



Profiling 'Priority' Learners

EAWG Data Report 2:

Pathways, what's working well, and where are there
issues?

Key Points

Historically, learners at levels 1-3 of the New Zealand Qualifications Framework have had comparatively high 5-year qualification completion rates. Rates for both full-time and part-time learners at this level have generally been higher than other sub-degree levels and comparable to degree-level students, and full-time learners at levels 1-3 who began study in 2003, 2004, or 2005 have had the highest 5-year rates completion rates of any level. Annual course completion rates, however, have generally been amongst the lowest – although in recent years they have increased to be roughly equivalent to those at other sub-degree levels.

Completion rates have varied between sectors, although in all cases have been substantially higher for full-time learners than those studying part-time. Wānanga and universities have both consistently had higher-than-average qualification completion rates for full-time learners, and from 2002 onwards Wānanga have also had very high rates for part-time learners. In contrast, completion rates at ITPs, while generally increasing over time and in most recent data being similar to those of PTEs for full-time learners, have been very low for part-time learners. The five-year qualification completion rates of women have traditionally been clearly higher than those of men, but the most recent cohort for which data is available shows this difference largely disappearing amongst both part-time and full-time learners.

In terms of ethnicity, domestic learners of Asian ethnicity consistently have the highest five-year qualification completion rates, with those studying part-time having particularly high rates compared to learners of other ethnicities. Amongst full-time learners, completion rates for Pacific learners have consistently been lower than those for other ethnic groups, and while Māori and NZ European rates historically mirrored each other, later years have indicated a divergence between these two groups, with Māori completion rates decreasing while NZ European rates remained stable. Amongst part-time learners, all non-Asian ethnic groups have broadly similar qualification completion rates, although in two cohorts (2002 and 2004) completion rates for Māori were noticeably higher than Pacific and NZ European learners. There is generally little consistent difference in completion rates based on the age group of learners.

Level 1-3 learners generally have lower qualifications than those at other levels, with 57% having no qualification or NCEA Level One as their highest school qualification. Similarly, comparatively few have entered directly from secondary school or another form of tertiary education, and a noticeably higher proportion (18%) than at other levels were most recently non-employed or a beneficiary.

While a key aim of level 1-3 programmes at this level is to encourage not only movement into employment but also into further education or training, rates of progression to higher level study amongst level 1-3 learners are both low and appear to be falling over time – in 2004 less than 40% of graduates from such a programme went on to study at a higher level within five years. Analysis by Earle (2010) also indicates that while possessing a level 1-3 qualification is associated with more positive social and economic outcomes than possessing no qualifications at all, relevant indicators are often lower than for those who possess only school-level qualifications. Scott (2009), however, has identified the existence of a small but clear income ‘completion premium’ for level 1-3 programmes that is roughly equivalent to other sub-degree programmes.

Targeted Training Programmes (*Training Opportunities* and *Youth Training*) do appear to have high proportions of placements that result in 'positive' outcomes after two months. However, many of these positive outcomes consist of returning to participate in another placement under the scheme, and the average number of credits being attained by participants has fallen over the 2000s. It remains to be seen what impact recent changes to targeted training will have on these outcomes.

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Introduction

This report has been produced as part of an Ako Aotearoa-managed, TEC and Ministry of Education-supported project designed to increase education attainment for priority learners – those engaged in learning fundamental skills. These are students engaged in programmes designed to provide the basic, essential skills required for initial entry into the workforce, the development of further lifeskills, and/or progression into further study, and primarily consist of learners at levels 1-3 of the New Zealand Qualifications Framework (NZQF).

We are using the term priority learners for this group because of their importance in achieving the goals of the *Tertiary Education Strategy 2010-15*. As well as generally supporting high-quality research and improving system performance, the *Strategy* prioritises addressing the needs of several priority learner groups (Minster for Tertiary Education, 2010):

- More young people (aged under 25) achieving qualifications at levels four and above, particularly degrees.
- More Māori students enjoying success at higher levels.
- More Pasifika students enjoying success at higher levels.
- More young people moving successfully from school into tertiary education.
- Improve[d] literacy, language, and numeracy and skills outcomes from levels one to three study.

The *Strategy* therefore directly emphasises the need to improve outcomes from level 1-3 study. In addition, however, ensuring the existence of high-quality foundational education is key to addressing the needs of most other priority groups. To ensure that more Māori and Pacific peoples achieve at higher levels we need to ensure that the foundational programmes in which many learners participate, and associated institutional arrangements, support effective pathways to higher levels of study. We need to do the same for young people who are deciding whether or not to transition from school to tertiary study, and ensure that level 1-3 study is a genuinely valuable option for those not yet ready to study at higher levels.

This report provides an overview of official statistics on the achievement and outcomes of learners who are studying at lower levels of the National Qualifications Framework. Two other sets of learners have many similarities to this core group in terms of the purpose of their programmes. Specifically, these are learners who are participating in targeted training programmes such as *Training Opportunities* or *Youth Training*, and those taking part in programmes at NQF level 4 that are designed to prepare learners for further study at degree level. Data on achievement and outcomes specifically for the second of these groups was not readily available, but this report does briefly discuss targeted training programmes, drawing on the work of Mahoney (2010b, 2010c, 2009a).

