Demographic and Statistical Analysis Unit

Pasifika Achievement Engagement and Choice

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Executive Summary

The benefits of secondary school qualifications are numerous. Achieving at school and gaining secondary qualifications gives students a strong foundation for life-long learning. It also improves job opportunities and increases students' access to tertiary education, leading to better social and economic outcomes. Secondary qualifications provide access to a wider range of jobs and give people more flexibility to change jobs. Consequently, gaining qualifications at senior secondary school is important.

Tertiary enrolments of Pasifika students are low, especially in the higher level degree courses. This is partly due to non-completion of secondary qualifications. A report on the achievement of Pasifika candidates on the NQF¹ found that that many Pasifika students are not reaching the levels of achievement needed to gain access to higher level tertiary courses. Pasifika students are less likely to gain NCEA qualifications in a given year than other students, and are less likely to attain University Entrance (UE). These findings lead us to question what the achievement issues are for Pasifika students. This will help us to determine which student, teacher, and school practices need to be focussed on. We seek to identify these achievement issues in this paper.

Engagement and Achievement

Our analysis suggests that engagement of Pasifika students in studying for NQF credits is an issue. But it is not low participation rates that prevent Pasifika students from achieving qualifications. Pasifika students who started gaining NQF credits in Year 11 are just as likely as other students to be still participating in study in Year 12 and Year 13.

The real issue for Pasifika candidates is the number of credits they achieve in a year. Our previous study found that Pasifika candidates were not gaining qualifications in a one year period because they did not achieve the required number of credits². Slower rates of achievement are however less of a barrier to qualification attainment than they once were. The cumulative nature of NQF study means that candidates who do not gain qualifications in one year can keep their credits, and go on to gain further credits in subsequent years. As such, candidates can, and do, complete lower level qualifications and continue on to gain higher level qualifications.

Pasifika candidates are taking advantage of the cumulative nature of the NQF. Of those candidates who do not gain qualifications in their first year of NQF study, Pasifika candidates are more likely to have a qualification after three years than candidates of any other ethnicity. Thus, Pasifika candidates do eventually achieve, but they take longer. This slower achievement rate means that after three years of senior secondary schooling, comparatively low proportions of Pasifika candidates have a level 3 qualification and/or UE.

¹ Harkess, C., Murray, S., Parkin, M., & Dalgety, J. (2005) *Pasifika Achievement: High Level Analysis*. Wellington: Ministry of Education.

² Pasifika were less likely than non-Pasifika to meet literacy and numeracy requirements of Level 1 NCEA. However, the smaller quantity of credits Pasifika gained in a year compared to their non-Pasifika peers was identified as the larger barrier to gaining qualifications.

Choice and Achievement

The other factor that impacts upon Pasifika candidates' achievement is their choice of standards. Candidates can choose from a variety of domains and standard types, although they are constrained somewhat by the standards offered by schools, and how the school creates and timetables "a subject". Candidates can potentially choose between achievement and unit standards, and internally and externally assessed standards in a range of domains.

Standard Type

One of the misunderstandings about the new system is the status of unit standards. Often seen as holding less value, unit standards are unfairly characterised as an option for less able students. Yet unit standards make up more than half of the standards that can be used to obtain UE.³ Unit standards are much more diverse than achievement standards (which are restricted to traditional subjects). Unit standards are offered in domains derived from curriculum-based subjects (such as Chemistry, French, English etc.) to non-traditional subjects (for example, forestry knowledge, vehicle body work). Pasifika candidates make use of the diversity offered by unit standards. However, those Pasifika candidates who gain UE tended to concentrate on traditional curriculum based subjects.

Despite the similarity between achievement and unit standards there is a relationship between the number of credits attained in achievement standards and gaining a qualification at the typical level for a candidate's year group (e.g. NCEA level 1 in Year 11). The more achievement standard credits candidates gain in a year the more likely they are to gain a typical level qualification. And it's the achievement standards that Pasifika candidates are not achieving. Although there is little difference in the number of credits achieved from unit standards between the average Pasifika and non-Pasifika candidate, Pasifika candidates do not achieve as many credits from achievement standards. It appears, from the externally assessed achievement standards, but when they do attempt them, they are more likely to 'Not Achieve' than their non-Pasifika peers.

Excellence in Achievement Standards

As with any group in society, there is a range of abilities and achievement amongst Pasifika candidates. Although Pasifika candidates are more likely to leave school with lower level qualifications than their non-Pasifika counterparts⁵, Pasifika candidates are amongst those completing a level 3 NCEA, achieving UE, and gaining achievement standards with excellence⁶. High performing students, who gain many of their credits at the "excellence" level, are characterised by their similarity rather than their differences. Pasifika high performers have similar records of learning to other high performing candidates. They gain excellence in core academic subjects in Year 11, gaining more excellences in the sciences and mathematics in Years 12 and 13.

³ However candidates currently tend to gain UE predominantly through achievement standards.

⁴ 'Not achieved' results are not collected on internally assessed standards, so we do not know how many internal achievement standards candidates attempt, but do not achieve.

⁵ http://educationcounts.edcentre.govt.nz/statistics/downloads/School-leavers-2004.xls#'2'!A1 ⁶ As reported in: Harkess, C. et al.

School Choices

Some of the variation in Pasifika achievement may be a result of school influences. Despite a low proportion of Pasifika Year 13 candidates gaining UE nationally⁷, there are some schools where UE attainment rates are high amongst Pasifika candidates (compared to other schools in their decile). These high performing schools are not concentrated in specific areas, but are spread across differing school structures and communities. Further research is needed in identifying how these schools are able to achieve such good learning outcomes for their Pasifika students.

Conclusions

The introduction of the NQF has removed some of the barriers to achievement that students were faced with under the old system, but barriers to learning still remain. International studies suggest that Pasifika candidates reach senior secondary schooling having achieved less in primary and junior secondary school – as early as Year 5 Pasifika students have lower achievement in reading, mathematics and science⁸. It is not surprising then that they take longer to achieve in NQF study than candidates of other ethnicities.

This raises the question - how can we improve learning outcomes for Pasifika students? Although Pasifika underachievement needs to be addressed in early levels of schooling, changes can also be made in senior secondary schooling. Potential solutions include developing learning programmes that focus students more on achieving level 3 qualifications and University Entrance and less on the lower level qualifications. For students who are near completion of Level 3 by the end of Year 13, further study at Year 14 and the achievement of qualifications and University Entrance will likely open up greater opportunities for Pasifika and non-Pasifika candidates alike. Both these solutions rely on students making the right choices about standards. Further information is needed on how choices of standards are made: are the choices made by informed parents, students, teachers or schools? Factors such as standards offered, streaming of students, school timetables, and the impact they have on choices of standards are all areas that need further attention.

With senior secondary school qualifications having such an important impact on students' future, barriers to learning for all students, both Pasifika and non Pasifika, need to be addressed.

⁷ ibid.

⁸ TIMMS and PIRLS

Introduction

The benefits of secondary school qualifications are numerous. Achieving at school and gaining secondary qualifications gives students a strong learning foundation for life-long learning. It also improves job opportunities and increases students' access to tertiary education, leading to better social and economic outcomes. Secondary qualifications provide access to a wider range of jobs and give people more flexibility to change jobs. Consequently, gaining qualifications at senior secondary school is important.

