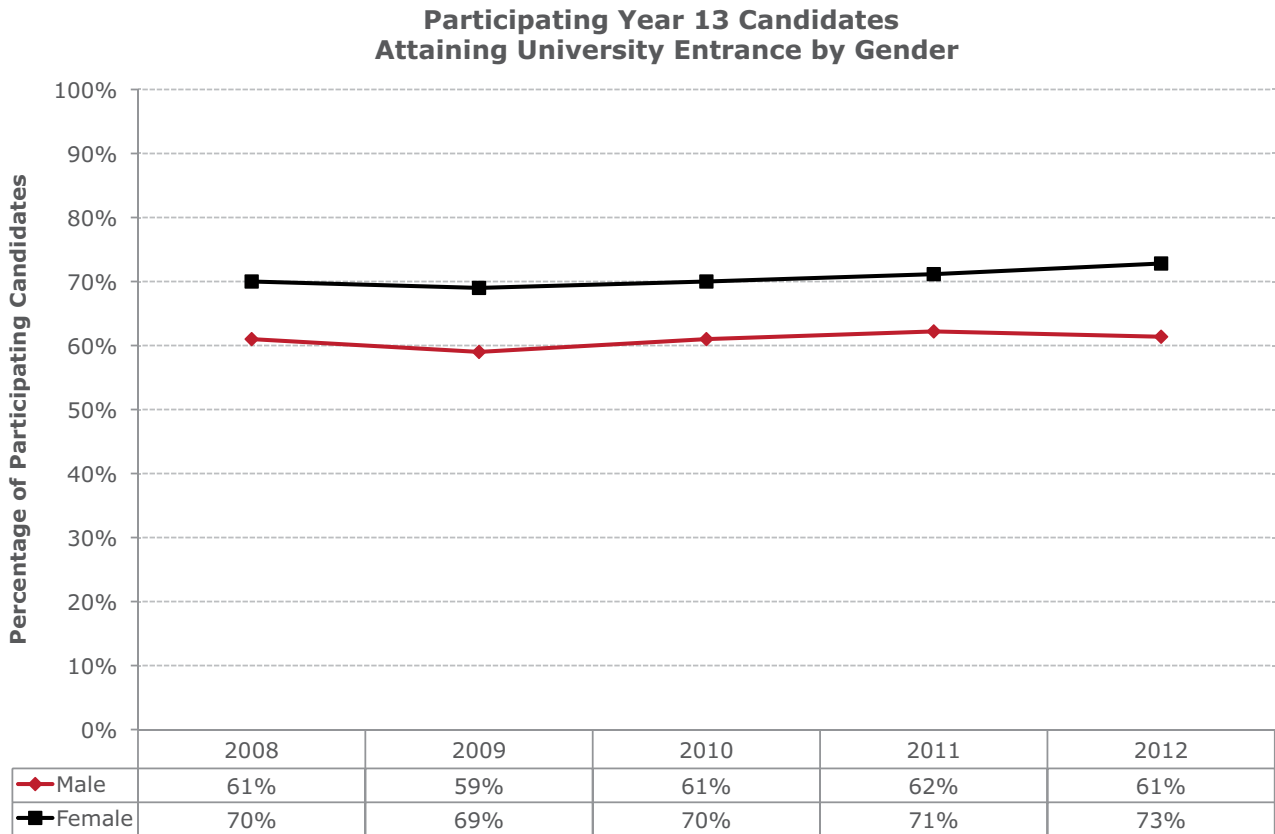


Figure 10. Percentages of Year 13 male and female participants in NCEA Level 3 who attained University Entrance in each year from 2008 to 2012.



# Achievement in NCEA and University Entrance

## Analyses by Ethnicity

Figures 11-14 compare the performance of New Zealand Māori, New Zealand European, Pasifika and Asian participating candidates in attaining NCEA Levels 1-3 and University Entrance, respectively. These are the four largest ethnicities and represent 97.5% of all students. Students not identifying as any of these ethnicities are omitted from these data.

The data in these figures should be interpreted in conjunction with those shown in Figures 15-18, which show comparisons across decile bands. This is because ethnic identity is correlated with socio-economic status: New Zealand Māori and Pasifika candidates are heavily represented in Decile Band 1-3 and less so in Decile Band 4-7 and even less so in Decile Band 8-10. Therefore some of what appears to be an effect of ethnicity could be an effect of socio-economic level.

In 2012, Figure 11 shows that for all ethnicities, attainment of Level 1 increased over that of 2011. The increase for Pasifika is greatest at four percentage points. The increase for New Zealand European was two percentage points whilst New Zealand Māori and Asian both increased by one percentage point.

From 2009 to 2012, the differences in attainment rates between New Zealand Māori and Pasifika on one hand and New Zealand European and Asian on the other have largely stabilised.

In 2012 the difference in attaining NCEA Level 1 between New Zealand Māori and Pasifika was at its lowest for the last five years, at three percentage points.

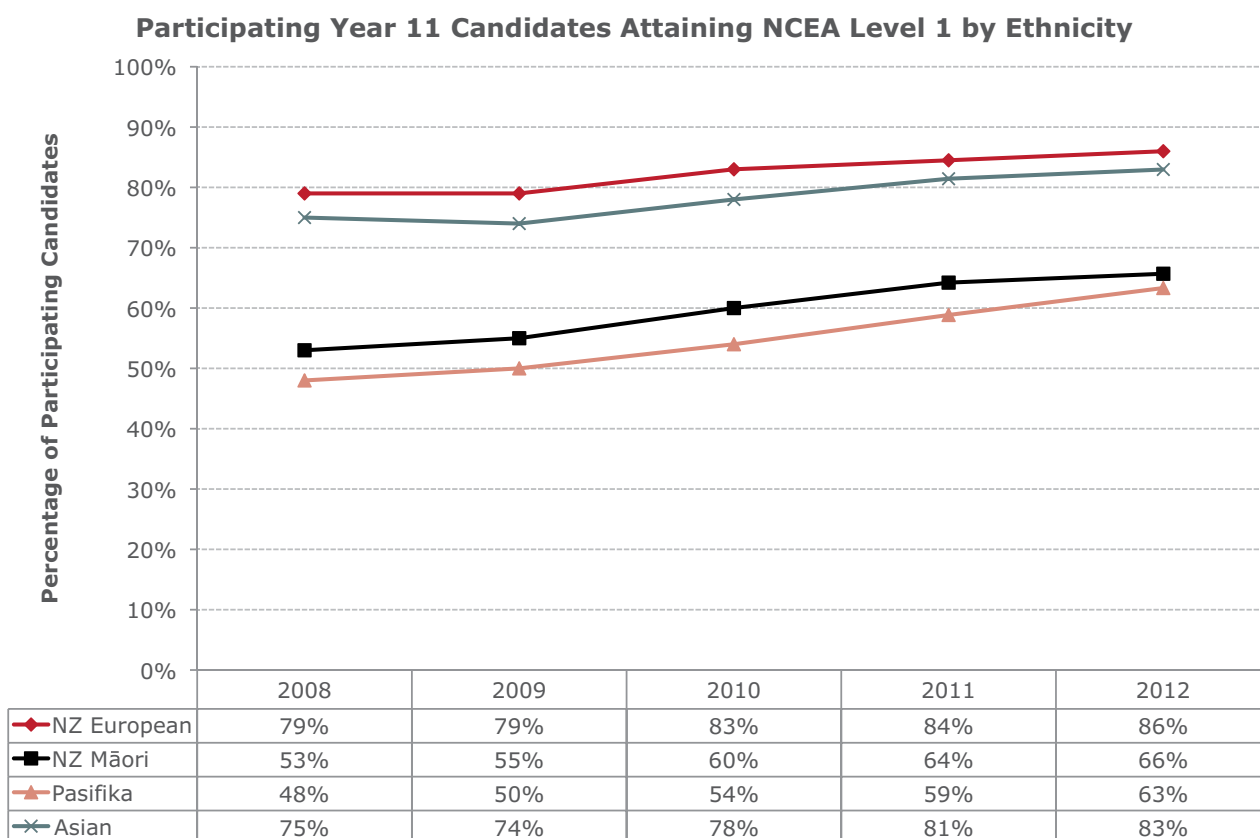


Figure 11. Percentages of participating candidates in Year 11, attaining NCEA Level 1 across ethnic groups.

# Achievement in NCEA and University Entrance

Figure 12 shows that attainment in NCEA Level 2 increased in 2012 over that of 2011 for all ethnic groups, with the greatest increase for Pasifika candidates of five percentage points.

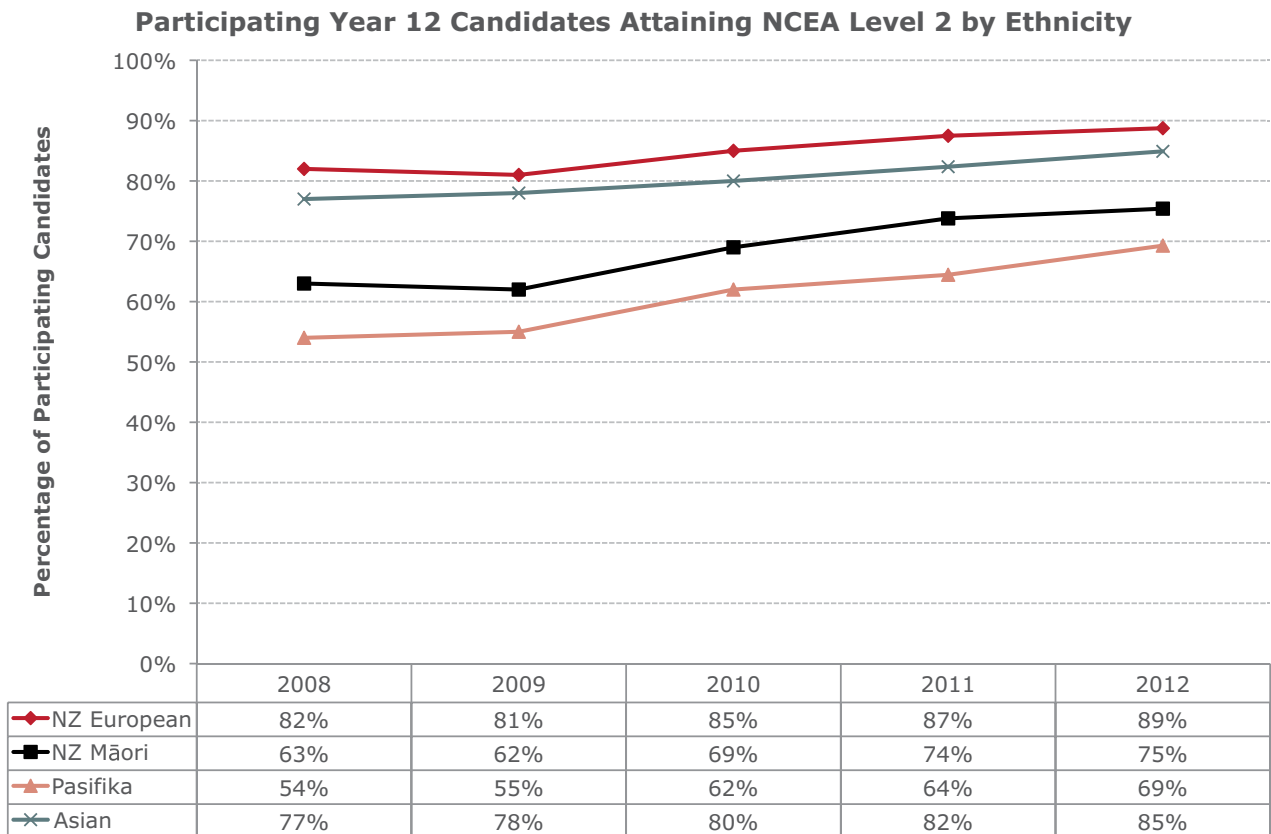


Figure 12. Percentages of participating Year 12 candidates attaining NCEA Level 2 ethnicity.

# Achievement in NCEA and University Entrance

There continues to be a difference between New Zealand European and Asian candidates on one hand, and New Zealand Māori and Pasifika on the other.

Each year there are minor changes in the relative differences between each ethnicity, however; the increase in the Pasifika students' achievement in 2012 has been significant.

As is the case for NCEA Level 2, as shown in Figure 12, the gap between NCEA Level 3 attainment rates for New Zealand Māori and Pasifika candidates, and those for New Zealand European and Asian candidates, was less in 2012 than in any prior years.

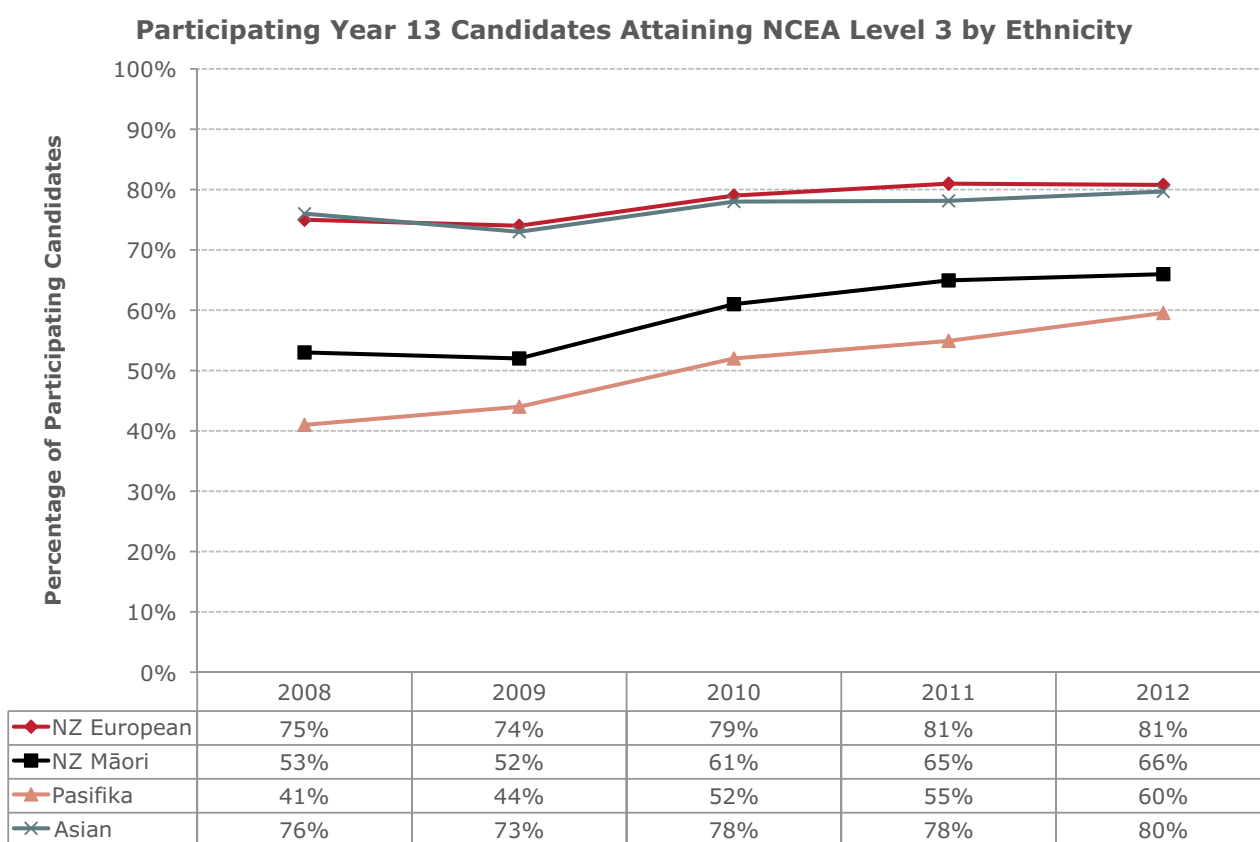


Figure 13. Percentages of candidates in Year 13 attaining NCEA Level 3 ethnicity.

# Achievement in NCEA and University Entrance

Compared to 2011, attainment of UE in 2012 increased by 4 percentage points for Pasifika and by one percentage point for Asian candidates. The achievement rate for New Zealand Māori remained stable at 49% in both 2011 and 2012.

Over the reported period, 2008 to 2012, attainment of UE has been relatively stable for both New Zealand European and Asian Students. The attainment rate for

New Zealand Māori students has fluctuated and although at its highest level of 49%, has appeared to become level with minimal change in the last 3 years. Pasifika students have shown the greatest rate of improvement from 32% to 43%, an 11 percentage point rise over the reported period. The increase from 36% to 43% over the last 3 years shows an accelerated rate of improvement.

**Participating Year 13 Candidates Attaining University Entrance by Ethnicity**

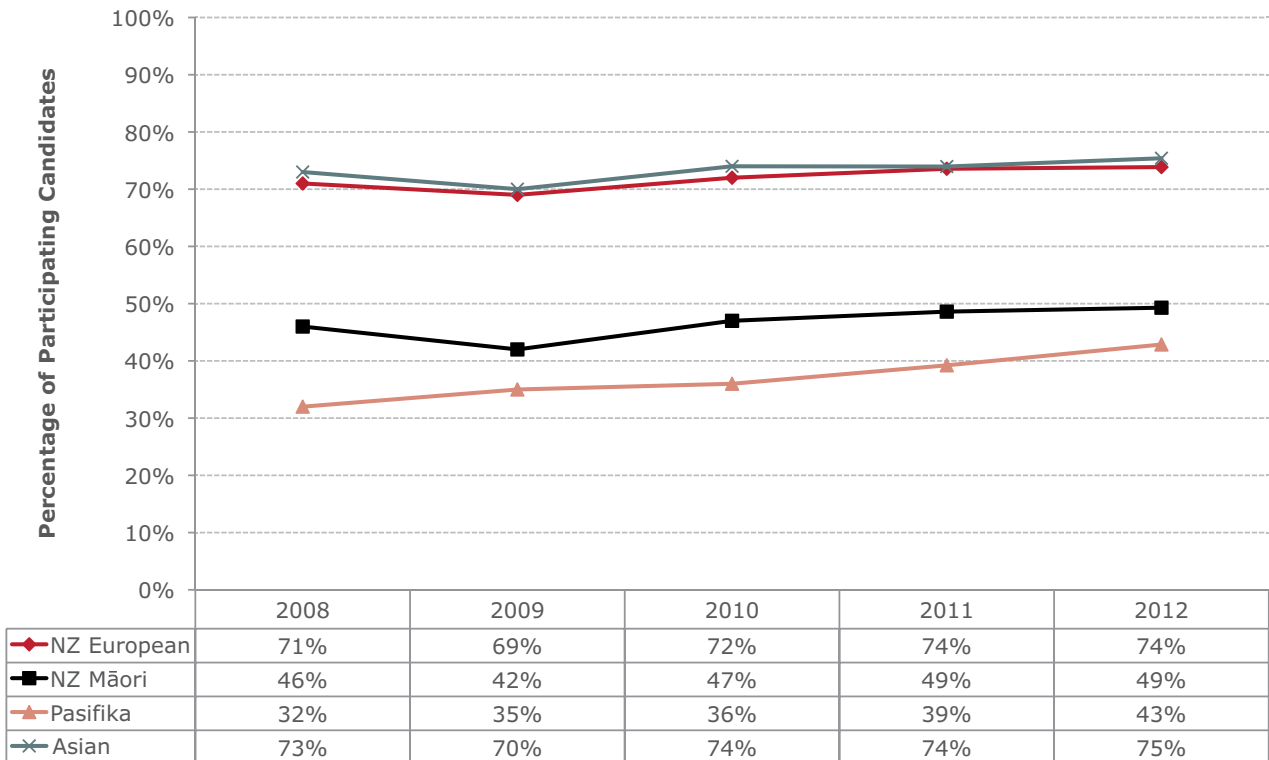


Figure 14. Percentages of Year 13 candidates, participating in NCEA Level 3, who also attained University Entrance, by ethnicity.



# Achievement in NCEA and University Entrance

## Analyses by School Decile Band

Figures 15-18 compare the rates of success for participating candidates at schools by decile bands. Again the typical achievement pattern of NCEA Level 1 in Year 11, NCEA Level 2 in Year 12, and NCEA Level 3 and UE in Year 13 is evident.

There are a few schools with no specified decile, and for the purposes of this analysis they have been omitted from these figures.

Figure 15 shows that, across the reported period, there are consistent differences in attainment of NCEA Level 1 between the decile bands. In 2012 Decile Band 1-3 was approximately 14 percentage points below Decile Band 4-7, which in turn was 9 percentage points below Decile Band 8-10. These differences have varied only slightly across the reported period.

In general the achievement rates for each decile band have tended to improve over the reported period, although in 2012 Decile 8-10 showed some sign of levelling out with less than one percentage point increase. By contrast both Decile Band 1-3 and 4-7 have shown continuing growth over the last 3 years.

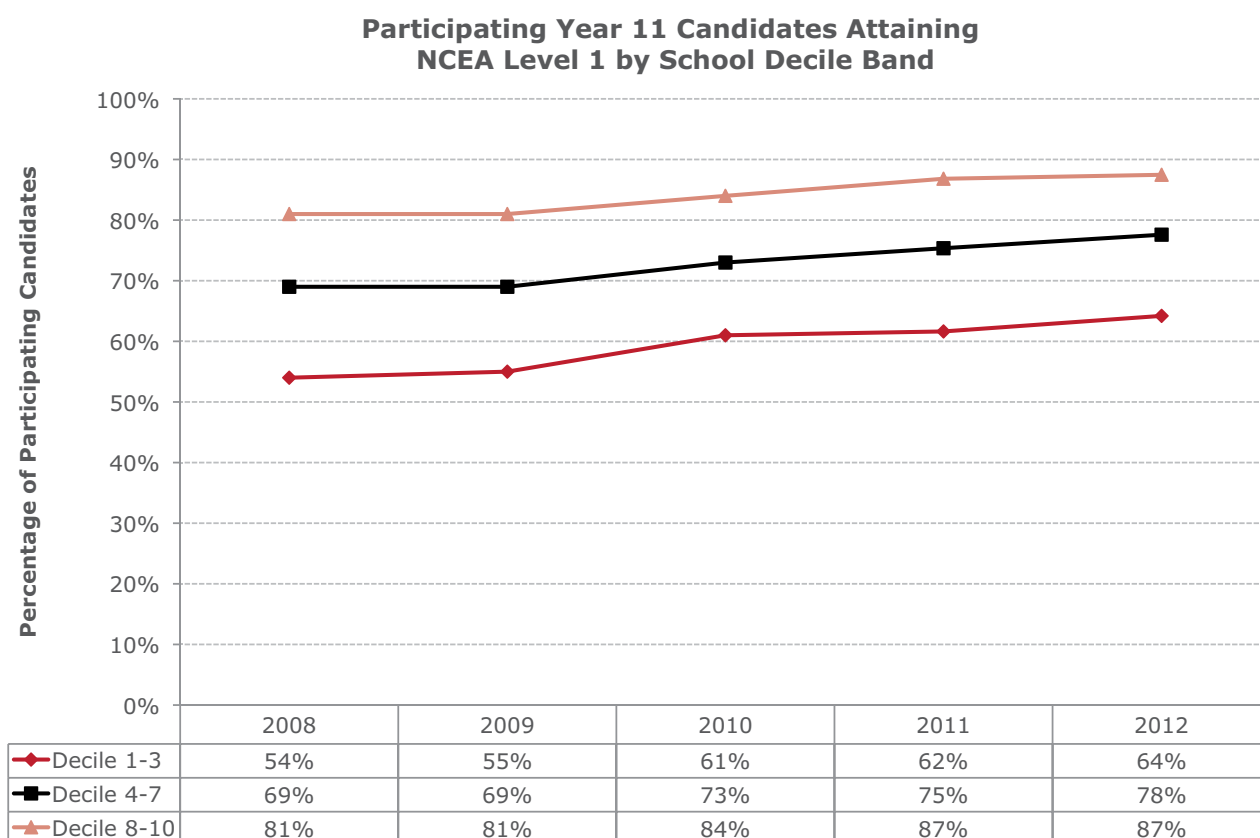


Figure 15. Percentage of participating Year 11 candidates attaining NCEA Level 1, across Decile Bands 1-3, 4-7 and 8-10.



# Achievement in NCEA and University Entrance

Attainment of NCEA Level 2 by Year 12 students shows similar patterns to those of NCEA Level 1. Again there is a difference between the achievement rates of each decile band although this is less pronounced than for NCEA Level 1. In 2012 Decile Band 8-10 is 7 percentage points higher than Decile Band 4-7, which in turn is 9 percentage points higher than Decile Band 1-3.

The achievement rates of all three decile bands have shown continued improvement over the entire period from 2008 to 2012. The gap between the decile bands decreased noticeably between 2009 and 2010, and appears to have remained stable since that time.

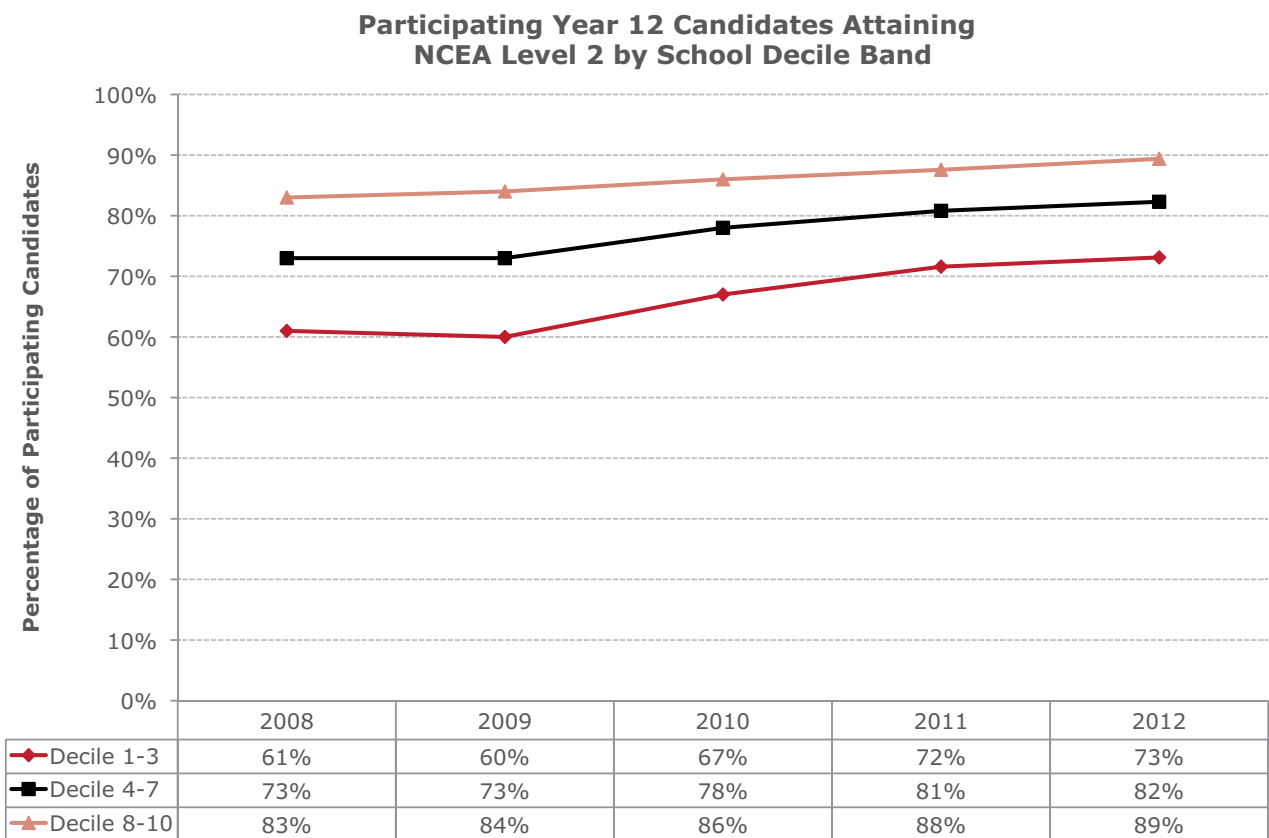


Figure 16. Percentages of participating Year 12 candidates attaining NCEA Level 2, across Decile Bands 1-3, 4-7 and 8-10.



# Achievement in NCEA and University Entrance

Like the data for NCEA Levels 1 and 2, Figure 17 shows that performance in NCEA Level 3 increased for all three decile bands over the reported period. In 2012, attainment for students at schools in Decile Band 1-3 continued to increase, whereas attainment for students at schools in

both the other decile bands was stable. Although Decile Band 8-10 appears to show a decrease of one percentage point down to 81% from 82% in 2012 the actual difference was 0.3 of a percentage point. The 2011 figure was 81.6% while the 2012 figure is actually 81.3%.

**Participating Year 13 Candidates Attaining NCEA Level 3 by School Decile Band**

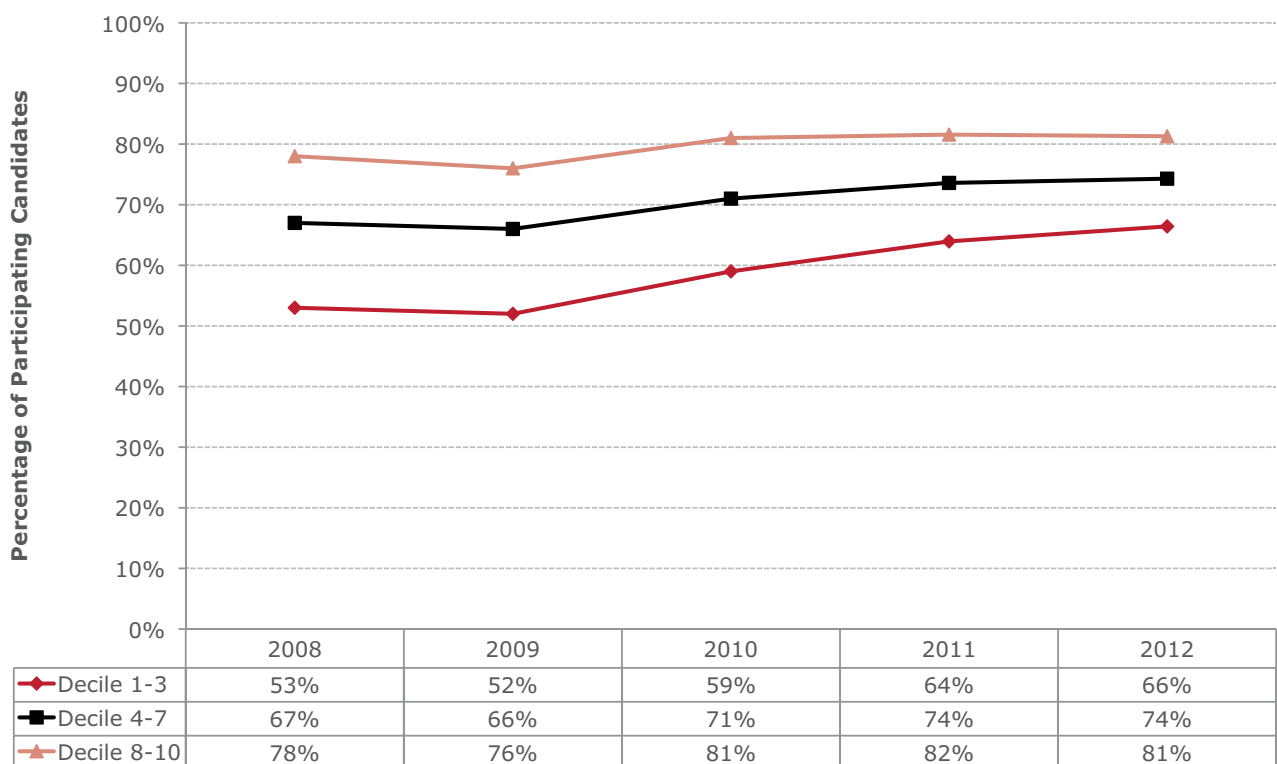


Figure 17. Percentages of participating candidates in Year 13 attaining NCEA Level 3, across Decile Bands 1-3, 4-7 and 8-10.

# Achievement in NCEA and University Entrance

Figure 18 shows that University Entrance attainment for candidates at schools in Decile Band 1-3 increased by two percentage points whereas the other two bands were stable.

The difference between decile bands was more pronounced for University Entrance than any of the NCEAs at nearly 30 percentage points overall. This was split fairly evenly with a difference of 13 percentage points between Decile Bands 4-7 and 8-10 and 16 percentage points between Decile Bands 1-3 and 4-7.

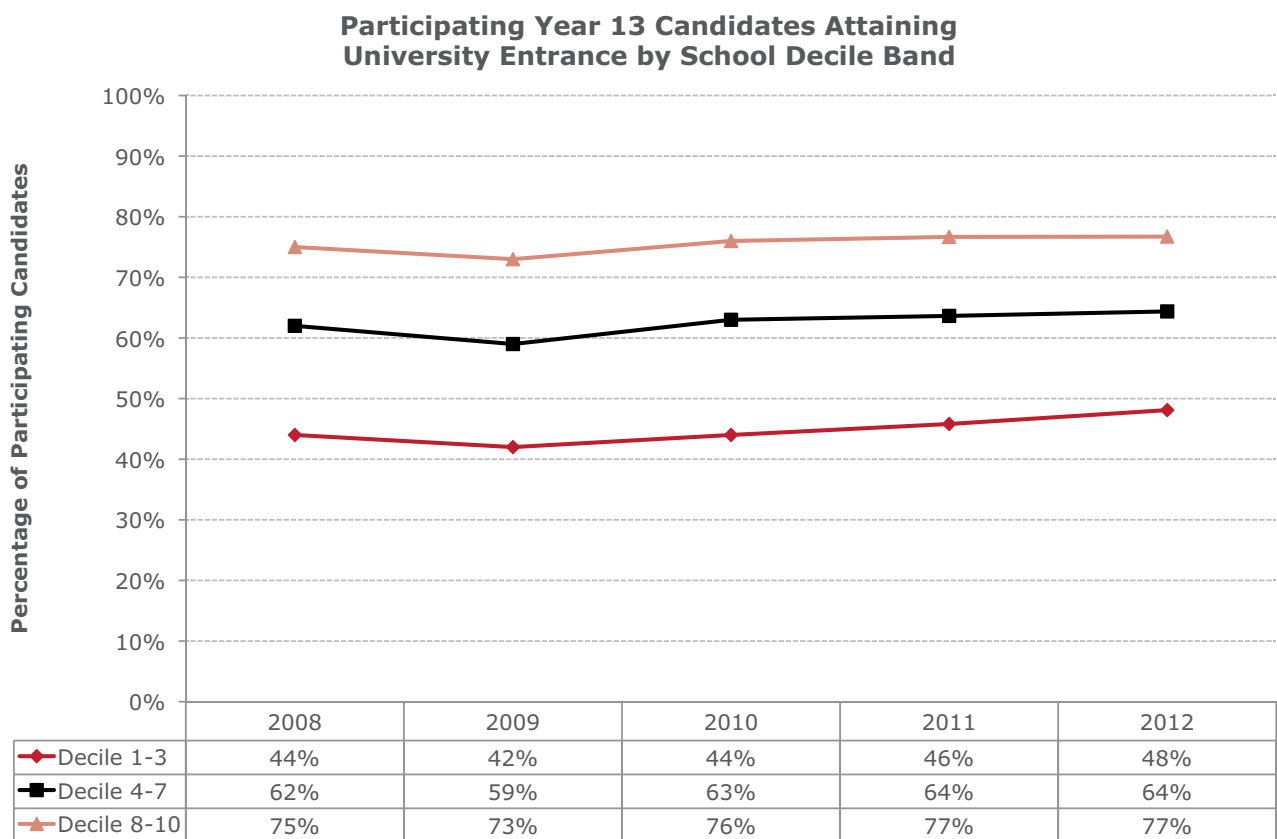


Figure 18. Percentages of Year 13 participants in NCEA Level 3 attaining University Entrance across Decile Bands 1-3, 4-7 and 8-10.



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# Achievement in NCEA and University Entrance

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## *Performance of the 2010 Tracked Year 11 Cohort*

The following graphs, Figures 19-30 compare the percentage of various demographic categories of students from the Tracked Year 11 Cohort of senior secondary school candidates, commencing Year 11 at the beginning of 2010, through to the end of 2012.

This type of tracked analysis follows only the original Year 11 candidates in order to quantify their attainments over the three years of senior secondary schooling. Candidates leaving school prior to completing all three years are still considered part of the original cohort, and their attainment is counted. However, new candidates entering at Year 12 and Year 13 are not part of the original Year 11 cohort, and consequently, their attainment is omitted for the tracked Year 11 Cohort analysis.

Calculating percentages of candidates attaining qualifications on the basis of the original Year 11 enrolments has a number of benefits. First, this approach takes account of differences in retention between the demographic groups of interest. For example males are more likely to leave school early than females. By continuing to count the original Tracked Cohort the impact of their having left school, which is a reduced opportunity to achieve more qualifications, is revealed. The relative gap between male and female achievement widens in favour of females. If statistics were produced solely on the basis of the students who are still at school even though the ratio of males to females has changed, the apparent achievement rates would remain similar.

Second, this approach provides a better understanding of the real level of attainment because the denominator used in the calculation does not change. For example, if we assume that a student is more likely to leave school if they fail to achieve a qualification, and there is good evidence that this is the case, then those students that remain at school are more likely to have achieved that qualification. Consequently achievement rates become artificially inflated. By using the Tracked Year 11 Cohort those students that have left are still counted, as is their non-achievement.

Many students in New Zealand secondary schools pursue qualifications in addition to, or in lieu of, NCEA qualifications. Some of these qualifications are registered on the New Zealand Qualifications Framework, for example, the National Certificate in Computing, whereas others are not. Thus, the data presented in Figures 19-30 to some extent underestimate overall attainment rates in secondary schools because they include only NCEA qualifications.