Along with a companion report profiling this group, this document provides background and context for the deliberations of the Educational Attainment Working Group (EAWG); these documents are attempts to identify where our system seems to be working well and where there seem to be issues.

It should be noted that this report focuses on learners studying at providers: Universities, Institutes of Technology and Polytechnics (ITPs), Wānanga, and Private Training Establishments (PTEs). The

Industry Training sector is also a prominent provider of level 1-3 training, but is fundamentally different in approach and nature from provider-based education. Discussion of relevant data for industry trainees can be found in Mahoney (2009b, 2010a) and Crichton (2010), and in work by the Industry Training Federation (www.itf.org.nz).

Notes on Data

The material in this report has been drawn on data from the Ministry of Education's official data collections. Much of this is publicly available on the Ministry's *Education Counts* website (www.educationcounts.govt.nz), with additional material being provided directly by the Ministry. Unless otherwise stated, all data relates only to domestic participants and is based on actual learner numbers rather than Equivalent Full-Time Students (EFTS).

One of the limitations when dealing with datasets that span different periods is the impact of different methods of collecting and analysing data, and changes to policy settings that affect both data and these methods. For example, it would obviously be difficult to robustly compare data for priority learners with learners prior to the implementation of the National Qualifications Framework. To avoid such problems, this report concerns itself primarily with data since 2000, although individual datasets may begin at different points depending on what data is readily available. Although some relevant information is available for 2010, this report consistently stops at 2009 as this is the final year for which data has been officially published.

Analysis by sub-sector in this report uses four categories: universities, Institutes of Technology and polytechnics (ITPs), wānanga, and Private Training Establishments (PTEs). Until 2007, an additional class of institution existed – Colleges of Education. From 2004 to 2007 all these institutions progressively merged with universities, and so pre-2007 data in this report has included their data within the university category.

Unless otherwise indicated, this report is based on data returns for all learners enrolled at a provider who are aged over 15 and enrolled in a formal qualification as at least 0.03 EFTS (in practice, for at least one week). Key sub-populations of tertiary learners that this excludes include, unless otherwise noted (Ministry n.d.):

- Students in private providers who are not eligible for EFTS-based tuition subsidies or student loans and allowances.
- Students whose total equivalent full-time formal study in a year is less than or equal to a week.
- Students at providers that do not receive any SAC funding (with the exception of targeted training data).
- STAR and Gateway students.
- All non-formal study, including non-formal adult and community education and non-NZQA registered private providers.

Qualification and Course Completions

One of the most basic indicators of success in a qualification is completion, both of the qualification as a whole (i.e. *qualification* completion) and of individual courses – e.g. units or papers – within that qualification (i.e. *course* completion). As many programmes are intended to take more than one year to complete, however, and it is not uncommon for students to spend longer than the minimum possible time to complete, it is important to identify the timeframe within which one can reasonably expect a learner to complete a qualification.

This report uses a five-year ‘window’ for qualification completion, within which we believe it is reasonable to expect learners to have completed their qualifications. The years used in tables and figures below refer to the year in which learners began their study, so, for example, data for 2000 refers to the percentage of learners enrolled in that year who had completed a qualification at that level or higher by the end of 2004. For reference, a full-time student who enrolled in a three-year qualification at the beginning of 2000 and passed all their courses would complete their qualification at the end of 2002. Due to the need to have five years worth of data to calculate these rates, the latest learner cohorts for which figures are used are those enrolling in 2005. In comparison, course completion is relatively straightforward and can be calculated on an annual basis.

Qualification completion amongst priority learners are high compared to other levels of the tertiary education system. Figures 1 and 2 below show 5-year completion rates for learners at levels 1-3 compared to those at other levels (excepting postgraduate learners). Five-year completion rates for both full-time and part-time learners have been consistently higher than at other sub-degree levels – particularly so at sub-degree level – and for full-time learners the rate for levels 1-3 has also been noticeably higher than that for Bachelors-level study amongst recent cohorts.

Figure 1: 5-Year Qualification Completion Rates for Full-Time learners by qualification level, 2000-2005