Tertiary enrolments of Pasifika students are low, especially in the higher level degree courses (Table 1). In 2003, 53% of Pasifika school leavers went on to tertiary study, three quarters of whom enrolled in the lower-level certificate courses. When looking at all school leavers, we find that 56% go directly to tertiary study, with almost 40% of these studying at the degree level.

Table 1: Proportion of 2002 school leavers going directly to tertiary education, by level of study 2003

	Pasifika School Leavers	All School Leavers
Degree	10%	22%
Diploma	4%	2%
Certificate	40%	29%
Total	53%	56%

Source: New Zealand Schools Nga Kura o Aotearoa 2004

Enrolment in certificate courses is partly due to non-completion of secondary qualifications. A report on the achievement of Pasifika candidates on the NQF⁹ found that that many Pasifika students are not reaching the levels of achievement needed to gain access to higher level tertiary courses. Pasifika students are less likely to gain NCEA qualifications in a given year than other students, and are less likely to attain University Entrance (UE). These findings lead us to question why Pasifika students do not achieve at similar rates to other students. Are they less engaged in the NQF? Do they participate for shorter periods? Do they achieve less over the same amount of time? Or are students making choices that effectively preclude them from attaining qualifications? We seek to answer these questions in this paper.

Engagement and Achievement

In order to achieve, students must stay in school, and engage in learning whilst they are there. So do Pasifika students participate and engage in learning? To answer this question we investigate Pasifika students' participation and retention in NQF study¹⁰ and its effect upon qualification achievement.

Pasifika students participate in NQF study at similar rates to students of other ethnicities. Pasifika students' who started gaining NQF credits in Year 11 are just as likely as other students to be still engaged in study in Year 12 and Year 13.

⁹ Harkess, C, Murray, S; Parkin, M, & Dalgety, J (2005) *Pasifika Achievement: High Level Analysis*, Ministry of Education.

¹⁰ 2004 was the first year where NQF participation of different ethnic groups could be determined by year level

The percentage of Pasifika and non-Pasifika students participating on the NQF increased slightly across Years 11 – 13 (Table 2).

Table 2: Estimated	participation	by grouped ethnicit	y ¹ , 2004
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	Year 11	Year 12	Year 13
Pasifika	89%	91%	92%
Non-Pasifika	88%	88%	93%

¹Excludes students with unknown ethnicity and Foreign Fee Paying Students

Year 13 Cook Island Maori and Fijian students are most likely to be participating on the NQF of all the Pasifika ethnicities (Table 3). However, these are very small populations, so these figures should be treated with caution. In addition, the Pasifika school population is more affected by migration than say, the Maori or European school populations.

Table 3: Estimated participation by individual ethnicities^{1,2}

	Year 11	Year 12	Year 13
Samoan	92%	92%	93%
Tongan	91%	95%	91%
Cook Island Maori	87%	91%	96%
Fijian	89%	86%	101%
Niuean	76%	78%	72%

¹Excludes Foreign Fee Paying Students ²Estimated participation rates maybe over 100% as roll data is collected on students enrolled in school as at 1 July, and NQF data is all candidates in a full year period

Furthermore, examining how long the 2002 Year 11 cohort stay studying on the NQF suggests that similar proportions of Pasifika and non-Pasifika progress from year 11 to year 12 (Table 4). Pasifika progress from Year 12 to Year 13 at a slightly higher rate than non-Pasifika.

Table 4: Progression from y	ear to year o	f candidates who wer	e Year 11 in 2002
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Year	candidates	2002 Year 11 Pasifika candidates gaining NQF credits		1 non-Pasifika gaining NQF edits
	Number	% of 2002 cohort	Number	% of 2002 cohort
2002	2,857	100	41,820	100
2003	2,228	78	32,888	79
2004	1,709	60	23,614	56

Progress of candidates who were Year 11 in 2002

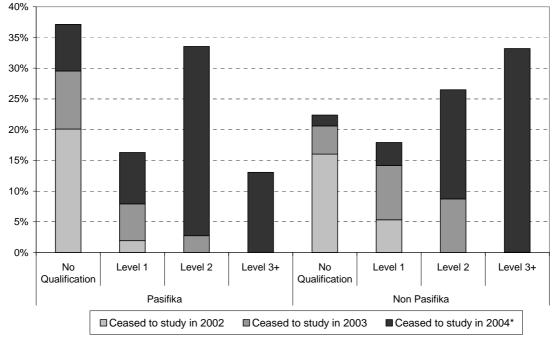
In a previous report¹¹ we found that Pasifika candidates were less likely to achieve NCEA qualifications than non-Pasifika. Further analysis suggests that Pasifika who continue to gain credits on the NQF do attain NCEA qualifications. However, in general they take longer to gain their qualifications than non-Pasifika and are more likely to gain them at a lower level than their non-Pasifika counterparts.

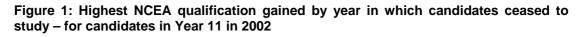
¹¹ Harkess, C, Murray, S., Parkin, M., & Dalgety, J (2005) *Pasifika Achievement: High Level* Analysis, Ministry of Education.

Figure 1 (overleaf) shows the highest qualification attained by the Year 11 Pasifika and non-Pasifika candidates who attained at least one credit in 2002¹² as at the end of 2004. We cannot assume that the 2004 data represents the point where these candidates cease studying on the NQF, as some candidates may continue to study in 2005 or 2006. Thus Figure 1 is indicative of total achievement rather than the complete story.

Most of the 2002 Pasifika and non-Pasifika candidates who gained credits in 2004 achieved a qualification. Unlike their non-Pasifika peers, however, Pasifika were more likely to have achieved a qualification at Level 2 rather than Level 3 or 4. This pattern is reflected in Pasifika school leavers, who are most likely to leave with a Level 2 qualification or below.

Only a quarter of 2002 Year 11 Pasifika who progressed no further than one or two years of NQF study achieved a qualification, compared to half of non-Pasifika.





* These candidates may continue on to study in 2005

Another way of looking at achievement over time is to track the progress of candidates from year to year. Pasifika candidates that gain a qualification in Year 11 in 2002 show different achievement patterns than those that do not. Figure 2 below shows the progress in 2003 and 2004 of Pasifika candidates who gained a qualification in 2002 and those candidates that do not achieve a qualification in Year 11.

¹² Year 11 students who did not achieve credits in 2002 are excluded, though these students may have attained qualifications in later years.

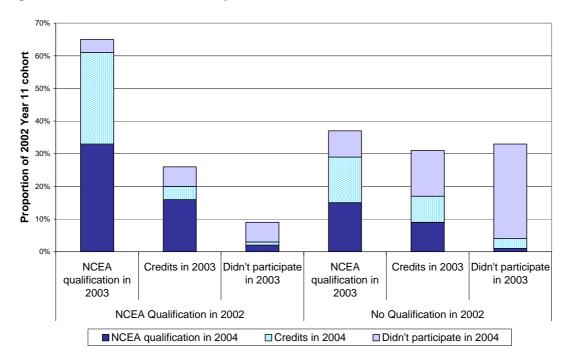


Figure 2: Achievement over time by Pasifika candidates who were in Year 11 in 2002

Pasifika candidates that gain qualifications in their first year are most likely to go on and gain qualifications in their second and third years of NQF study. Looking across Figure 2 we see that the Pasifika candidates that were most likely to gain a qualification in 2003 were those that had already gained a qualification in the previous year. This pattern is replicated in 2004 - looking at the divisions within the bars we see that a third of candidates went on to gain their third qualification in 2004 while another 30% gained more credits without gaining a qualification. Most of those who gained credits but not a qualification in 2003 then gained their next qualification in 2004.