Figures 19-21 take the 60,859 year 11 candidates in 2010 and track them through their NCEA qualifications attainment in subsequent years. The charts show that 67.5% of that cohort attained NCEA Level 1 as year 11 candidates in 2010, while 1.8% gained Level 2 and a few (0.2%) achieved level 3. When they ended year 12 in 2011, 79.2% of the Tracked Year 11 Cohort (an extra 11.7%) had achieved Level 1, and 62.9% had achieved NCEA Level 2. By the end of year 13 in 2012, 80.5% of the Tracked Year 11 Cohort had achieved NCEA Level 1, 70.3% had achieved Level 2, and 42.1% had gained the Level 3 qualification.

# Achievement in NCEA and University Entrance

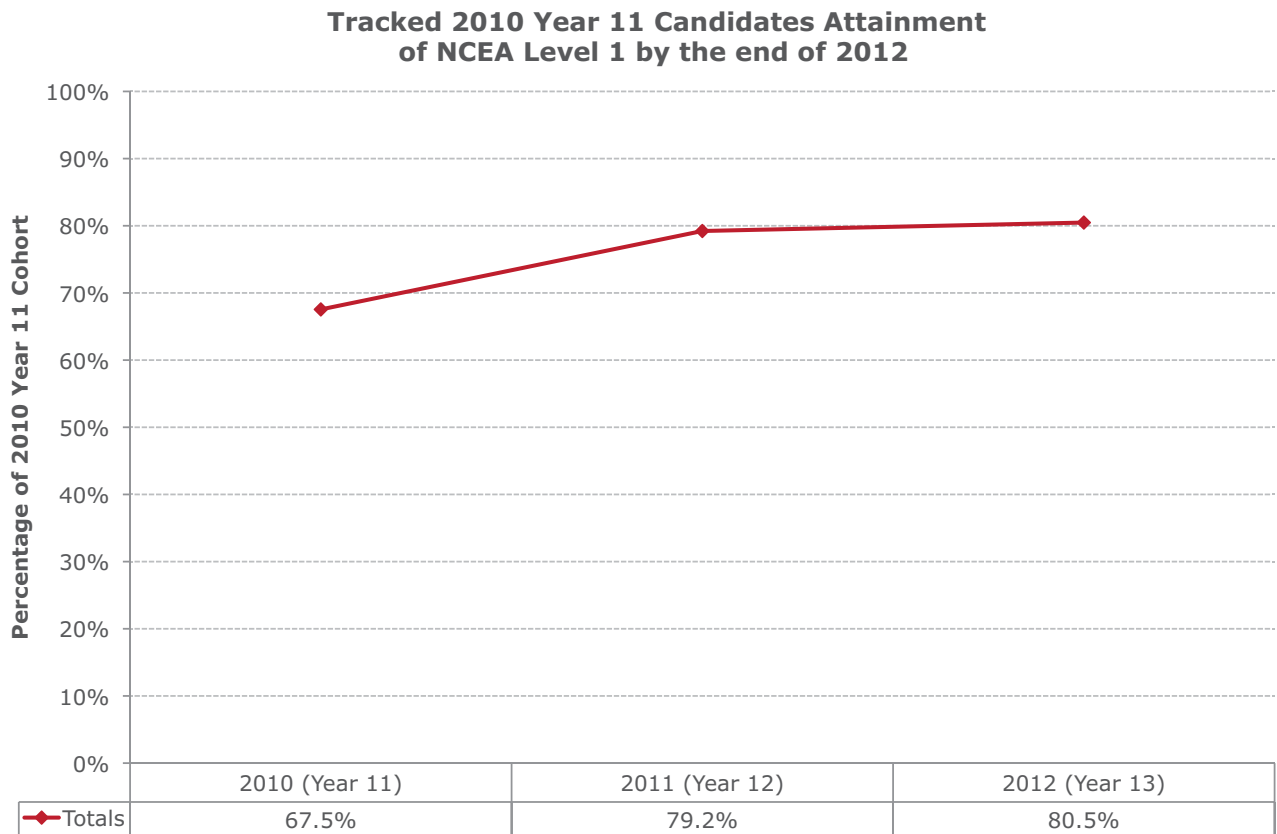


Figure 19. Percentages of enrolled candidates commencing Year 11 in 2010, who had attained NCEA Level 1 by the end of 2010, 2011 and 2012.



# Achievement in NCEA and University Entrance

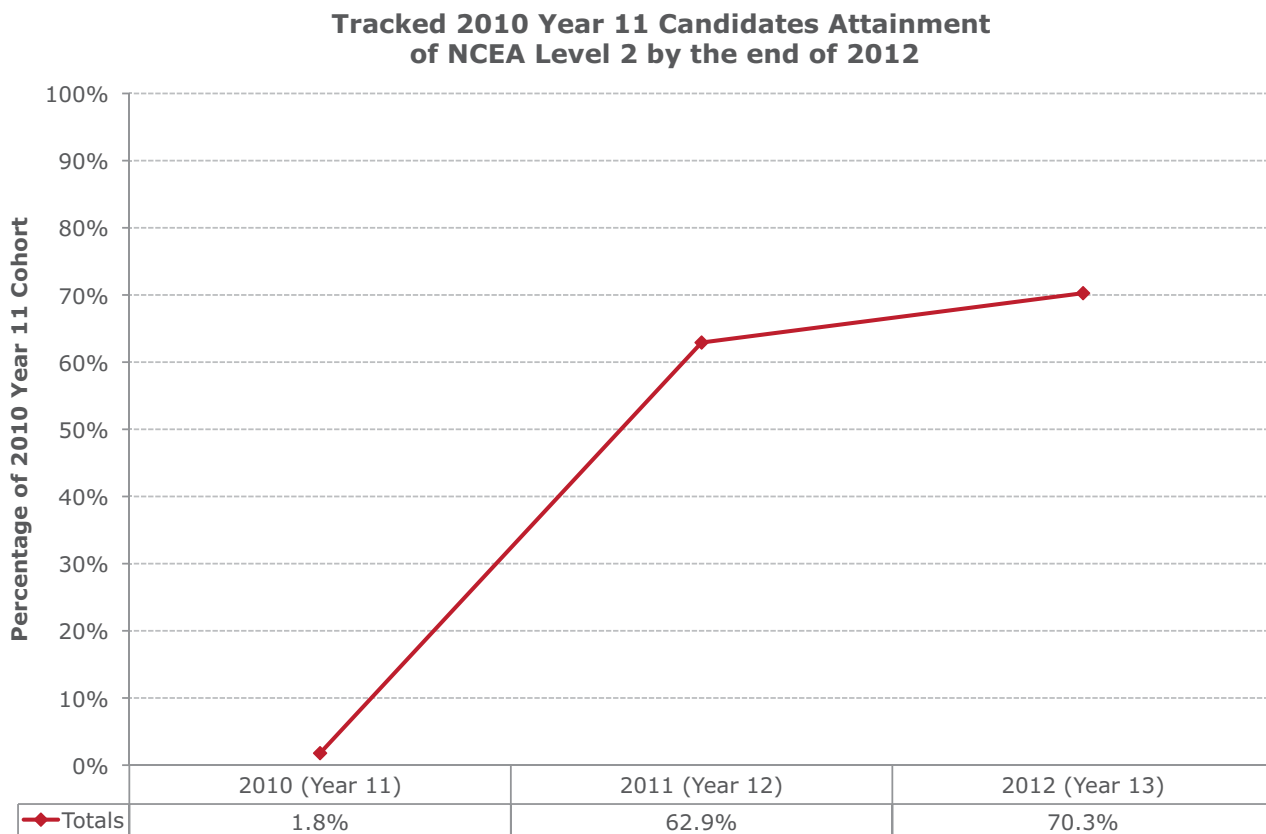


Figure 20. Percentages of enrolled candidates commencing Year 11 in 2010, who had attained NCEA Level 2 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 3 by the end of 2012**

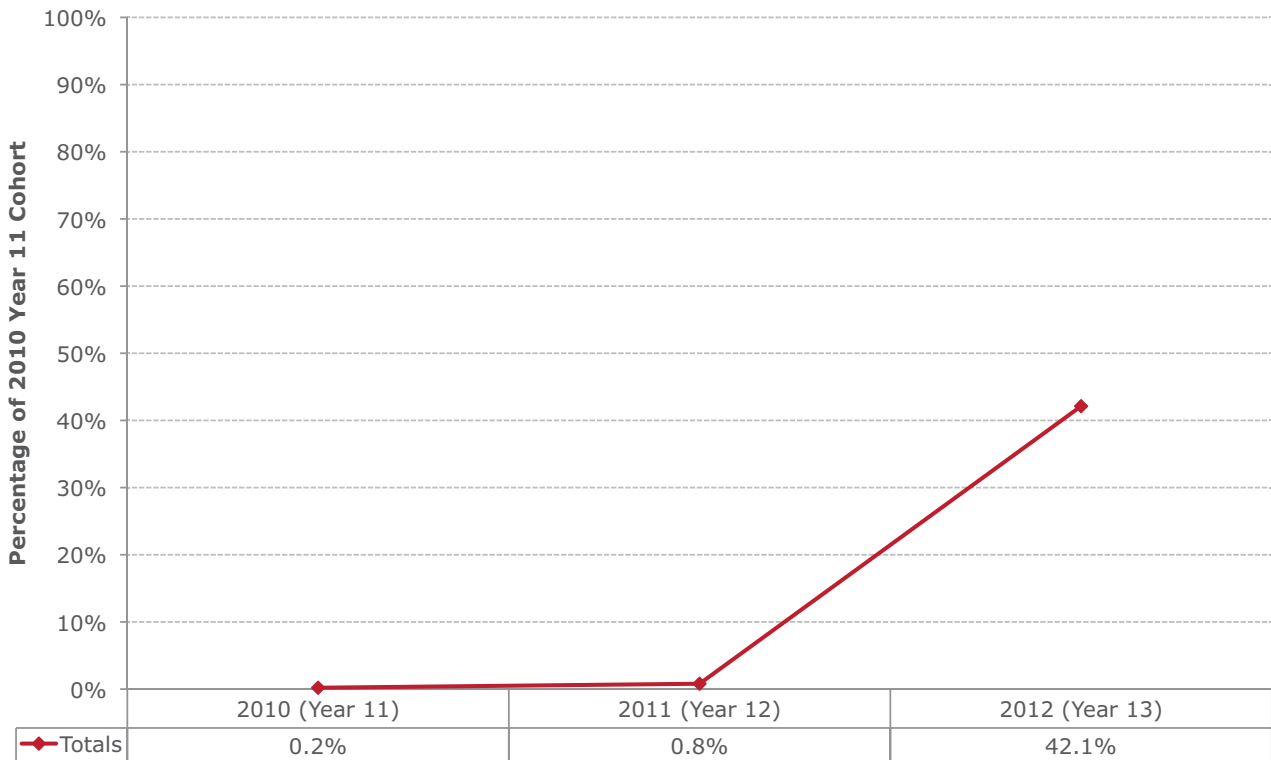


Figure 21. Percentages of enrolled candidates commencing Year 11 in 2010, who had attained NCEA Level 3 by the end of 2010, 2011 and 2012.



# Achievement in NCEA and University Entrance

## Analyses by Gender

Figures 22-24 compare attainment of NCEA Level 1-3 qualifications across Years 11-13 for enrolled male and female candidates, and show the percentage of each gender having attained each level of NCEA by the end of Year 13. For all these levels, these percentages are consistently higher for female candidates than for male candidates.

The majority of enrolled candidates who attained NCEA Level 1 do so in Year 11. In 2010 approximately 64% of Year 11 male students and 71% of Year 11 female students achieved NCEA Level 1 (Figure 22).

By the end of Year 12 a further 13% of the original enrolled male Year 11 cohort, and 11% of the original enrolled female cohort had attained Level 1. By the end of 2012, when students remaining at school would be in Year 13, a total of 78.2% of males and 82.6% of females had achieved NCEA Level 1. This was a small rise of one percentage point for the females and just over 1.5 percentage points for the males.

By the end of the students Year 13, the females had an NCEA Level 1 achievement rate just less than 5 percentage points more than the males.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 1 by the end of 2012 by Gender**

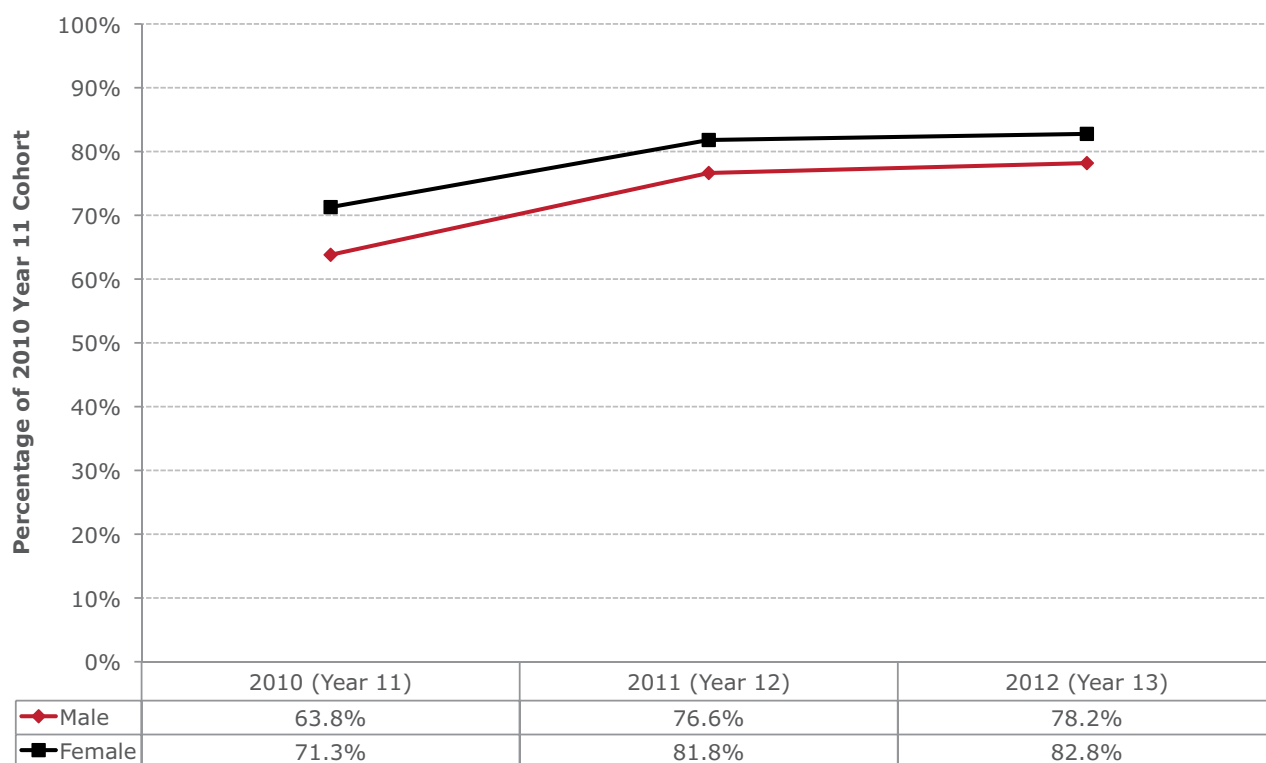


Figure 22. Percentages of enrolled male and female candidates commencing Year 11 in 2010, who had attained NCEA Level 1 by the end of 2010, 2011 and 2012.



# Achievement in NCEA and University Entrance

Figure 23 shows that the gap between females and males was greater in NCEA Level 2 than in NCEA Level 1 at approximately 7 percentage points in favour of the females by the end of 2012. This gap had closed from 9 percentage points at the end of Year 12. This may be partly due to

the fact that although the number of females and males is close to even, differing retention behaviours mean that males are more likely to leave school at the end of Year 11 or during either Year 11 or Year 12, and consequently have less opportunity to achieve NCEA Level 2.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 2 by the end of 2012 by Gender**

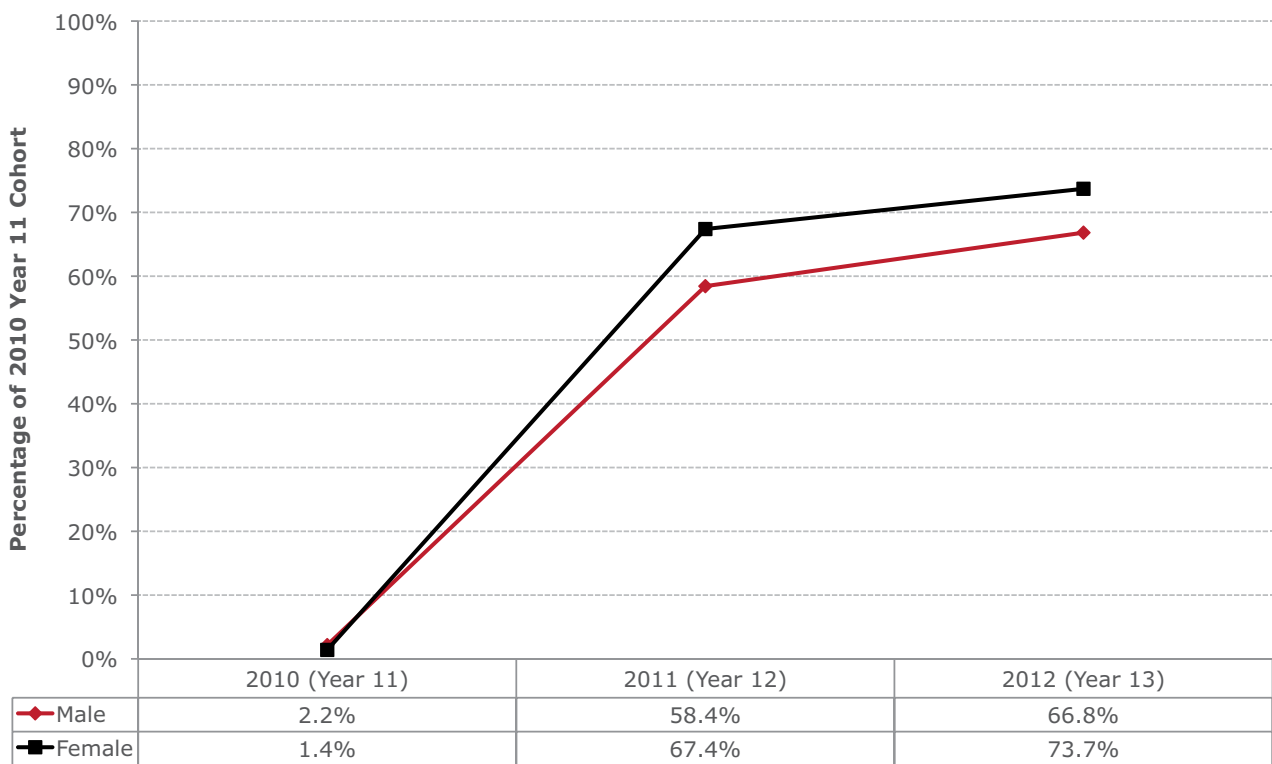


Figure 23. Percentages of enrolled male and female candidates commencing Year 11 in 2010, who had attained NCEA Level 2 by the end of 2010, 2011 and 2012.



# Achievement in NCEA and University Entrance

In 2013, those of the original cohort still at school were in Year 13. By the end of 2013, 49% of females and 35% of males from the 2010 Tracked Year 11 Cohort achieved NCEA Level 3. The gap between male and female achievement of NCEA Level 3 is higher than any other level at over 14 percentage points in favour of females (Figure 24).

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 3 by the end of 2012 by Gender**

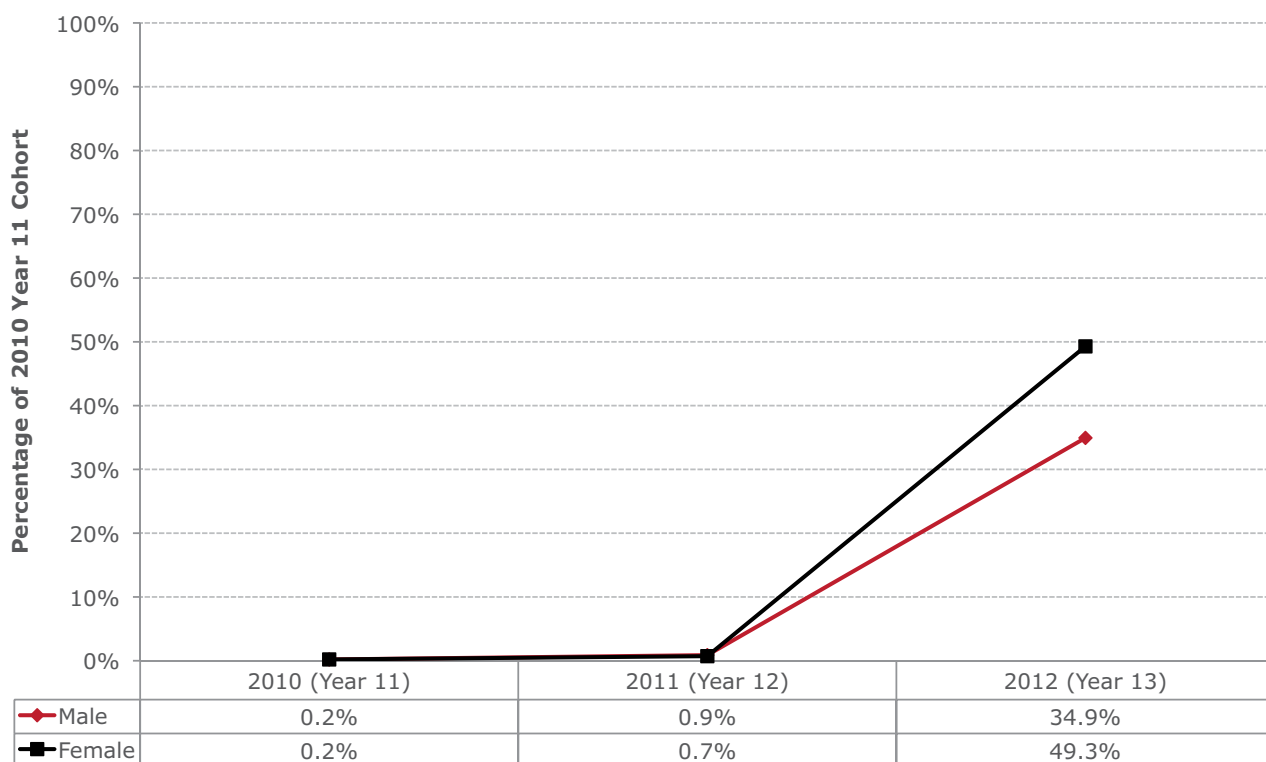


Figure 24. Percentages of enrolled candidates male and females commencing Year 11 in 2010, who had attained NCEA Level 3 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

## Analyses by Ethnicity

Figures 25-27 compare the attainment of NCEA Levels 1-3 across Years 11-13 for New Zealand European, New Zealand Māori, Pasifika and Asian candidates, and show the approximate percentages of the original enrolled cohort for each ethnic group leaving school with each level of NCEA.

Students not identifying with any of these ethnicities are omitted from these data. The ethnicity stated in 2010 when the student was in Year 11 is maintained throughout the tracking period even if the student subsequently alters their ethnicity.

By the end of Year 11 in 2010, 77% of enrolled New Zealand European candidates, 69% of Asian candidates, 69% of Asian candidates, 50% of New Zealand Māori and 49% of Pasifika candidates had attained NCEA Level 1 (Figure 25).

This overall spread of 28 percentage points also contained a significant gap between the achievement of Māori and Pasifika students and Asian and New Zealand European students.

By the end of Year 12 the overall spread had closed, with 86% of New Zealand European, 82% of Asian, 65% of New Zealand Māori and 71% of Pasifika candidates having attained NCEA Level 1.

By the end of Year 13 the achievement rates had all risen slightly, and the spread was further reduced, to just below 20 percentage points.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 1 by the end of 2012 by Ethnicity**

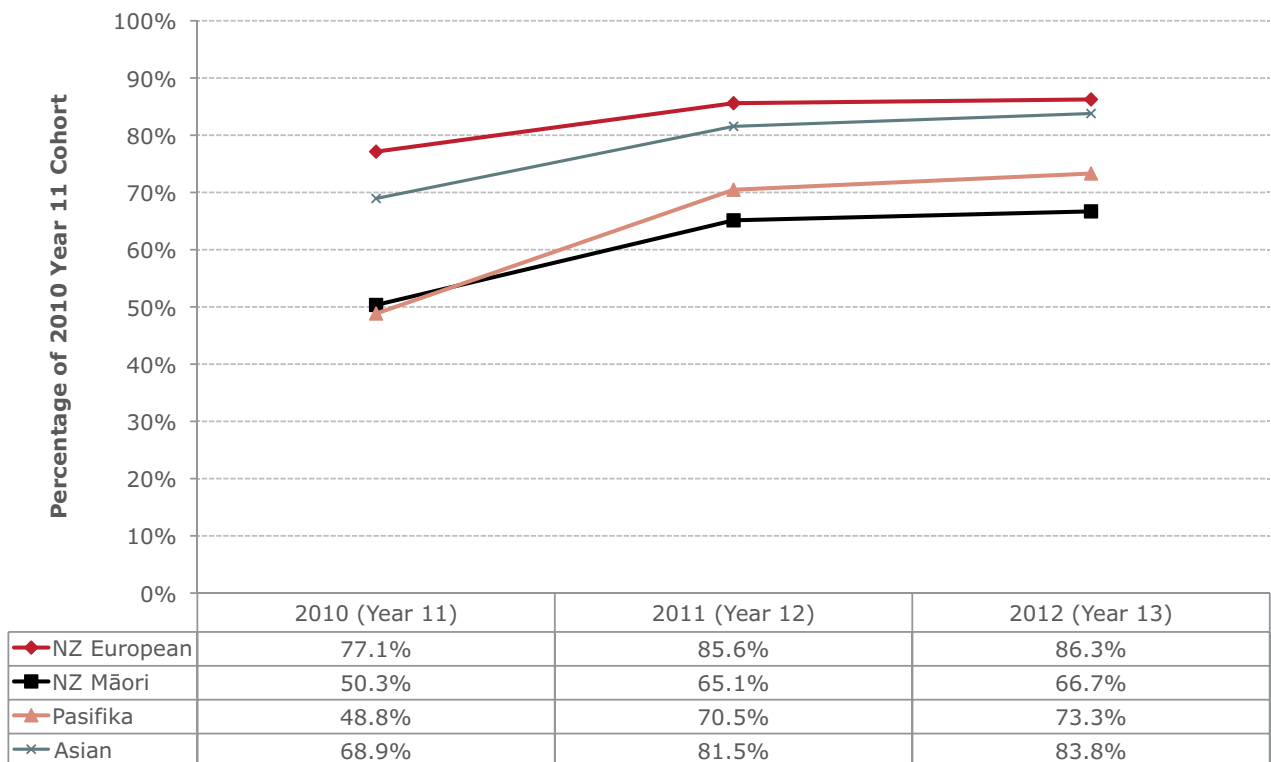


Figure 25. Percentages of enrolled New Zealand European, New Zealand Māori, Pasifika and Asian candidates commencing Year 11 in 2010, who had attained NCEA Level 1 by the end of 2010, 2011 and 2012.



# Achievement in NCEA and University Entrance

Figure 26 shows that less than 3% of any ethnic cohort attained NCEA Level 2 prior to Year 11, with New Zealand Māori students achieving the highest rate of 2.6%.

All ethnicities show increased attainment in Year 13 with Pasifika candidates adding a further 17 percentage points, 9 percentage points for New Zealand Māori. The Asian candidates increased by 8 percentage points and New Zealand European students by 5 percentage points.

The NCEA Level 1 data in Figure 25 and those for Level 2 in Figure 26 show different comparative attainment of these qualifications by New Zealand European and Asian candidates by the end of Year 13. While it was below that of New Zealand European at NCEA Level 1, Asian candidate achievement rose above New Zealand European at NCEA Level 2, exceeding it still further at NCEA Level 3 (Figure 27).

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 2 by the end of 2012 by Ethnicity**

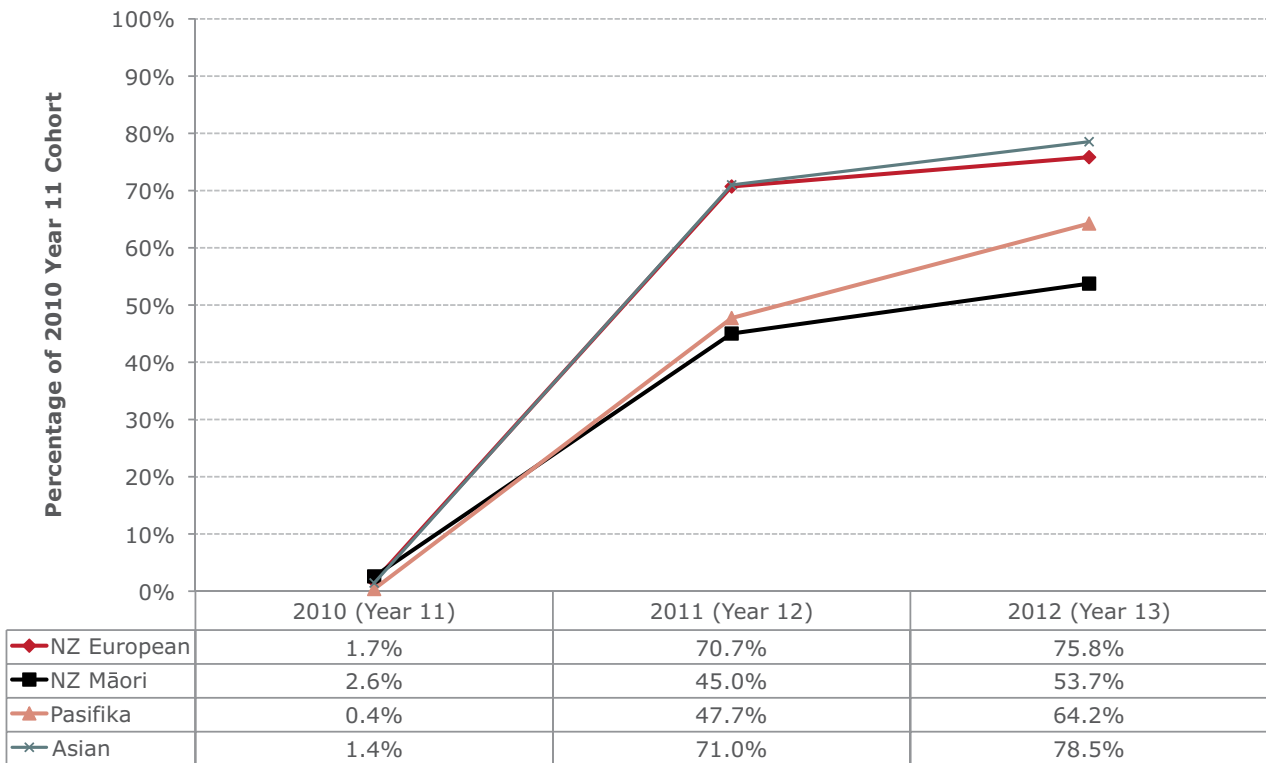


Figure 26. Percentages of New Zealand European, New Zealand Māori, Pasifika, and Asian candidates commencing Year 11 in 2010, who had attained NCEA Level 2 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

As with NCEA Levels 1 and 2 there are differences between the percentages of the various ethnic groups that have attained NCEA Level 3 by the end of Year 13.

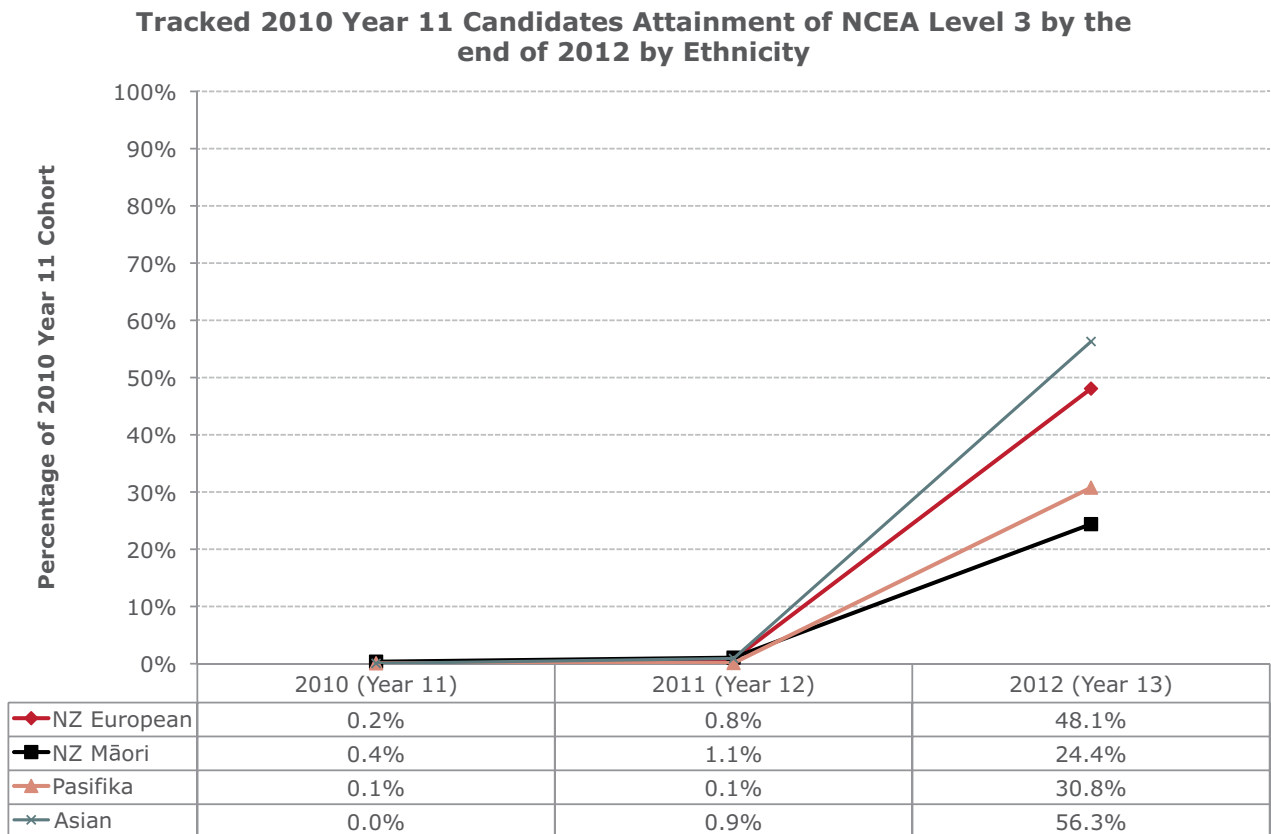


Figure 27. Percentages of New Zealand European, New Zealand Māori, Pasifika and Asian candidates commencing Year 11 in 2010, who had attained NCEA Level 3 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

## Analyses by School Decile Band

Figures 28-30 explore attainment of NCEA for candidates at various decile bands. It is important to realise that a school's decile gives some indication of the average socio-economic level of students at the school, but does not necessarily reflect the circumstances of particular students.

Decile-related attainment differences are evident across all year levels in Figure 28, with 53% of candidates in Decile

Band 1-3, 68% of candidates in Decile Band 4-7 and 79% of candidates in Decile Band 8-10 having attained NCEA Level 1 by the end of Year 11. Candidates in Decile Band 1-3 made up considerable ground in subsequent years and the percentage had risen to 72%. Decile Bands 4-7 and 8-10 also made up ground, although not to the same extent, to end up with percentages of 82% and 88% respectively.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 1 by the end of 2012 by School Decile Band**

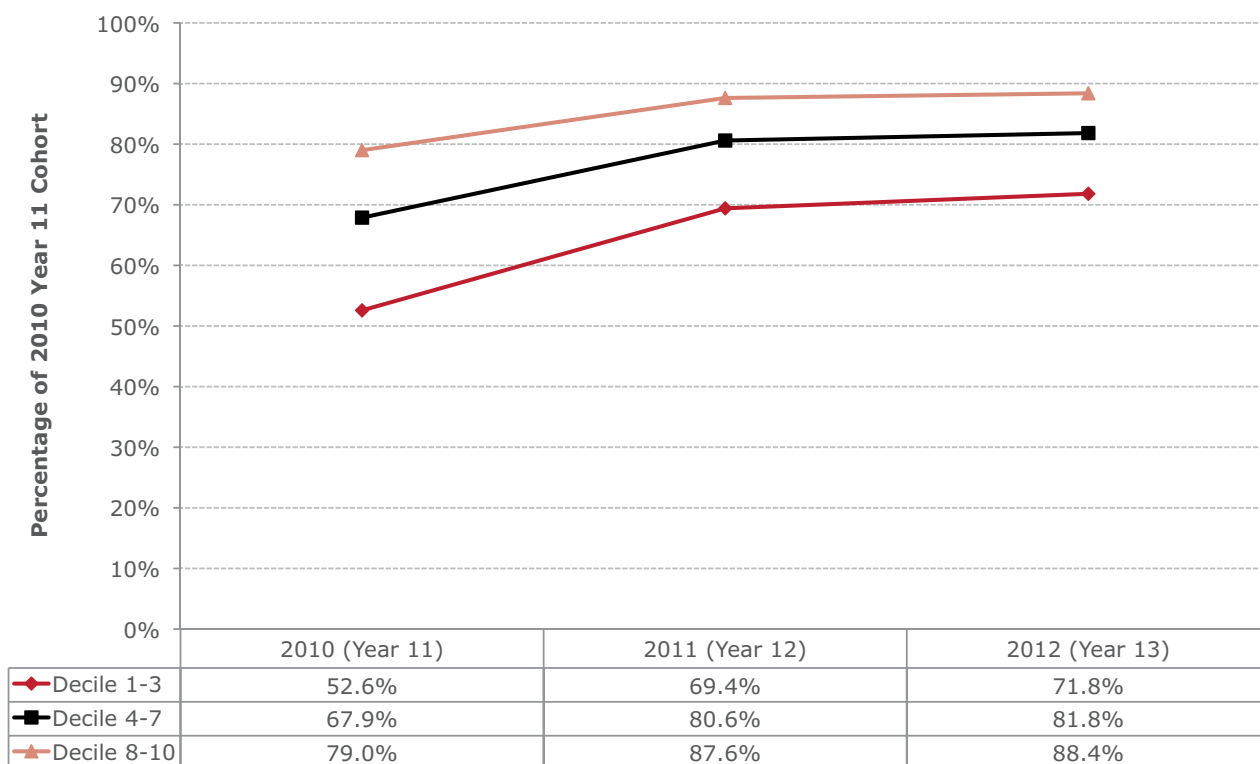


Figure 28. Percentages of candidates at Decile Bands 1-3, 4-7 and 8-10; commencing Year 11 in 2010, who had attained NCEA Level 1 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

Just over 2% of candidates at Decile 1-3 schools attained NCEA Level 2 prior to Year 12, compared with around 1% of candidates at Decile 4-7 and 8-10 schools (Figure 29). The decile-related differences in attainment of this qualification at the end of Year 12 and 13 are greater than for NCEA Level 1 with a spread of over 27 percentage points and 20 percentage points respectively. In contrast the spread for NCEA Level 1 was just under 17 percentage points by the end of Year 13.