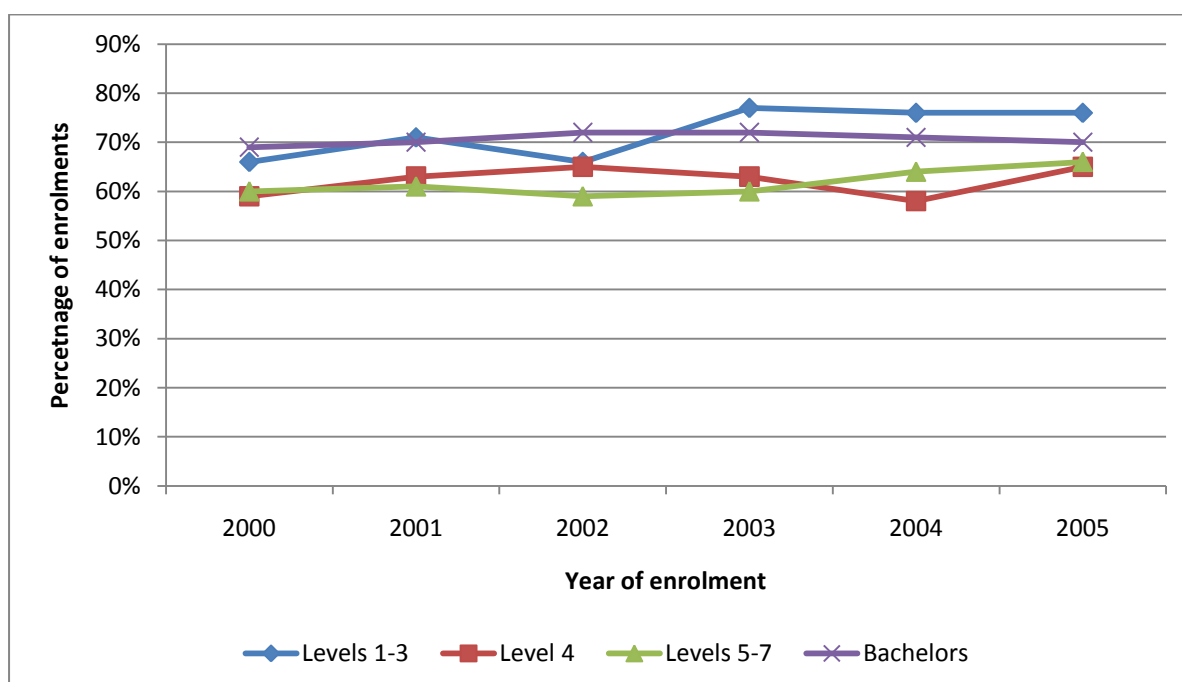
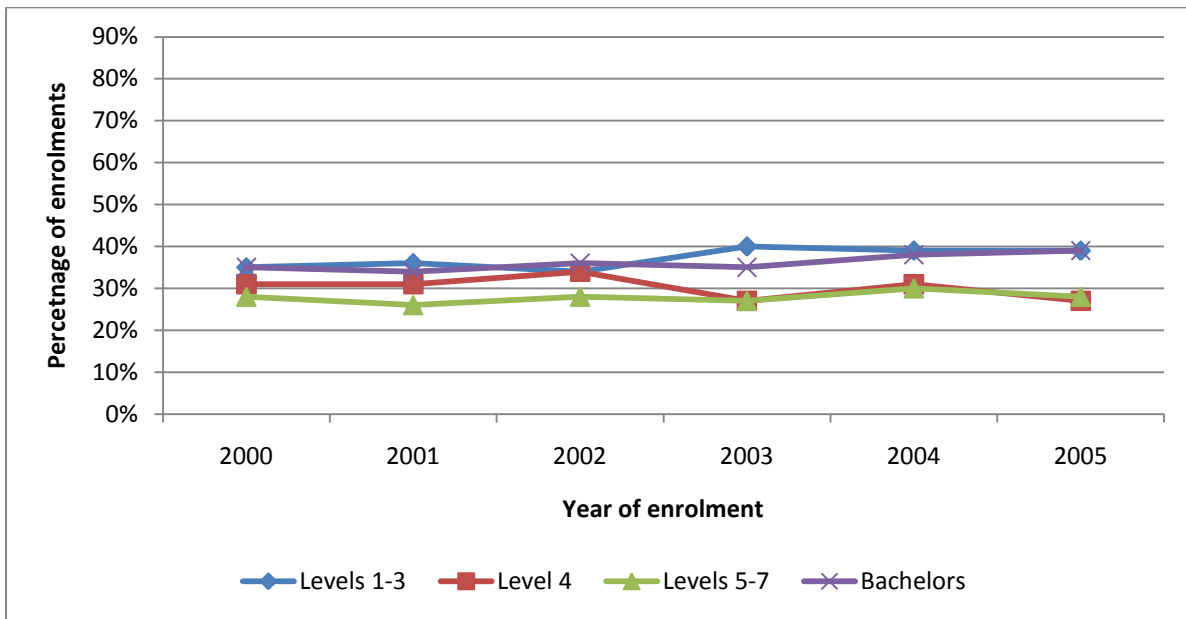


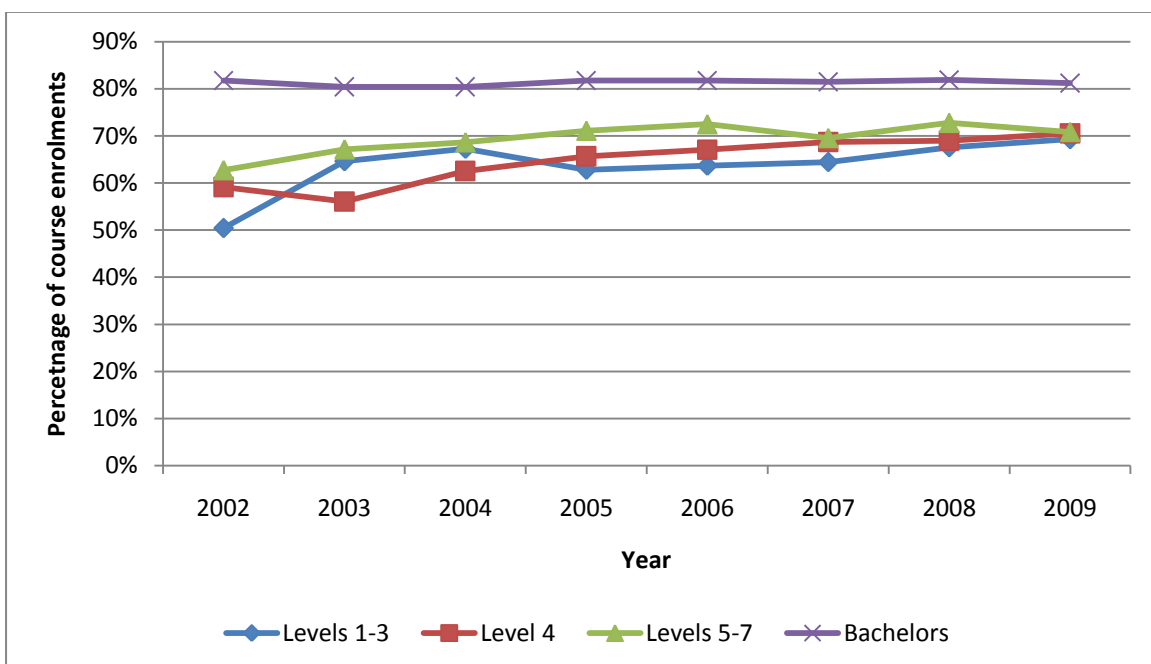
Figure 2: 5-Year Qualification Completion Rates for Part-Time learners by qualification level, 2000-2005