However, Pasifika candidates who do not gain a qualification in their first year are much less likely to gain one in future years. Looking across Figure 2 we see that in 2003 there is not much difference between numbers of candidates gaining their first NCEA qualification, gaining more credits and not participating. This means that over 60% of candidates who did not get a qualification in 2002, still did not have a qualification by 2003, despite half of these candidates continuing to participate and gain credits. Candidates who do not gain a qualification in Year 11 are more likely to not participate the following year than candidates who do gain a qualification.

Compared to non-Pasifika, Pasifika candidates who do not gain a qualification are more likely to continue to participate on the NQF and gain qualifications. In fact, just over 40% of non-Pasifika do not participate again after not gaining a qualification in their first year compared with just under 30% of Pasifika. Of the candidates who do not gain a qualification in their first year of NQF study Pasifika (45%) are also more likely to continue on and gain at least one qualification after 3 years study than non-Pasifika (41%).

Non-NCEA qualifications

A small percentage of the National Certificate/Diploma Qualifications issued to students were non-NCEA qualifications. Pasifika students are just as likely as non-Pasifika students to gain a non-NCEA qualification (Table 5). However, as with NCEA, they take longer to complete their qualification: Non-Pasifika students are most likely to gain these qualifications by the end of Year 12, whereas Pasifika students are more likely to get their qualifications in Year 13.

	Yea	r 11	Year	· 12	Yea	r 13
	No.	% all quals awarded	No.	% all quals awarded	No.	% all quals awarded
Pasifika	9	0.7%	31	1.5%	45	2.7%
Non-Pasifika	73	0.2%	972	2.8%	710	2.6%

Table 5: Non-NCEA National Certificate/Diploma qualifications by year of schooling,2004

The most common non-NCEA qualification issued to both Pasifika and non-Pasifika students over the three year period was a Level 2 National Certificate in Computing (Table 6). Pasifika candidates were more likely than non-Pasifika to attain the National Certificate in Employment Skills (Level 1), which is designed to teach students the skills considered valuable to employers, and act as a means to encourage students to do further qualifications¹³. Non-Pasifika are more likely than Pasifika candidates to attain a National Certificate in Electronic Technology.

Table 6: Most common non-NCEA National Certificate/Diploma qualifications issued to	C
Year 11 – Year 13 candidates, 2002 – 2004	

		Certificat	ICEA National te / Diploma tions Issued		of certificates 2002-2004
	Level	Pasifika	Non Pasifika	Pasifika	Non Pasifika
National Certificate in Computing	2	33%	42%	69	1,430
National Certificate in Employment Skills	1	21%	4%	45	128
National Certificate in Tourism and Travel (Introductory Skills)	2	10%	13%	22	431
National Certificate in Electronics Technology	2	6%	14%	12	467

Conclusion

The purpose of this section was to discuss whether Pasifika students participated and engaged in learning. The findings here suggest that Pasifika candidates' engagement in learning is somewhat of a concern despite high participation rates. We find that Pasifika candidates have similar participation and retention rates in the NQF to candidates of other ethnicities. Therefore low participation is not preventing Pasifika students from achieving qualifications.

Our previous study found that Pasifika candidates were not gaining qualifications in a one year period because they did not achieve the required number of credits. Here we find that Pasifika candidates do take longer than their non-Pasifika peers to

¹³ Source: NZQA National Certificate in Employment Skills Version 10

achieve their qualifications as they do not gain the same quantities of credits in a year. Slower rates of achievement are less of a barrier to qualification attainment than they once were as the cumulative nature of NQF study means that candidates who do not gain qualifications in one year can keep their credits and go on to gain further credits in subsequent years. As such, candidates can and do complete lower level qualification and continue on to gain higher level qualifications in subsequent years study.

Pasifika candidates are taking advantage of the cumulative nature of the NQF. Of those candidates who do not gain qualification in their first year of NQF study, Pasifika candidates are more likely to have a qualification after three years than candidates of any other ethnicity. Thus, Pasifika candidates do achieve, but they take longer. However as a consequence of slower achievement rates they are less likely to have a level 3 qualification and/or University Entrance after three years study. This suggests one way to ensure that Pasifika students leave school with similar qualifications to their peers in the short term is to encourage them to continue their schooling into Year 14. A more long term solution may be to develop learning programmes that focus students more on achieving level 3 qualifications and University Entrance and less on the lower level qualifications.

In terms of non-NCEA qualifications, Pasifika candidates attain different types of qualifications than their non-Pasifika peers. Pasifika candidates are more likely to gain qualifications in employment skills than other candidates. Although numbers of students gaining these qualifications are small.

Choice and Achievement

The rollout of level 3 achievement standards in 2004 has completed a process which gives senior secondary students more choice than there once was. Combined with already existing unit standards the variety of subjects available plus the multiple levels at which they can be taken means that students need to give more thought to their course of study than they may have done under the old system. However the flexibility of NQF study can be constrained by the particular standards a school offers and school timetabling.

In this section we concentrate on choices of standards that candidates make and investigate whether Pasifika follow different paths from their non-Pasifika contemporaries. Pasifika are thought to be more likely to take unit standards than achievement standards. We investigate this belief and see how it might affect attainment of qualifications. This work builds on qualification and credit band analysis laid out in the report *Pasifika Achievement: High Level Analysis*¹⁴ which demonstrated that Pasifika candidates gained less credits in a year than their non-Pasifika peers and were less likely to gain a qualification within one year of study.

¹⁴ Harkess, C, Murray, S; Parkin, M, & Dalgety, J (2005) *Pasifika Achievement: High Level Analysis*, Ministry of Education.

Attainment through unit and achievement standards

What is the difference between unit and achievement standards?

Achievement standards were introduced with NCEA level 1 in 2002. They were developed to cover subjects previously offered as part of School Certificate, Sixth Form Certificate and University Bursary. Achievement standards can be assessed internally within a school, or externally through an examination.

Unit standards have been available since 1992. Some are curriculum-based, but most are practical in nature and have been developed in conjunction with tertiary providers and industry organisations. Many unit standards are aimed at transitioning students into trades or sub-degree tertiary education and are thus available in a much wider range of subjects than achievement standards. Unit standards are available in subjects such as French and trigonometry, as well as in practical subjects like sheep farming and furniture making. Unit standards are only assessed internally.

The number of unit standards developed far outnumbers the number of achievement standards available to schools. However, the range of unit standards available to students depends on what their school chooses to offer. Thus the unit standards attained by students can vary markedly from school to school.

Unit standards are often characterised as an option for less able students, yet more unit standards than achievement standards can be used to obtain University Entrance. However, candidates currently tend to gain UE predominantly through achievement standards.