At the end of Year 12, the percentage of candidates attaining NCEA Level 2 at Decile 8-10 schools (75%) was around 27 percentage points higher than the percentage at Decile 1-3 schools (48%). The percentage for candidates at Decile 4-7 schools was 62%. The differences in attainment across the decile bands reduced slightly by the end of Year 13, being 80% for decile 8-10 schools, 70% for decile 4-7 and 60% for decile 1-3 schools.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 2 by the end of 2012 by School Decile Band**

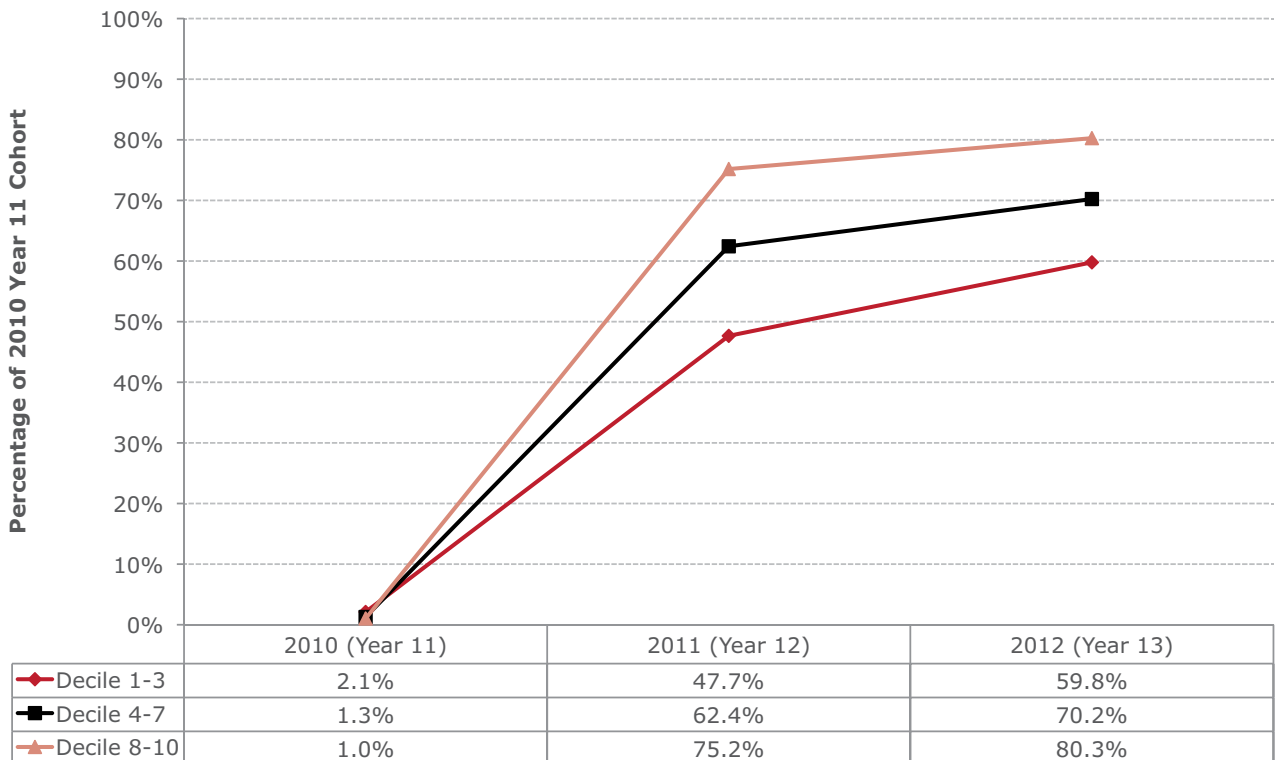


Figure 29. Percentages of candidates at Decile Bands 1-3, 4-7 and 8-10; commencing Year 11 in 2010, who attained NCEA Level 2 by the end of 2010, 2011 and 2012.

# Achievement in NCEA and University Entrance

Few candidates in any decile band attained NCEA Level 3 prior to Year 13 (Figure 30). Notably however, the highest achievement rate was that of Decile 1-3 schools in both years 11 and 12.

By the end of Year 13, a similar pattern to NCEA Levels 1 and 2 had emerged, with Decile Band 8-10 having the highest achievement rate of just below 56%. Decile Bands 1-3 and 4-7 had achievement rates of approximately 29% and 39% respectively.

As with NCEA Level 2 the spread at the end of Year 13 was just below 27 percentage points. At Decile Band 8-10 schools, 56% of the original enrolled Year 11 cohort attained the qualification, compared with 39% at Decile Band 4-7 schools and 29% at Decile Band 1-3 schools.

**Tracked 2010 Year 11 Candidates Attainment of NCEA Level 3 by the end of 2012 by School Decile Band**

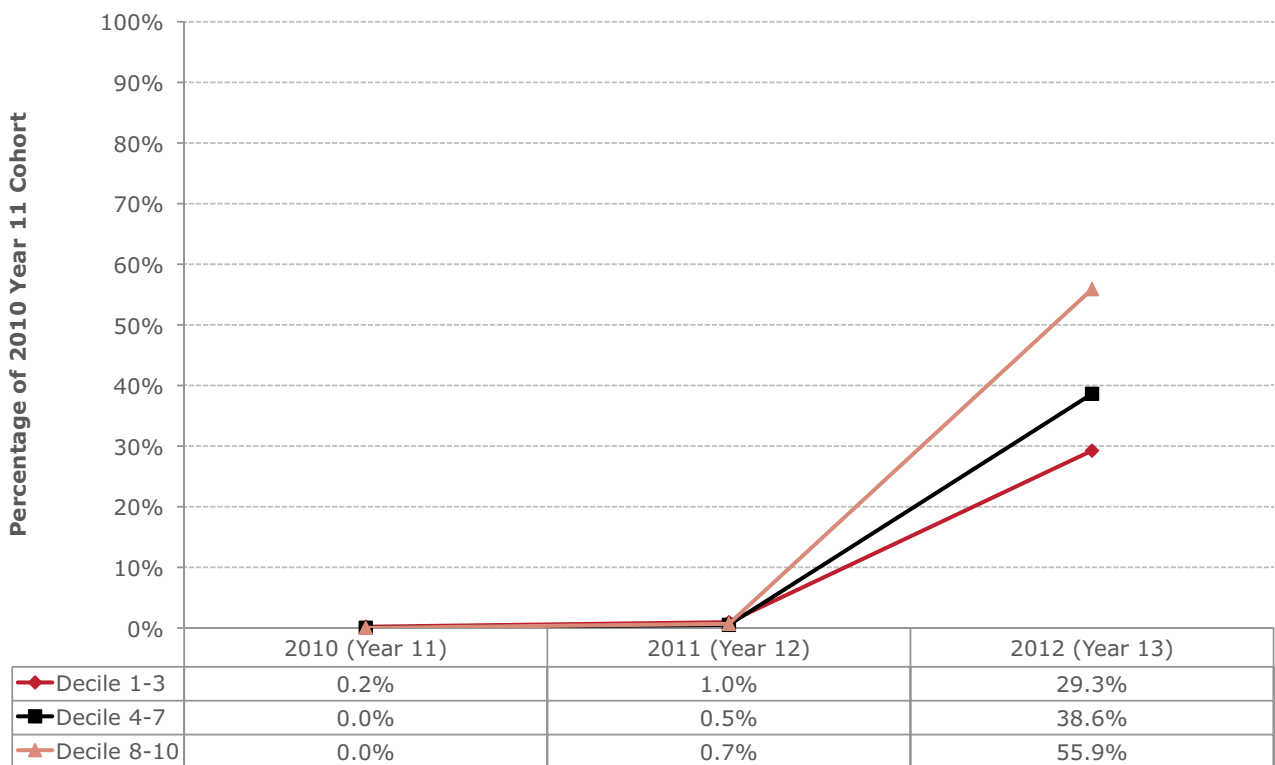
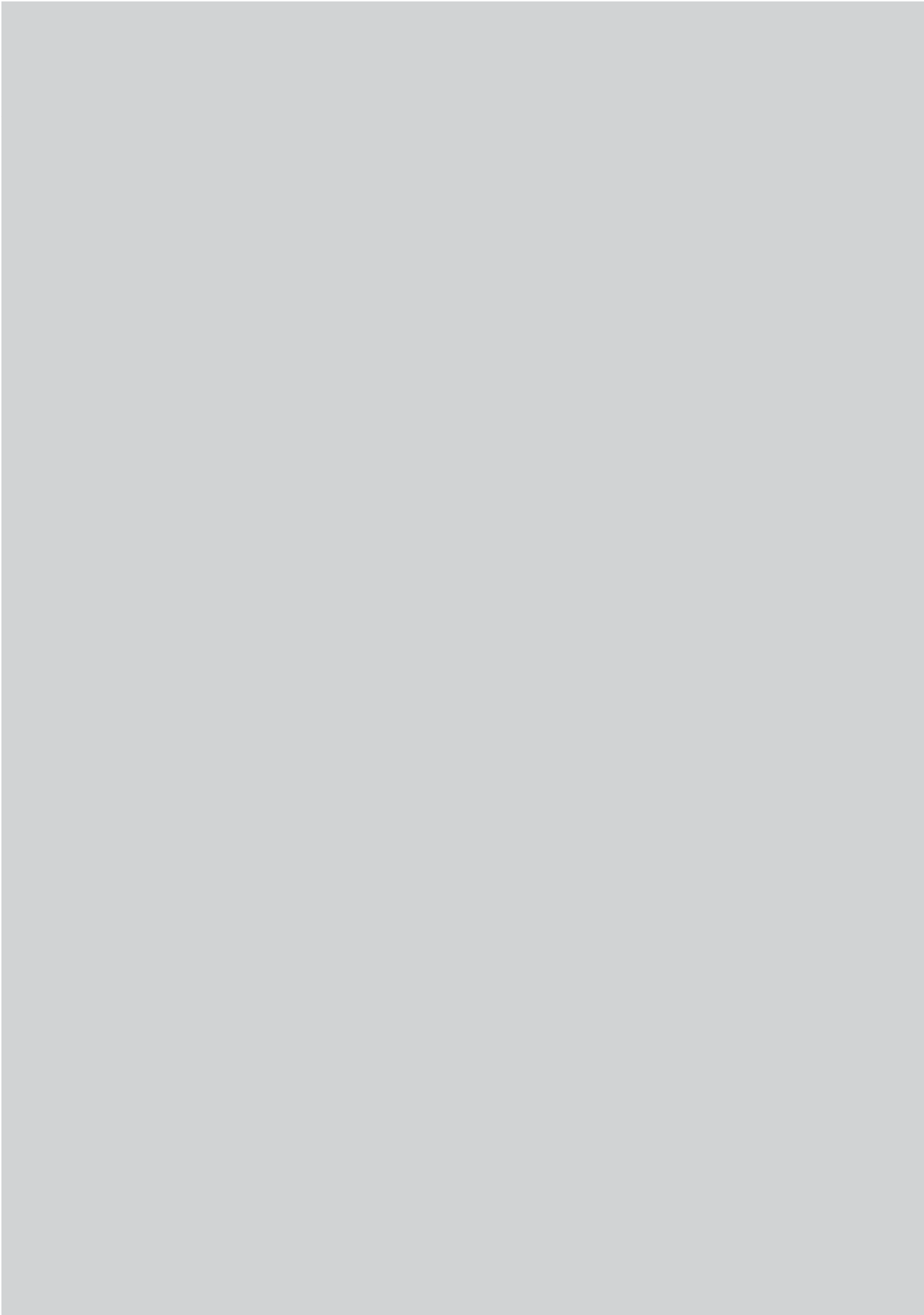


Figure 30. Percentages of candidates in Decile Bands 1-3, 4-7 and 8-10, commencing in 2010 as Year 11 students, who attained NCEA Level 3 by the end of 2010, 2011 and 2012.





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# Literacy and Numeracy

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In order for a student to achieve NCEA Level 1 they must be able to demonstrate basic Literacy and Numeracy skills. This means that Literacy and Numeracy are key Level 1 achievements and are a common objective for Year 11 students. From 2013, Literacy and Numeracy at level 1 will also become a prerequisite for the awarding of NCEA Level 2.

## *Alignment of Standards with the New Zealand Curriculum Project*

During 2011-2013 NZQA and the Ministry of Education have reviewed all standards used by schools to ensure that they align correctly with the current New Zealand Curriculum. This project, commonly referred to as the Standards Alignment Review, is progressively reviewing all standards in relation to the New Zealand Curriculum starting with Level 1 in 2011 and concluding with Level 2 and 3 in 2012 and 2013 respectively.

As part of this project the standards that can be used to show Literacy and Numeracy have also been reviewed. The Alignment of Standards project process involved reviewing all standards and either expiring, replacing, or modifying the standards used by schools to ensure that every standard is aligned to Level 6 of the New Zealand Curriculum as a minimum. One of the outcomes of this process has been a new set of standards for Literacy and Numeracy.

For Literacy these changes have increased the range of standards that can provide evidence by including standards that are outside the traditional subject area of English. For Numeracy the total number of standards attesting achievement of the required level has reduced, but like Literacy, standards from a wide range of subject areas other than Mathematics are now included in the list.

As can be seen in the graphs, (Figures 31-38), there is a noticeable change in the achievement of both Literacy and Numeracy in 2011 and 2012. Overall the impact of the changes has been to reduce the percentage of students who are achieving Numeracy whilst increasing the number who are achieving Literacy. The changes are spread over the two years because schools were given 2011 and 2012 as transition years, during which both the old and new Literacy and Numeracy rules and standards were able to be used.

The Alignment of Standards project was done over a 3 year period with the full complement of standards at Levels 1, 2 and 3 becoming available in 2013. In 2012 only new standards at Level 1 and 2 were available. This may have impacted on schools' ability to assess Literacy and Numeracy for Year 13 students engaged in Level 3 assessment. The full impact of the Alignment of Standards project in respect to Literacy and Numeracy will not be evident for at least a couple of years.

The denominator for all Literacy and Numeracy calculations is all students known to NZQA (enrolled) in Year 11 for each of the reported years.

# Literacy and Numeracy

## Literacy

Figure 31 shows the percentages of enrolled Year 11 students who achieved Literacy by the end of the year from 2008 to 2012.

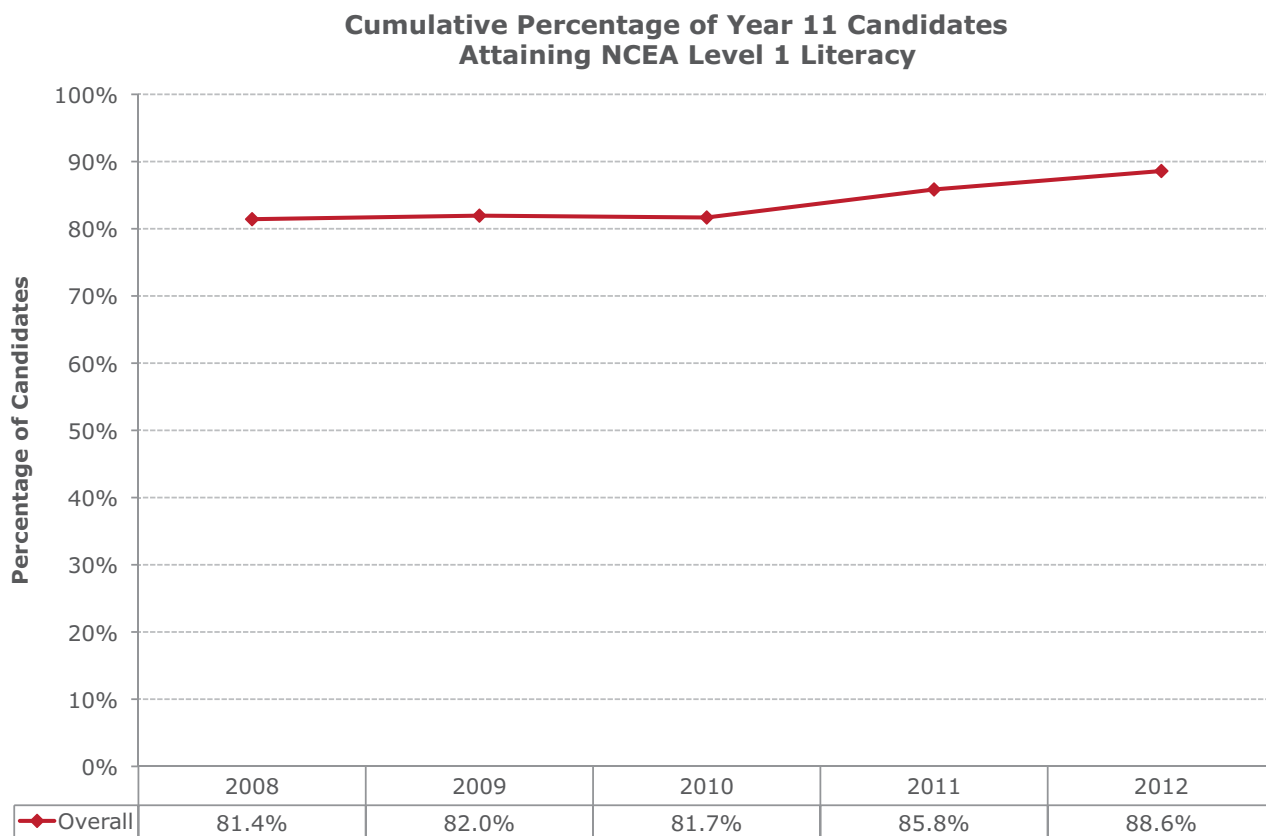


Figure 31. Percentages of Year 11 candidates who attained Literacy from 2008 to 2012.



# Literacy and Numeracy

Figures 32-34 compare the percentages of the enrolled cohort who achieved Literacy by the end of Year 11 by gender; ethnicity and school decile band, in each year from 2008 to 2012.

## Analyses by Gender

Figure 32 shows stable Literacy attainment for males and females from 2008 to 2010, consistently favouring females by about 7 percentage points. The difference closed in 2011, and fell further in 2012 to 4.4 percentage points. This might show that the changes of including standards outside the English learning area had more effect on males than females.

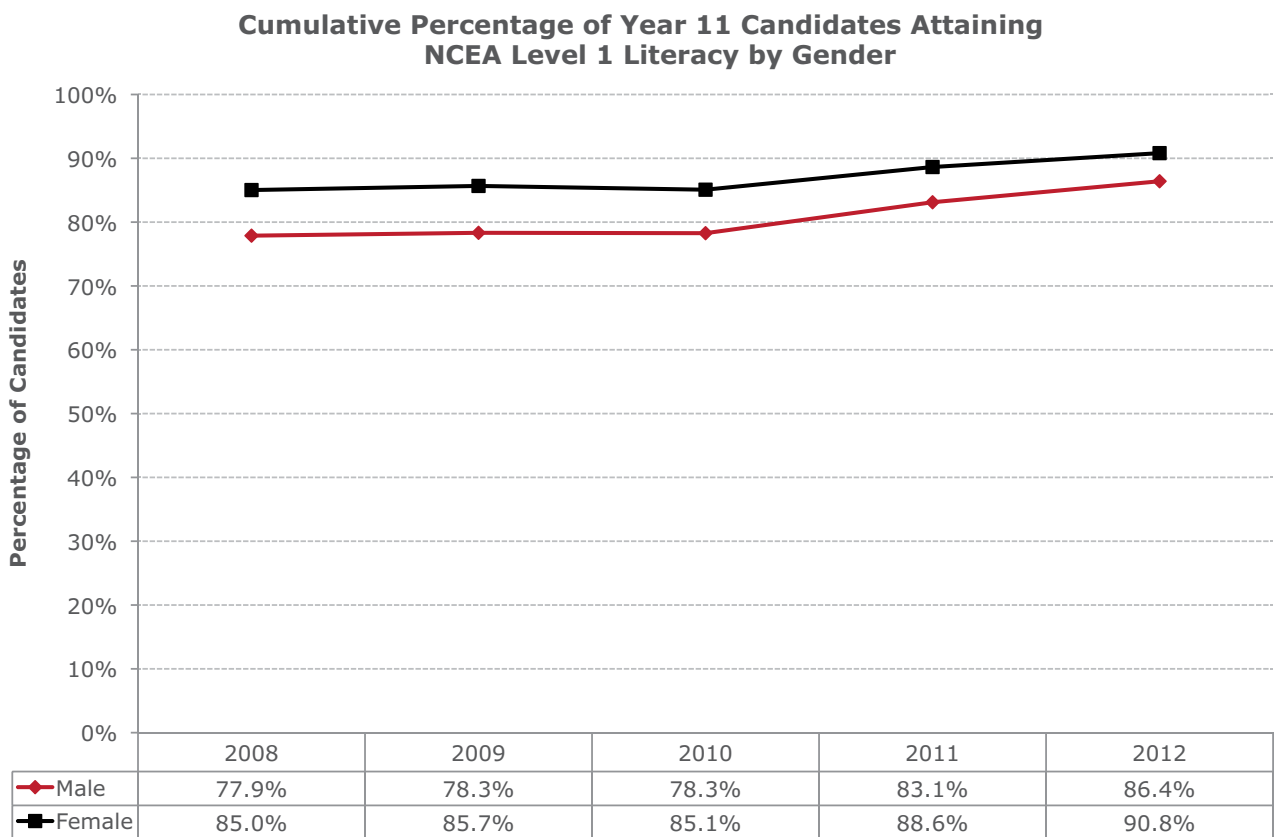


Figure 32. Percentages of Year 11 candidates who attained Literacy by gender from 2008 to 2012.

# Literacy and Numeracy

## Analyses by Ethnicity

The breakdown of Literacy achievement in Figure 33 shows that all ethnicities increased their achievement rates in 2011 and 2012.

The rises in Literacy attainment were greatest for Pasifika and New Zealand Māori cohorts.

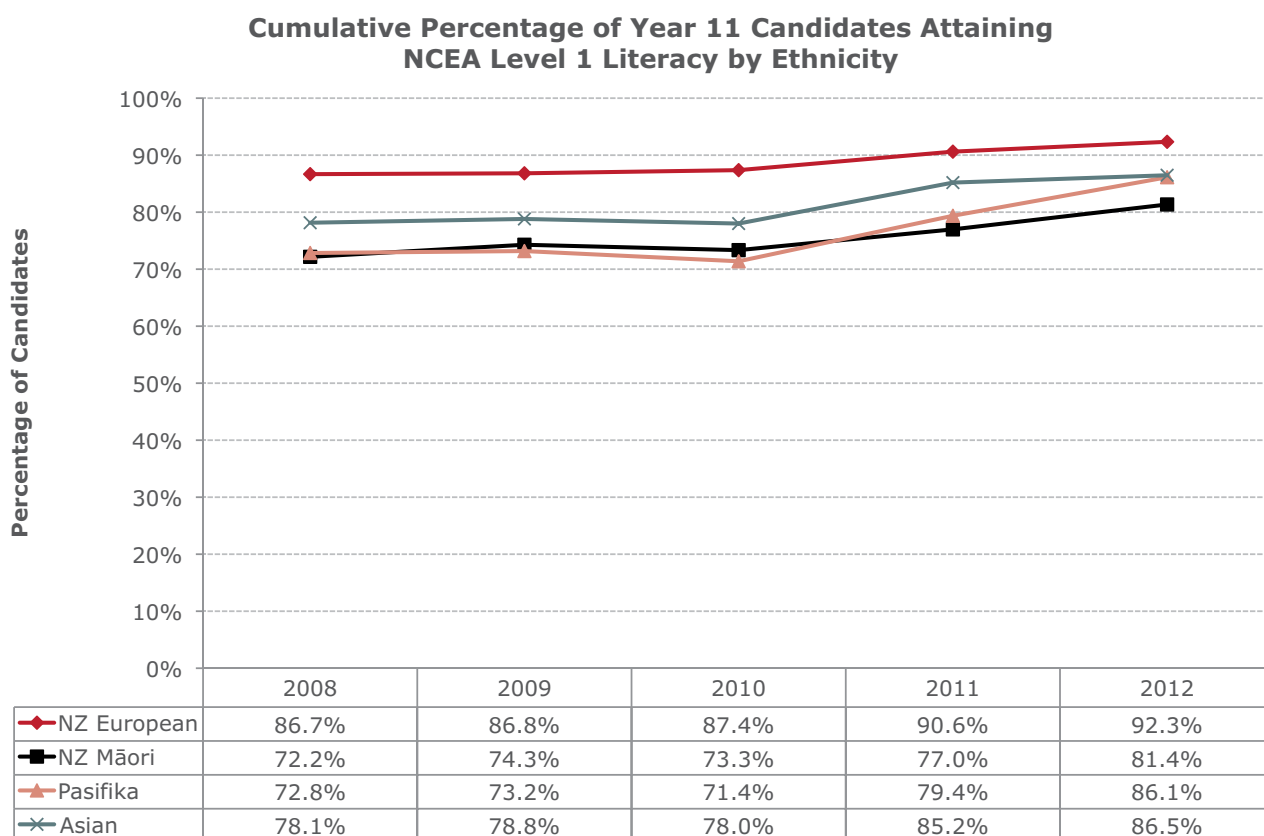


Figure 33. Percentage of Year 11 candidates who attained Literacy by ethnicity from 2008 to 2012.



# Literacy and Numeracy

## Analyses by School Decile Band

As with the other breakdowns the improvement in Literacy when viewed by decile band shows the same strong increase in 2011 and 2012. The gap between rates of achievement for Decile Bands 4-7 and 8-10 has remained the same but Decile Band 1-3 has risen more, up from 74.3% in 2010 to 81.5% in 2012. This has reduced the difference between this band and the other two.

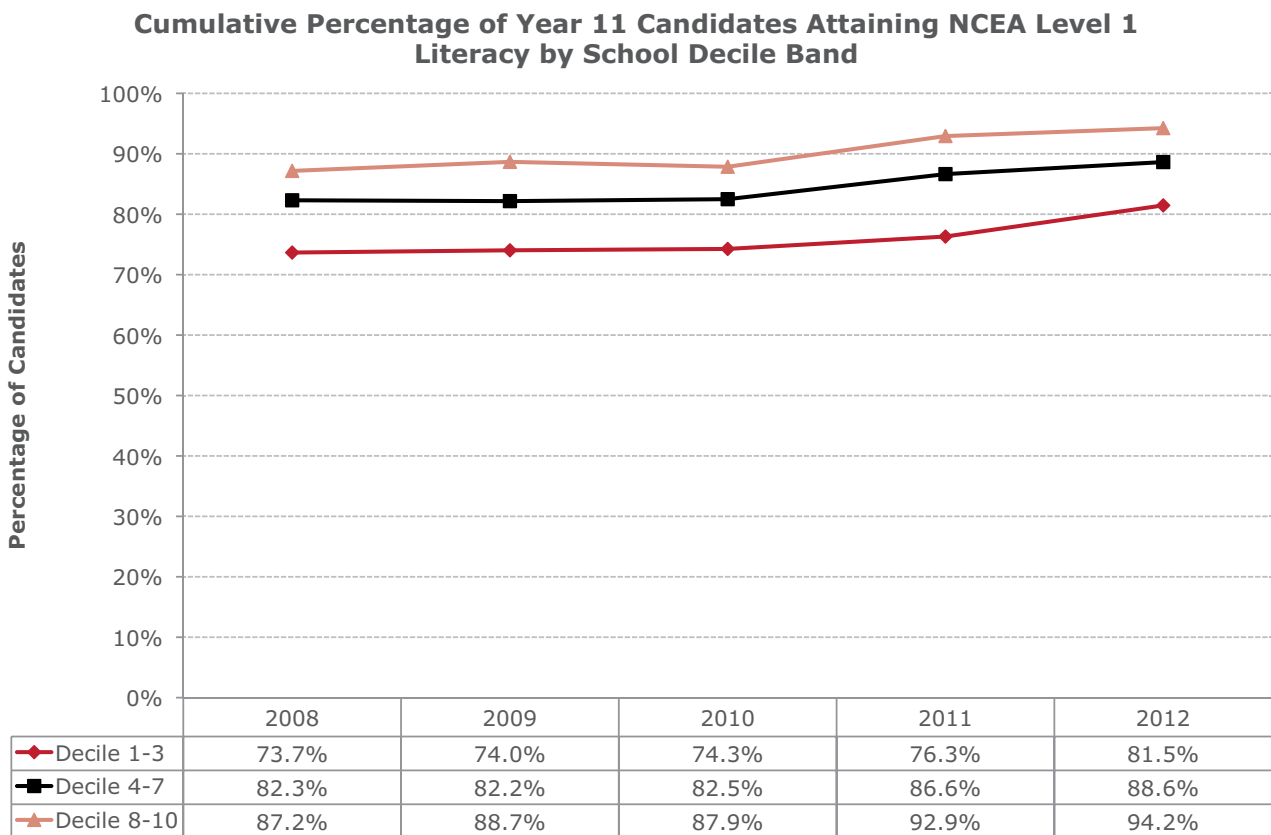


Figure 34. Percentage of Year 11 candidates who attained Literacy by decile band from 2008 to 2012.

# Literacy and Numeracy

## Numeracy

In contrast to the rising rates of Literacy achievement, Numeracy achievement fell slightly in 2011 and further in 2012. The transition years allowed schools to continue to use old standards in 2011 and 2012.

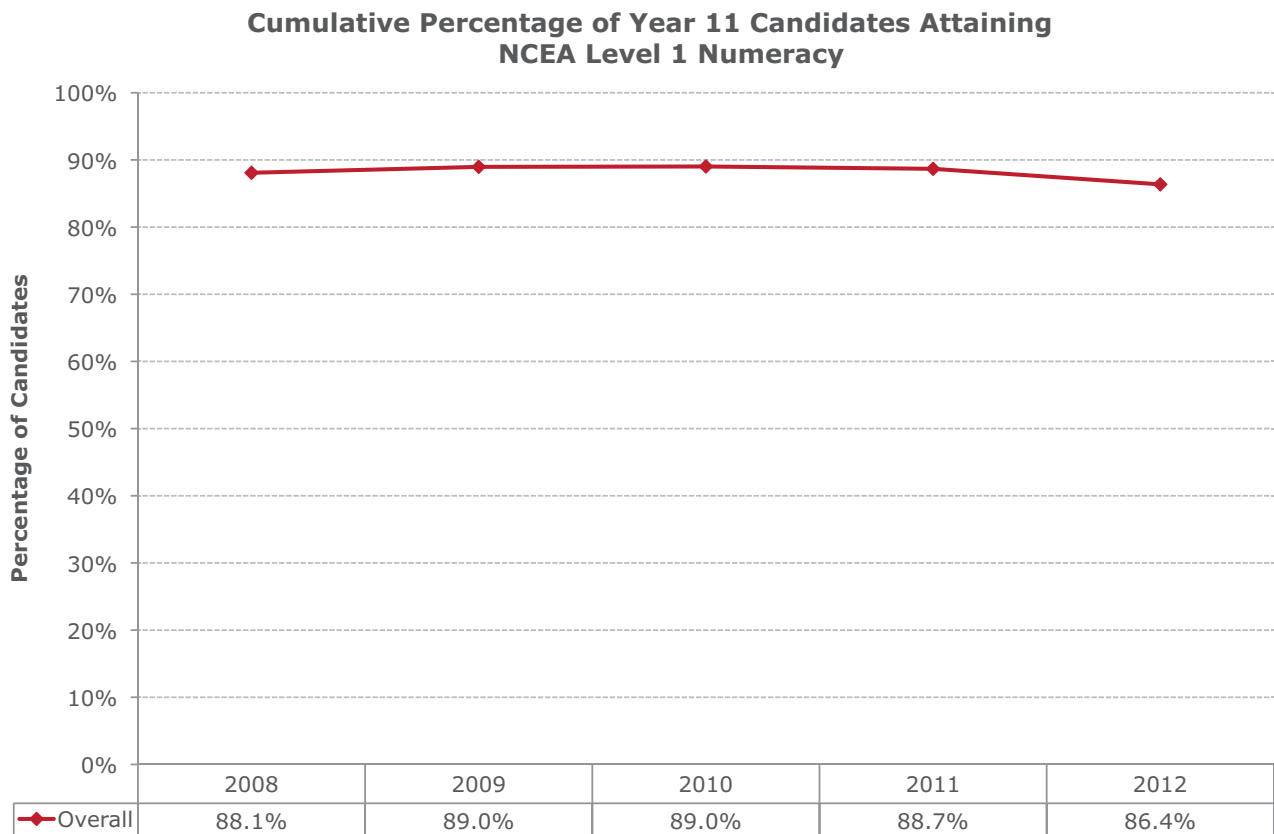


Figure 35. Overall percentages of Year 11 candidates attaining NCEA Level 1 Numeracy from 2008 to 2012.



# Literacy and Numeracy

Figures 36-38 compare the percentages of the Enrolled Candidate Cohort who achieved Numeracy by the end of Year 11 by gender, ethnicity and school decile, in each year from 2008 to 2012.

## Analyses by Gender

Prior to 2011 females outperformed males in the achievement of Numeracy by a small difference of approximately 1.5 percentage points. However in 2011 and 2012 the gap between them increased at the same time as the overall achievement rate decreased. From 2010 to 2012 the gap increased to 3.3 percentage points with male achievement having reduced by 3.5 percentage points to 84.7%, while females had only fallen by 1.8 percentage points to 88%.

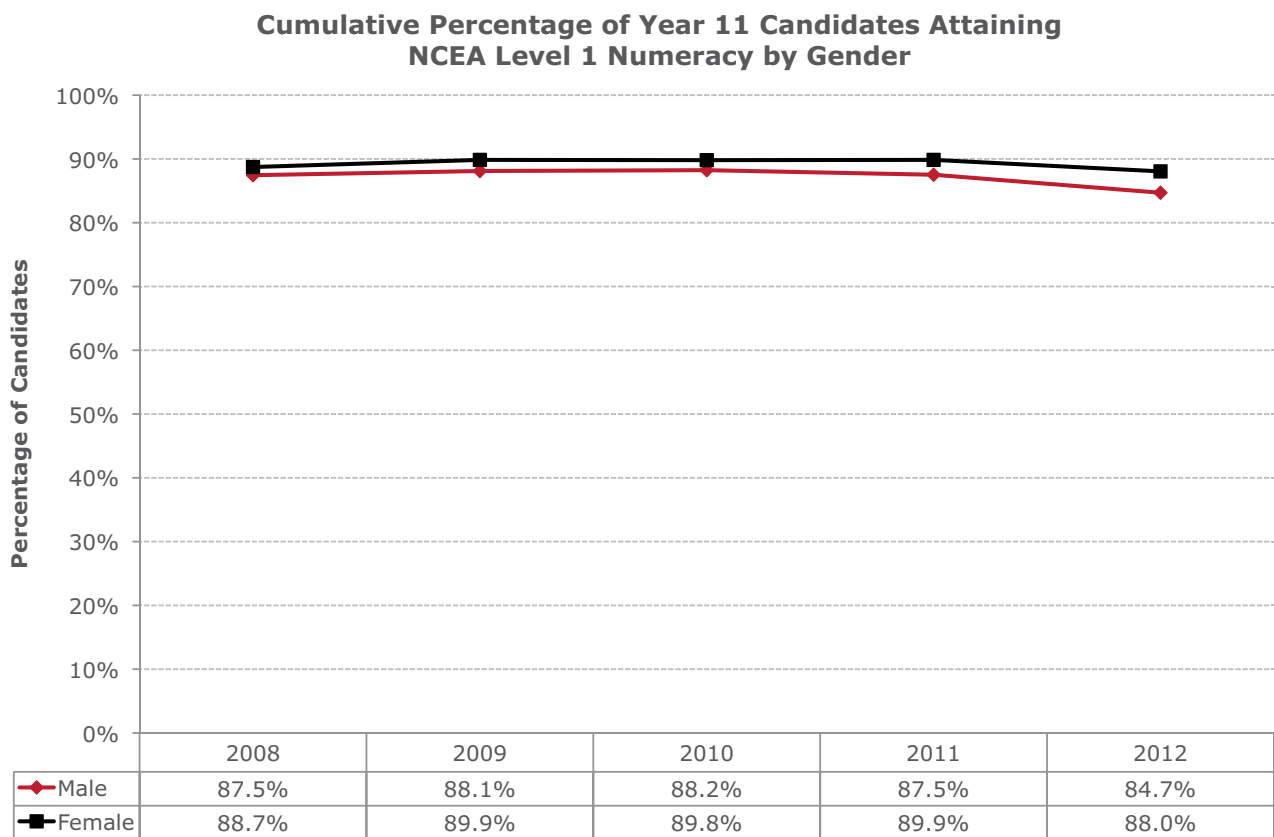


Figure 36. Percentage of candidates who attained Numeracy by gender from 2008 to 2012.