It is, however, worth noting the significant difference between part-time and full-time completion rates, with full-time learners in the 2005 cohort having a completion rate around 40% higher than part-time learners. While part-time learners will clearly take more time to complete than full-time learners, the scale of this difference – particularly given the relatively small size of level 1-3 programmes – make it likely that a factor other than simple duration is affecting these rates.

While level 1-3 learners have relatively qualification completion rates compared to learners at other levels, individual course completion rates have historically usually been lower at levels 1-3 than at other levels. However, as shown in figure 3 below, in recent years this rate has been trending upward and in 2009 was essentially equivalent to other sub-degree levels.

Figure 3: Annual Course Completion Rates for all learners by qualification level, 2002-2009



These figures initially appear somewhat contradictory in that qualification completion rates at level 1-3 have been amongst the highest in the sector, while course completion rates have been amongst the lowest. There are several factors that may each be partly contributing to this discrepancy.

For example, there may be differences in why learners do not complete courses at different levels. At levels 1-3, for example, learners may be more likely to fail to complete a qualification because they do not pass courses. At other levels non-completers may be more likely to simply not enrol in enough courses to complete a qualification. To put it another way, at level 1-3 non-completers may be more likely to ‘fail’, whereas at other levels they may be more likely to ‘choose to withdraw’.

It is worth noting, however, that for the 2005 cohort at least, while the percentage of students who broadly seem to fit this model – i.e. passed all the courses in which they enrolled and yet had not completed a qualification five year later – was higher at levels 4 and 5-7 than at levels 1-3 (31% and 28% respectively, compared to 24%), it was actually lower amongst degree-level learners (12%).

In addition, the qualification completion data shown in figures 1 and 2 relate to a five-year period and thus deals with ‘older’ data than course completion, which is calculated each year. In 2003 and 2004 – when 5-year qualification completion rates peaked for all level 1-3 learners – course completion rates were likewise relatively high. As time goes on, future cohorts (i.e. those enrolling in 2006, 2007 etc.) may have lower *qualification* completion rates that mirror the data shown in figure 3. Three-year completion rates (available on the Ministry of Education’s *Education Counts* site) provide some support for this, with qualification completion rates for full-time learners at least showing a convergence between level 1-3 and level 4 learners over 2006 and 2007.

Completion rates by sub-sector

Historically, completion rates have varied noticeably between sub-sectors (although it is worth noting that sub-sector rates for full-time learners did converge in 2009). As shown in Table 1 below, wānanga and universities have very high qualification completion rates for full-time learners, and from 2002 wānanga have also had the highest completion rates for part-time learners. Wānanga were the only group to achieve 5-year completion rates over 50% for these learners, and having done so for every cohort starting in 2003 onward. At ITPs, in contrast, while completion rates for full-time learners increased considerably over the examined timeframe, completion rates for part-time learners remained very low – the highest being one-third of the 2005 cohort.

Table 1: Five-Year Qualification Completion Rates for level 1-3 learners by sub-sector and year begun

Year Begun	Full-Time				Part-Time			
	Universities ¹	ITPs	Wānanga	PTEs	Universities ¹	ITPs	Wānanga	PTEs
2000	76%	62%	75%	70%	42%	26%	40%	47%
2001	77%	66%	82%	76%	41%	28%	39%	43%
2002	78%	60%	76%	68%	44%	25%	46%	37%
2003	84%	76%	82%	70%	48%	27%	55%	47%
2004	82%	74%	83%	74%	46%	26%	65%	39%
2005	79%	75%	79%	75%	44%	34%	63%	40%

¹ Including Colleges of Education when applicable.