Pasifika are believed to favour unit standards to a greater extent than non-Pasifika. The following section explores the extent to which this is true, and whether attainment through unit standards has implications for gaining qualifications.

Are Pasifika gaining more credits from unit standards than non-Pasifika?

Unit standards appear to be a commonly chosen option for the majority of candidates. Most candidates, both Pasifika and non-Pasifika, gain some credits from unit standards (Figure 3).

Around 90% of Year 11 and Year 12 candidates gain at least one credit through unit standards. In Year 11 and Year 12, Pasifika candidates were slightly more likely than non-Pasifika to gain credits from unit standards (see Figure 3). Pasifika were also slightly more likely to gain over 30 credits from unit standards than non-Pasifika, but overall the number of credits gained does not differ greatly between the two groups.

When compared to Year 11 and Year 12 candidates, Year 13 candidates were less likely to gain credits through unit standards (see Figure 3). In Year 13, Pasifika and non-Pasifika diverge in terms of their attainment through unit standards. Pasifika candidates are much more likely to gain credits through unit standards than non-Pasifika – 86% of Pasifika Year 13 candidates gained some credits through unit standards, compared to 69% of non-Pasifika Year 13 candidates. Pasifika candidates were also more likely than non-Pasifika to gain over 30 credits from unit standards while in Year 13.

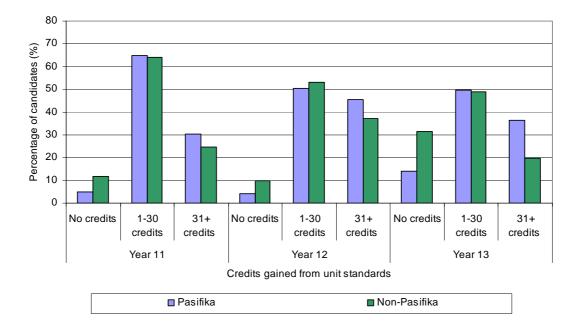


Figure 3: Number of credits gained through unit standards by Year 11, Year 12 and Year 13 candidates, 2004

Within Pasifika ethnic groups there was little difference in the proportions who gained over 30 credits from unit standards. Fijian candidates were least likely in every year group to gain over 30 credits from unit standards.

Thus in Year 11 and Year 12, Pasifika and non-Pasifika gain similar numbers of credits from unit standards. In Year 13, Pasifika are more likely to gain credits from unit standards and more likely to gain high numbers of credits from unit standards than non-Pasifika candidates.

Are Pasifika and non-Pasifika gaining similar number of credits from achievement standards?

Almost all candidates, particularly in Year 11 and Year 12, gain some credits through achievement standards (see Figure 4). This is perhaps not surprising, as achievement standards have replaced the main assessment measures in many subjects at secondary school level. In general candidates gain more credits through achievement standards than through unit standards. Therefore candidates have been grouped in Figure 4 by using a higher number of credits than when we looked at unit standard credits.

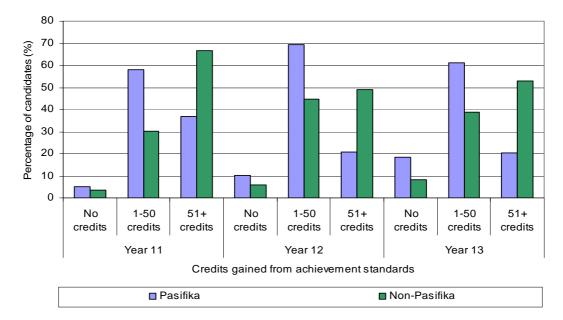


Figure 4: Number of credits gained through achievement standards by Year 11, Year 12 and Year 13 candidates, 2004

Pasifika candidates are less likely to gain more than 50 credits through achievement standards than non-Pasifika (Figure 4). This is true in all three year groups. Over half of all Pasifika candidates in all three years of schooling gain fewer than 50 credits through achievement standards.

A small proportion of candidates gain no credits through achievement standards (Figure 4). Pasifika are slightly more likely to be in this group than non-Pasifika in Year 11 and Year 12. In Year 13, Pasifika candidates were twice as likely as non-Pasifika candidates to be in this group. Almost a fifth (18%) of Pasifika Year 13 candidates gained no credits through achievement standards in 2004.

Is qualification attainment related to the type of standards candidates gain?

Qualifications gained at senior secondary school are important in determining future options for students. It is thus concerning that Pasifika have a lower rate of NCEA attainment than non-Pasifika (shown in Figure 5). Pasifika are also more likely than non-Pasifika to gain a lower than typical level NCEA. Are either of these related to achievement through either unit standards or achievement standards?

Credits gained through unit standards are unlikely to be a factor for Year 11 and Year 12 candidates. This is because Pasifika and non-Pasifika gain similar quantities of credits through unit standards, yet are quite different in terms of NCEA attainment. The difference is seen in credits achieved from achievement standards. In all three year groups, Pasifika candidates tend to gain fewer credits from achievement standards than non-Pasifika.

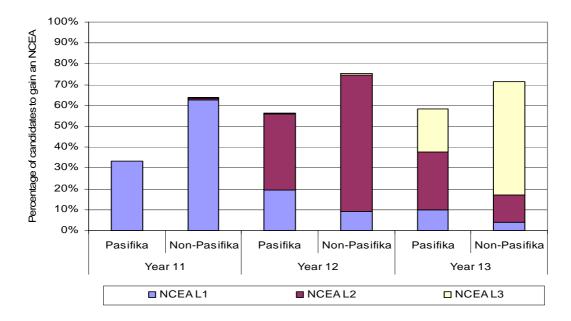


Figure 5: NCEA attainment by Pasifika and non-Pasifika candidates in Year 11, Year 12 and Year 13, 2004

Figure 6: Year 11, Year 12 and Year 13 candidates who gained an NCEA qualification (any level) by the number of achievement standard credits they gained, 2004

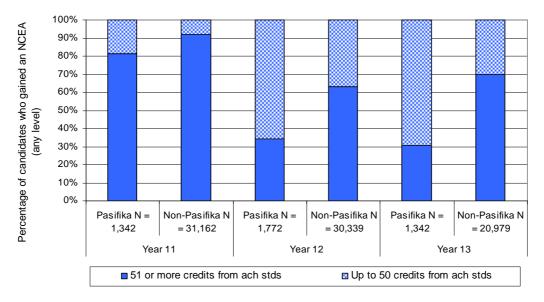


Figure 6 shows that Pasifika are more likely to gain an NCEA qualification with a lower number of credits from achievement standards than non-Pasifika. Apart from in Year 11, there does not appear to be a connection between the number of achievement standard credits a candidate gains and the likelihood of gaining an NCEA for Pasfika candidates. However, Pasifika candidates are more likely to gain lower than typical level NCEA qualifications. Candidates who gain lower than typical level NCEA qualifications. They also tend to gain a higher number of credits through unit standards than those who gain typical level NCEA

qualifications. This may explain why Pasifika candidates gain NCEA qualifications with fewer achievement standard credits than non-Pasifika in Year 12 and Year 13.