# Literacy and Numeracy

## Analyses by Ethnicity

The ethnicity breakdown shows a similar pattern of decreased Numeracy achievement. (Figure 37).

As a result of redefining Numeracy standards, a clear decrease in attaining NCEA Level 1 Numeracy in 2012 was observed for all ethnic groups.

Over the reported period, the Numeracy gap between New Zealand European and Asian fell; whereas the gap in favour of Pasifika over New Zealand Māori widened.

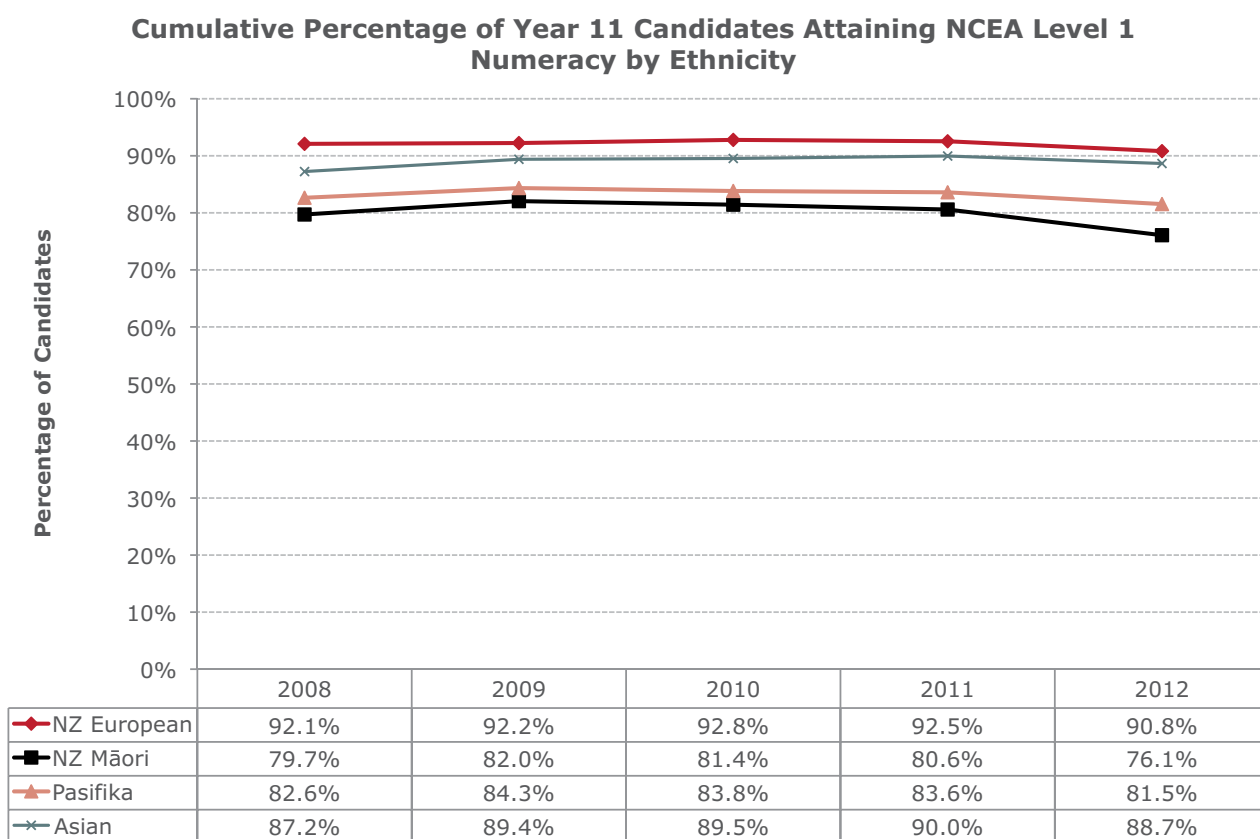


Figure 37. Percentage of candidates who attained Numeracy by ethnicity from 2008 to 2012.



# Literacy and Numeracy

## Analyses by School Decile Band

The attainment rate of Numeracy by decile band was roughly stable from 2008 to 2010. In 2011, attainment rates fell for Deciles Bands 1–3 and 4–7, while this extended to all decile bands in 2012. Since 2010 the gaps between the decile bands have widened.

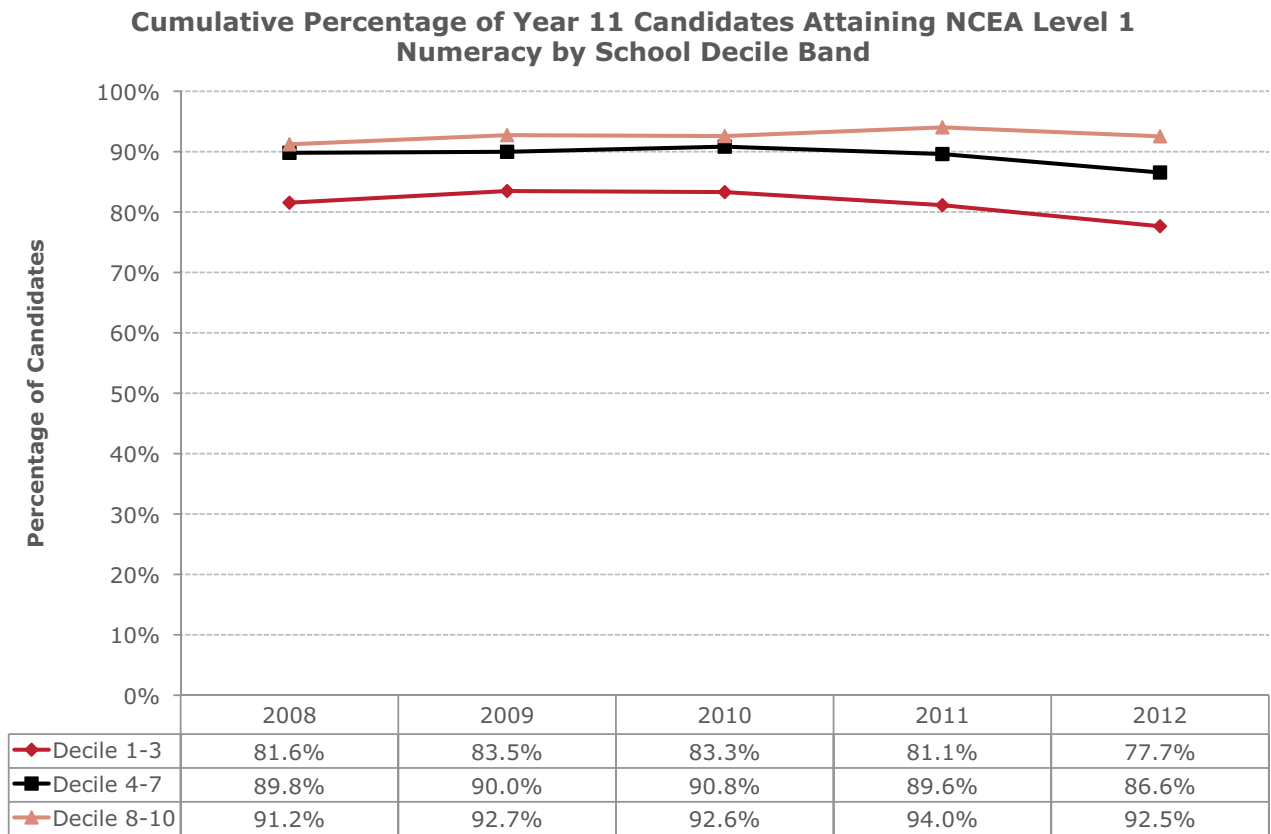
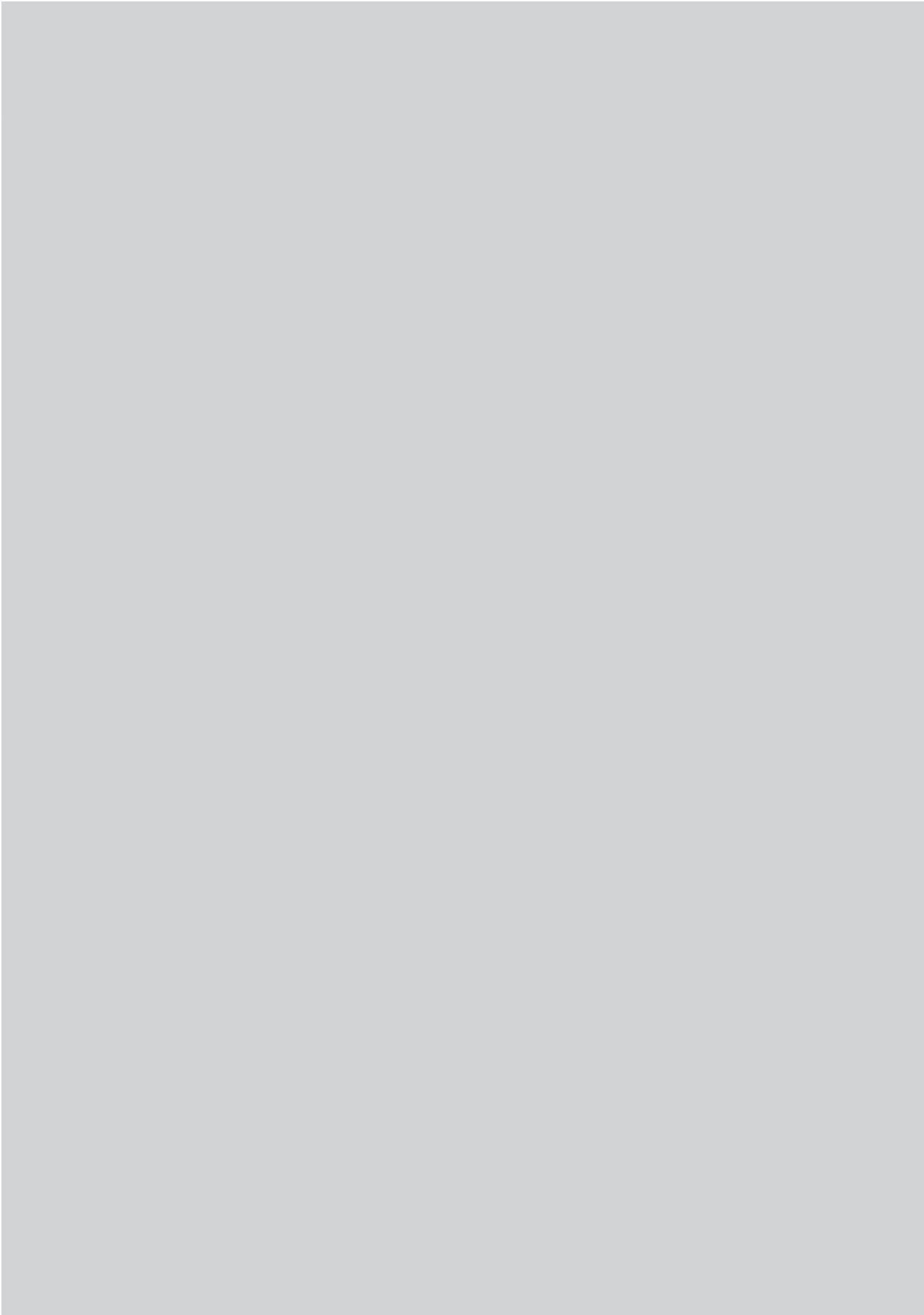


Figure 38. Percentage of candidates who attained Numeracy by decile from 2008 to 2012.



# Certificate Endorsement

Certificate Endorsement for NCEA Levels 1, 2 and 3 was introduced in 2007 and is intended to motivate students to develop their full potential. To qualify for an Endorsement with Excellence, candidates require 50 or more Excellence credits at the Certificate level. An Endorsement with Merit requires 50 or more credits at Merit or Excellence.

Students are allowed to accumulate credits over multiple years towards Certificate Endorsements, unlike Course Endorsement where all the credits must be achieved within a single year. This means that while students may achieve both an NCEA qualification and a Certificate

Endorsement on that qualification within a single year; some students will add an endorsement to a qualification attained in a prior year.

In the Secondary School Statistics published on the NZQA website, and in this report, only endorsements achieved in the same year as the qualification are reported. The endorsement rates shown in this report are given as percentages of the achieved qualifications.

Figures 39-41 show the Merit and Excellence Endorsements gained at NCEA Levels 1, 2 and 3, from 2008 to 2012.

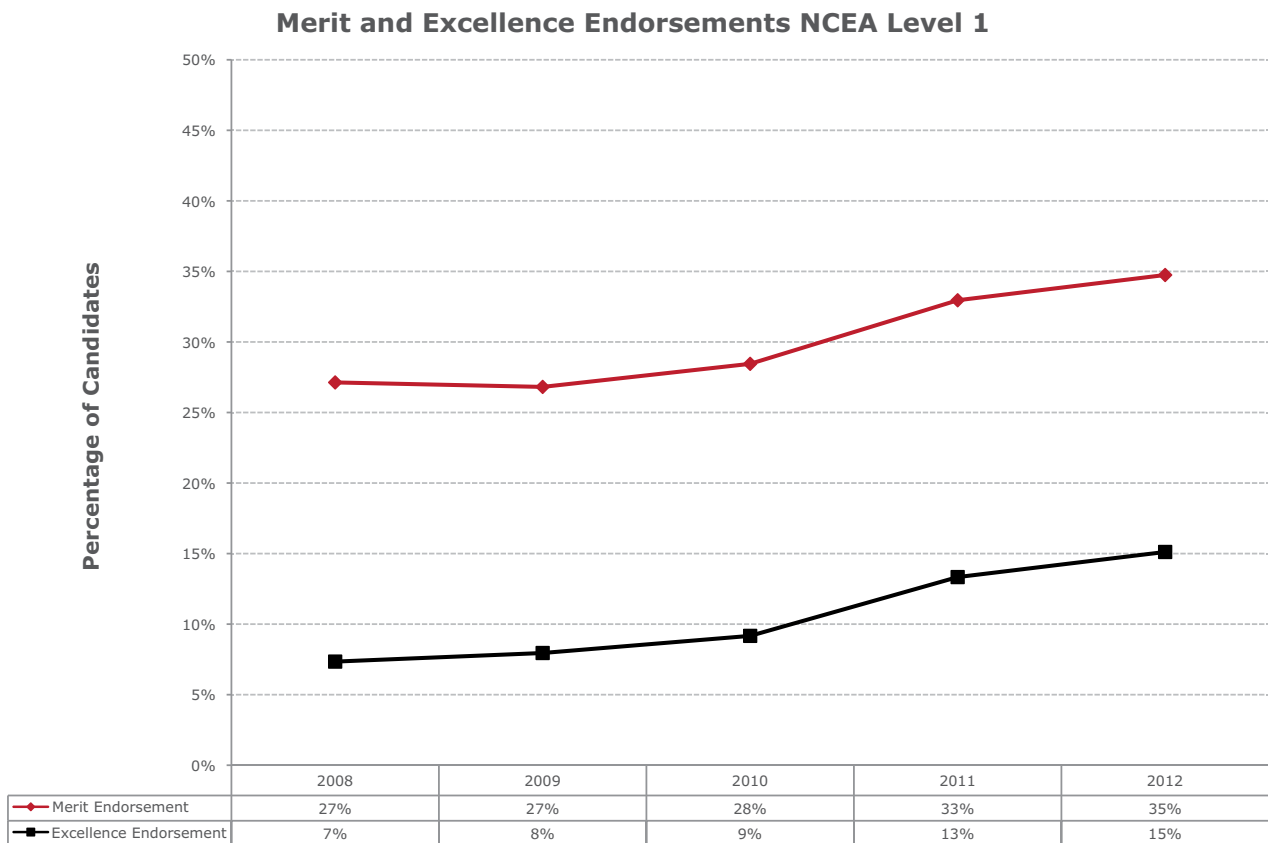


Figure 39. NCEA Level 1 Endorsement achieved by Year 11 candidates from 2008 to 2012.

# Certificate Endorsement

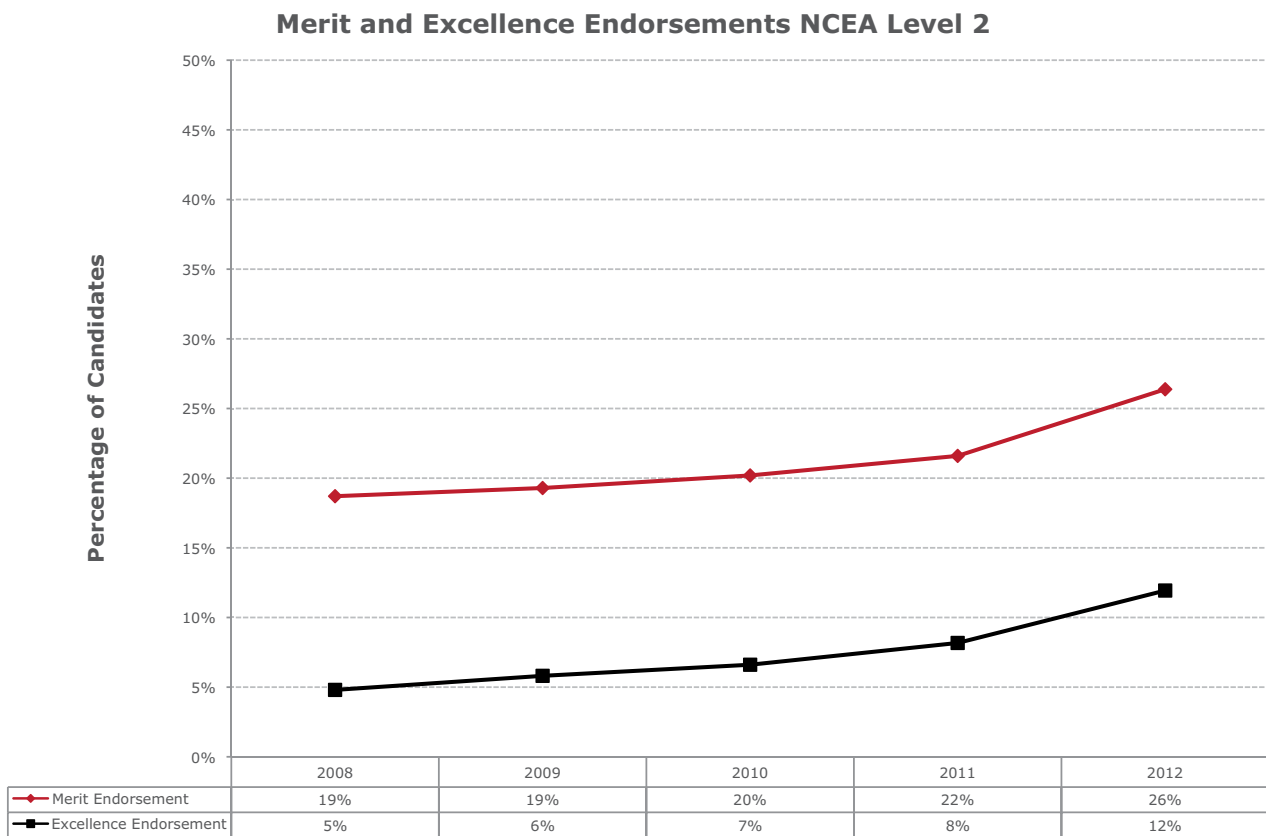


Figure 40. NCEA Level 2 Endorsement achieved by Year 12 candidates from 2008 to 2012.



# Certificate Endorsement

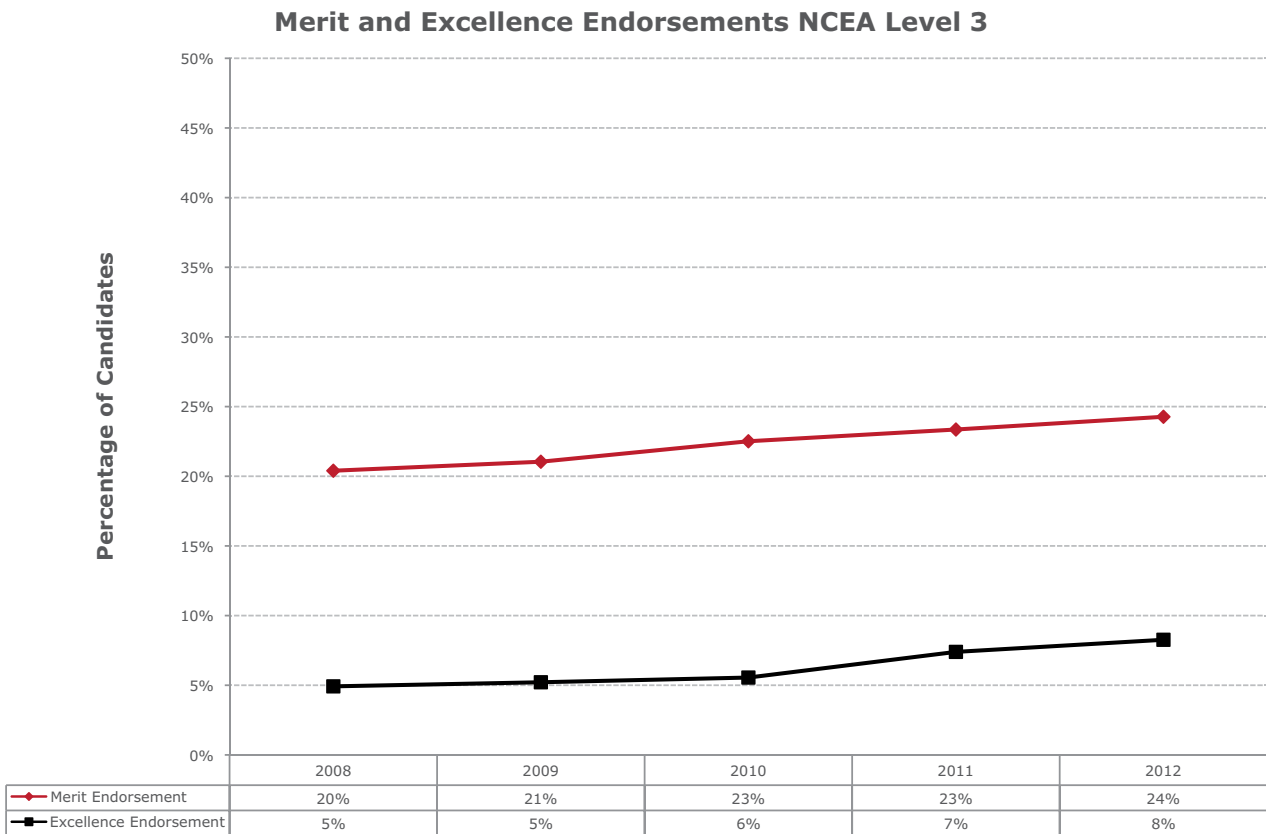


Figure 41. NCEA Level 2 Endorsement achieved by Year 13 candidates from 2008 to 2012.

# Certificate Endorsement

## Analyses by Gender

Figures 42-44 compare the percentages of male and female candidates at each NCEA level who attained those qualifications with an endorsement of either Merit or Excellence. Differences in favour of female candidates are evident for both Merit and Excellence endorsements at all three levels. Between 2008 and 2012, there were some fluctuations in percentages gaining endorsements but over the period there was an overall upward trend.

In 2012, an increase in the percentages of qualifications endorsed with Merit and Excellence at Level 1 and 2 was evident. The increases were particularly large at Level 2, where the rate of Merit endorsements increased by five percentage points for male and four percentage points for female, and the rate of Excellence endorsements increased by three percentage points for males and five percentage points for females. The same pattern was observed for NCEA Level 1 in 2011. In 2012, both Merit and Excellence endorsements for NCEA Level 3 slightly increased.

**Merit and Excellence Endorsements NCEA Level 1 by Gender**

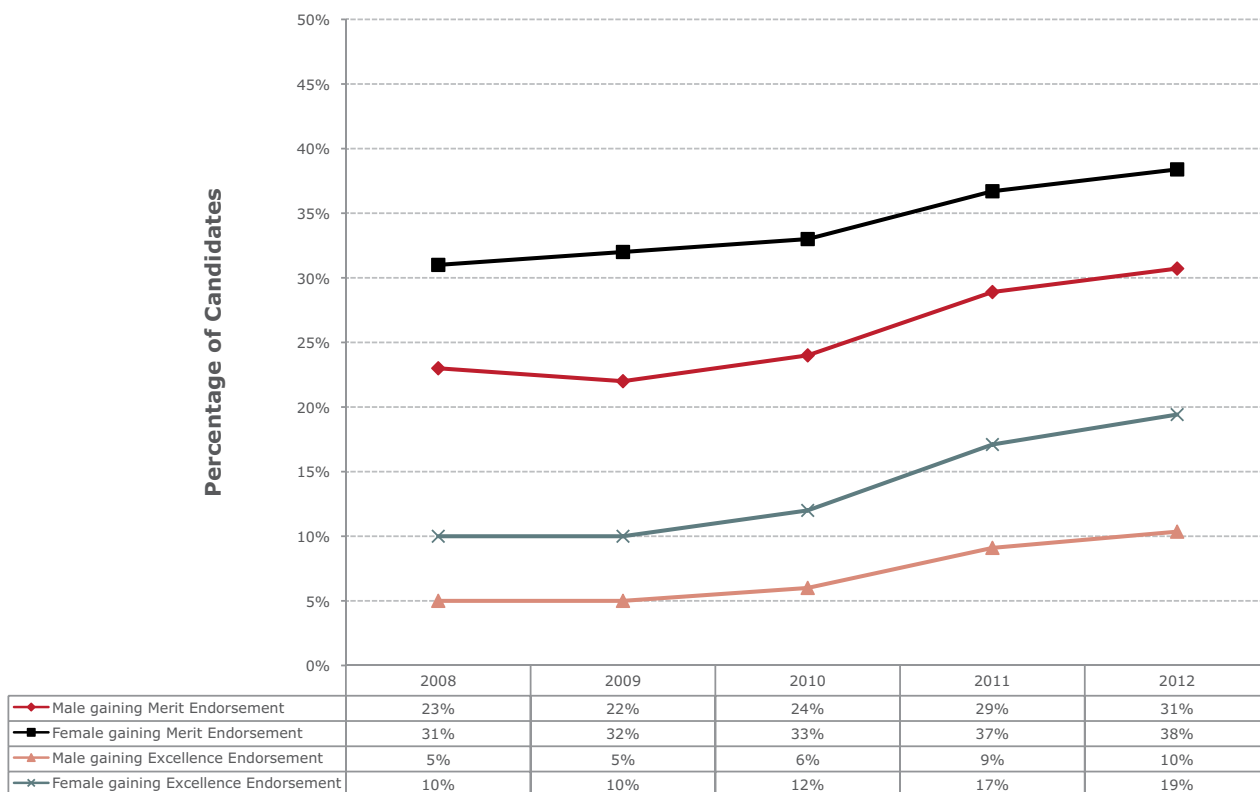


Figure 42. NCEA Level 1 Merit and Excellence Endorsement achieved by Year 11 candidates by gender from 2008 to 2012.



# Certificate Endorsement

**Merit and Excellence Endorsements NCEA Level 2 by Gender**

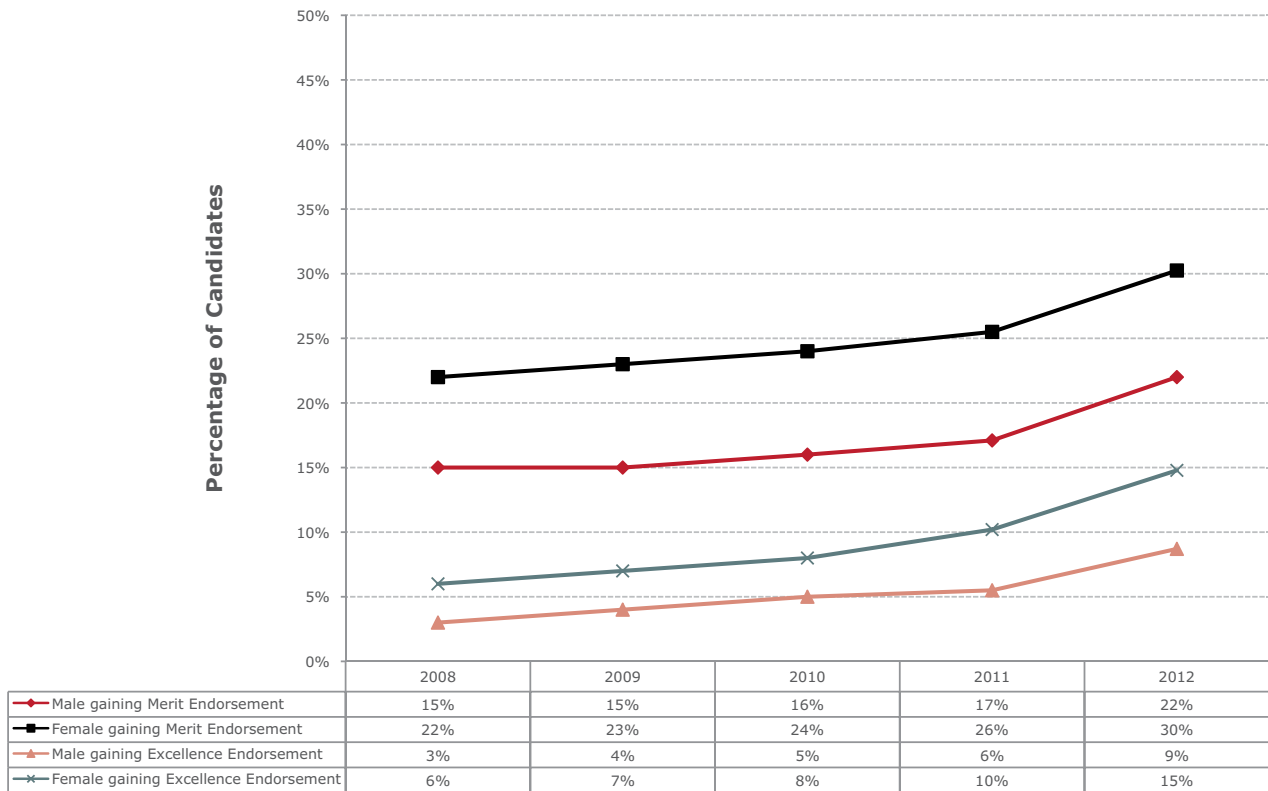


Figure 43. NCEA Level 2 Merit and Excellence Endorsement achieved by Year 12 candidates by gender from 2008 to 2012.



# Certificate Endorsement

**Merit and Excellence Endorsements NCEA Level 3 by Gender**

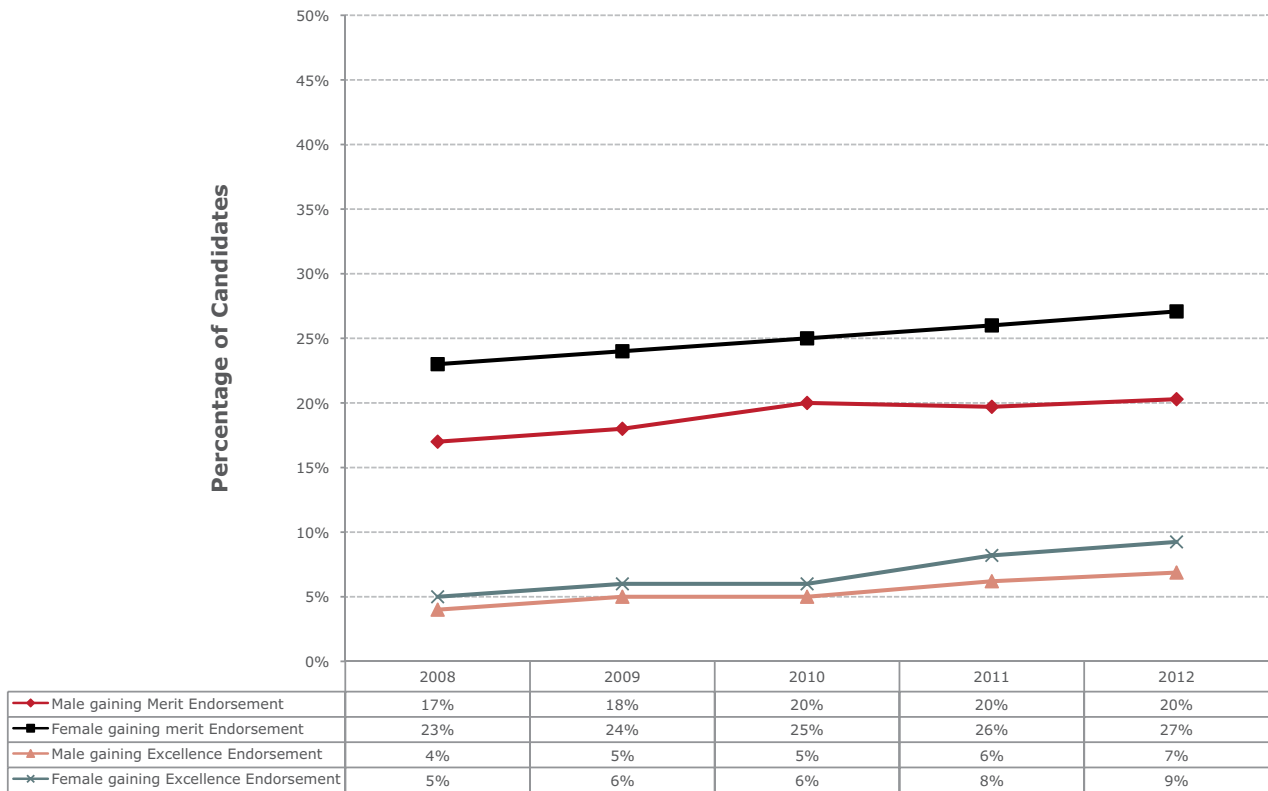


Figure 44. NCEA Level 3 Merit and Excellence Endorsement achieved by Year 13 candidates by gender from 2008 to 2012.



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# Certificate Endorsement

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## Analyses by Ethnicity

Figures 45-47 show the percentages of Asian, New Zealand European, New Zealand Māori and Pasifika candidates at each level of NCEA, who achieved those qualifications with Merit or Excellence.

In 2012, both Merit and Excellence endorsement rates were as high as or higher than they were in 2011 for all ethnicities, at all levels of NCEA. The increases were largest for Merit endorsement at Level 2.

# Certificate Endorsement

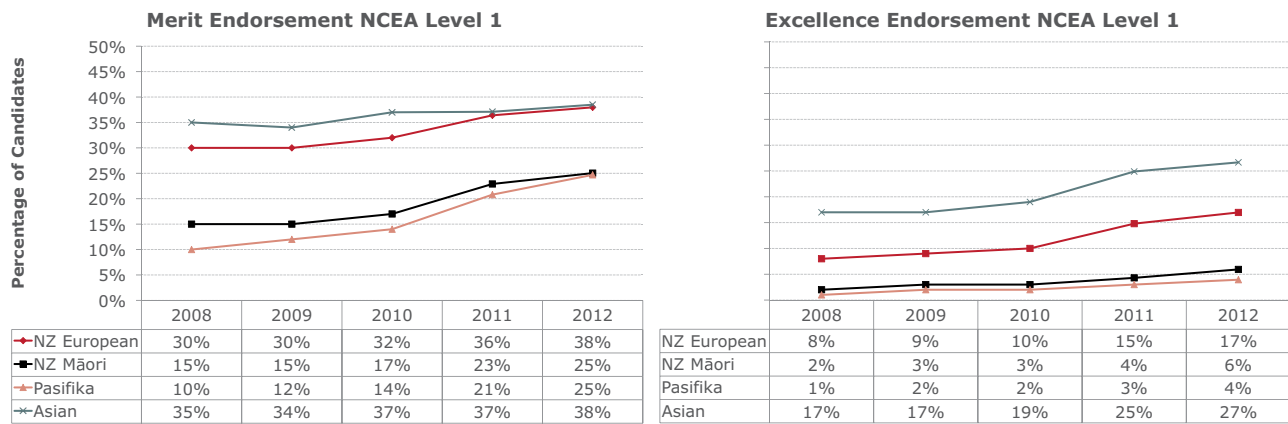


Figure 45. NCEA Level 1 Endorsements achieved by Year 11 Candidates by ethnicity from 2008 to 2012.