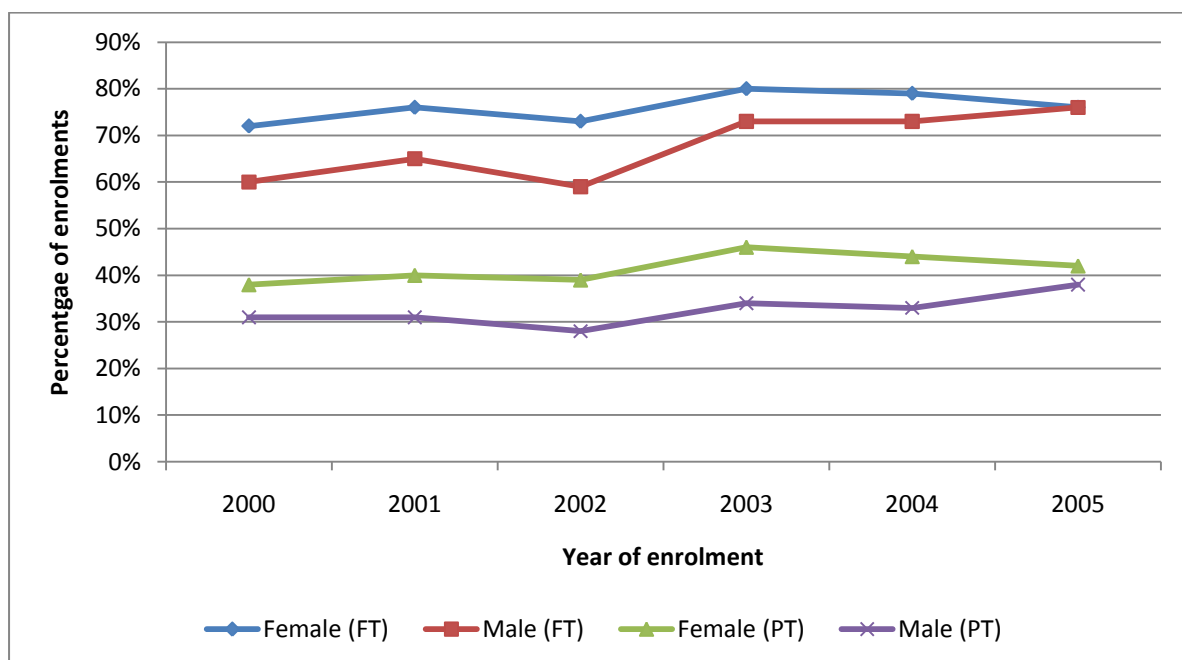
It should be noted, of course, that completion rates do vary notably from provider to provider within sectors. For example, work from the TEC – though based on a different methodology than that used in the rest of paper – has estimated 2009 qualification completion rates for level 1-3 learners at specific ITPs as ranging from under 10% to over 60%. Part of the purpose of the project to which this document contributes is to uncover what may be lying behind these variations.

At the level of individual courses, differences between sub-sectors are more complex with notable variations from year to year. The basic pattern of higher completion by universities and wananga is still present at this level, however, with the average of annual course completion rate for these sub-sectors being 73% and 67% respectively, compared to 62% and 60% at PTEs and ITPs respectively.

Completion Rates by gender

As shown in figure 4 below, while the pattern of changes in 5-year qualification completion rates have been similar between genders, historically women have had considerably higher rates than men. Amongst full-time learners this gap did narrow dramatically amongst the 2003-2005 cohorts, to the extent that there was no difference between men and women who enrolled full-time in 2005. For part-time learners the gender gap also narrowed in the 2005 cohort, though it had been relatively consistent (being around 11%) for recent cohorts prior to this.

Figure 4: Five-Year Qualification Completion Rates for learners at levels 1-3 by gender and study status, 2000-2005



Completion rates by ethnicity

Completion rates also vary notably by ethnicity. As shown in figure 5, from 2000 to 2005 there was a large and consistent gap in 5-year qualification completion rates for full-time learners between the ethnic group with the highest rate (Asian learners), and the group with the lowest (Pacific learners). While comparisons over time for part-time learners are more mixed, the very high achievement rates of Asian learners are even more apparent amongst these learners (see figure 6). Indeed, amongst the 2003 and 2004 cohort, completion rates for part-time Asian learners were higher than those for full-time Māori and Pacific learners.

Figure 5: Five-Year Qualification Completion Rates for full-time level 1-3 learners by ethnicity, 2000-2005