When we look at only candidates who attained a typical level NCEA qualification there does appear to be a relationship between the number of achievement standard credits gained for Year 11 and Year 13 candidates (see Figure 7). In these two year groups, those who gain over 50 credits from achievement standards are more likely to gain a typical level NCEA. In Year 11, 92% of non-Pasifika and 81% of Pasifika who gained an NCEA achieved more than 50 credits from achievement standards. In Year 13, three-quarters of Pasifika who attained an NCEA level 3 gained more than 50 credits from achievement standards.

Year 12 candidates are more likely to attain a typical level NCEA with fewer achievement standard credits than Year 11 or Year 13 candidates (Figure 7). This is particularly so for Pasifika Year 12 candidates, where half of those who gained an NCEA level 2 attained no more than 50 achievement standard credits in 2004. In comparison to Year 11 candidates, Year 12 candidates tend to have wider subject options and are allowed more freedom in directing their own course of study. The majority of Year 13 candidates who attained an NCEA level 3 in 2004 did so mainly through conventional school subjects and so gained mainly achievement standards. These reasons may explain the lower overall credit attainment from achievement standards by Year 12 candidates.

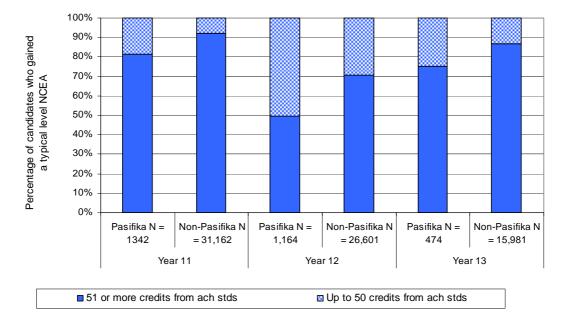


Figure 7: Year 11, Year 12 and Year 13 candidates who gained a typical level NCEA qualification by the number of achievement standard credits they gained, 2004

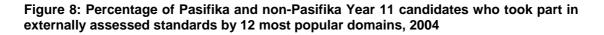
Note: typical level NCEA refers to NCEA level 1 for Year 11 candidates, NCEA level 2 for Year 12 candidates, and NCEA level 3 for Year 13 candidates.

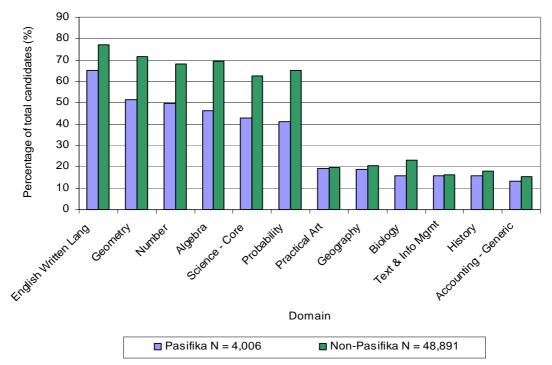
Possible reasons for lower attainment rates of achievement standard credits

Are Pasifika attaining fewer credits from achievement standards because they are not taking achievement standards or because they are not achieving the standards they take? It is impossible to be sure what the answer is, because we do not have complete data for internal achievement standards that are undertaken but not achieved. However, we do have reliable data for externally assessed achievement standards.

The participation of Year 11 candidates in externally assessed achievement standards is likely to be more indicative than the participation of Year 12 or Year 13 candidates. This is because Year 11 candidates are more homogeneous in terms of subject choice and level of standards than the higher year levels. For Year 11 candidates it appears that Pasifika are less likely to participate in sitting externally assessed achievement standards in the core learning areas of English, Mathematics and Science (see Figure 8).

This data may simply indicate that Pasifika candidates prefer internal assessment, or it could indicate that Pasifika are not participating in achievement standards to the same extent as non-Pasifika. If this is the case, it raises the question of what is the driver of lower participation – is it student choice, parent choice, school policies, or a combination of these? This is a topic worth further investigation.

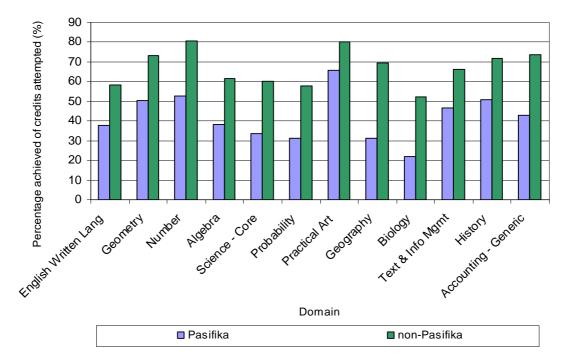


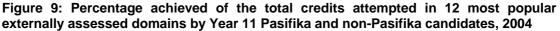


Note: shows the percentage of candidates who took part in externally assessed standards, regardless of whether they achieved the standards or not. Excludes 'absent' results (student did not turn up to exam).

Figure 9 (overleaf) depicts the same domains as Figure 8, but shows how many of the credits attempted were achieved by Pasifika and non-Pasifika candidates. From this we see that in comparison with non-Pasifika, Pasifika Year 11 candidates achieve a lower proportion of the externally assessed credits that they attempt. Only in Practical Art, a subject in which a fifth of candidates participate in, do Pasifika and non-Pasifika have similar rates of attaining the attempted credits.

It appears that lower rates of gaining credits from achievement standards, rather than lower participation rates, are the main reason behind Pasifika candidates' lower overall attainment of achievement standard credits. This suggests that Pasifika need to gain more of the achievement standard credits they attempt in order to attain typical level NCEA qualifications. Further investigation is needed on where patterns of lower achievement begin for Pasifika students and how these can best be remedied.





Domains where Pasifika gain unit standard credits

Because Pasifika candidates tend to gain a higher proportion of their credits through unit standards than non-Pasifika, the domains in which they most commonly gain unit standard credits are likely to influence future education and employment choices. In general the most popular unit standard domains for Pasifika and non-Pasifika are similar. Pasifika, however, are more likely than non-Pasifika to gain unit standard credits in religious subjects (such as christian theological studies; understanding religion) and sport-based subjects (like physical education; sport teaching and coaching).

The range of domains where Pasifika candidates gain unit standard credits increases with each year of schooling. Year 11 candidates gained unit standard credits predominantly in the core learning areas of English, mathematics and science. In Year 12, unit standard credits from English and mathematics domains are still some of the most commonly gained, but other, less well-known domains also feature, such as visitor services and work & study skills. Whereas in Year 13 the most commonly gained unit standard credits come mainly from subjects that are not part of the traditional curriculum.

For Pasifika Year 13, different preferences emerge when these candidates are broken down by the type of qualification they attained (Figure 10). Here we look at:

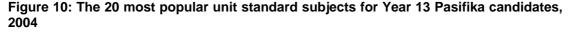
- a) those who attained UE;
- b) those who attained NCEA level 2 or level 3, but did not attain UE;
- c) and those who did not gain UE, NCEA level 3 or NCEA level 2.