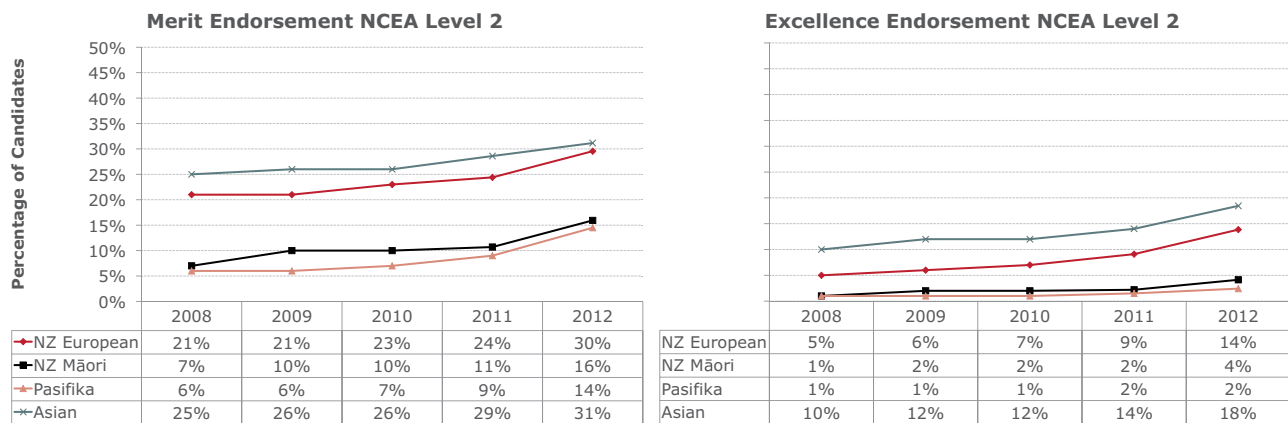


Figure 46. NCEA Level 2 Endorsements achieved by Year 12 Candidates by Ethnicity from 2008 to 2012.

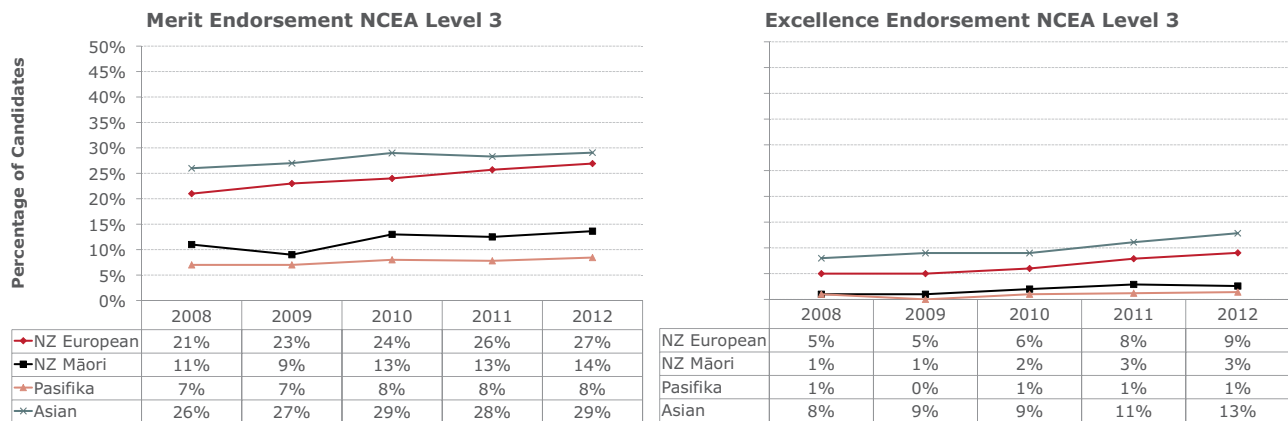


Figure 47. NCEA Level 3 Endorsements achieved by Year 13 candidates by ethnicity from 2008 to 2012.



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# Certificate Endorsement

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## Analyses by School Decile Band

Figures 48-50 show the percentages of candidates who achieved either a Merit or Excellence endorsement in NCEA, broken down by Decile Band.

The pattern of performance evident in Figures 48-50 largely reflects the differences in decile attainment shown in Figures 15-18 at all three levels of NCEA. Candidates in Decile Band 8-10 attained the greatest proportions of certificates endorsed with either Merit or Excellence, followed by candidates from Decile Band 4-7, and then Decile Band 1-3.

In 2012, both Merit and Excellence endorsement rates were higher than they were in any years since 2008 for all decile bands, at all levels of NCEA. Again the increases were largest for Merit endorsement at Level 2, which increased by five percentage points for both Decile Band 4-7 and 8-10, and by four percentage points for Decile Band 1-3.

Rates of Excellence endorsement at Level 2 increased by five percentage points for students in the Decile Band 8-10, three percentage points for students in the Decile Band 4-7, and two percentage points for those in Decile band 1-3.

A notable feature of the figures is the rapid rise in Level 1 endorsements in 2011 that was followed by similar growth in Level 2 in 2012. By and large, the 2012 cohort will be drawn from that gaining Level 1 NCEA in 2011. It could be inferred that this reflects a changed motivation in the cohort (or among schools) towards achieving endorsement; also, this growth is concurrent with the implementation of standards review at these levels. If either or both of these factors is involved in those successive rises, similar growth could be expected at Level 3 in 2013.

# Certificate Endorsement

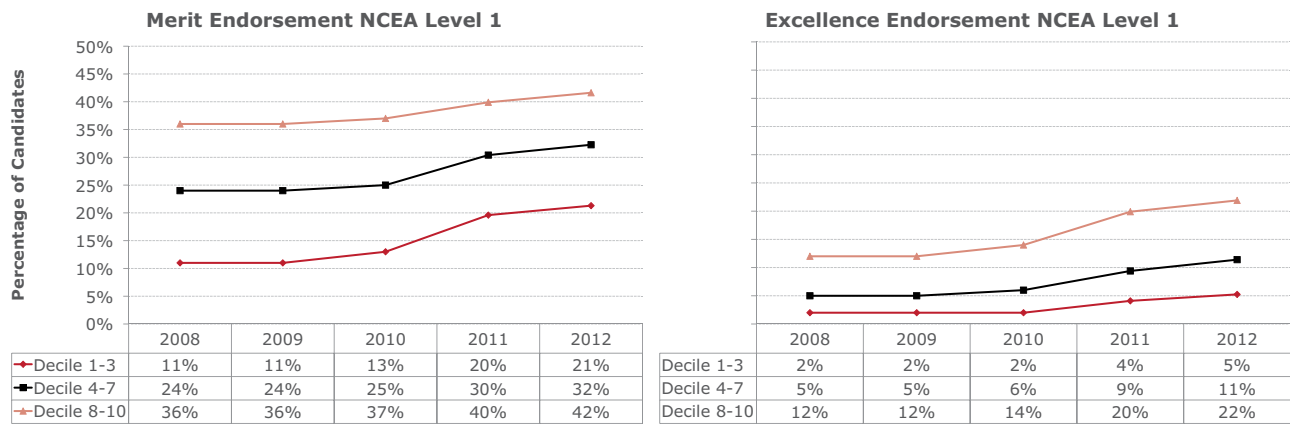


Figure 48. NCEA Level 1 Endorsement achieved by Year 11 candidates by decile band from 2008 to 2012.

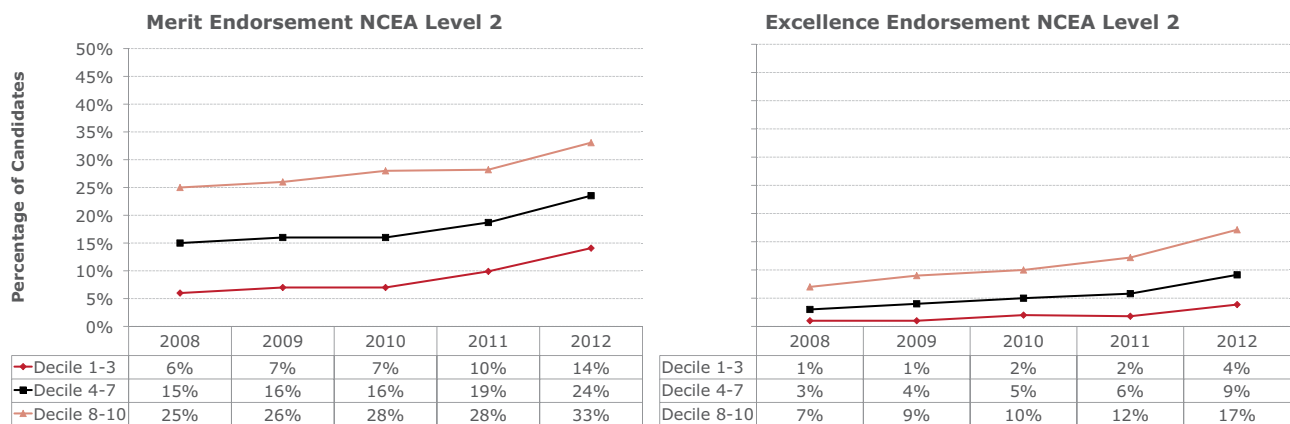


Figure 49 NCEA Level 2 Endorsement achieved by Year 12 candidates by decile band from 2008-2012.

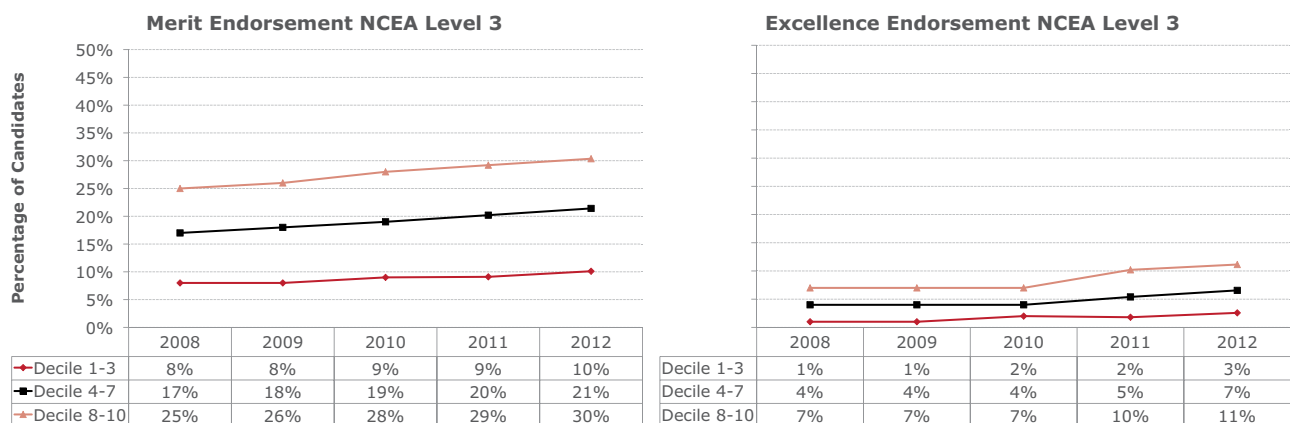


Figure 50. NCEA Level 3 Endorsement achieved by Year 13 candidates by decile band from 2008-2012.



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# Course Endorsement

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Course Endorsement was introduced in 2011 as part of the NCEA improvements package and is intended to recognise a candidate's strength in an individual course.

To gain Course Endorsement, candidates must gain 14 or more credits at Merit and/or Excellence in standards linked to that course. For most courses there is a further requirement of at least 3 of these credits having been gained from externally-assessed standards and 3 credits from internally-assessed standards. The only exceptions are courses where there are either no internally- or externally-assessed standards available, and the standards being used come from an NZQA maintained exemption list.

If a student's course entries comply with the requirements of endorsement, then the course can be endorsed with a grade of Merit or Excellence at Levels 1, 2 or 3. To be endorsed with Excellence at least 14 credits, including the required credits from internally-assessed and externally-assessed standards, must have a result of Excellence. For Merit the 14 credits can come from standards with either Merit or Excellence results; including the internally- and externally-assessed standard requirement. The level at which a course is endorsed will be determined by the lowest level of standards required to meet the requirements.

It should be noted that although it is common for Year 11 students to be working on standards at Level 1, Year 12 students at Level 2 and Year 13 students at Level 3, this is not always the case. For this reason some students may achieve endorsements at a higher level than might be expected, whilst others may achieve at a lower level. The complex layering of student year levels, endorsement grades and levels, and the wide range of choice of which standards to use to assess courses, is indicative of the flexibility of the system.

Schools are expected to structure courses and choose standards for assessment to reflect a coherent programme of learning within a single year. Courses are not subjects, although it is common for a course to be largely drawn from standards commonly understood to be part of a traditional subject. The courses at each school use sets of standards appropriate to assess the courses being delivered at that specific school. This means that although the names of the courses may appear similar the standards being used may not be the same, or even particularly similar. For this reason NZQA does not provide any statistical analysis based on direct course comparisons between schools or nationally, as it would not be possible to ensure such a comparison was on an equitable basis.

For example two schools may both offer a course entitled Year 11 Physical Education. In one school this course may use standards exclusively drawn from the traditional subject area of Physical Education. The other may include standards from Health and Biology standards normally considered to be part of the general subject area of Science. In the case of this second school the rationale may be that this Year 11 course will lead on to a Year 12 course intended to prepare students for careers in Sports Medicine. Although both courses are called Year 11 Physical Education the content is sufficiently different to limit the usefulness of comparisons.

Because students can achieve more than one endorsement in a year, and these can be at different levels and grades, the majority of the statistics given in this section are based on counts of students having achieved at least one endorsement regardless of level.

The statistics presented for Course Endorsement are divided into two sections. The first section contains statistics related to the availability and uptake of Course Endorsement. The next section provides statistics related to the achievement of Course Endorsements.

# Course Endorsement

## Courses Able to be Endorsed

Although students have a degree of input into the courses they undertake, the structure of each course and the standards chosen to assess the course are largely controlled by the school. The measures of percentages of students with one or more courses able to be endorsed, and the average number of courses able to be endorsed, may be able to be considered to be a proxy for the schools engagement with Course Endorsement. As 2012 is only the second year of Course Endorsement, increases in both of these measures would indicate that Course Endorsement has been well received.

## Students with One or More Endorsable Courses

Figure 51 shows the percentage of candidates with one or more endorsable courses in Year 11, 12 and 13. In 2011 approximately 83.7% of all candidates had one or more courses that met the criteria for endorsements. In 2012 this figure increased to 85.3%. Although there was a rise across the three year levels, the most notable increase was at Year 12 with 85% of students having one or more endorsable courses in 2012, up from 82% in 2011. Year 11 and Year 13 both rose by one percentage point to 90% and 81% respectively.

**Candidates with one or more Endorsable Courses**



Figure 51. Percentage of candidates with one or more endorsable courses by year level from 2011 to 2012.

# Course Endorsement

## Analyses by Gender

Figure 52 compares the percentage of male and female candidates having one or more endorsable courses. There is a similar pattern to other areas of this report, with a higher percentage of females than males. The difference of 3.5 percentage points in 2011 in favour of females has decreased to 3.1 percentage points in 2012.

### Candidates with one or more Endorsable Courses by Gender

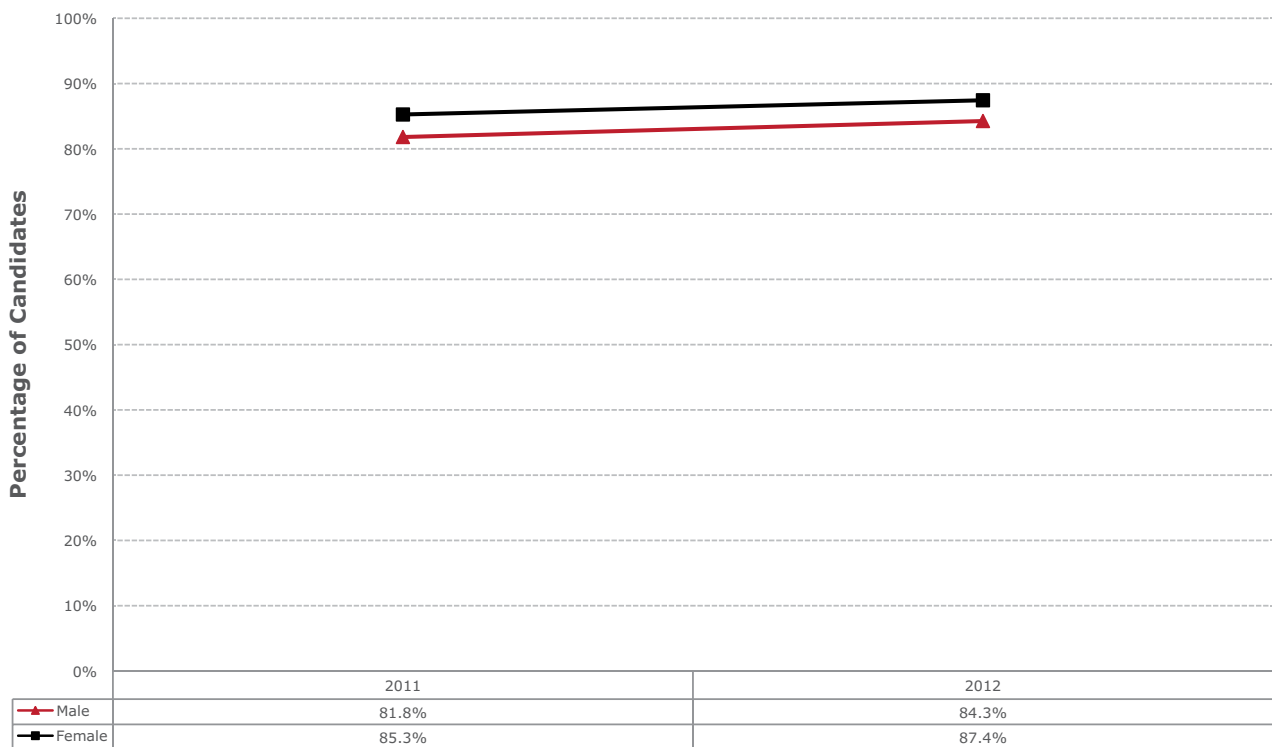


Figure 52. Percentage of candidates with one or more endorsable course by gender from 2011 to 2012.



# Course Endorsement

## Analyses by Ethnicity

Figure 53 shows the percentage of Asian, New Zealand European, New Zealand Māori and Pasifika candidates with one or more endorsable courses.

The gap difference between the lowest and highest ethnicity has closed from 15.7 percentage points in 2011 to 12.8 percentage points in 2012.

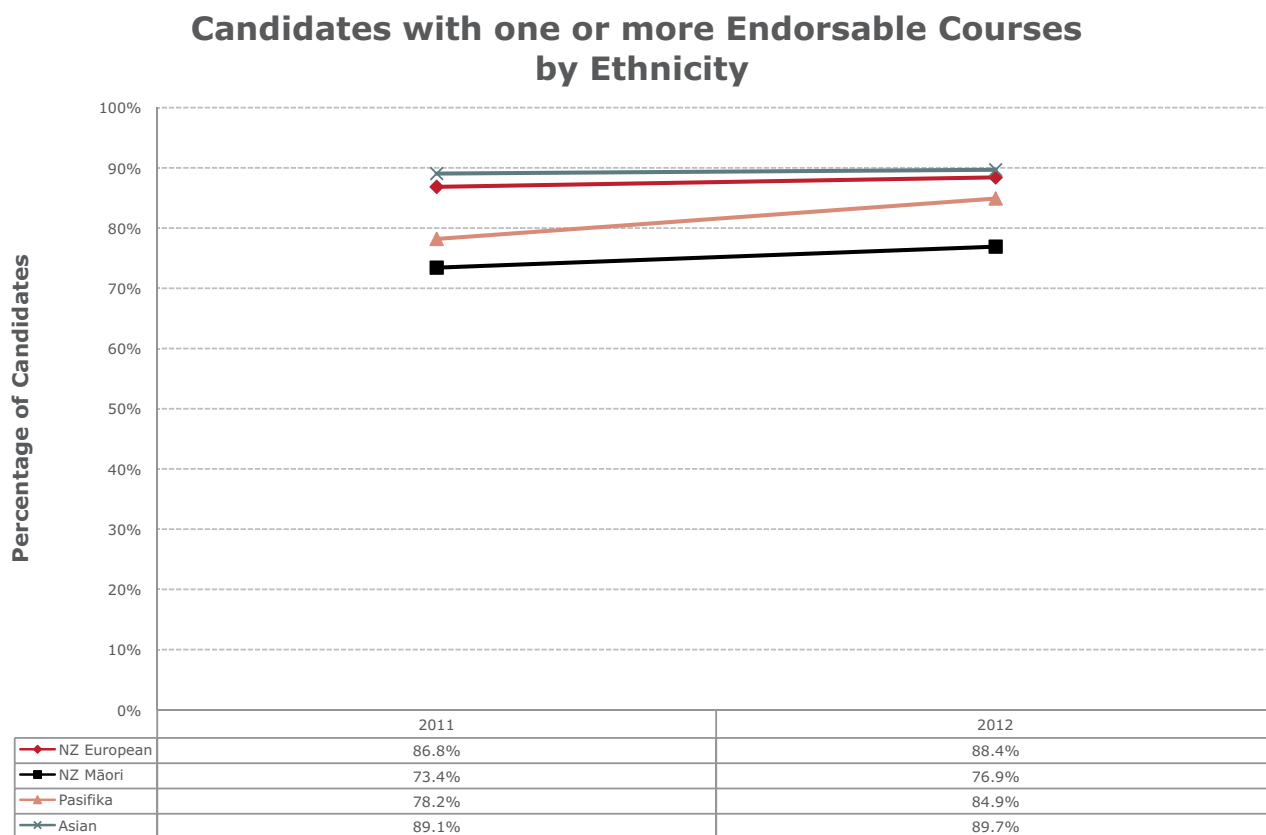


Figure 53. Percentage of candidates with one or more endorsable courses by ethnicity from 2011 to 2012.



# Course Endorsement

## Analyses by School Decile Band

Figure 54 shows the percentage of candidates in Decile Bands 1-3, 4-7 and 8-10 with one or more endorsable courses. Students in Decile Band 8-10 are more likely to have one or more courses that are able to be endorsed. In Decile Band 1-3 76.7% appear to have one or more courses that are able to be endorsed. Decile Band 1-3 showed the greatest increase of 3.6 percentage points between 2011 and 2012.

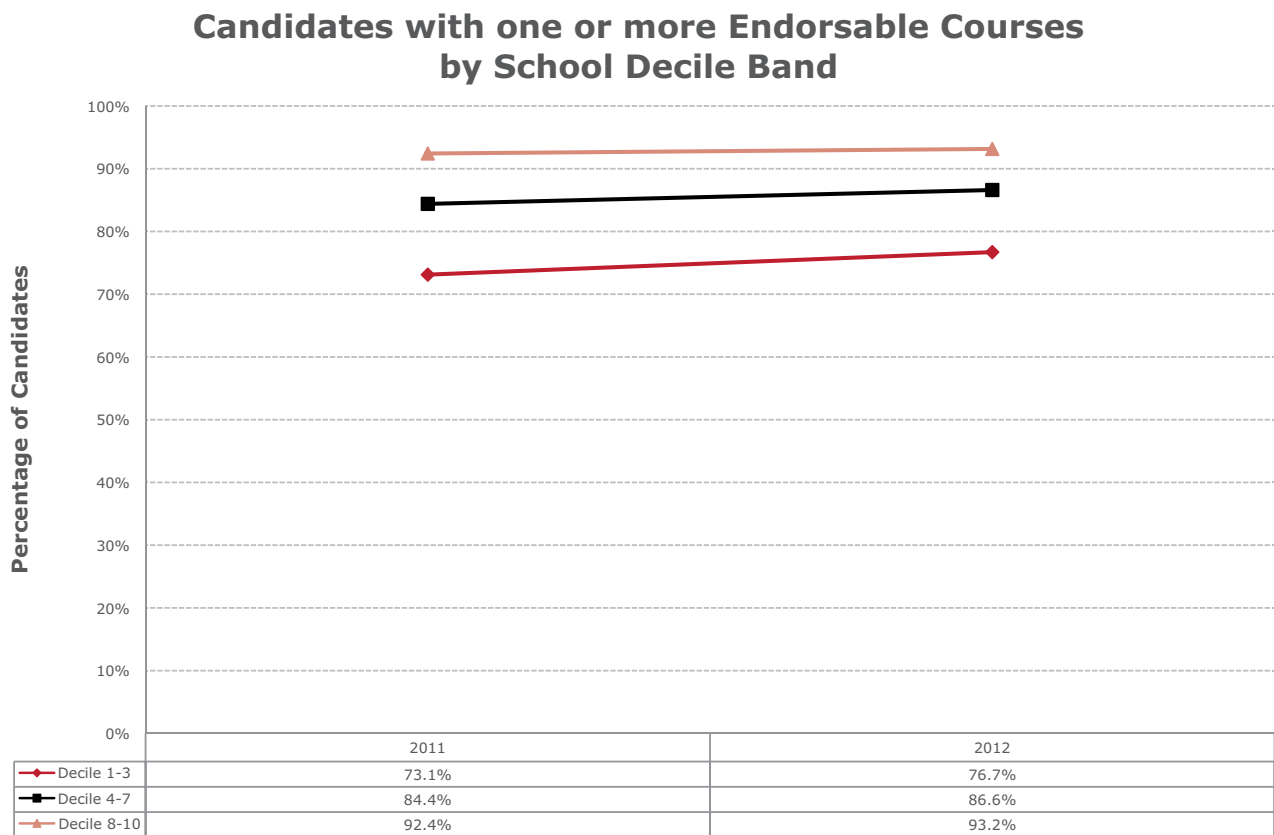


Figure 54. Percentage of candidates with one or more endorsable courses by school decile band from 2011 to 2012.

# Course Endorsement

In the remainder of this section, derived statistics (percentages and averages) exclude candidates that were not enrolled for any endorsable courses, on the basis that these candidates had no intention of attempting endorsement.

## Average Number of Endorsable Courses Per Student

The percentage of students with one or more courses that are able to be endorsed provides an understanding of how widely Course Endorsement is available to students. The statistics on the average number of endorsable courses per student, as detailed in this section, provide information about how many endorsable courses each student is undertaking.

Figure 55 shows the average number of endorsable courses per candidate across the three senior secondary school year levels. The same pattern shown in Figure 51 is also evident here, with an overall increasing trend. The most notable rise was for Year 12 candidates who moved up from an average of 3.8 endorsable courses per candidate to 4.2. Years 11 and 13 also showed slightly increases.

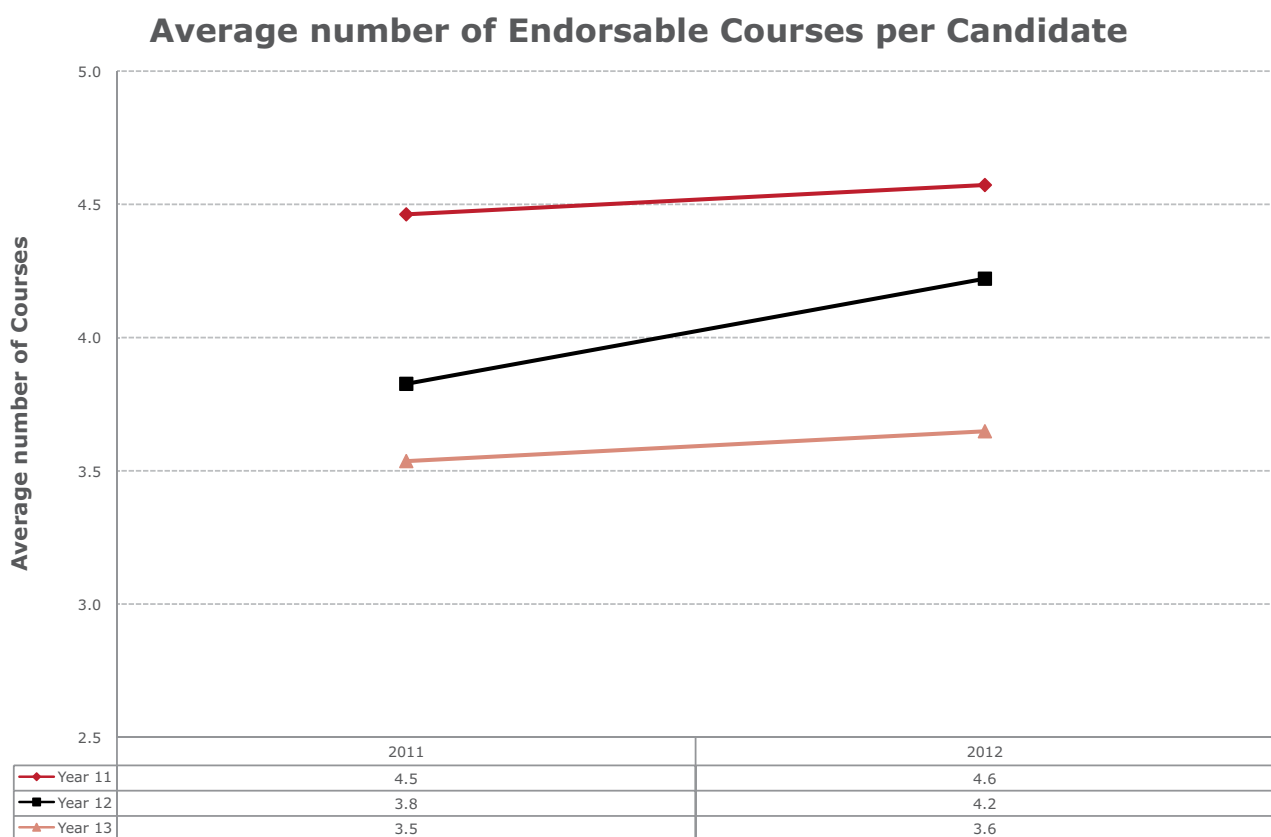


Figure 55. Average number of endorsable courses per candidate by year level from 2011 to 2012.



# Course Endorsement

## Analyses by Gender

Figure 56 compares the average number of endorsable courses per candidate between genders.

Females consistently have more endorsable courses than males. The gap of 0.4 has remained the same in 2012 although both males and females have seen an increase of 0.2 endorsable courses per student, on average.

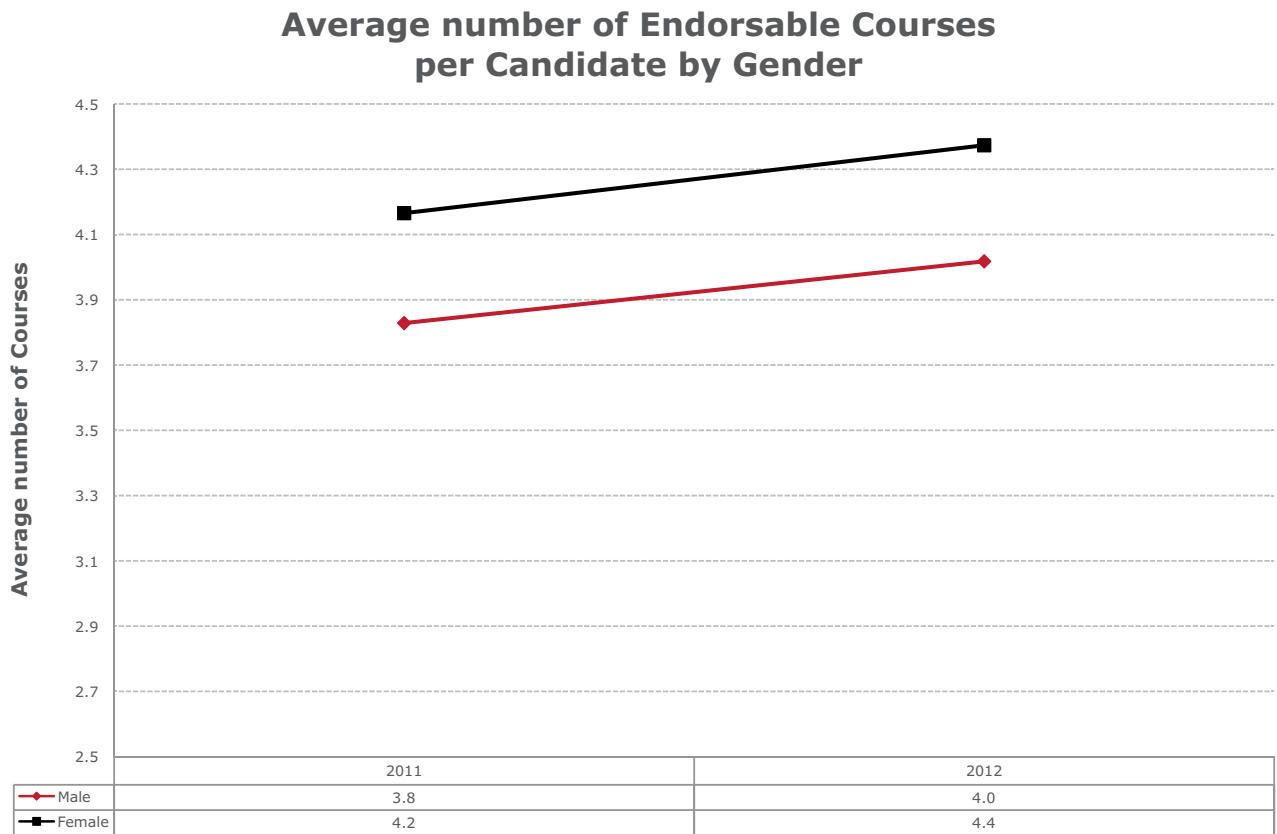


Figure 56. Average number of endorsable courses per candidate by gender from 2011 to 2012.

# Course Endorsement

## Analyses by Ethnicity

Figure 57 shows the change in the average number of endorsable courses by ethnicity for Asian, New Zealand European, New Zealand Māori and Pasifika.

There was a general upward trend at the same rate across the four ethnicities.

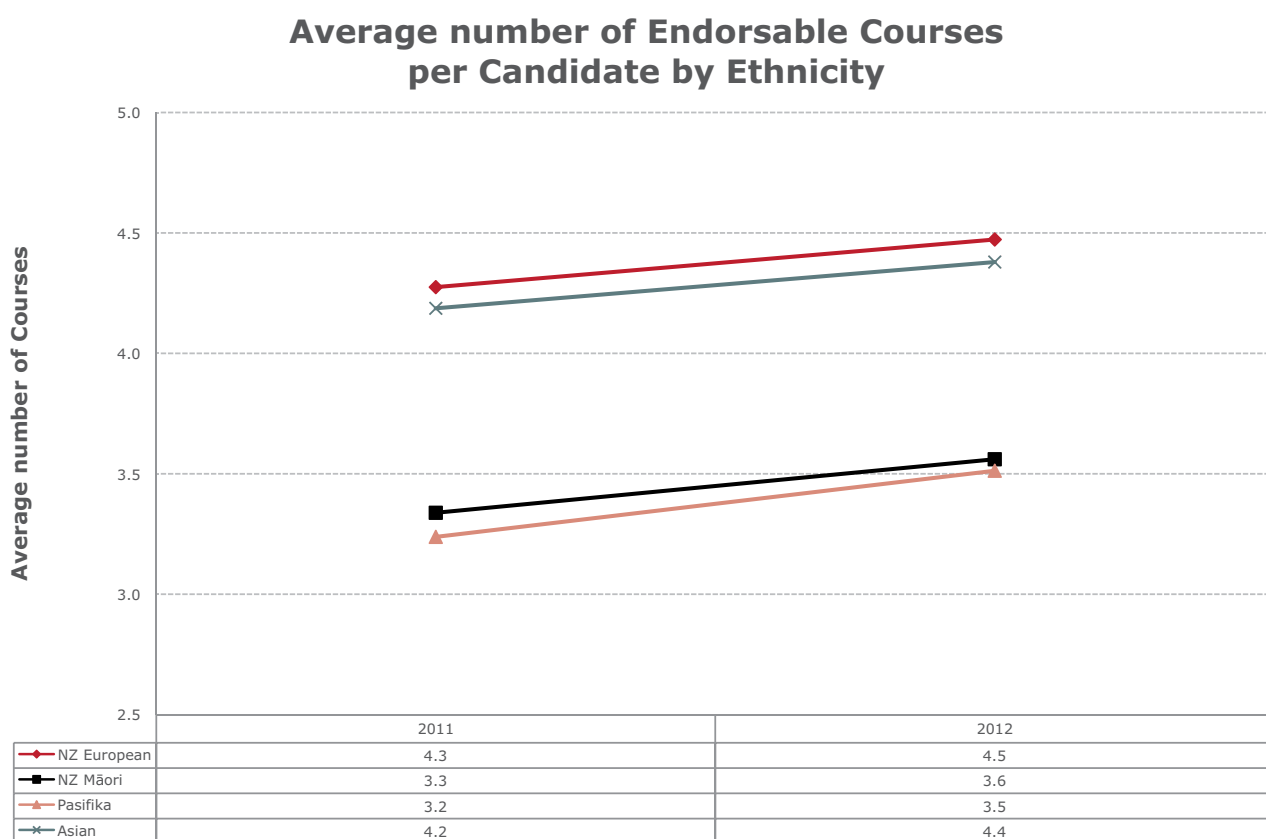


Figure 57. Average number of endorsable courses per candidate by ethnicity from 2011 to 2012.



# Course Endorsement

## Analyses by School Decile Band

Figure 58 shows the average number of endorsable courses per candidates by school decile band.

There is a difference of just under 1.5 endorsable courses per student between Decile Band 1-3 and Decile Band 8-10, with Decile Band 4-7 approximately equidistant between the two.

The rate of increase and the scale of the gaps have remained the same for all decile bands in 2012 when compared to 2011.