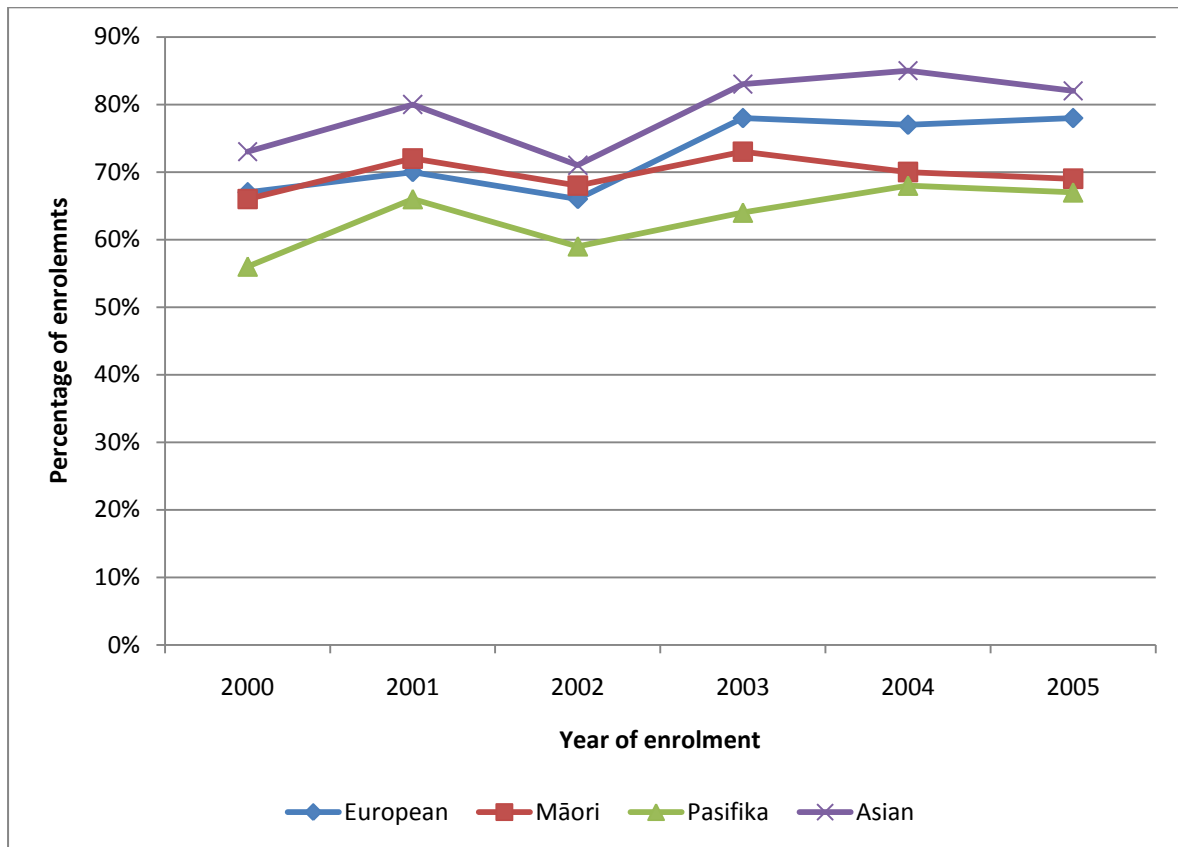
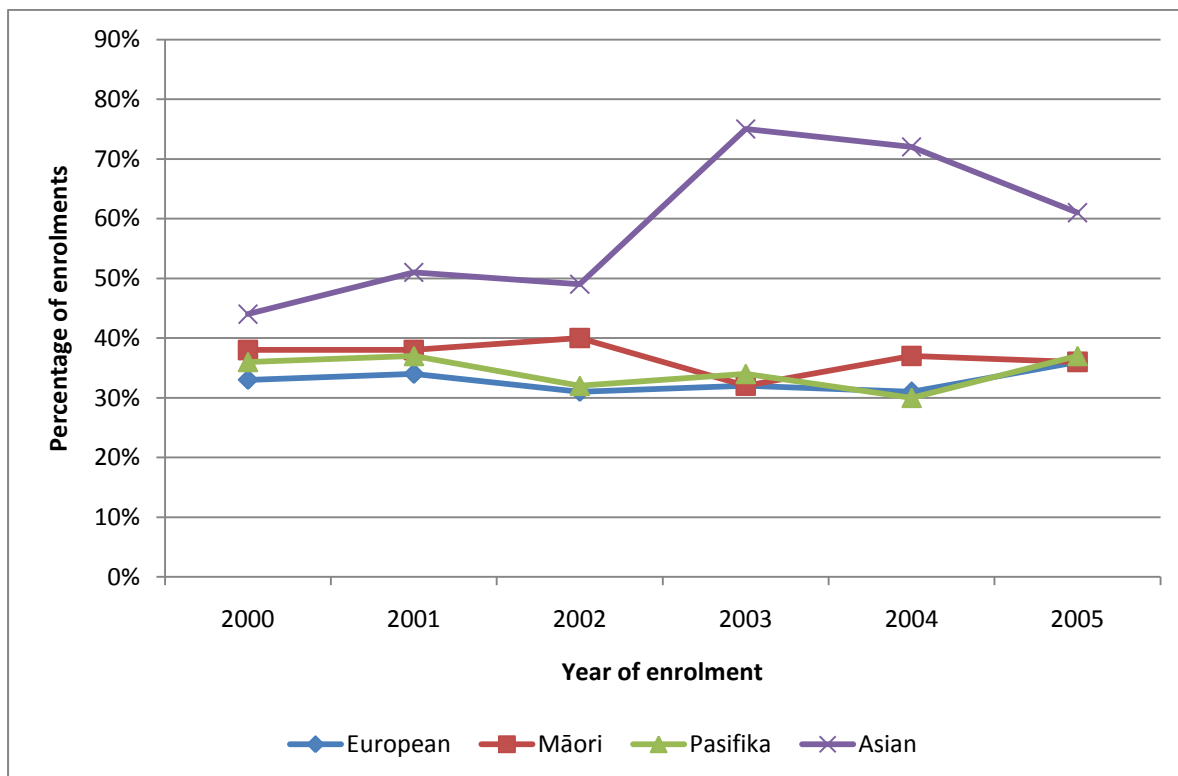


Figure 6: Five-Year Qualification Completion Rates for part-time level 1-3 learners by ethnicity, 2000-2005



Although estimated course completion rates by ethnicity are only available for 2009, again Asian learners display high achievement here, with an estimated completion rate of 77%. This is followed by European learners at 70%, Pacific learners at 68%, and Māori learners at 64%.