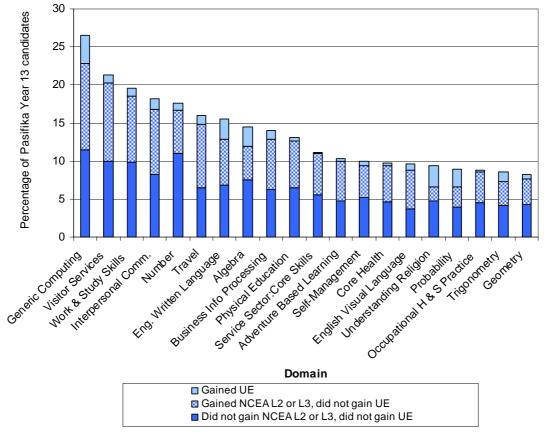
Generic Computing was universally popular. Candidates who gained UE were also likely to gain unit standard credits in English written language, algebra, understanding religion, and probability. These candidates' choices of unit standards correspond to conventional school subjects.

The second group, those who gained NCEA level 2 or level 3 but not UE, were more likely to gain unit standard credits in Visitor Services than in English, and in service sector: core skills, adventure based learning, and core health than in algebra or probability.

The Pasifika candidates who did not gain NCEA level 2, NCEA level 3 or UE were more likely than the other two groups to gain unit standard credits in Number. Almost all the credits gained in this subject were at level 1. This suggests that some candidates struggle with this subject over two or three years.

Some of the unit standard domains in Figure 8, such as visitor services and service sector: core skills, suggest future career options.





Note: 49% of all Pasifka Year 13 candidates did not gain UE, NCEA level 2 or level 3. 31% of Pasifika Year 13 candidates gained an NCEA level 2 or level 3, but did not gain UE. 19% of Pasifika Year 13 candidates gained UE.

Standards with excellence

Candidates who take achievement standards are able to gain results of either achieved, merit or excellence. Excellence is very challenging, and is an indication of a highly developed level of thinking¹⁵. Candidates can gain excellence in any achievement standard.

As with any group in society, there is a range of abilities and achievement amongst Pasifika candidates. Pasifika candidates are amongst those who gain standards 'with excellence'. In general 40% of Year 11 Pasifika candidates gain at least one standard with excellence while 30% of Year 12 and Year 13 candidates do the same. The proportions of Pasifika candidates who gain excellence have stayed the same between 2002 and 2004.

Due to the difficulty in attaining excellence and the wide range of achievement standards candidates gain, there are often small numbers gaining excellence in any one standard. In this section we look into the group of standards that candidates are most likely to get excellence in. All analysis from here on in only refers to this small group of standards (about 15 per year level per ethnic group¹⁶).

The standards which candidates are most likely to gain excellence in are nearly all internally assessed. Excellence is almost exclusively gained by candidates in standards taken at their typical level of study. A possible issue with gaining excellence is that capable students might take lower level standards and excel in them rather than concentrating their efforts on typical or higher level standards. We do not see evidence of students choosing to excel at lower level standards.

In general, a group of standards from a variety of core subjects is gained with excellence by candidates regardless of whether they are Pasifika or non-Pasifika. A further, smaller, group of standards are excelled in exclusively by Pasifika candidates.

Which standards do both Pasifika and non-Pasifika candidates gain excellence in?

The majority of standards gained with excellence by relatively high numbers of Pasifika were also gained with excellence by relatively high numbers of non-Pasifika candidates.

As seen in other analysis, Year 11 tends to focus on what might be termed core subjects. Pasifika and non-Pasifika Year 11 candidates gained the most excellence credits in particular standards from Accounting, English, Geometry, Information Management, Measurement, Science and Statistics. (refer to Appendix 4 for the list of individual standards).

In Years 12 and 13 we see more diversification of study into branches of science and mathematics as well as other languages. From Year 12, the increased specialisation of study is reflected with such domains as Chemistry and Trigonometry being excelled in.

¹⁵ Recruiting school leavers: What you should know about the new qualifications. NZQA

¹⁶ The comparative groups used here are Pasifika and non-Pasifika.

Which standards do only Pasifika candidates gain excellence in ?

Pasifika were more likely to gain excellence in Samoan, Dance Performance and Making Music than non-Pasifika (see Table 8 overleaf).

In Year 11 five standards were gained with excellence by relatively high numbers of Pasifika candidates that were not gained by similar proportions of non-Pasifika (shown in Table 7).

Seven standards were gained by relatively high numbers of Pasifika Year 12 candidates which were not gained by similar proportions of non-Pasifika (Table 7). At Year 12 more specialisation in learning areas is possible and this is reflected in standards which, with the focus on Samoan language, are more closely linked to Pasifika language and culture, unlike the equivalent group of standards for Year 11 candidates.

A clear Pasifika focus is again apparent in the standards in which Year 13 Pasifika exclusively excel in. In Year 13 we see evidence of a group of Pasifika candidates taking and excelling at a dance program incorporating level 1, 2, and 3 standards. With the exception of this program, the standards that were achieved with excellence were gained by students at a typical level of study.

Year level	Domain	Standard name
excelled in		
Year 11	Economics	Carry out an economic investigation
	Making music	Perform music as a member of a group
	Physical education	Demonstrate quality movement in the performance of a physical activity
	Text & information management	Enter text from provided material and by direct entry composition
	Samoan	Participate in a cultural situation using visual and specialised Samoan language
Year 12	Samoan	Listen to and understand spoken language in Samoan in less familiar contexts
		Read and understand written language in Samoan in less familiar contexts
		Write text in Samoan on a less familiar topic
		Give a prepared spoken presentation in Samoan on a less familiar topic
		Converse in Samoan in a less familiar context
		Participate in less familiar cultural situations using visual and specialised Samoan language
	Making music	Present a music performance as a member of a group
Year 13	Dance performance (Level 1)	Perform dance sequences
		Perform a dance as a member of a group
	Dance performance (Level 2)	Perform ethnic or social dance
	Samoan	Write text in Samoan using complex language on a less familiar topic
		Engage in an extended conversation in Samoan using complex language in less familiar contexts
		Engage in a less familiar cultural situation using complex visual and specialised Samoan language
		Give a prepared speech in Samoan using complex language, in a formal situation
		Read and understand written Samoan containing complex language, in less familiar contexts
	Making music	Present a performance of a programme of music as a member of a group
		Present music in composition or performance
	Physical Education	Demonstrate performance in a physical activity against nationally developed performance standards

Table 7: The standards the most Pasifika but not non-Pasifika gained excellence in are (2004):

Little variation over time is seen in the particular standards or areas where candidates gain excellence in.

School choices

Some variation in achievement may be the result of school influences. Achievement of University Entrance is a case in point.

If candidates do not achieve the UE requirements at school, their choices after school are more limited. To go onto degree level study after school, candidates generally need to gain UE.

In 2004, 19% of Pasifika Year 13 candidates met University Entrance requirements compared to 51% of non-Pasifika Year 13 candidates. Degree level study is delayed for those candidates who do not gain UE as they are usually required to undertake foundation courses before starting their degree study.

However, in some schools the rate of UE achievement by Pasifika is high. In 10 schools with relatively high proportions of Pasifika candidates, the level of UE attainment by Pasifika and non-Pasifka was above the decile average. All of these schools are in Auckland with deciles ranging from 1 to 6 and are spread across differing school structures and communities. If we do wish to concentrate on Pasifika students meeting university entrance requirements, value may be gained from researching further the teaching practices, learning environment, and organisation of these schools to see if their examples can be reproduced in other schools.