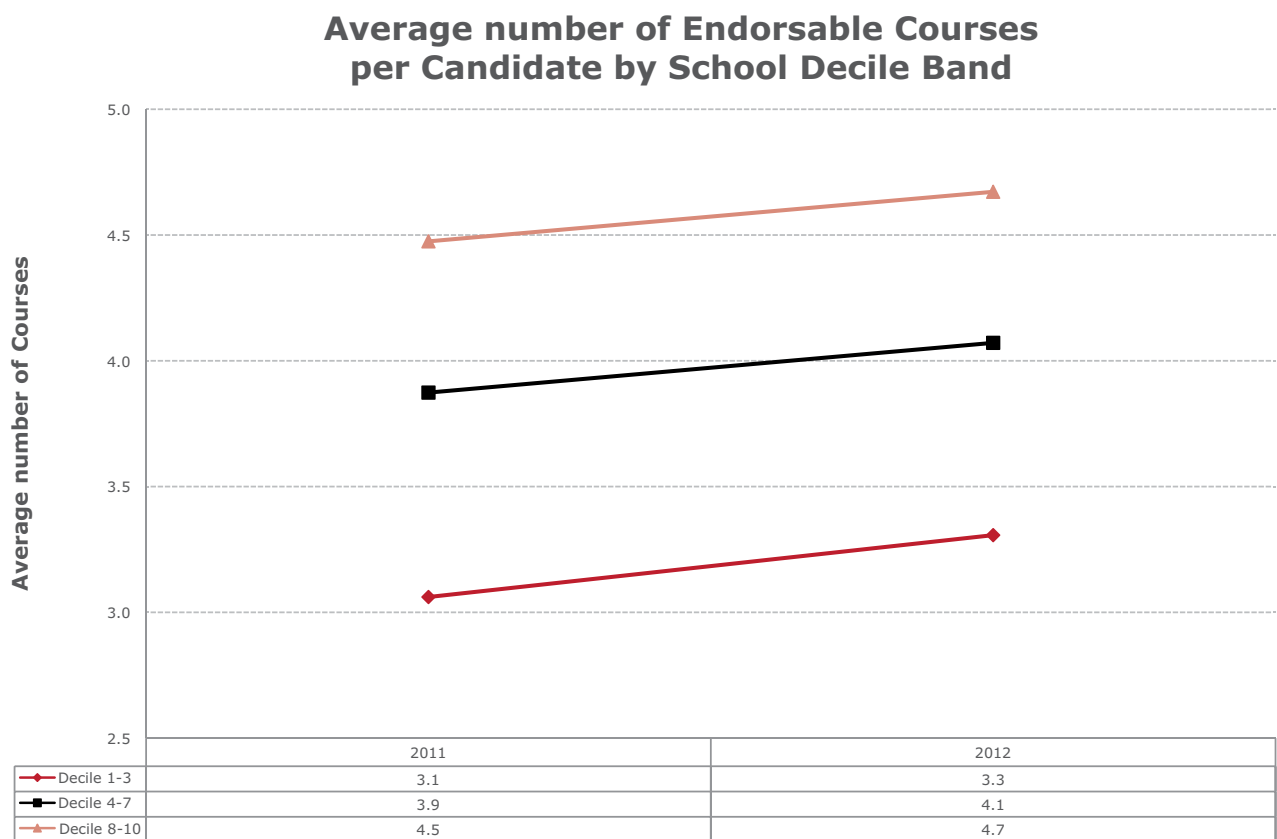


Figure 58. Average number of endorsable course per candidate by school decile band from 2011 to 2012.

# Course Endorsement

## Course Endorsement Achievement rate

When reporting endorsement achievement rates two different measures are used. The first is the percentage of students, with one or more courses able to be endorsed, who have achieved at least one endorsement, regardless of level and grade. The second is the number of endorsements at each grade and level as a percentage of the total number of endorsable courses.

## Percentage of students with endorsable courses gaining endorsement

The increase in the percentage of students with one or more endorsable courses, and the increase in the average number of endorsable courses per student appear to have led to an increase in the achievement of one or more Course Endorsements. This is particularly evident for Year 12 students, who had an increase of three percentage points in the percentage of students with endorsable courses, and an increase of nearly one half an endorsable course per student. These increases may have accounted for the increase in achievement of from just below 38% in 2011 to 45% in 2012. This increase of over 7 percentage points was the largest increase, although all year levels achieved an increase (Figure 59).

### Candidates attaining one or more Course Endorsements

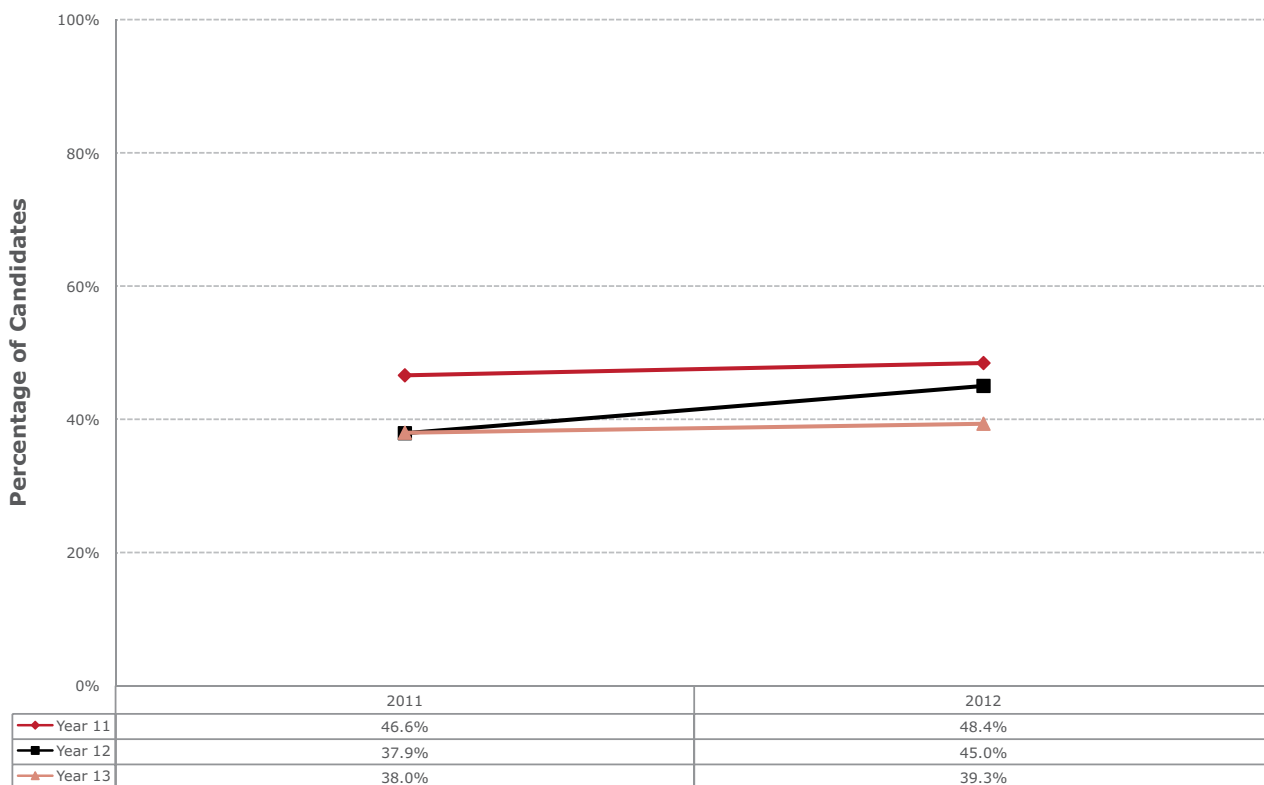


Figure 59. Percentage of candidates achieving one or more Course Endorsements by year level from 2011 to 2012.

# Course Endorsement

## Analyses by Gender

Figure 60 compares the Course Endorsement achievement rate between genders for 2011 and 2012.

Both genders followed an upward trend across the period with an average increase of 3.4 percentage points. Females continue to outperform males with achievement rate nearly 14 percentage points higher than males, even though males closed the gap in the percentage of candidates with one or more endorsable courses (Figure 52).

**Candidates attaining one or more Course Endorsements by Gender**

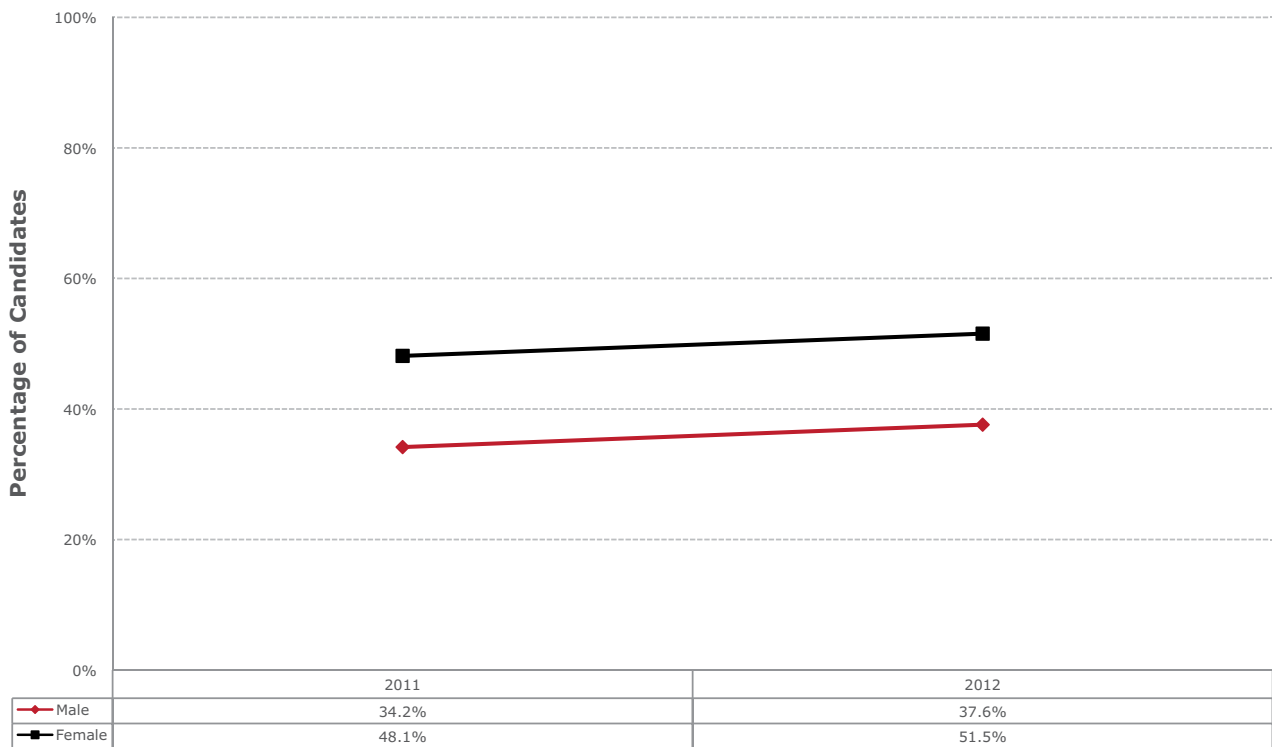


Figure 60. Percentage of candidates who achieving one or more Course Endorsements by gender from 2011 to 2012.



# Course Endorsement

## Analyses by Ethnicity

Figure 61 shows the percentage of candidates attaining one or more Course Endorsements by ethnicity. An overall rising trend for the four ethnicities was observed.

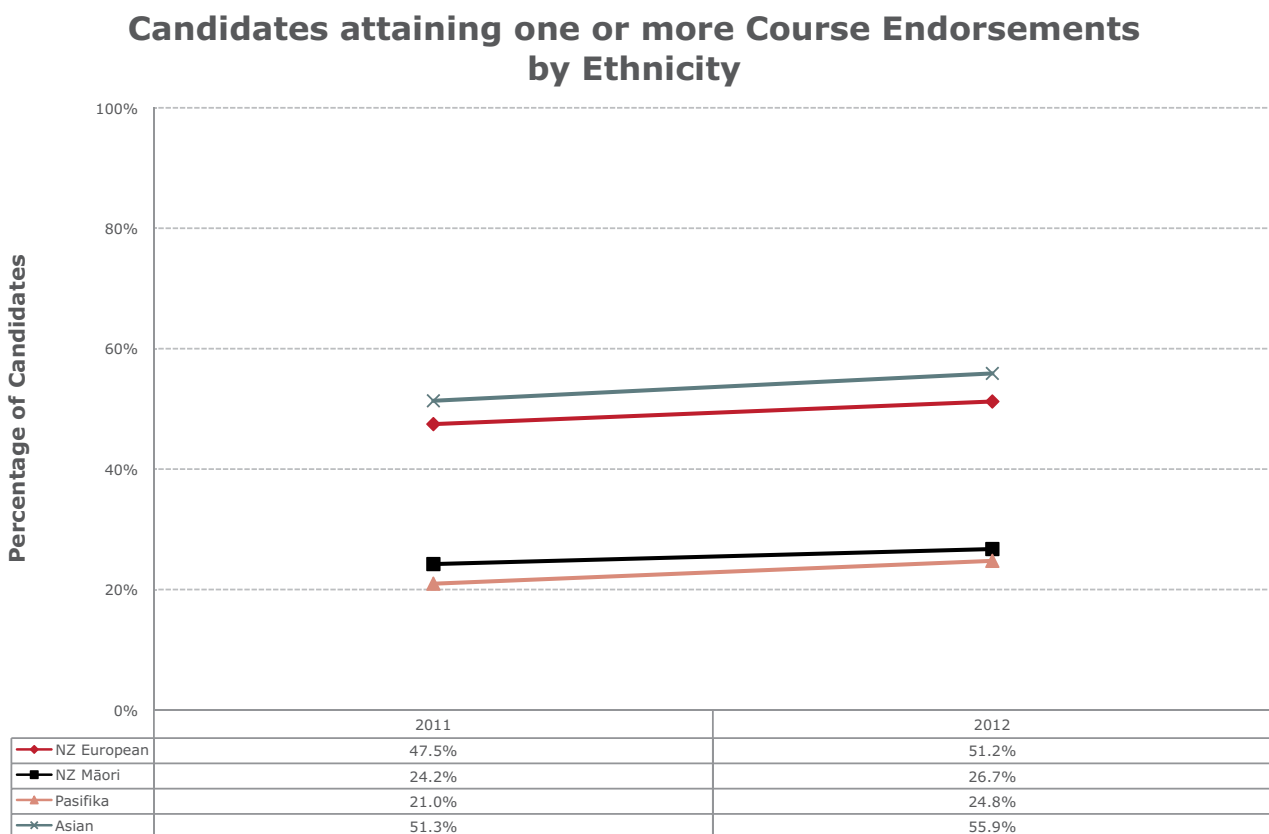


Figure 61. Percentage of candidates achieving one or more endorsements by ethnicity from 2011 to 2012.



# Course Endorsement

## Analyses by School Decile Band

Figure 62 shows the percentage of candidates in Decile Bands 1-3, 4-7 and 8-10 attaining one or more Course Endorsements.

A similar pattern to the average endorsable courses per student (Figure 58) is repeated here, with 57.5% of candidates in Decile Band 8-10 with at least one endorsable course achieving one or more endorsements in 2012. This was 3.8 percentage points higher than in 2011. A further 3.5 and 2.9 percentage point increases were evident for Decile Bands 4-7 and 1-3, respectively.

### Candidates attaining one or more Course Endorsements by School Decile Band

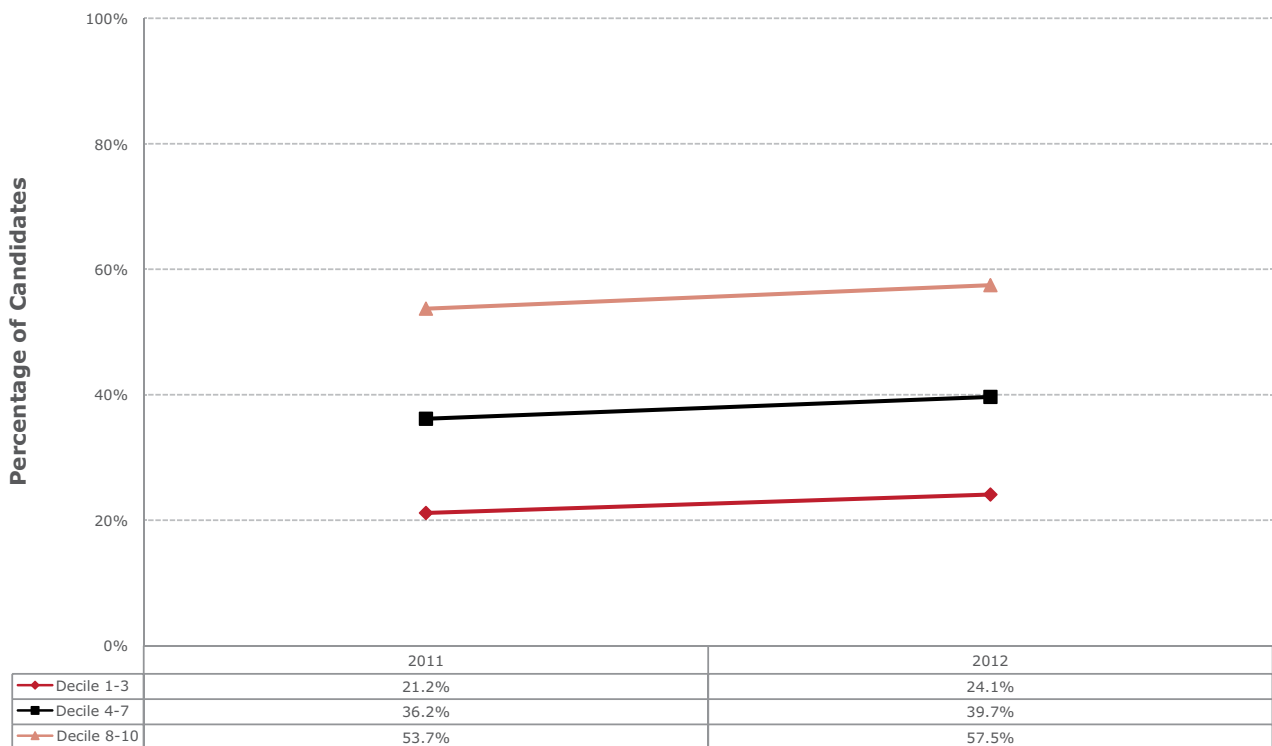


Figure 62. Percentage of candidates achieving one or more endorsements by school decile band from 2011 to 2012.

# Course Endorsement

## Percentage of Merit and Excellence Endorsements

This section details the percentage of Merit and Excellence Endorsements as a percentage of all endorsable courses undertaken.

It is important to understand that these percentages are based on the total count of endorsable courses and not the count of students. If a student has 5 endorsable courses, then each of these 5 courses would be counted in the denominator and any endorsements achieved at either Merit or Excellence would be counted in the appropriate numerator. Therefore what is being reported is the percentage of endorsable courses being undertaken by the students in each of the classifications of year level, gender, ethnicity, and school decile band that have been endorsed at either Merit or Excellence.

Overall, approximately 25.5% of all endorsable courses were endorsed with either Merit or Excellence. When broken down into the year levels of the students whose courses were endorsed, we see that the overall endorsement rates in 2012 were 29.4%, 27.3% and 21.7% for Years 11, 12 and 13, respectively.

The greatest improvement in both Merit and Excellence Endorsement over this period was shown by Year 12 students. This included an increase of 3.4 percentage points in Merit Endorsements and 1.7 percentage points in Excellence Endorsements. The increases in the achievement rate of Merit Endorsements for the other year levels were lower, at one percentage point for Year 11 and a half a percentage point for Year 13.

Both Year 11 and Year 13 had increases in their rate of Excellence endorsement of less than half a percentage point.

## Merit and Excellence Endorsement by Year Level

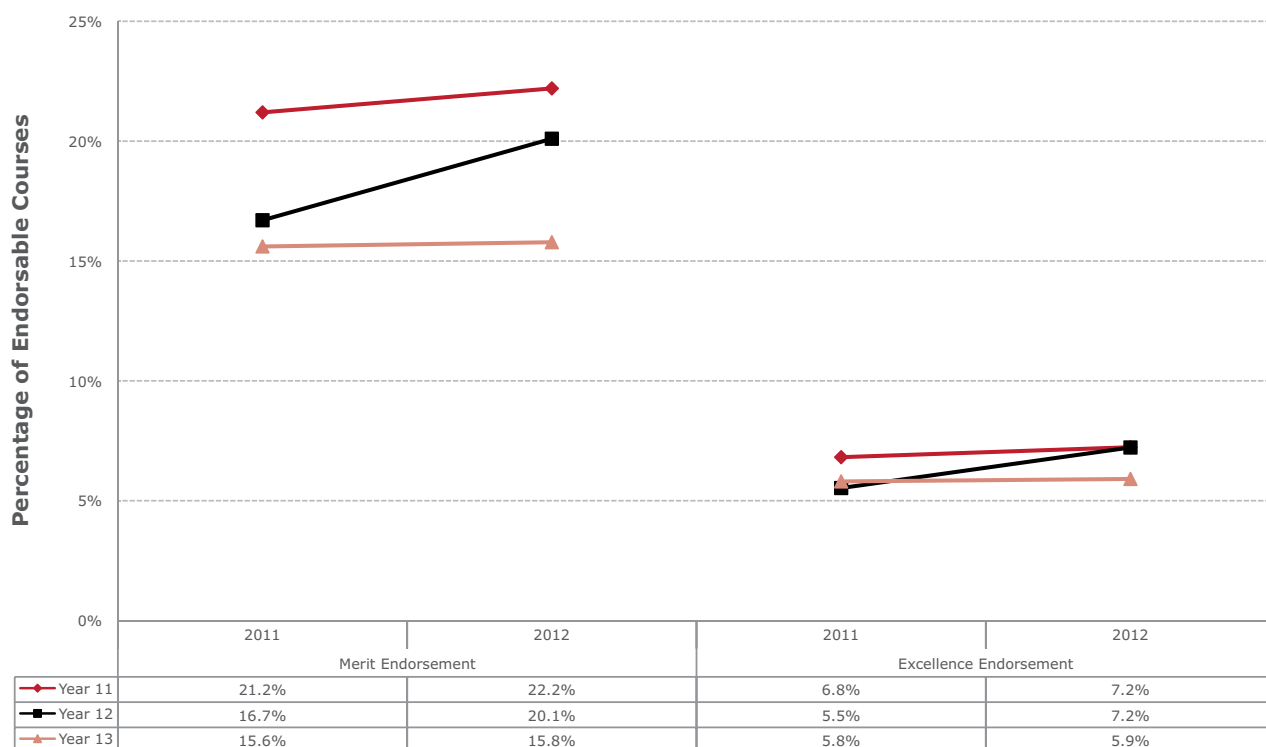


Figure 63. Course Endorsements achieved by Years 11, 12 and 13 candidates from 2011 to 2012.



# Course Endorsement

## Analyses by Gender

Figure 64 compares the percentage of endorsable courses being Endorsed with Merit or Excellence by gender.

Females had a higher percentage of Merit and Excellence Endorsements than males in both 2011 and 2012. In 2012, they widened the difference from 5.7 percentage points to 6.1 percentage points for Merit Endorsement, and from 3.1 percentage points to 3.4 percentage points for Excellence Endorsement.

### Merit and Excellence Endorsement by Gender

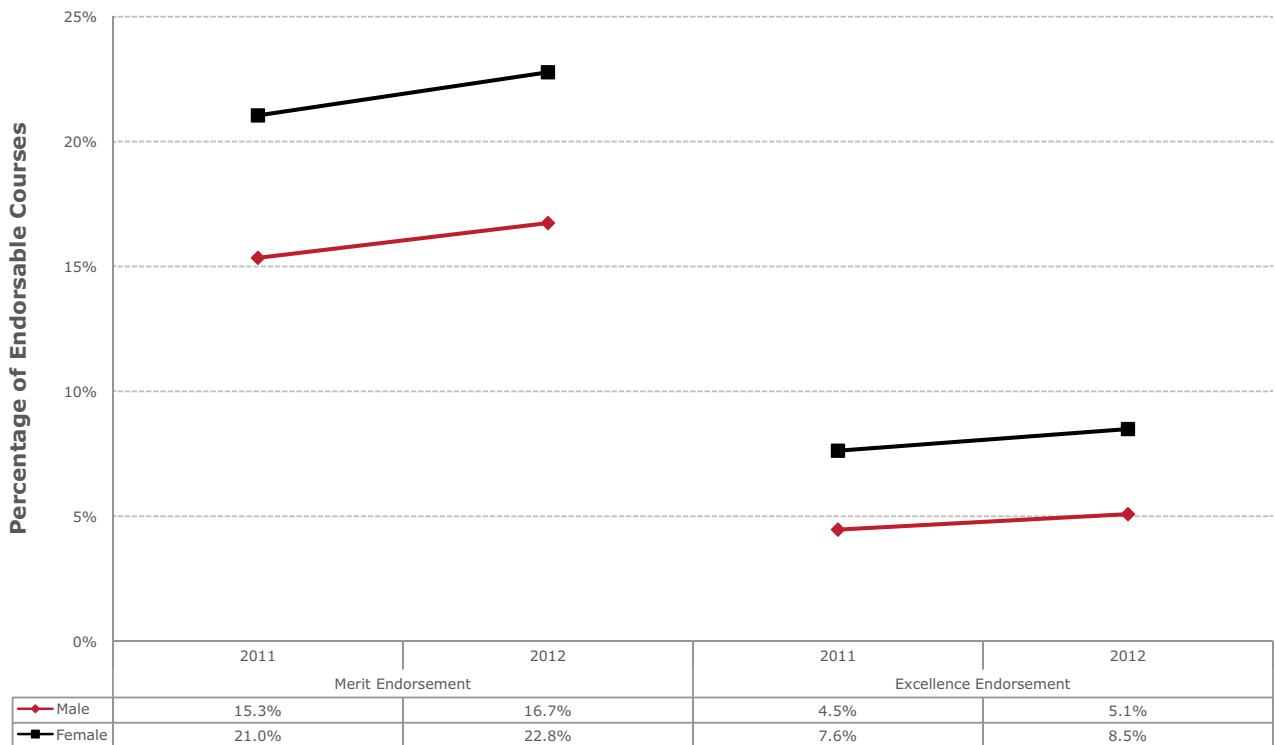


Figure 64. Course Endorsements achieved by gender from 2011 to 2012.

# Course Endorsement

## Analyses by Ethnicity

Figure 65 shows the percentage of endorsable courses by ethnicity. Again an overall rising trend for all four ethnicities at both Merit and Excellence level is evident with the increasing rate for Merit Endorsement over the year is greater than Excellence Endorsement.

### Merit and Excellence Endorsement by Ethnicity

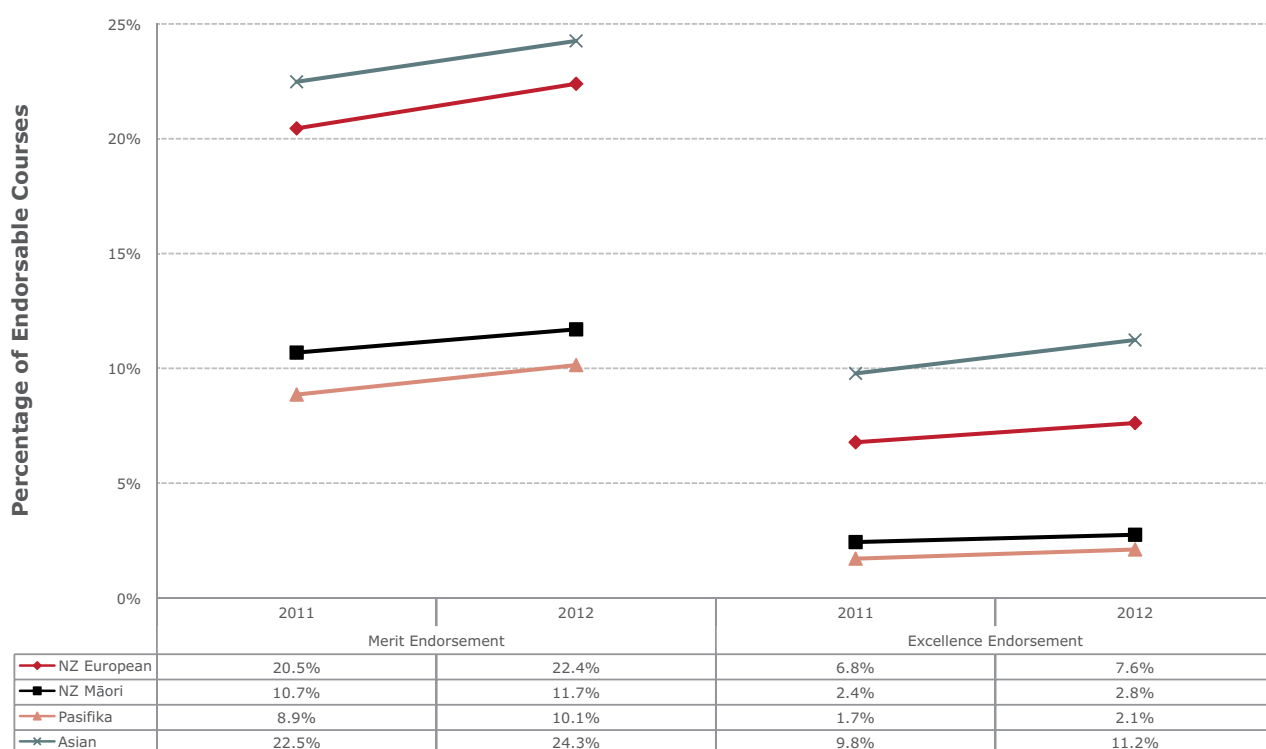


Figure 65. Course Endorsements by ethnicity from 2011 to 2012.



# Course Endorsement

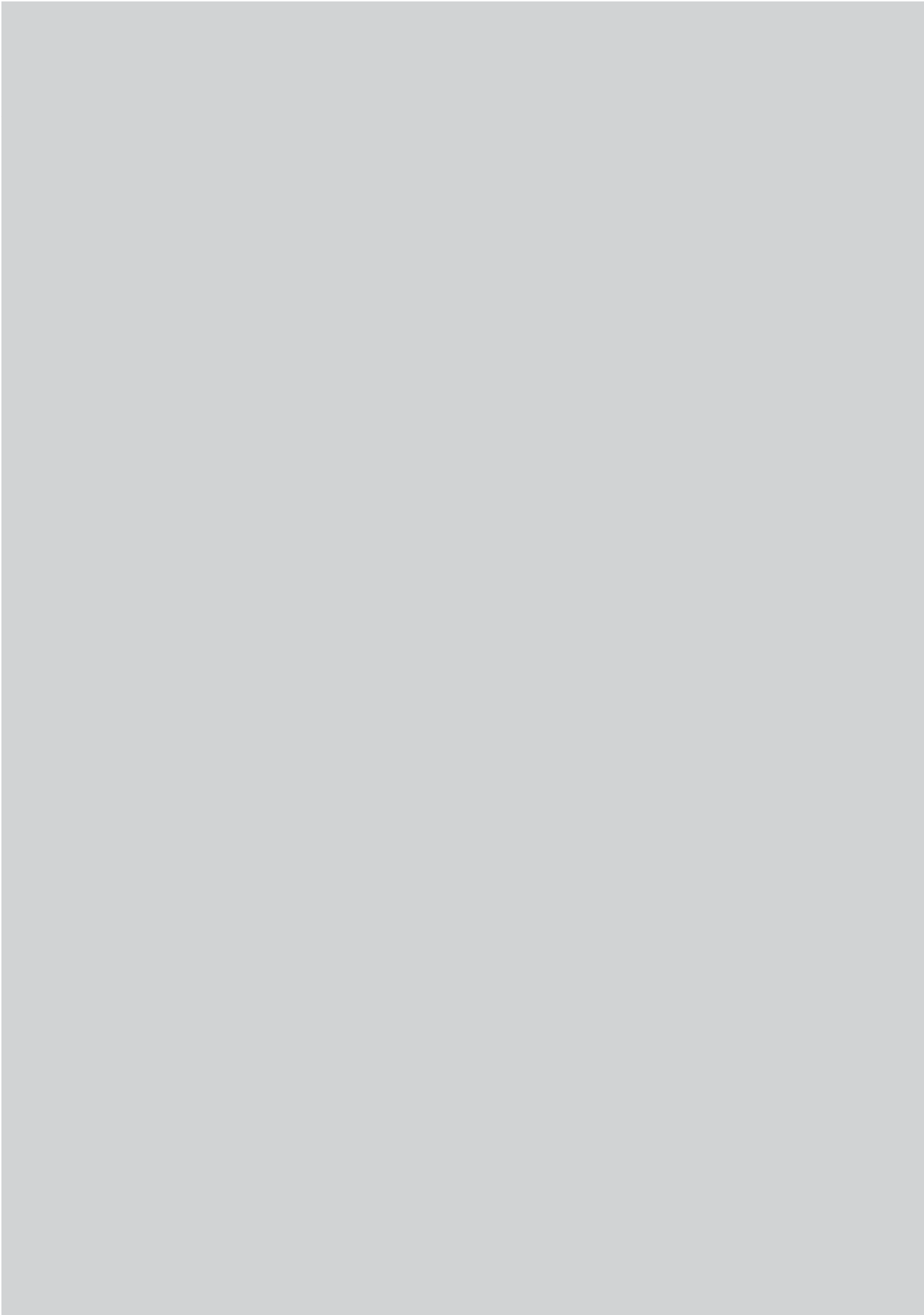
## Analyses by School Decile Band

Figure 66 shows the percentage of endorsable courses gaining Merit and Excellence Endorsement by school decile band. There was an increasing difference between students in Decile Band 1-3 and Decile Band 8-10 at both grades. Although both decile bands showed growth in the achievement rate, the students in Decile Band 8-10 improved their achievement by 1.7 percentage points and just under one percentage point in the Merit and Excellence grades respectively, whilst the rate of increase for Decile Band 1-3 was less than one percentage point and half a percentage point, for Merit and Excellence grades respectively.

### Merit and Excellence Endorsement by School Decile Band



Figure 66. Course Endorsement achieved by school decile band from 2011 to 2012.



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# New Zealand Scholarship

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The New Zealand Scholarship awards were introduced in 2004, and the present system for marking the Scholarship examination in 2006. Scholarship is intended to challenge New Zealand's most able secondary school students. Therefore, the examinations are very demanding, even for the highest-performing students. Scholarship students are expected to demonstrate high-level critical thinking, abstraction and generalisation, and to integrate, synthesise and apply knowledge, skills, understanding and ideas to complex situations.

Generally, Scholarship candidates are Year 13 students and will usually be studying towards NCEA Level 3 and University Entrance. However, some Year 12 and even Year 11 students attempt Scholarship subjects and are successful.

Each Scholarship subject assessment carries two passing grades—Scholarship (S) and Outstanding Scholarship (O). These are not to be confused with the Scholarship Award and the Outstanding Scholar Award, which are monetary awards given to high achieving candidates based on overall performance in the Scholarship examinations.

The number of students achieving either Scholarship or Outstanding Scholarship in each subject is intended to be approximately 3% of the national Level 3 cohort in that subject. The national cohort for each subject comprises the set of candidates who are entered for at least 14 credits in that subject at Level 3. In cases where either the Level 3 cohort or the number of students entered is small the percentage may vary from this 3% objective.

Scholarship grades in each subject are assessed against published performance standards at the end of each year. For most subjects, assessment involves a three-hour written examination. However, Dance, Drama, and Music also involve assessment by recorded performance, and the Visual Arts, Technology, and Graphics are assessed entirely through portfolios of work.

## *Scholarship Monetary Awards*

There are six classes of award for Scholarship. Apart from the Prime Minister's Award, the other five (Premier Award, Outstanding Scholar Award, Scholarship Award, Top Subject Scholar Award, and Single Subject Award) carry a monetary value ranging from a single \$500 payment through to \$10,000 per annum for up to three years.

In 2012, 33 students were awarded a total of 35 Top Subject Scholar awards. Two students achieved 2 awards each. A total of 2,344 candidates achieved one or more scholarship subject awards, which translates into payments of approximately \$3.7 million over a period of three years. These payments are made to those candidates who are going on to tertiary study in New Zealand and are intended to provide some assistance to support this study.

For details about scholarship and the awards see the NZQA website. <http://www.nzqa.govt.nz/scholarship>



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# New Zealand Scholarship

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## Scholarship Statistics for 2012

In 2012 a total of 10,467 candidates entered for the New Zealand Scholarship examinations on one or more subjects. There were a total of 20,103 subject entries meaning that on average each student was entered for just under 2 subjects. These 20,103 subject entries resulted in a total of 3,556 achievement of either a grade of Scholarship or Outstanding Scholarship.

Since 2006 there has been a 33% increase in the number of students attempting at least one subject in New Zealand Scholarship, and an increase of 26% in the number of subjects being attempted. As well as this increase in participation there has been an increase of 20% in the number of subjects entries achieved at either Scholarship or Outstanding Scholarship.

The Scholarship examinations have a relatively high absentee rate. This is not unexpected as the schools are required to enter students before September to ensure that there is time for the printing of scripts and answer books. By later in the year students may have decided that they are not prepared for the demands of Scholarship and consequently choose not to attend.

Table 1 shows that in 2012, as in prior years, there are more female than male candidates but the number of assessed results are similar. For each gender, 22% of the assessed results produced Scholarship grades. However, there is a difference at Outstanding grade where 3.4% of assessed male results were graded Outstanding, compared to 2.5% of female results.

	Candidates	Entries	Assessed Results	Scholarship Grades	Outstanding Grades
Male	4,671	9,726	7,427	1,608	252
Female	5,796	10,377	7,167	1,514	182

Table 1. Candidates, entries, results and outcomes for Scholarship in 2012. Candidates with "unknown gender" have been omitted from this table.



# New Zealand Scholarship

## Scholarship Awarded in 2012 by Subject

Table 2 gives a breakdown of Scholarship results for 2012 across all 35 subjects. The Level 3 cohort, from which the number of Scholarships to be awarded in each subject are calculated, varied from 19 for Latin to 16,060 for Statistics and Modelling.