Completion rates by age

In contrast to sub-sectors and ethnic groups, differences between age groups are not as pronounced. As shown in Table 2 below, while there are noticeable differences between age-groups for full-time learners, the only consistent trends over time worth noting are that learners under 18 have lower rates of achievement than all other all age groups, and that for all age groups the 2003-2005 cohorts generally had higher rates than those from 2000-2002. Amongst part-time learners, even these points are questionable.

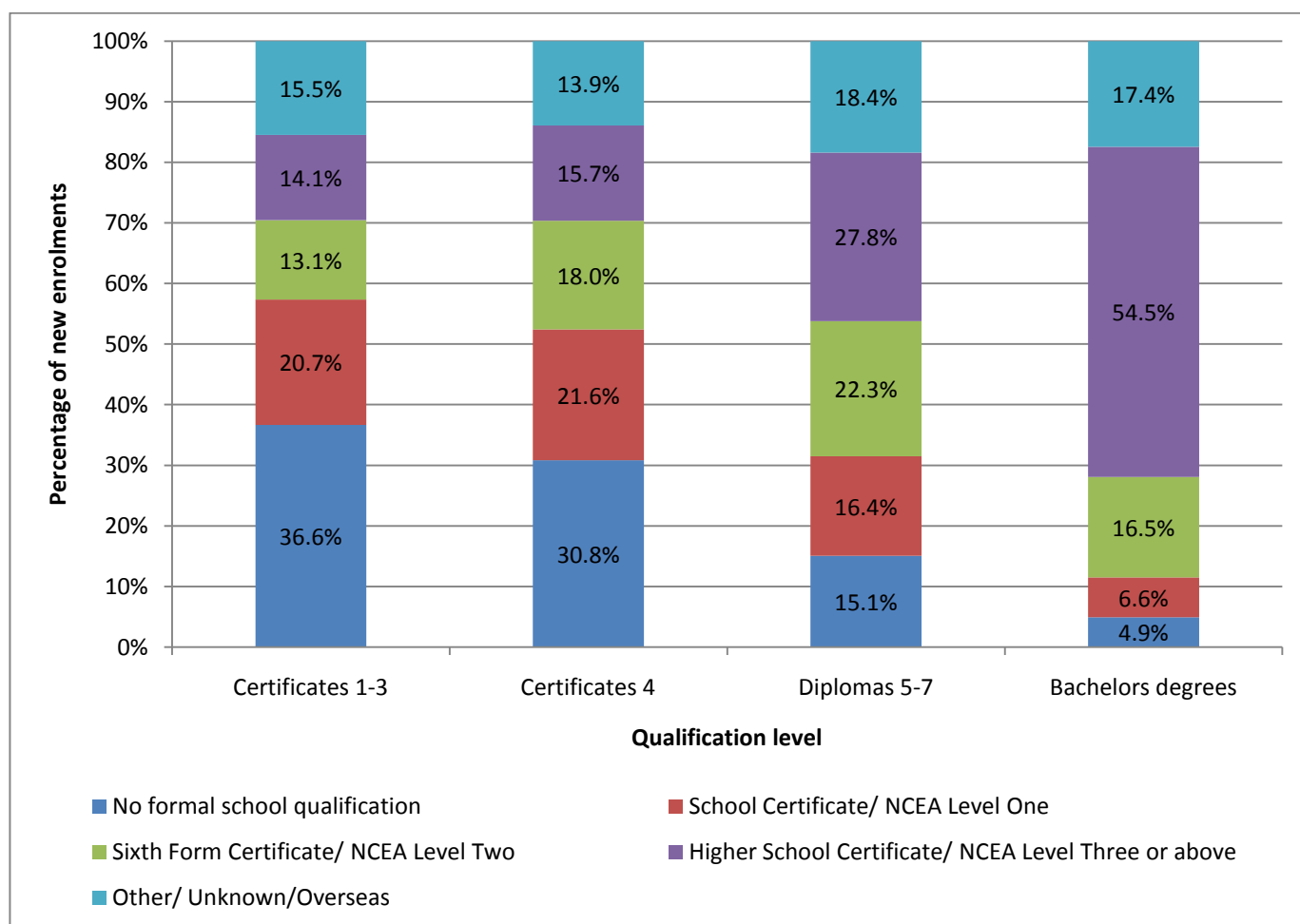
Table 2: Five-Year Qualification Completion Rates for level 1-3 learners by age-group

Year	Full-Time					Part-Time				
	Under 18 years	18-19 years	20-24 years	25-39 years	40 years+	Under 18 years	18-19 years	20-24 years	25-39 years	40 years+
2000	60%	70%	66%	67%	64%	36%	37%	36%	35%	33%
2001	64%	71%	71%	74%	71%	34%	36%	37%	37%	36%
2002	59%	70%	67%	68%	65%	33%	34%	36%	36%	32%
2003	69%	75%	73%	79%	81%	35%	39%	35%	42%	41%
2004	68%	77%	76%	77%	79%	35%	36%	37%	40%	39%
2005	64%	75%	78%	79%	80%	38%	39%	39%	42%	39%

Pathways and Progression

Compared to other levels of tertiary education, priority learners come into education with generally low levels of secondary school attainment. From 2002 to 2009, an annual average of 57% of learners at this level had no or only level 1 NCEA/ School Certificate-equivalent qualifications, compared to 52% at level 4, 33% at levels 5-7, and 13% of those in Bachelors programmes. Over that same period, an average of only 11% of priority learners had NCEA level 3/ Higher School Certificate or higher. Figure 6 below clearly illustrates this division for 2009 enrolments, while Table 6 in Appendix 1 contains data for all years 2002-2009.