Conclusion

Pasifika and non-Pasifika candidates gain similar quantities of credits from unit standards. However Pasifika candidates tend to gain fewer credits from achievement standards than their non-Pasifika counterparts. However, gaining a typical level qualification appears to be related to the number of credits achieved from achievement standards.

Some evidence shows that Pasifika are less likely than non-Pasifika to take externally assessed achievement standards in core subjects and, when they do take them, are less likely to achieve them.

Looking at outcomes for Year 13 candidates, it appears that candidates make study choices with goals in mind. For example, Pasifika who gain qualifications but not UE are likely to take unit standards focussing on particular career options.

High performing students, who gain many of their credits at the "excellence" level, are characterised by their similarity rather than their differences. Pasifika high performers have similar records of learning to other high performing candidates. They gain excellence in core academic subjects in Year 11, gaining more excellences in the sciences and mathematics in Years 12 and 13.

Further analysis of schools which are achieving good results for their Pasifika candidates may reveal practices that can be transferred elsewhere.

Summary and Future Issues

The introduction of the NQF has removed some of the barriers to achievement that students were faced with under the old system, but barriers to learning still remain. International studies suggest that Pasifika candidates reach senior secondary schooling having achieved less in primary and junior secondary school – as early as Year 5 Pasifika students have lower achievement in reading, mathematics and science¹⁷. It is not surprising then that they take longer to achieve in NQF study than candidates of other ethnicities.

This raises the question - how can we improve learning outcomes for Pasifika students? Although Pasifika underachievement needs to be addressed in early levels of schooling, changes can also be made in senior secondary schooling. Potential solutions include developing learning programmes that focus students more on achieving level 3 qualifications and University Entrance and less on the lower level qualifications. For students who are near completion of Level 3 by the end of Year 13, further study at Year 14 and the achievement of qualifications and University Entrance will likely open up greater opportunities for Pasifika and non-Pasifika candidates alike. Both these solutions rely on students making the right choices about standards. Further information is needed on how choices of standards are made: are the choices made by informed parents, students, teachers or schools? Factors such as standards offered, streaming of students, school timetables, and the impact they have on choices of standards are all areas that need further attention.

With senior secondary school qualifications having such an important impact on students' future, barriers to learning for all students, both Pasifika and non Pasifika, need to be addressed.

¹⁷ TIMMS and PIRLS

Appendix 1: Basis of analysis

This analysis is based on NQF information, though other sources, for example school roll information and teacher census information is also included. The main qualification on the NQF available to secondary school students is the National Certificate of Educational Achievement (NCEA). In this paper we also look at non-NCEA qualifications also available on the NQF. Please refer to Appendix 2 for more information on the NQF and NCEA qualifications and terminology.

Most of this paper reports on results for candidates. A candidate is a student who has achieved at least one credit on the NQF.

Results for Year 11, Year 12 and Year 13 candidates are analysed in this paper. These years of schooling are the typical years at which students first participate in gaining NCEA level 1, level 2 and level 3 respectively.

Pasifika candidates are the focus of this paper. Candidates whose ethnicity is unknown are excluded from analysis on an ethnicity basis. This means that Pasifka and non-Pasifika candidates do not add to the total number of candidates. Ethnicity is determined by the current Ministry of Education coding system, which is detailed in Appendix 3.

Appendix 2: NCEA and NQF Definitions¹⁸

The National Qualifications Framework (NQF)

The NQF defines all standards-based qualifications that can be awarded in New Zealand. It is designed to provide nationally recognised, consistent standards and qualifications. NQF qualifications are quality assured and administered by the New Zealand Qualifications Authority.

Achievement standards

Achievement standards were introduced with NCEA level 1 in 2002. They were developed to cover subjects previously offered as part of School Certificate, Sixth Form Certificate and University Bursary. Achievement standards can be assessed internally within a school, or externally through an examination. Achievement standards can be awarded with an 'achieved', 'merit' and 'excellence' grade. The number of credits awarded for a particular standard is fixed and is not affected by the grade awarded.

Level 1 achievement standards were first available in 2002. Similarly, level 2 standards were first available in 2003, and level 3 achievement standards were not available until 2004.

Unit standards

Unit standards were first introduced in 1992 (but only at schools since circa 1996). They cover virtually every area of sub-degree education and training. They are available at many tertiary providers as well as at secondary schools. Unit standards are developed in conjunction with industry groups and relevant tertiary providers. There are some unit standards that were developed for school curriculum subjects, but these may differ from equivalent achievement standards because they reflect industry and tertiary providers' expectations as well as the curriculum.

Unit Standards, unlike achievement standards, only have an 'achieved' grade associated with them. Unit standards are awarded at levels 1-6, whereas achievement standards are awarded at levels 1-3.

Both unit and achievement standards count towards NCEA qualifications.

Credits

NCEA qualifications are awarded according to the number of credits students have. Each unit and achievement standard is worth a certain number of credits. The number of credits attached to a standard may vary according to which aspect of the curriculum it relates to.

¹⁸ The information in this appendix was sourced from the NZQA website (<u>www.nzqa.govt.nz</u>) and from NZQA staff.

Requirements for NCEA qualifications

NCEA qualifications are standards-based and are on the National Qualifications Framework (NQF).

NCEA level 1 is awarded to people who are credited with a minimum of 80 credits at level 1 or above and who have met the literacy and numeracy requirements. A minimum of 8 credits in the specified literacy subfields and a minimum of 8 credits in the specified numeracy subfields are required to meet the literacy and numeracy requirements.

NCEA level 2 requires a minimum of 80 credits. Between 0-20 credits from an NCEA level 1 can be cross-credited towards an NCEA level 2 qualification. 60 or more of the credits must be at level 2 or above. There is no literacy or numeracy requirement for NCEA level 2.

NCEA level 3 also requires a minimum of 80 credits. Between 0-20 credits from an NCEA level 2 can be cross-credited towards an NCEA level 3 qualification. 60 or more of the credits must be at level 3 or above. There is no literacy or numeracy requirement.

University Entrance

University Entrance may be completed as part of an NCEA level 3, though it is possible to gain UE without gaining an NCEA level 3. Credits for UE can be accumulated over more than one year.

UE requires a minimum of 42 credits at level 3 or higher. Within these credits there must be at least 14 credits at level 3 or higher in two separate subjects from a list of 'approved subjects'¹⁹.

There are also literacy and numeracy requirements. A student must gain at least 14 numeracy credits at level 1 or higher. Eight literacy credits at level 2 or higher, four in reading and four in writing, are also necessary for UE.

Non-NCEA qualifications available to secondary students

A broad range of National Certificates on the NQF are available to secondary students. Schools can choose which unit standards to offer and may have partnerships with tertiary providers who offer certain unit standards, so the types of National Certificates available to individual students varies from school to school.

New Zealand-based qualifications appear either on the NQF or the Register of Quality Assured Qualifications (the Register). Standards-based qualifications fall under the umbrella of the NQF, all other qualifications awarded in New Zealand, such as university degrees, are on the Register. The main qualification on the Register for secondary students is level 4 Scholarship, which is exam-based and was introduced in 2004.