Subject	Level 3 Cohort	Scholarship	Outstanding	Total	%
Accounting	2,655	67	10	77	2.9%
Agricultural & Horticultural Science	447	7	1	8	1.8%
Art History	1,836	49	6	55	3.0%
Biology	8,987	249	39	288	3.2%
Chemistry	7,701	194	27	221	2.9%
Chinese	348	9	1	10	2.9%
Classical Studies	5,348	145	16	161	3.0%
Dance	519	12	3	15	2.9%
Design	2,926	80	10	90	3.1%
Drama	2,110	56	8	64	3.0%
Economics	4,139	114	13	127	3.1%
English	14,944	388	60	448	3.0%
French	803	21	3	24	3.0%
Geography	6,939	174	21	195	2.8%
German	315	9	1	10	3.2%
Graphics	1,606	42	6	48	3.0%
History	6,271	168	20	188	3.0%
Japanese	567	15	2	17	3.0%
Latin	19	2	2	4	21.1%
Mathematics with Calculus	7,448	188	29	217	2.9%
Media Studies	3,256	89	10	99	3.0%
Music Studies	1,289	35	5	40	3.1%
Painting	3,086	82	12	94	3.0%
Photography	3,202	83	13	96	3.0%
Physical Education	4,383	116	8	124	2.8%
Physics	7,271	189	27	216	3.0%
Printmaking	269	8	1	9	3.3%
Samoan	272	7	1	8	2.9%
Science	1,068	28	4	32	3.0%
Sculpture	202	6	1	7	3.5%
Spanish	336	9	1	10	3.0%
Statistics and Modelling	16,060	411	63	474	3.0%
Te Reo Māori	632	16	2	18	2.8%
Te Reo Rangatira	117	5	1	6	5.1%
Technology	1,868	49	7	56	3.0%

Table 2. Cohort size and results for Scholarship in 2012.

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# New Zealand Scholarship

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The total number of Scholarship entries of 20,103 across all subjects varied from 19 for Latin to 1,754 for Statistics and Modelling to 1,842 for English.

Whereas Table 2 shows the Scholarship and Outstanding Scholarship achievement in relation to the Level 3 cohort, the following table uses assessed results as its reference point.

The difference between entries and assessed results arises because not all students who are entered for a Scholarship assessment actually sit the examination; either because they do not attend (absent) or because having attended they choose not to attempt the examination (void).

This means that the final number of assessed results is lower than the number of entries. In 2012, there are 14,594 assessed results, varying from 15 for Latin to 1,379 for English and 1,382 for Statistics and Modelling.

For each subject, Table 3 shows the number of entries, absences, and assessed results. These assessed results are partitioned into their 3 grades: Not Achieved, Scholarship, and Outstanding Scholarship, shown both as a number and as a percentage.

30% or more of the entries were not assessed in one-third of the subjects. These high absent and void rates were most often found in subjects classified in the learning area 'The Arts'.



# New Zealand Scholarship

Subject	Entries	Void or Absent	Assessed Results	Not Achieved		Scholarship		Outstanding Scholarship	
				Num.	% of Assessed Results	Num.	% of Assessed Results	Num.	% of Assessed Results
Accounting	467	141	324	247	76.2%	67	20.7%	10	3.1%
Agricultural & Horticulture	39	10	27	19	70.4%	7	25.9%	1	3.7%
Art History	354	85	268	213	79.5%	49	18.3%	6	2.2%
Biology	1,587	301	1,282	994	77.5%	249	19.4%	39	3.0%
Chemistry	1,556	306	1,248	1,027	82.3%	194	15.5%	27	2.2%
Chinese	120	20	100	90	90.0%	9	9.0%	1	1.0%
Classical Studies	841	250	582	421	72.3%	145	24.9%	16	2.7%
Dance	132	65	67	52	77.6%	12	17.9%	3	4.5%
Design	693	435	258	168	65.1%	80	31.0%	10	3.9%
Drama	438	199	239	175	73.2%	56	23.4%	8	3.3%
Economics	677	143	528	401	75.9%	114	21.6%	13	2.5%
English	1,842	459	1,379	931	67.5%	388	28.1%	60	4.4%
French	188	30	158	134	84.8%	21	13.3%	3	1.9%
Geography	1,229	255	969	774	79.9%	174	18.0%	21	2.2%
German	79	8	71	61	85.9%	9	12.7%	1	1.4%
Graphics	365	34	331	283	85.5%	42	12.7%	6	1.8%
History	945	217	712	524	73.6%	168	23.6%	20	2.8%
Japanese	152	24	128	111	86.7%	15	11.7%	2	1.6%
Latin	19	4	15	11	73.3%	2	13.3%	2	13.3%
Mathematics with Calculus	1,450	308	1,136	919	80.9%	188	16.5%	29	2.6%
Media Studies	606	215	390	291	74.6%	89	22.8%	10	2.6%
Music Studies	191	42	149	109	73.2%	35	23.5%	5	3.4%
Painting	646	302	345	251	72.8%	82	23.8%	12	3.5%
Photography	694	372	322	226	70.2%	83	25.8%	13	4.0%
Physical Education	572	201	369	245	66.4%	116	31.4%	8	2.2%
Physics	1,318	275	1,038	822	79.2%	189	18.2%	27	2.6%
Printmaking	101	46	55	46	83.6%	8	14.5%	1	1.8%
Samoan	97	13	84	76	90.5%	7	8.3%	1	1.2%
Science	246	69	177	145	81.9%	28	15.8%	4	2.3%
Sculpture	47	27	20	13	65.0%	6	30.0%	1	5.0%
Spanish	107	15	92	82	89.1%	9	9.8%	1	1.1%
Statistics and Modelling	1,754	371	1,382	908	65.7%	411	29.7%	63	4.6%
Te Reo Māori	147	21	126	108	85.7%	16	12.7%	2	1.6%
Te Reo Rangatira	32	1	31	25	80.6%	5	16.1%	1	3.2%
Technology	372	180	192	136	70.8%	49	25.5%	7	3.6%

Table 3. Entries and results for Scholarship in 2012.

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# New Zealand Scholarship

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## *Premier Awards and Outstanding Scholar Awards*

After the Prime Minister's Award for Academic excellence, the Premier Awards are the most prestigious of all the Scholarship awards and carry the greatest monetary award of \$10,000 per annum for up to three years.

Table 4 below gives the total number of Premier Award winners by gender from 2008 to 2012.

Year	Females	Males
2008	3	7
2009	1	7
2010	1	8
2011	3	7
2012	1	9
<b>Total</b>	<b>9</b>	<b>38</b>

Table 4. Number of Premier Award winners by gender from 2008 to 2012.

Over the five years from 2008 to 2012, a total of 47 Premier Awards were allocated, 38 (81%) to males and 9 (19%) to females.

In 2012, a total of 20 candidates met the minimum requirements for consideration for a Premier Award (i.e. three or more Outstanding Scholarship), which is restricted to the top 5-10 candidates across the country. 10 of these 20 candidates received the Premier Award. The remaining 10 were among the 54 who received an Outstanding Scholar Award. In addition, two Premier Awardees and six Outstanding Scholarship Awardees were among the 35 who received a Top Subject Scholar Award. One Premier Awardee and one Outstanding Scholarship Awardee were top subject scholars in two subjects.

## *Scholarship Awards, Single Subject Awards and Top Subject Awards in 2012*

In total, 224 students received Scholarship awards, having earned three or more Scholarships, as compared with 204 in 2011. In addition, 2,038 received a Single Subject award and 33 candidates received Top Subject awards. In 2011, the Single Subject awards figure was 2,023, and 34 candidates received Top Subject Award.

More details about the Premier Awardees and Top Subject Scholars and their schools can be found on the NZQA website.

<http://www.nzqa.govt.nz/about-us/news/announcing-the-2012-new-zealand-scholarship-award-winners/>



# Results Distributions for NZQF standards

The NZQF standards used in secondary schools fall into three categories:

- Unit Standards, which are internally-assessed and typically carry grades of Not Achieved and Achieved, although a few also can have a grade of Merit and Excellence.
- Internally-assessed Achievement Standards, which carry grades of Not Achieved, Achieved, Merit and Excellence.
- Externally-assessed Achievement Standards, which carry grades of Not Achieved, Achieved, Merit and Excellence.

Externally-assessed Achievement Standards are assessed by examination or portfolio in an annual examination round, late in the academic year.

Tables 5-6 and Figures 67-72 show data on the relative use of, and results distribution for, the three types of standards in 2012.

Table 5 shows the number of entries and assessed results for each type of standard, along with the overall results distribution of the assessed results. An entry is made for a specific student in a specific standard. However, not all planned assessment is completed. There are a number of reasons why an entry may not have an assessed result. For externally-assessed Achievement Standards these include the candidate being absent from the examination session or not submitting work for assessment (Absent), or having attended the examination but not attempting the standard (Void). For internally-assessed standards, the school may not have reported a result because no assessment has occurred. Consequently, although the number of entries are shown, the Not Achieved, Achieved, Merit and Excellence percentages are calculated based on the entries where assessment actually occurred.

	Entries	Number of Assessed Results	Not Achieved	Achieved	Merit	Excellence
Externally-assessed Achievement Standard	1,415,270	1,184,834	25.9%	39.1%	25.0%	9.9%
Internally-assessed Achievement Standard	2,151,451	2,076,993	19.3%	37.0%	25.0%	18.7%
Unit Standard	1,072,411	1,003,290	15.4%	84.3%	0.2%	0.1%

Table 5. Percentage distributions of results for secondary school candidates in externally-assessed Achievement Standards, internally-assessed Achievement Standards, and Unit Standards, in 2012.

## Results Distributions for NZQF standards

Table 6 shows that the proportion of assessed results for Unit Standards and Achievement Standards, both internally and externally assessed, varies depending on the level and the decile band.

	Decile 1–3	Decile 4–7	Decile 8–10
<b>LEVEL 1</b>			
Externally-assessed Achievement Standard	17.3%	27.0%	34.5%
Internally-assessed Achievement Standard	55.2%	55.6%	56.4%
Unit Standard	27.5%	17.4%	9.1%
<b>Total Results</b>	<b>305,947</b>	<b>774,610</b>	<b>730,065</b>
<b>LEVEL 2</b>			
Externally-assessed Achievement Standard	14.3%	21.6%	29.8%
Internally-assessed Achievement Standard	41.1%	44.6%	49.9%
Unit Standard	44.6%	33.8%	20.3%
<b>Total Results</b>	<b>238,917</b>	<b>653,567</b>	<b>633,086</b>
<b>LEVEL 3</b>			
Externally-assessed Achievement Standard	22.1%	31.5%	40.6%
Internally-assessed Achievement Standard	35.3%	37.9%	41.9%
Unit Standard	42.6%	30.6%	17.5%
<b>Total Results</b>	<b>123,157</b>	<b>351,963</b>	<b>400,251</b>

Table 6. Percentages and total numbers of assessed results by level and Decile Band.



# Results Distributions for NZQF standards

Figure 67 compares the results distributions for externally-assessed Achievement Standards across the three decile bands. While the proportion of Achieved results is similar across all three, Not Achieved rates are lower in the higher deciles while Merit and Excellence rates represent a higher proportion of the results.

## Distribution of Externally-Assessed Achievement Standard Results

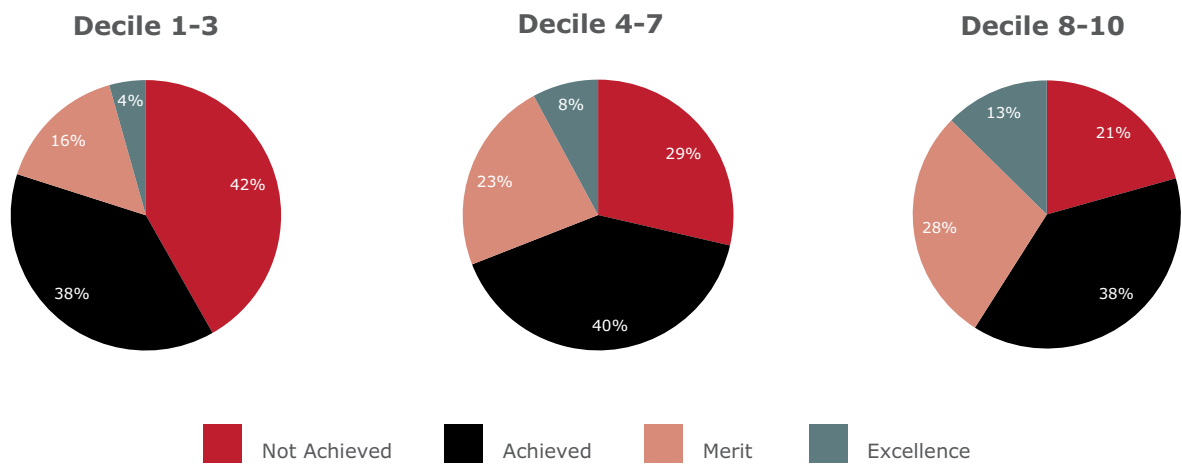


Figure 67. Percentage distributions of results for externally-assessed Achievement Standards in 2012, by school decile band.

As shown in Figure 68 in 2012 Deciles 1-3 generated the highest proportion of Achieved results out of all internally-assessed Standards, but also had the highest proportion of Not Achieved results. Schools in the higher deciles had larger proportions of Merit and Excellence results.

## Distribution of Internally-Assessed Achievement Standard Results

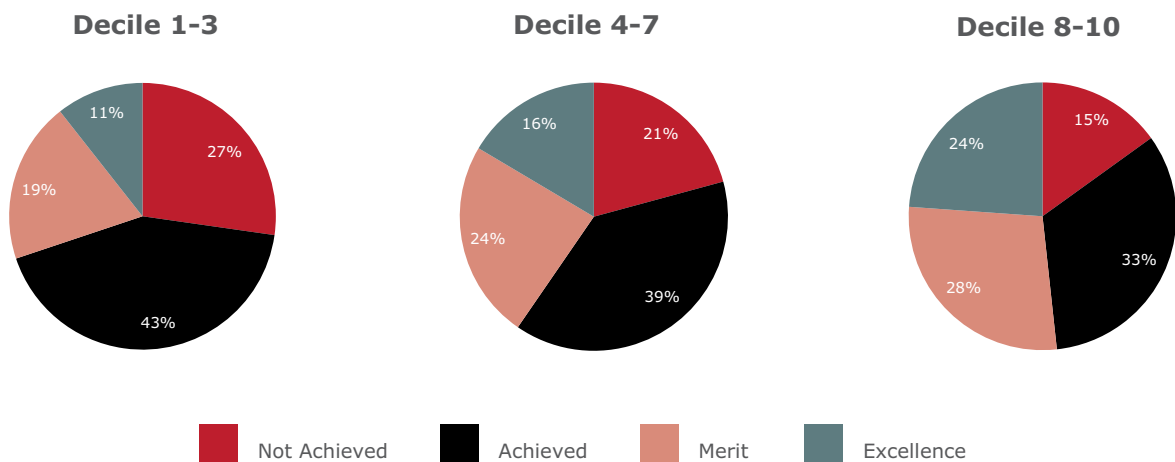


Figure 68. Percentage distributions of assessed results for internally-assessed Achievement Standards in 2012, by school decile band.



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## Results Distributions for NZQF standards

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When considering this type of breakdown it is important to remember that although schools use a similar set of standards there are some differences, so these comparisons are indicative at best.

Unit Standards are internally-assessed and typically carry grades of either Not Achieved or Achieved, although a few also carry grades of Merit and Excellence. Figure 69 shows that across all three decile bands more than 80% of assessed results for Unit Standards were Achieved. The proportion of Merit and Excellence results were fewer than 0.3% and 0.2% respectively.

### Distribution of Internally-Assessed Unit Standard Results

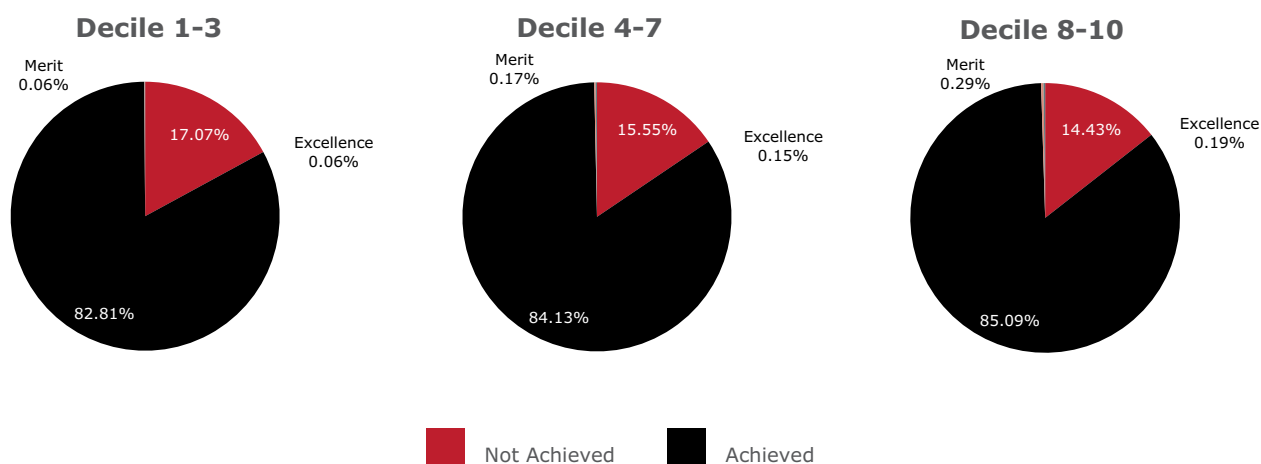


Figure 69. Percentage distributions of assessed results for internally-assessed Unit Standards in 2012, by school decile band.



# Results Distributions for NZQF standards

The changed pattern evident in Figures 70-72 is a result of the Alignment of Standards with the New Zealand Curriculum project.

For more details about this project refer to the NZQA website

<http://www.nzqa.govt.nz/providers-partners/assessment-and-moderation/tertiary-moderation/manual-for-teo/general-information/alignment-of-standards/>

Figure 70 shows that the use of Unit Standards, which had seen a significant reduction in 2011, decreased further in 2012.

In 2011 there was a significant reduction in the use of externally-assessed Achievement Standards. This was an expected outcome of the Standards Review process. However, the small reduction in the use of these standards in 2012 may be a continuation of the trend toward internal assessment and away from external assessment as evidenced in 2008/09 and to a lesser degree 2009/10.

As students need to achieve a specific number of credits in order to be awarded NCEA Level 1, they still need to take the same number of standards, on average. If there is a reduction in the number of results for externally-assessed standards, there will be a corresponding increase in the number results for internally-assessed standards as shown in 2012.

**Number of results by Standard Type and Assessment at Level 1**

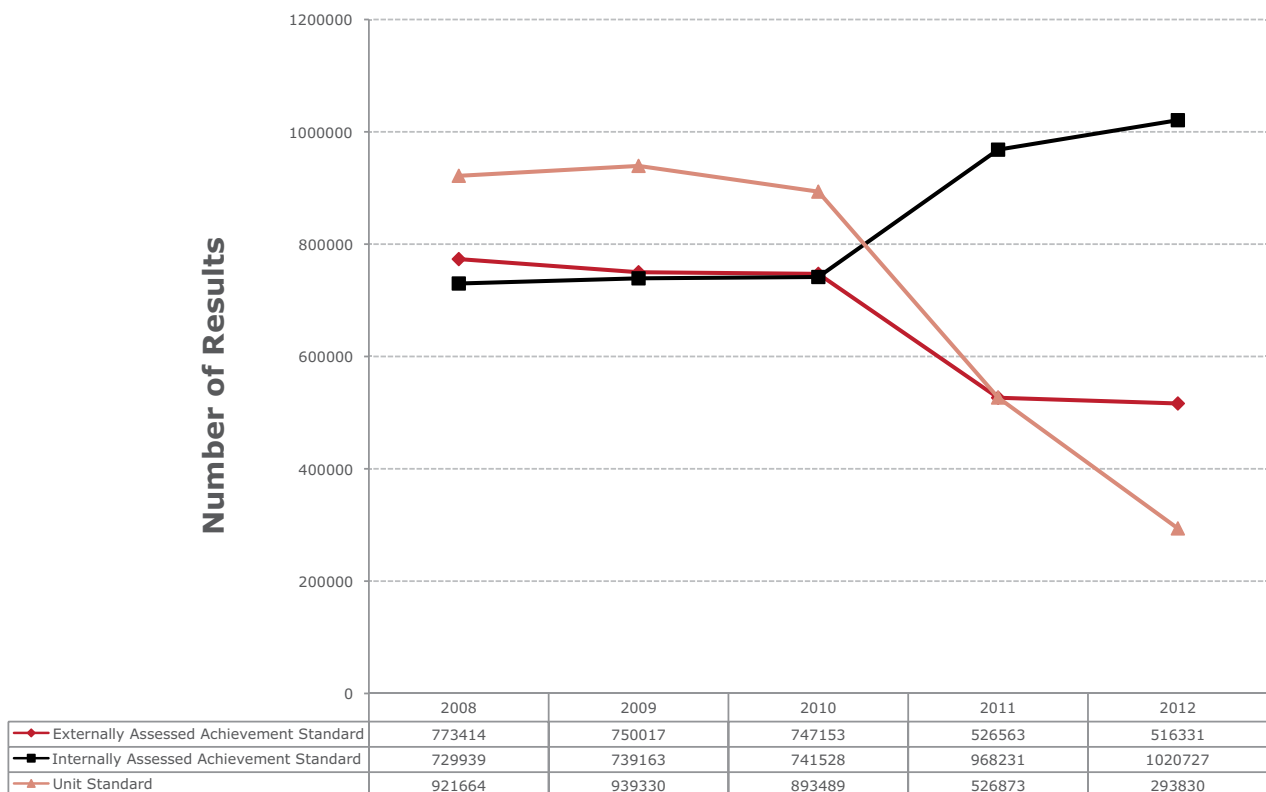


Figure 70. Number of results by standard type and assessment method at Level 1 from 2008 to 2012.

# Results Distributions for NZQF standards

The patterns established at Level 1 in 2011 as a result of the changes caused by the Standards Review project are evident in the 2012 Level 2 entry patterns seen in Figure 71. This is because the changes to Level 2 standards made by the Standards Review project were implemented for the first time in 2012.

The marked reduction in the use of Unit Standards, the decrease in results in externally-assessed Achievement Standards, and the corresponding increase in the use of internally-assessed Achievement Standards are all predictable outcomes of the Standards Review process. Similar changes can be expected for Level 3 in 2013.

**Number of results by Standard type and Assessment at Level 2**

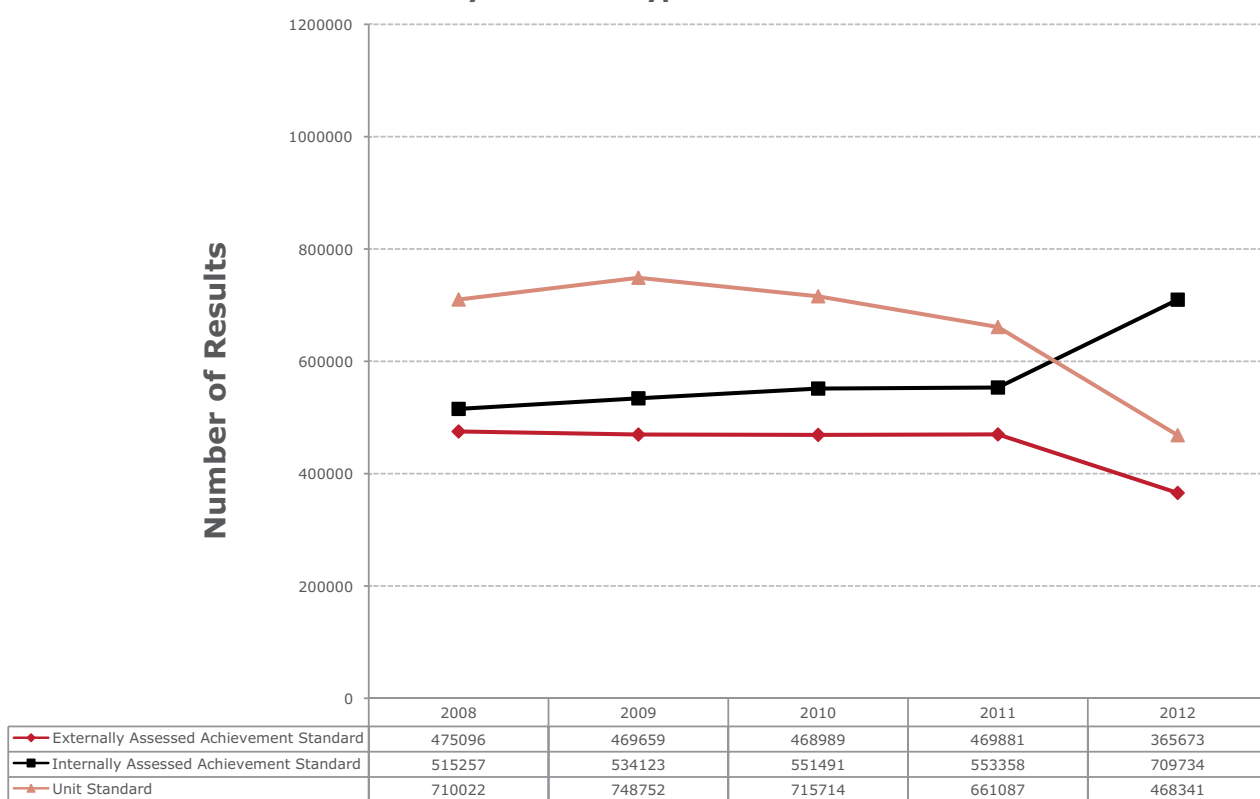


Figure 71. Number of results by Standard type and assessment at Level 2 from 2008 to 2012.



# Results Distributions for NZQF standards

Although the Standards Review project will not deliver changes to Level 3 standards until 2013, there has been a small trend towards reduced use of Unit Standards since 2010. Prior to that, the trend had been towards increased use of Unit Standards, with nearly a 10 percentage point increase in use between 2008 and 2010. Since 2010 the use of Unit Standards has decreased by a total of 4.1 percentage points. During this same period the use of

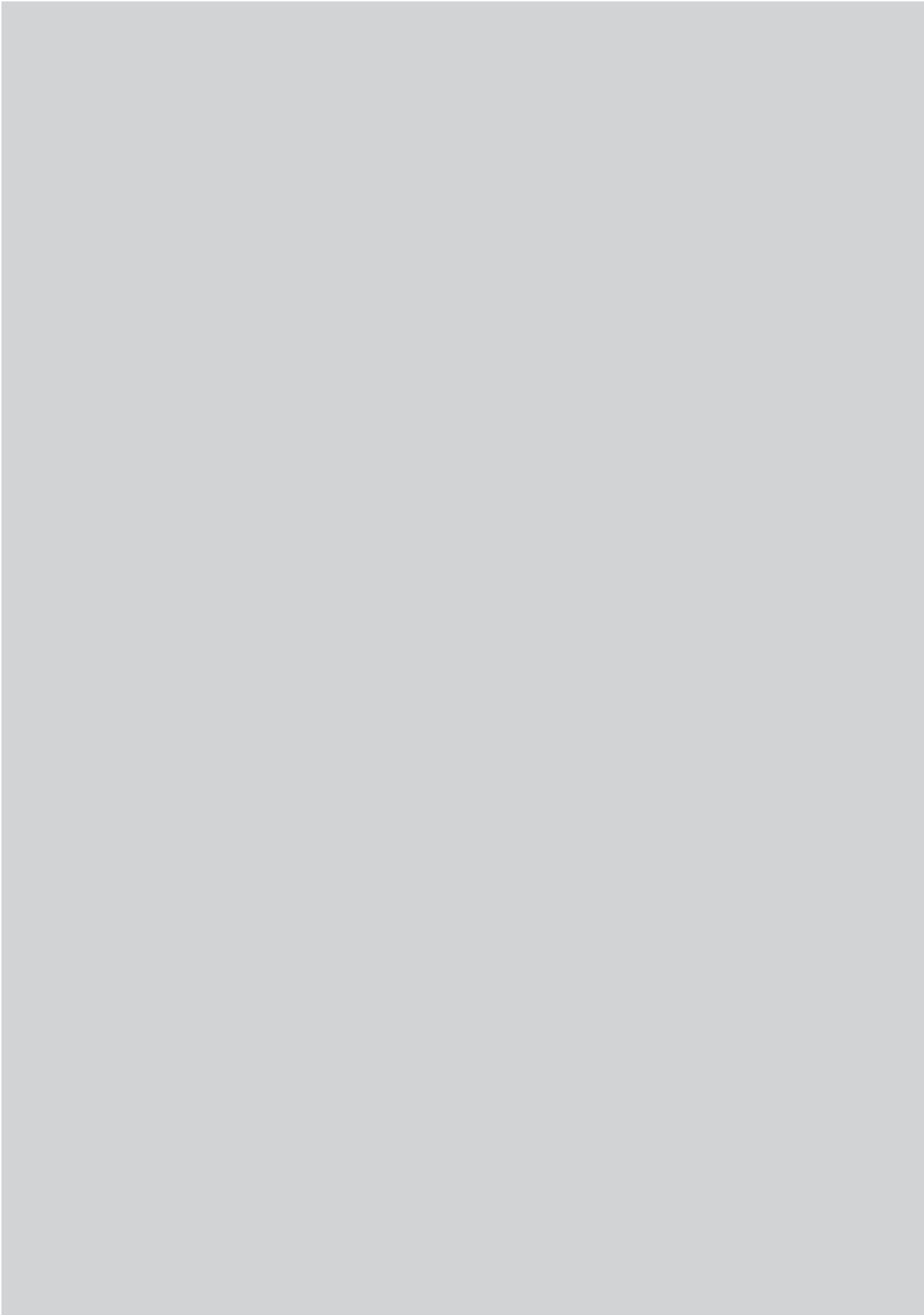
externally-assessed Achievement Standards has remained largely static, whilst internally-assessed Achievement Standards have increased by 10.2 percentage points.

The reduction in the use of unit standards also occurred before Standards Review implementation at Levels 1 and 2, and is most likely due to schools taking steps to adjust their course structures in anticipation of the impending changes.

**Number of results by Standard Type and Assessment at Level 3**



Figure 72. Number of results by standard type and assessment at Level 3 from 2008 to 2012.



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# School Related Qualifications

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## School Related Qualifications

The term School Related Qualifications applies to a number of National Certificates, other than NCEA, which are often achieved by secondary school students whilst undertaking study towards the NCEA and University Entrance.

Prior to 2011 students had to ask NZQA to do a manual check to see if they had achieved any of these School Related Qualifications. This led to a situation where students may have met the requirements for one or more of these qualifications, but they were not awarded because the student was either unaware that they were entitled to the qualification, or chose not to make a request for the check to be performed.

To resolve this issue NZQA introduced routine checking of the School Related Qualifications in 2011. The initial qualification check covered all students enrolled in Years 11, 12 and 13 and led to awarding a total of 121,000 School Related Qualifications. This number included both currently achieved Qualifications and outstanding Qualifications achieved by current students in prior years. In 2012 the total number of School Related Qualifications was 71,330. This number was lower than 2011 as it only included the newly achieved qualifications.

In 2011 the results were reported under 8 groups roughly aligned to the Learning Areas of *Mathematics, Science, Mechanical Engineering, Computing, Building and Construction, Drama, Tourism*, and a catch-all group called *Other*.

In 2012 the School Related Qualifications have been reorganised into 7 groupings including an *Academic* group, the five industry sector Vocational Pathways, as defined as part of the Youth Guarantee initiative\*, and a group called *All* covering qualifications that have applicability to all five vocational pathways.

The five Vocational Pathways are *Service Industries Sector, Manufacturing and Technology Sector, Construction and Infrastructure Sector, Primary Industries Sector, and Social and Community Sector*. For more information refer to Appendix 2.

Figure 73 shows the number of School Related Qualifications awarded by category. Approximately 89% of all non-NCEA Qualifications were awarded in qualifications classified in the Academic category, of which 71.5% were Certificates in Mathematics and 25.4% were Certificates in Science. This is by far the largest category.

\* For more information on Vocational Pathways please refer to the website

<http://youthguarantee.net.nz/vocational-pathways>

# School Related Qualifications

## School Related Qualifications Awarded in 2012

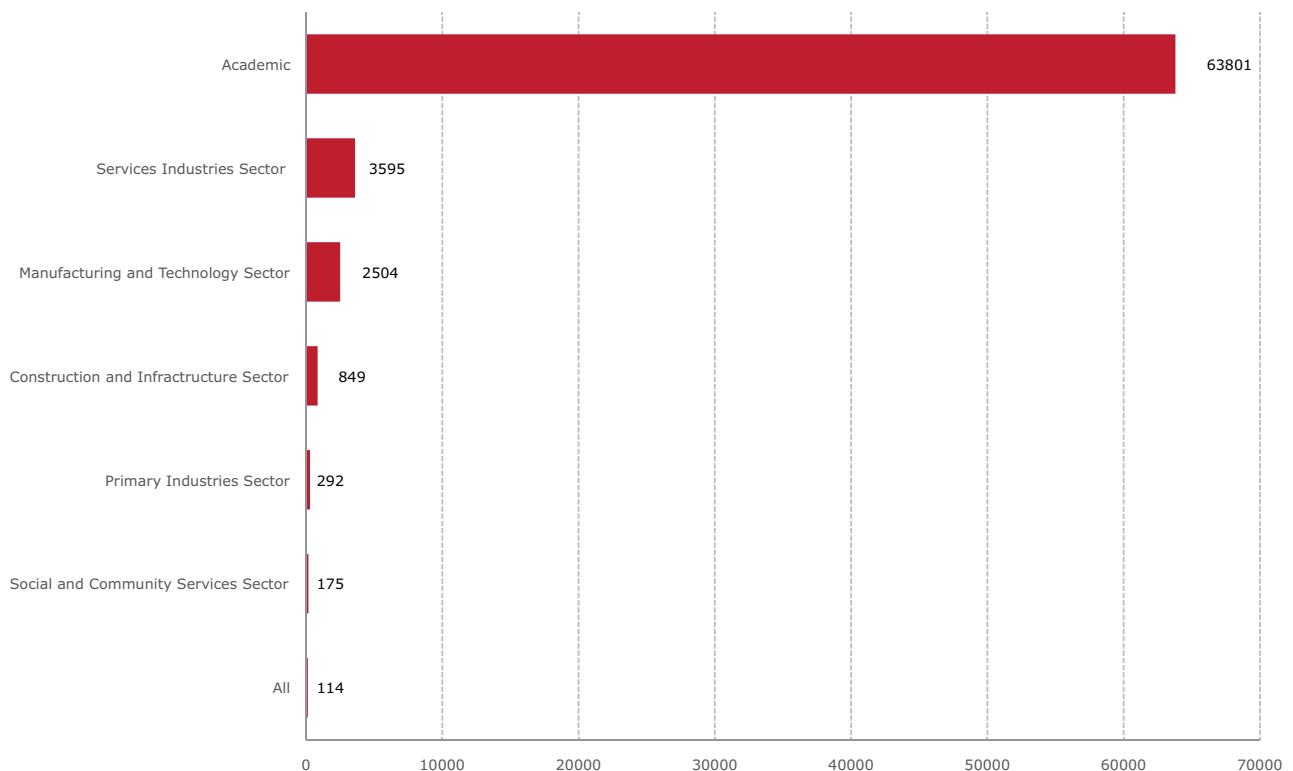


Figure 73. Number of School Related Qualifications awarded in 2012.

There were 3,595 awards of qualifications classified in the Service Industries sector in 2012. This is made up by 38.8% qualifications in Hospitality and Tourism; 57.3% in Performance and Entertainment industry such as Art, Drama and Music; 3.4% in Retail; just over 0.4% in Hairdressing and 0.1% in Sport.

Approximately 97% of the 2,504 qualifications awarded in Manufacturing and Technology sector were in Electronics and Mechanics.

The All category includes Certificates that could be useful for all sectors. In 2012, this category awarded 82 qualifications in Business and 32 qualifications in Employment Skills.

In addition, 175 qualifications were awarded in Social and Community Services Sector; 292 in Primary Industries Sector and 849 in Construction and Infrastructure Sector.

The gender balance was almost even, males gaining 50.3% and females gaining 49.7% of the qualifications awarded.

Partitioned by ethnicity, the percentages received were as follows: New Zealand European (62%), New Zealand Māori (12%), Pasifika (6%), and Asian (17%)

Students at Decile Band 8-10 schools received 49.7% of the qualifications; those from Decile Band 4-7 received another 39.2% while those from Decile Bands 1-3 received 11.1%. The lower percentage for the Decile band 1-3 might be attributed to either a lower number of enrolled students, or less emphasis on non-NCEA qualifications, or both.



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# NCEA Administrative processes and data

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## *The role of NZQA in the examination process*

Each year NZQA manages national examinations and assessment of portfolios for relevant externally-assessed standards (333 standards in 2012). NZQA coordinates and administers exam centre operation, marking, result publication, the return of all examination booklets to candidates, and the processing of requests for review and reconsideration of results.

During the examination season, NZQA receives special reports relating to examination irregularities, ensuring that relevant reports are sent to markers, and that potential breaches of examination rules are investigated.

## *External Assessment*

The term External Assessment refers to assessment activities, typically time-limited examinations run by NZQA at the end of each year, but also including portfolios of candidates' work, submitted for assessment or verification by a panel of experts appointed by NZQA.