¹⁹ The list of approved subjects and the lists of literacy and numeracy standards for UE are avialable on the NZQA website: www.nzqa.govt.nz/ncea/acrp/secondary/6/62.html

Appendix 3: Population

Why the measure of candidate is used

This paper reports on results for candidates. A candidate is a student who has achieved at least one credit on the NQF. The number of candidates is therefore smaller than the cohort of secondary students who could take part in gaining credits.

The measure of candidates is used because not all schools appear to have reported students who attempted but did not achieve internally assessed credits. Including these students would therefore make the analysis outcomes unreliable. Candidates is the standard measure used in Ministry of Education analysis of New Zealand Qualifications Authority (NZQA) senior secondary school data.

How ethnicity is assigned

In this report we refer to candidates whose ethnicity is Pasifika, according to the current Ministry of Education ethnicity coding. The Ministry of Education reports on a single ethnicity for each candidate. The single ethnicity is assigned on an hierarchical basis. As New Zealand Maori is first in the hierarchy, candidates who nominate Maori as one of their ethnicities are identified as Maori. Pasifika ethnicities are assigned after New Zealand Maori according to the size of their populations within New Zealand, from smallest to largest.

The consequence of assigning ethnicity on an hierarchical basis is that candidates with mixed ethnicities are identified under one group only. For example, candidates who are Samoan and Maori are counted under Maori, not under Pasifika. Thus a small group of candidates who identify with Pasifika are excluded from Pasifika analysis.

The Ministry of Education uses the following order of priority so that students are reported in one ethnic group only:

NZ Maori Tokelauan Fijian Niuean Tongan Cook Islands Maori Samoan Other Pacific Islands South-East Asian Indian Chinese Other Asian Other Other European NZ European/Pakeha

Tokelauan and Other Pasifika candidates have been excluded from the breakdowns of individual Pasifika ethnicities due to small numbers.

As can be seen from the list above, non-Pasifika are a convenient (but not attainment homogenous) comparison group. It is made up of candidates who identified their ethnicity as being other than Pasifika eg. Maori, European etc.

Limitations of small populations

In this paper achievement for candidates identifying with particular Pasifika groups is reported upon. Pasifika groups are usually reported at a higher level (aggregated into a single group called Pasifika) due to small numbers at the lower level. This aggregation can hide different patterns of achievement by particular groups.

We attempt to show the differing patterns in this report. However, the small numbers in each group remains a problem. Small numbers can limit the amount of analysis that can be carried out. For example, only a limited number of breakdowns are possible as numbers in each category quickly become too small to be useful.

Additionally comparision between groups is usually done on a 'proportion of' basis to enable comparision between groups of different size. This means that results for smaller sized groups can be much more variable as only one or two candidates need to change categories for an effect to be seen on proportions. Similarly one or two high- or low- performing candidates can skew results in small populations. Therefore findings drawing on small groups should be treated with caution.

Year of schooling

In this report, and other Ministry of Education reports, candidates are categorised according to year of schooling - as Year 11, Year 12 and Year 13 candidates. NZQA talks about candidates in terms of years at secondary. This means that a Year 11 candidate in an MOE report appears as a Year 3 candidate in an NZQA report. Similarly, NZQA refers to Year 12 candidates as Year 4, and Year 13 candidates as Year 5.

Analysis over time

Tracking has been achieved by use of the national student index number (NSN) which may not be yet managed as well in the secondary sector as in tertiary. False positive & false negative matchings are expected to have occurred but in general these should not have been of sufficient size to have impacted on the patterns observed.

The study tracked candidates until 2004. It should not be assumed that all of those who progressed to only 2002 or only 2003 or even to 2004 will not stay at school beyond 2004 i.e. the study is not of candidates who were identified as having left school although achievement patterns identified will be reflected in part in recent years' school leaver attainments.

Appendix 4: The standards the most Pasifika and non-Pasifika gained excellence in

This table relates to the section on choice above. Listed below are the individual standards that most candidates gained excellence in, regardless of whether they were Pasifika or non-Pasifika.

Year level	Domain	Standard name
excelled in		
Year 11	Text and information	Use standard operating and file management
	management	procedures
	English oral language	Deliver a speech in a formal situation
	English written language	Research, organise and present information
		Produce creative writing
	English visual language	Produce a media or dramatic presentation
	Accounting – generic	Process financial information for a sole proprietor
	Statistics	Use statistical methods and information
	Science – core	Carry out a practical science investigation with direction
	Geometry	Use geometric techniques to produce a pattern or object
	Measurement	Solve problems involving measurement of everyday objects
Year 12	English oral language	Deliver a presentation using oral and visual language techniques
	Chemistry	Perform an acid-base volumetric analysis
	Chemistry	Carry out qualitative analysis
	Chemistry	Carry out a gravimetric or colorimetric analysis and solve related problems
	Statistics	Select a sample and make inferences from the data
	Trigonometry	Solve practical trigonometry problems
Year 13	Chemistry	Determine the composition of an oxidant or reductant by titration
	Algebra	Use a mathematical model involving curve fitting to solve a problem
	English oral language	Construct and deliver an oral presentation
	Statistics	Complete a statistical investigation involving bi-variate data
		Determine the trend for time series data
	English written language	Produce an extended piece of writing in a selected style
		Complete independent research on a language or literature topic and present findings in written form
		Produce an extended piece of writing in a selected style

Table 8: The standards the most Pasifika and non-Pasifika gained excellence in (2004)

Appendix 5: Other information on Pasifika school achievement

A number of other Ministry of Education publications report on achievement of Pasifika school students. These publications report at the aggregate level of ethnicity and do not contain breakdowns of individual Pasifika ethnic groups. In general terms, these reports confirm the sort of findings detailed in this paper.

The highest qualification of Pasifika school leavers is reported on every year by the Ministry of Education in the publications *Education Statistics of New Zealand* and the *School Sector Report*. Within the *School Sector Report* is a summary of school examination and qualification results for different ethnic groups, including Pasifika.

Another source of information on Pasifika achievement is the National Education Monitoring Project (NEMP). NEMP is a large-scale, ongoing project that assesses curriculum areas and skills of Year 4 (ages 8-9) and Year 8 (ages 12-13) students. NEMP publishes reports each year. Most of these reports cover Pasifika achievement.

A report on Pasifika reading, mathematical and scientific literacy as assessed by the Programme for International Student Assessment 2000 (PISA 2000) has been published by the Ministry of Education's Research Division. The report, titled *Focus on Pasifika achievement in reading literacy: Results from PISA 2000*, provides general results for Pasifika 15-year-olds and then focuses on reading literacy and the factors associated with high achievement for Pasifika.

Two other Ministry of Education reports may also be of interest. *Literature review on Pacific education issues* covers published and unpublished research since 1990 on Pasifika education issues in each of the education sectors. *Bilingual/Immersion Education: Indicators of good practice* explores effective approaches for bilingual education. While the focus is on Maori medium education, the indicators are highly relevant to Pasifika bilingual education practice.

New Zealand Qualifications Authority is shortly to release the paper *Pasifika achievement in the National Qualifications Framework in 2004*. This paper reports on the quantities of credits, standards, and qualifications gained by Pasifika candidates in 2004.