The annual examination process involves a large number of people administering and marking assessment for more than 143,000 candidates across all levels of NCEA and New Zealand Scholarship. The following are the key facts and figures for the 2012 examinations:

- There were 143,100 candidates with a total of 1,412,000 entries in NCEA and New Zealand Scholarship examinations.
- There were 63,956 candidates with entries at Level 1; 56,011 candidates at Level 2; 39,618 candidates at Level 3.
- A total of 10,467 candidates entered for New Zealand Scholarship, providing 20,103 subject entries.
- There were 120 examination sessions held at approximately 400 examination centres throughout New Zealand, with a further 7 in Cook Island and 1 in Niue.
- There were approximately 1,850 markers and 4,600 examination supervisors and Examination Centre Managers.

In 2012, there was a slight decline in the total number of candidates for external NCEA assessments, but an increase in the number of candidates for New Zealand Scholarship was observed. The marked reduction in numbers of NCEA entries over that of 2011 (1,582,766) reflects the reduced number of externally-assessed Level 2 standards in 2012, as a result of the recent Standards Review.



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# NCEA Administrative processes and data

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## *Reviews and Reconsiderations*

All answer booklets for externally-assessed standards are returned to candidates. To help candidates understand their results, the Judgement Statements used by markers are made available on the NZQA website. After candidates have received their answer booklets, they can apply for a Review or Reconsideration of their results.

If the candidate thinks there has been a processing error, he or she can request a review. Examples of processing errors include one or more unmarked sections in an answer booklet or portfolio, inaccurate calculation of final score, or incorrect transfer of grades. A review involves checking that all sections of the booklet or portfolio have been assessed and that the results have been recorded and transferred correctly. It does not involve re-marking the script.

Candidates can download the Review application form that must accompany the answer booklets, from the NZQA website. The form and each of the answer booklets for review must reach NZQA by a specified date. For the 2012 examination round, this was Monday 18 February 2013 for NCEA and Friday 15 March 2013 for Scholarship. There is no charge for a review.

If a candidate feels that their answer booklet or portfolio has not been assessed correctly, they can apply to have it re-marked. This is called Reconsideration. This involves reassessing the answer booklet or portfolio using the original assessment schedule. Reconsideration also includes a review to ensure that all mechanical processes such as the transfer of results have been completed correctly. If a student thinks that both reconsideration and review are required they are instructed to request Reconsideration and this also includes a Review. If the student requests a review then no reconsideration will be done.

Prior to 2012 application forms for Reconsideration and Review were included with the candidates' marked answer booklets when these were returned to them early in the New Year. From 2012 NZQA discontinued this practice as candidates are now able to obtain the form online.

This year, 2012, marks the first year when the finalised reconsideration and review figures have been available in time for publication in the report. In previous years it has only been possible to report on the Reconsiderations and Reviews from the previous academic year. This means that in this report both 2011 and 2012 are being reported.

Table 11 shows the numbers of applications for reconsiderations of results from the 2008 to 2012 examination rounds.

In 2011 there was a large decrease in the number of applications for reconsideration. Prior to that year there had been a steady increase in applications peaking in 2010 with over 9,000 applications. This dropped by 23% to just over 7,000 in 2011 but has since recovered by 18% to 8,356.

Over the 2008 to 2012 period the number of applications for Scholarship Reconsiderations followed a different pattern. The peak was in 2009 and both 2010 and 2011 saw reductions by 17% and 31% respectively. In 2012 there was an increase to 355 applications which is only slightly higher than the 2008 figure.

Given the relatively small number of applications for Reconsideration when compared with the number of externally-assessed entries the numbers are likely to be fairly volatile. It is difficult to determine any specific causes for any the changes year-to-year.



## NCEA Administrative processes and data

Year	NCEA			Scholarship		
	Num. of Applications	Num. Successful	% Successful	Num. of Applications	Num. Successful	% Successful
2008	6,501	1,296	20%	336	52	15%
2009	7,970	1,602	20%	482	51	11%
2010	9,121	1,777	19%	401	47	12%
2011	7,033	1,391	20%	275	49	18%
2012	8,356	1,531	18%	355	29	8%

Table 7. Total numbers and success rates for Reconsiderations for NCEA and Scholarship from 2008 to 2011.

Table 8 shows the numbers of applications for Review of results from the 2008-2012 examination rounds. A greater percentage of applications for Review are upheld than applications for Reconsideration. Applications for Review of NCEA results have tended to decrease in number year by year, but the percentage upheld has fluctuated somewhat, rising to 71% in 2010, decreasing again to 62% in 2011 and 63% in 2012.

The numbers of applications for Review of results are too small to indicate any reliable trends for either NCEA or Scholarship.

More information about reviews and reconsiderations can be found on the NZQA website: <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/ncea-results/reviews-and-reconsiderations/>

Year	NCEA			Scholarship		
	Num. of Applications	Num. Successful	% Successful	Num. of Applications	Num. Successful	% Successful
2008	755	609	81%	13	3	23%
2009	832	563	68%	9	5	56%
2010	679	482	71%	16	15	94%
2011	594	371	62%	6	3	50%
2012	410	257	63%	10	5	50%

Table 8. Total numbers and success rates for Reviews for NCEA and Scholarship for 2008 to 2012

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# NCEA Administrative processes and data

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## **External Moderation of Internal Assessment**

### **Moderators**

NZQA is required to ensure the quality of internal assessment being carried out in schools. Each year NZQA moderates approximately 100,000 individual pieces of student work.

To achieve this NZQA employs 32 full-time equivalent moderators and over 200 part time moderators. Each moderator will have specific experience in one or more subjects and most are current or recent teachers with expertise in standards based assessment.

In addition to moderating the student work submitted by schools the Moderators have a range of other duties. These include development of exemplars of student work; preparation of newsletters and clarifications documents that are found on the subject specific pages on the NZQA website; and working with the Assessment & Moderation Facilitators to run Best Practice Workshops for secondary moderation.

The purpose of Best Practice Workshops is to raise teacher expertise and confidence in making assessment judgements at the national standard. They are aimed at beginning teachers, at teachers new to standards based assessment and NCEA, and at teachers seeking to improve their moderator/teacher agreement rate. The workshops are not intended to be repeated by each teacher each year, although teachers are encouraged to attend these workshops.

These workshops have proved highly successful and very popular. Details about these workshops can be found at <http://www.nzqa.govt.nz/bestpractice>

### **Moderation**

The overall moderation target of 100,000 pieces of work is divided into two separate samples using a different selection method and having different objectives. The large sample of 90,000-95,000 pieces of work is purposively selected. The focus is on improving the quality of assessment by providing feedback to schools and teachers, about the assessment decisions they have made and the suitability of the assessment materials being used.

Because the large sample is focused on areas where the school or NZQA may have concerns about the quality of assessment, it is recognised that this sample would give a false estimate of the national agreement rate. For this reason a second smaller sample of 5,000-10,000 pieces of work is made using random selection methods. This thin slice sample is an *indicative* snapshot of the assessments being made at each level in a typical school, and is used to calculate the national moderation agreement rates shown in Tables 9 and 10.

For each standard moderated in the large sample, a moderator determines whether each assessment judgement is accurate overall with respect to the standard, and whether the assessment materials used by a teacher are suitable for assessing the standard. The moderator will then prepare a formal moderation report for the subject area they have moderated for the school. This report indicates which of the teachers' assessment judgements are accurate with respect to the standard. The report also indicates whether or not the assessment materials are suitable for assessing the standard, and may also provide advice on how assessment can be improved and what improvements to the materials should be made before they are used again.

As part of the process of moderation, the reports are made available to schools for review and discussion. If the school or teacher disagrees with aspects of the moderation report they can either ask for clarification or appeal the decision. Formal appeals are reviewed by a second NZQA moderator to establish whether the original moderation was fair and the report accurate.

The total number of formal appeals has always been very low. In 2012 fewer than 1 in 1,000 moderator judgements were successfully appealed.



# NCEA Administrative processes and data

## National Moderation Agreement Rate

The second, smaller sample of 5,000-10,000 pieces of work is selected using a random selection method and is used to calculate a national agreement rate. This move to a smaller sample was agreed by Cabinet in 2011 and was first implemented in 2012.

To gather the 5,000-10,000 pieces of internally assessed work a randomly selected sample of 600 students was chosen in 2012. NZQA notified schools if they had one of these selected students, and the school was then required to provide copies of all of that student's work for moderation.

Data on the rate of agreement between teachers and moderators are considered in two ways: Agreement at Credit and Agreement at Grade.

When a moderator reviews the assessment decision made with respect to a piece of student work, they will firstly consider if the assessor has correctly judged whether the work has met the standard. If the moderator and assessor agree that the piece of work demonstrated a result of either Not Achieved or Achieved, (regardless of whether it was an Achieved, Achieved with Merit or Achieved with Excellence result), then the judgement is said to be an *Agreement at Credit*. This term refers to the credits that a student does or does not receive depending on whether they have achieved the standard.

If the judgement of the assessor and the moderator is that the work demonstrates achievement of the standard, the moderator will then consider the awarded grade of Achieved, Achieved with Merit or Achieved with Excellence. If, in the opinion of the moderator the correct grade has been awarded, then the judgement is said to be an *Agreement at Grade*. The rate of Agreement at Grade can never be higher than the rate of Agreement at Credit, and is usually lower.

Table 9 shows that in the 2012 moderation round, the national Agreement rate at Credit level was 89.3% and at Grade level was 79.6%.

	2009	2010	2011	2012
Credit	82.9%	90.5%	92.1%	89.3%
Grade	75.8%	83.9%	86.0%	79.6%

Table 9. Overall moderation rates, both at credits and at grade, from 2009 to 2012.

The separation between 2011 and 2012 in Table 9 is deliberate. This marks a change in the selection methodology used in the calculation of the national agreement rates. The introduction of thin slice sampling in 2012 makes direct comparison of the agreement rates from prior year's invalid, as the rates were not calculated on the same basis.

Table 10 shows that across the three NCEA levels, there was a similar agreement rate at Credit of around 90% with a spread of slightly more than one percentage point. On the other hand, the agreement rate at Grade has varied more widely with a spread of 3.5 percentage points.

Level	At Credit	At Grade	Sample Size
1	90.2%	79.9%	2,874
2	89.6%	77.4%	2,014
3	90.9%	80.8%	1,067

Table 10. Moderation rates, both at credit and at grade of Achievement Standards only, by level in 2012.

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## NCEA Administrative processes and data

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In 2012, NZQA continued with the initiatives that were designed to provide an increased level of professional support for making assessment decisions. These initiatives included the following:

- Best Practice Workshops, which in 2012 involved 7,370 (2011: 3,762) teachers in 336 (2011: 221) workshops throughout the country
- Subject-specific web pages – hosting information and links to assessment resources
- Annotated student's work exemplifying grade boundaries for internally-assessed standards requiring clarification
- Greater clarity and balanced feedback in moderation reports

- The opportunity for teachers to send in additional candidate evidence and ask moderators specific questions about their assessment judgements
- Regular, subject-specific newsletters for teachers
- Documents to guide teachers in their interpretation of standards.

Moderator's newsletters, clarification documents and annotated exemplars can be found on the subject-specific pages at: <http://www.nzqa.govt.nz/subjects>



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# NCEA Administrative processes and data

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## Breaches of Rules

Each year NZQA investigates reports of possible breaches of the rules and procedures of external assessments. Actions which are in breach of the rules include:

- Dishonest practice, including altering external assessment materials prior to seeking a review or reconsideration
- Failure to follow instructions
- Performance-based authenticity issues, including impersonations
- Influencing, assisting or hindering other candidates, or otherwise disrupting the conduct of the examination.

When NZQA receives a report of a possible breach, an investigation is initiated. A letter is sent to the person or persons involved, accompanied by copies of any relevant information or reports about the possible breach. The person(s) is/are invited to make written comment to NZQA. Investigation may include consultation with the school or other agencies, and/or face-to-face meeting with the person(s) concerned. NZQA uses an independent contractor to recommend the decisions in face-to-face meetings and advice on process.

It should be noted that since 2012, the reporting of certain classes of breach changed from that of previous years. *Communicating with other candidate* is now reported under two classes: *Following Instructions*, and *Influencing/Assisting/Hindering*. Breaches relating to candidates possessing pre-prepared notes during examination sessions are also now reported under two classes: *Dishonest Practice*, and *Following Instructions*, depending on the nature of the breach.

Table 11 summarises the breaches-of-examination-rule data for 2012. A total of 425 situations (the 2011 figure was 376) were reported in which a possible breach of examination rule occurred, of which 274 were reported by Examination Centre Managers (288 in 2011), 122 by markers (83 in 2011) and 29 by others (five in 2011). As of 4 April 2013, 418 reports had been resolved. In 64 cases no actual breach of the rules was found to have occurred.

Number of candidates for whom a breach was substantiated	354
Number of reports for which no breach occurred	64
Decision Pending	7
<b>TOTAL reports investigated</b>	<b>425</b>

Table 11. Status of breaches-of-rules procedures for 2012 as on 4 April 2013

## NCEA Administrative processes and data

Table 12 provides information in regard to the nature of the reported breaches. Consistent with previous years, failure to follow instructions was the most common type of breach reported.

	Nature of Breach	Number of cases
Dishonest Practice (28)	Cell phone use	1
	Using notes	13
	Altering/access to answer booklet	7
	Communicating with another candidate	1
	Other	6
Failure to Follow Instructions (249)	Having a cell phone	85
	Inappropriate or offensive material/language	28
	Having notes	42
	Unauthorised material	68
	Unauthorised absence from exam room	13
	Other	13
Authenticity/Impersonation (108)	Similar answers to another candidate	26
	Authenticity	78
	Multiple handwriting	4
	Other	0
Influencing/Assisting/Hindering (40)	Disturbance	13
	Communicating with another candidate	27
	Other	0

Table 12. Numbers of candidates with reported breaches of examination rules in 2012 by type of breaches.

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## NCEA Administrative processes and data

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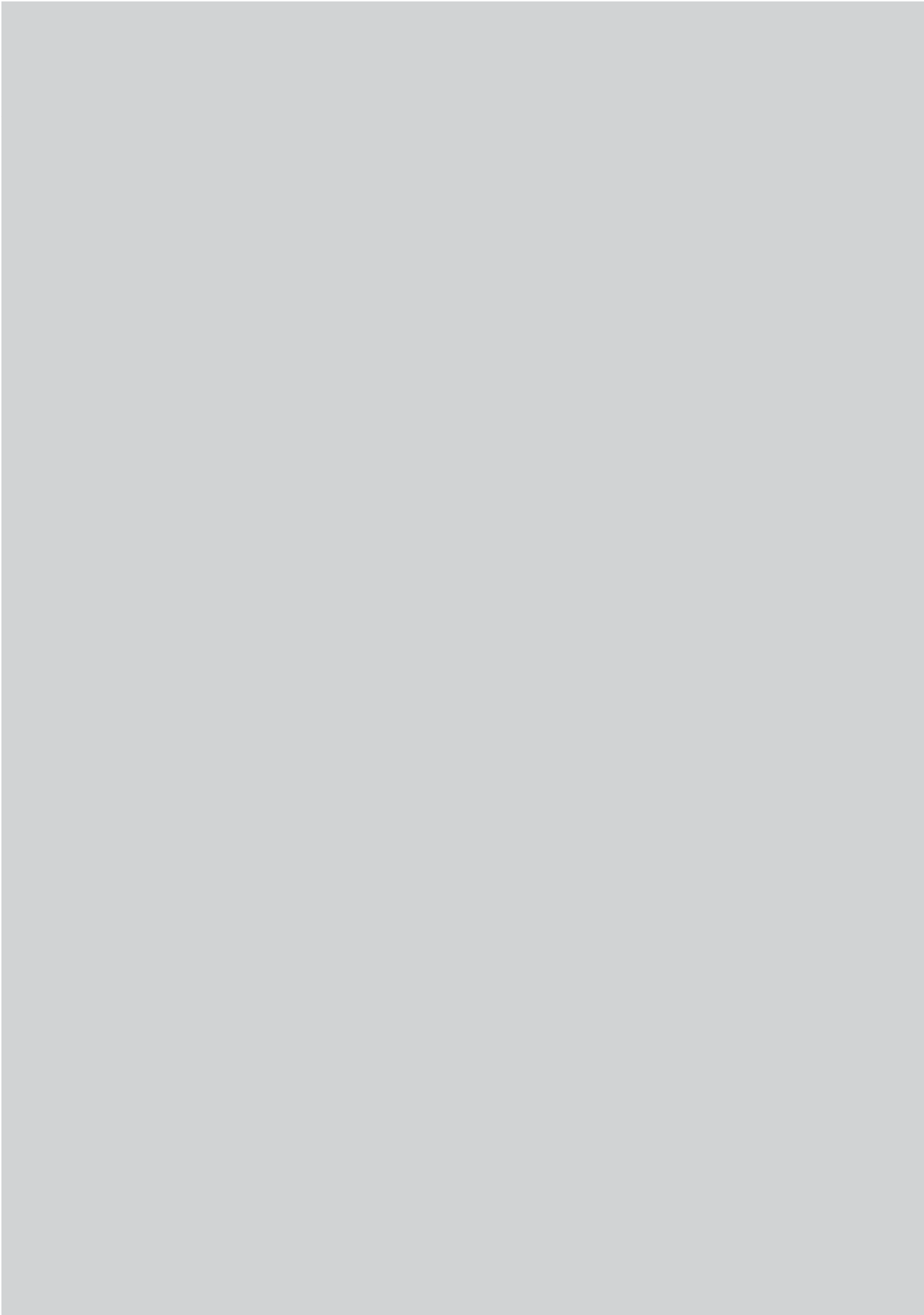
Table 13 shows the total number of reported breaches, the total number of examination sessions attended by all candidates, and the number of candidates for different geographical regions in New Zealand and Pacific Islands. Approximately 36% of all exam sessions were located in Auckland, 13% in Canterbury, 10% in Wellington and 9% in Waikato. This indicates that a large number of candidates sat their exams in one of these four regions' exam centres.

Region	Number of Breaches	Number of Exam Sessions	Number of candidates
Auckland	198	209,290	46,978
Bay of Plenty	27	25,801	6,093
Canterbury	41	74,136	16,364
East Coast	4	5,076	1,450
Hawkes Bay	13	23,955	5,458
Manawatu	6	28,901	6,549
Nelson/Marlborough	15	18,326	4,237
Northland	23	16,399	4,196
Otago	11	26,581	5,784
Southland	9	12,018	2,658
Taranaki	6	16,091	3,586
Waikato	25	55,071	13,651
Wairarapa	1	6,155	1,489
Wellington	44	60,027	13,189
West Coast	2	2,585	651
Cook Island and Niue	0	1,817	530

Table 13. Numbers of candidates with reported breaches of the examination rules in each geographic region.

Further details on breaches of rules can be found on the NZQA website: <http://www.nzqa.govt.nz/breaches>





# Appendices

## Appendix I. Explanation of how different Cohorts are constructed

A cohort is simply a grouping of students with some commonality. In the *Annual Report on NCEA and New Zealand Scholarship Data and Statistics*, four basic cohorts are used as the basis of the statistics reported. These are the School Roll Cohort, the Enrolled Candidate Cohort, the Tracked Year 11 Cohort and the Participating Cohort.

Each cohort can be further divided by student year level, ethnicity, and gender. The data are presented using these smaller divisions, and can also include breakdowns related to the schools such as Decile Band. The different cohorts may overlap, as can the smaller groupings. For example a student may be both in Year 11 and a New Zealand Māori.

When deciding which cohort to use, it is important to choose a cohort that is appropriate for the purpose and which will reveal clearly any significant trends or meaningful features of the data. It is also important to continue to use the same cohort each year to report the same statistics.

The impact of different cohorts on the reported percentages can be significant. Table 14 shows the effect on the NCEA achievement rates caused by using different cohorts.

% based on →	Roll-based Cohort	Tracked Cohort	Participating Cohort
NCEA Level 1 [year 11]	67%	70%	78%
NCEA Level 2 [year 12]	70%	64%	82%
NCEA Level 3 [year 13]	56%	41%	75%

Table 14. NCEA attainment rates in 2012 by schooling year and cohort type

This table shows that the relationship between the rates reported for different cohorts is more complex than might be expected. Note that for Year 11 candidates achieving NCEA Level 1, the rate of achievement for the Tracked Year 11 Cohort is higher than for the School Roll Cohort, whilst for Years 12 and 13 achieving NCEA Levels 2 and 3 respectively, the rate is lower. This arises because the number of students in the Tracked Year 11 Cohort is always smaller than the number on the school roll. This is obvious in Year 11 because the achievement rate is higher for the Tracked Year 11 Cohort than the School Roll Cohort. By Year 12 the achievement rate has dropped and appears lower for the Tracked Year 11 Cohort. However, in reality if the achievement rate for the School Roll Cohort was able to be calculated on a comparable basis to the Tracked Year

11 Cohort the School Roll figure would always be higher simply because there are more students on the roll than are in the Tracked Year 11 Cohort which is drawn from the actual enrolled students not the school roll numbers.

The achievement rates when using the Participating Cohort are always higher because the number of students in the cohort is reduced to only those who may be actively seeking to achieve the qualification. However, it should be remembered that this cohort is constructed using a proxy for participation, which may make these percentages less reliable.

The rest of this appendix details the 4 basic cohorts used in this report.

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# Appendices

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## School Roll Cohort

Each year schools are required to complete a roll return stating their school roll as at 1 July. This roll return is a requirement of the Ministry of Education. These data are subsequently supplied to NZQA for statistical reporting purposes.

The School Roll Cohort, used in both this report and in some of the Secondary Statistics reports available online on the NZQA website, is intended to provide a set of statistics that have a basis that is common to all schools: a simple count of the student population.

The achievement rates calculated using a School Roll Cohort are generally the lowest rates. This is because the School Roll Cohort includes students who do not have an active enrolment with NZQA, and who are not participating in any of the NCEA qualifications or University Entrance, i.e. they are not NCEA candidates. Therefore the number of students who can potentially contribute to the numerator of those students who achieve the qualifications is actually smaller than the denominator used for the calculation of the achievement rate.

## Enrolled Candidate Cohort

The Enrolled Candidate Cohort focuses on actual candidates. It is used to report Literacy and Numeracy rates. This cohort is based on the list of candidates known to NZQA through having an active enrolment and at least one entry in either a Unit Standard or an Achievement Standard.

Students do not directly “enrol with NZQA”. A school reports each candidate’s details to NZQA and indicates the standards that will be used to assess this student. As assessments occur the school reports the results, and may also add additional standard entries or withdraw the student from standards which are not going to be assessed. If a student leaves school before the end of the year, results for standards achieved continue to be held on the NZQA system. If the student has not been assessed for any of the standards for which they are entered, the school may withdraw all their entries and their enrolment.

## Tracked Year 11 Cohort

The Tracked Cohort is a special form of the Enrolled Candidate Cohort. This cohort is defined by using the enrolled candidates at a specific year level in an earlier year, and then tracking their attainment through to the current year. For example, in this report Year 11 students in 2010 remaining at school are tracked successively to Year 12 in 2011 and Year 13 in 2012. It is important to understand that this cohort tracks the actual students from the original Year 11 through a 3 year period.

Calculating percentages of students attaining qualifications using the Tracked Year 11 Cohort corrects for differences in retention between the demographic groups of interest, which helps to make comparisons more meaningful.

For example, in each year a greater proportion of male students than female students leave school without NCEA Level 1 during Years 11 and 12. Comparing the percentages of male and female students who have attained NCEA Level 1 by the end of Year 12, with only those students who were still at school, would therefore underestimate the Level 1 performance gap between male students and female students. Using the original Year 11 students as a basis for calculating percentages right through to Year 13 avoids this problem, because all students are counted in the denominators for the percentages, whether or not they have left school.

As the Year 11 students move into Year 12 and then on to Year 13 new students will enter the senior school at those year levels. For example a student coming to New Zealand from overseas may go straight into Year 12. This new entrant was not part of the original Year 11 cohort. It is unlikely that this student will be a candidate for NCEA Level 1 because they are already working at Level 2, although they could have sufficient potential credits at Level 1 or above to be included in the NCEA Level 1 cohort. In the Roll Based and Participation based reports the achievements of this student will be included in the achievement rates calculated. But as the student is now part of the cohorts in both of these reports their lack of NCEA Level 1 will actually reduce the apparent



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# Appendices

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achievement rate of the qualification when considering cumulative achievement. The tracked year 11 report does not have the same issue as new entrants, who were not part of the original cohort are ignored.

## Participating Cohort

There is no formal process for students to enter an NCEA qualification. Students are entered for standards, each of which has an associated credit value. To achieve a qualification the student must accumulate enough credits and meet the requirements of the qualification. Secondary school students are all assumed to be seeking NCEA Level 1, 2, and 3, and University Entrance, and are therefore checked for this set of normal secondary qualifications automatically. Consequently there is no need for a specific entry in the qualification.

Although it is assumed that all secondary school students are seeking to achieve the normal set of secondary qualifications, in reality not all students are trying to achieve these goals. As students can not indicate their objectives to NZQA, it is not possible to construct a real participation cohort containing the students seeking each qualification.

This cohort overcomes some of the concerns raised by schools who feel that the roll based statistics underrate their school performance due to the inclusion of students who are engaged in smaller programmes of assessment or having alternative education needs and objectives. The Participating Cohort addresses these concerns, to some extent, by focusing on the subset of students whose entry behaviours suggest that they are likely to be attempting the qualification.

A candidate is considered to be participating and therefore to be in the Participating Cohort for a given qualification if they have a reasonable opportunity to achieve that qualification. To determine if a candidate has a reasonable opportunity the credits from any standards, at an appropriate level for that qualification, which the student has already achieved are added to the credits they could achieve, based on the standards they are entered for. This gives a potential credit value. A reasonable opportunity, in this context, exists if the candidate has sufficient potential credits to achieve the qualification by the end of that year.

This calculation is actually done retrospectively, although any results reported during the year are ignored so that the calculation is done as though the assessment of the standards had yet to be completed, i.e. as though it was the beginning of the year.

Each qualification has a specific threshold of potential credits required to be able to achieve the qualification. Table 15 shows the credit requirement for each qualifications and university entrance.

NCEA Level 1	80 credits at level 1 or above
NCEA Level 2	60 credits at level 2 or above
NCEA Level 3	60 credits at level 3 or above
University Entrance	60 credits at level 3 or above

**Table 15. Thresholds of potential credits required by students to be included in the Participating Cohort.**

The potential credit requirements for inclusion in the Participating Cohort are similar to the requirements for the award of the qualifications but are not intended to be identical. For example the rules for the award NCEA Level 1 include requirements for Literacy and Numeracy. When evaluating if a student should be included in the cohort, no specific check is done to see if they can achieve Literacy or Numeracy, only a general check of their total potential credits.

Although University Entrance can, in theory, be achieved with only 42 credits, in practice the number of students who achieve UE with less than 60 potential credits is minimal, as most Year 13 students will also be seeking to achieve NCEA Level 3. Therefore, the 60 credit target used for NCEA Level 3 is also used for University Entrance.

If a candidate is not entered for sufficient credits to be able to attain a given qualification, it is presumed that they have no intention of doing so in that year. The percentage of candidates attaining a given qualification should therefore be treated as an approximation of the percentage of those who are candidates for that qualification.

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# Appendices

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## Appendix 2. School Related Qualifications

### Qualification names by group

Academic
National Certificate in Computing (Level 2)
National Certificate in Computing (Level 3)
National Certificate in Māori (Te Waharoa) (Level 2)
National Certificate in Mathematics (Level 1)
National Certificate in Mathematics (Level 2)
National Certificate in Science (Level 2)
All
National Certificate in Business Administration and Computing (Level 2)
National Certificate in Business Administration and Computing (Level 3)
National Certificate in Employment Skills (Level 1)
Construction and Infrastructure Sector
National Certificate in Building, Construction, and Allied Trades Skills (Level 1)
National Certificate in Building, Construction, and Allied Trades Skills (Level 2)
National Certificate in Civil Infrastructure (General Introductory Skills) (Level 2)
Manufacturing and Technology Sector
National Certificate in Aviation (Introductory) (Level 2)
National Certificate in Clothing Manufacture (Elementary Sewing Skills) (Level 2)
National Certificate in Design (Level 3)
National Certificate in Design (Introductory Skills) (Level 2)
National Certificate in Electronics Technology (Level 2)
National Certificate in Electronics Technology (Level 3)
National Certificate in Mechanical Engineering (Level 2)
National Certificate in Mechanical Engineering Technology (Level 1)
National Certificate in Motor Industry (Entry Skills) (Level 2)
National Certificate in Motor Industry (Foundation Skills) (Level 1)



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# Appendices

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## Primary Industries Sector

National Certificate in Agriculture (Level 2)  
National Certificate in Agriculture (Introductory Skills) (Level 2)  
National Certificate in Equine (Introductory Stable Skills) (Level 2)  
National Certificate in Horticulture (Introductory) (Level 2)  
National Certificate in Primary Sector (Level 1)

## Service Industries Sector

National Certificate in Drama (Level 2)  
National Certificate in Drama (Level 3)  
National Certificate in Hairdressing (Salon Support) (Level 3)  
National Certificate in Hospitality (Entry Skills) (Level 2)  
National Certificate in Hospitality (Foundation Skills) (Level 1)  
National Certificate in Hospitality (Introductory Cookery) (Level 2)  
National Certificate in Music (Level 2)  
National Certificate in Music (Level 3)  
National Certificate in Performing Arts General (Level 1)  
National Certificate in Performing Arts General (Level 2)  
National Certificate in Performing Arts General (Level 3)  
National Certificate in Retail (Level 2)  
National Certificate in Sport (Level 2)  
National Certificate in Tourism (Core Skills) (Level 3)  
National Certificate in Tourism (Introductory Skills) (Level 2)

## Social and Community Services Sector

National Certificate in Early Childhood Education and Care (Level 3)  
National Certificate in Health, Disability, and Aged Support (Foundation Skills) (Level 2)  
National Certificate in Work and Community Skills (Supported Learning) (Level 1)



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# Appendices

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## Appendix 3. Glossary

### Achieved

A standard is achieved when a candidate has met the requirements of the standard. Candidates can receive *Not Achieved*, *Achieved*, *Merit* or *Excellence* grades for Achievement Standards. They can receive either *Not Achieved* or *Achieved* grades for Unit Standards. Credit for a particular standard is awarded for a result of *Achieved* or higher.

### Achievement

Within this report the term achievement refers to specifically gaining a qualification or achieving a grade of *Achieved*, *Merit* or *Excellence* in a standard.

The term can also be applied to having met the requirements of UE, Literacy or Numeracy.

### Achievement Standard

As of 2010, an Achievement Standard is any standard derived from the New Zealand Curriculum.

### Answer Booklet

A paper booklet provided to a candidate for external examinations, in which the candidate provides written responses to examination questions.

### Assessed Results

Results in internally or externally-assessed standards that are either: *Not Achieved*, *Achieved*, *Merit* or *Excellence*; that is, results in which assessment has occurred.

### Assessment Reports

Summary reports provided by examiners on the work of candidates in externally-assessed standards.

### Attainment

The term attainment refers to the more generic sense of having achieved some outcome, such as achieving a standard, or qualification, or having been given an award.

### Breaches of the Rules

Any behaviour, in relation to the assessment of externally-assessed Achievement Standards, prohibited by the NZQA rules that govern these assessments.

### Check Marking

Check marking is the process by which all markers have the quality of their marking checked by a senior marker. The senior marker will check to see that the marker is marking to the national standard and following the assessment schedule appropriately. This quality assurance process is ongoing throughout the marking cycle and each marker will submit samples of their marking 4 or 5 times during marking constituting about 8-10% of their total marking allocation.

### Cohort

A group of learners, designated according to one or more criteria.

### Course Endorsement

Course Endorsement provides recognition for students who perform exceptionally well in individual courses. This endorsement is in the form of either *Merit* or *Excellence*.

### Decile

A rating that is allocated to schools for funding purposes, based on a range of socio-economic factors that include household crowding, household income, and highest educational attainment. Decile ratings are also grouped into bands.

*Low-decile* refers to deciles 1-3;

*medium-decile* refers to deciles 4-7;

*high-decile* refers to deciles 8-10.

This approach enables comparison of a school's performance with that of other schools of similar deciles.

### Denominator

The number below the line in any fraction or percentage.

### Endorsed Certificate (Certificate Endorsement)

An endorsement on a NCEA certificate recognising that a candidate has gained sufficient credits at either *Merit* or *Excellence*. To qualify for an endorsement with *Excellence*, candidates require 50 credits or more at *Excellence*.

An endorsement with *Merit* requires 50 or more credits at *Merit* (or *Merit* and *Excellence*).



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# Appendices

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## Enrolment Data

Data on candidates' attainment of qualifications, based on the numbers enrolled at secondary schools. Enrolment-based percentages include all enrolled candidates gaining an NCEA certificate by the end of a given year. A candidate is counted as enrolled when a secondary school reports the candidate as enrolled at that school, and there is an expectation that the candidate intends to attempt NCEA or New Zealand Scholarship assessments. NZQA enrolment data includes only candidates in Year 11 and above. Since every participant must also be enrolled, the numerators for both enrolment-based and participation-based percentages are always identical.

## Examination Centre

A location, usually a secondary school, at which candidates can undertake external assessment, usually in the form of an examination.

## Excellence

The highest possible grade for an Achievement Standard.

## External Assessment

Assessment conducted by NZQA, including national examinations held at the end of the school year.

## External Moderation

National external moderation provides assurance that assessment decisions are made at the national standard.

## Further Assessment Opportunities

Opportunities for candidates to be re-assessed in an internally-assessed standard. National guidelines state that candidates may be offered a maximum of one further assessment opportunity for a given standard per year. It is not compulsory for a school to offer more than one assessment opportunity for any given standard.

## Grade Score Marking (GSM)

Grade Score Marking (GSM) is a system for marking NCEA external assessments, first introduced in 2011 for NCEA Level 1 and due to be rolled out to Levels 2 and 3.

The system involves allocating scores of between 0 and 8 to each assessment item, aggregating all item scores to produce a total score, and finally setting cut scores that define the total score ranges for the award of *Achieved*, *Merit* and *Excellence* for each script.

## Internal Assessment

Assessment conducted by schools during the school year.

## Judgement Statements

Statements from Panel Leaders specifying how item-or question-level information is to be aggregated across a paper to produce each available final grade.

## Literacy

A key achievement in Year 11, both as prerequisite for the NCEA Level 1 qualification and in its own right. Literacy is the written and oral language people use in their everyday life and work. It includes reading, writing, speaking and listening. Skills in this area are essential for good communication, active participation, critical thinking and problem solving.

## Merit

The grade awarded in recognition of achievement above the minimum required to achieve the standard.

## Managing National Assessment reports (MNA reports)

Reports prepared by NZQA School Relationship Managers to evaluate a school's Quality Management Systems for managing all assessments that contribute towards national qualifications.

## Moderation

The NZQA process used to check and improve the quality of internal assessment materials and teachers' assessment decisions.

## National Certificate of Educational Achievement (NCEA)

National qualifications for senior secondary school candidates that can be attained at Level 1, 2 or 3.



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# Appendices

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## **Not Achieved**

The grade given to candidates whose assessment evidence is not sufficient to meet the requirements of a standard.

## **Numeracy**

A key achievement in Year 11, both as a prerequisite for the NCEA Level 1 qualification, and in its own right. Numeracy is a bridge between mathematics and daily life. It includes the knowledge and skills needed to apply mathematics to everyday family and financial matters, learning, work and community tasks, social and leisure activities.

## **Numerator**

The number above the line in any fraction or percentage.

## **NZQF**

The New Zealand Qualifications Framework (NZQF), is a framework that contains the list of all quality-assured qualifications in New Zealand.

## **Participation Data**

Data on candidates' achievement of qualifications, based on the numbers participating, rather than on school rolls. A participant for a given level of NCEA is a candidate who, on the basis of entries in a given year, can gain that level during that year, taking into account any credits gained in previous years. Participation-based data are intended to better represent the performance of schools in which many students do not pursue NCEA.

## **Profiles of Expected Performance (PEP)**

Tools that are used to assist in ensuring that externally-assessed standards are marked fairly from year-to-year.

## **Reconsideration**

Re-marking of a candidate's work for an externally-assessed standard where the candidate believes that his or her work may not have been assessed correctly. Reconsiderations are conducted in response to applications from candidates.

## **Review**

A check for possible errors in processing of the results for an externally-assessed standard. Reviews are conducted in response to applications from candidates.

## **Roll**

The School Roll includes students attending (i.e. enrolled) at schools as at 1 July.

## **Roll-based data**

Data on candidates' achievement of qualifications, based on school rolls, rather than on numbers participating in NCEA. Roll-based data include the overall numbers and percentages of demographic subgroups (i.e. gender, ethnicity and decile-based subgroups) attaining NCEA qualifications. Roll-based data are not available in this report.

## **Scholarship**

External assessments for the highest-performing secondary students, requiring students to demonstrate high-level critical thinking, and carrying monetary awards for successful candidates.

The assessment for most subjects comprises a three-hour written examination, although Dance, Drama and Music also involve assessment by recorded performance, and Visual Arts, Technology and Graphics are assessed entirely by portfolio.

## **Socio-economic**

A term that means "relating to social and economic factors". Within this report the school decile band is used as a proxy for socio-economic status of candidates.

## **Unit Standard**

As of 2010, a Unit Standard is any standard that is *not* derived from the New Zealand Curriculum. However, until the present review of standards is complete there will still be some Unit Standards that are derived from the New Zealand Curriculum.

## **University Entrance (UE)**

University Entrance is the minimum requirement to be admitted for enrolment at a New Zealand university.

Although University Entrance is not a qualification it is treated as equivalent in a similar way in this report.









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