Figure 7: Highest secondary school qualification of learners by qualification level (excluding postgraduate); 2009

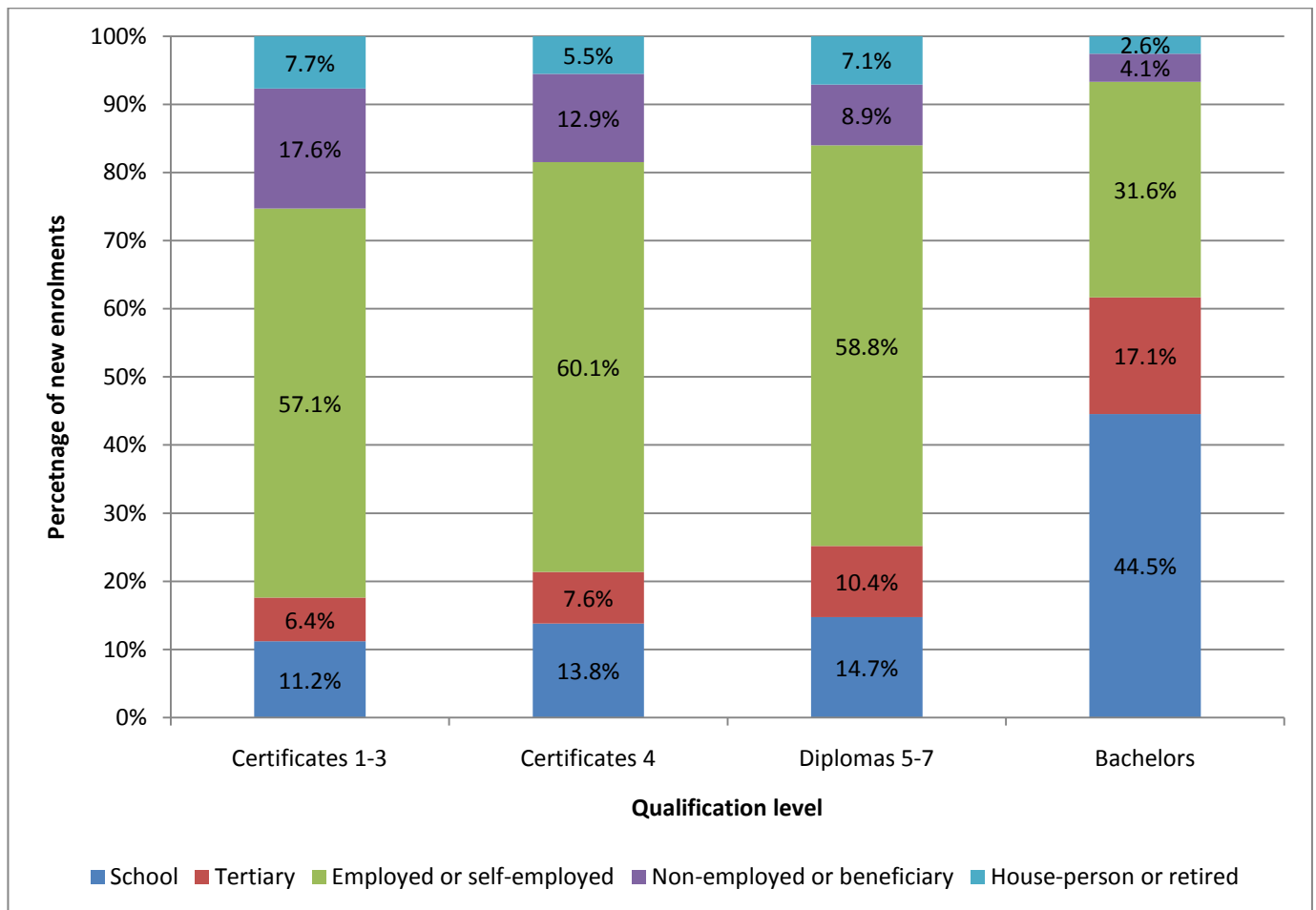


Learners identifying as of Asian ethnicity form a slight exception to this. Although figures are complicated by a very large proportion of learners with overseas secondary school qualifications, the proportion with no qualifications (including overseas qualifications) is noticeably lower than other ethnic groups (although it increased dramatically in 2007 – from 17% in 2006 to 23% – and has subsequently been noticeably higher than in previous years).

Similarly, comparatively few priority learners enter directly from some form of education. As shown in figure 7 below, In 2009 (excluding those who were previously overseas or whose prior activity was unknown), only 11% of learners at levels 1-3 came from secondary school, and only 6% from tertiary study – in both cases the lowest figures for any level. As with all sub-degree programmes, most learners had been employed in the year prior to their enrolment, but this percentage was also lower

than for other sub-degree levels. Conversely, priority learners included the highest percentage of learners who had previously been ‘non-employed’ or receiving a benefit, and the highest percentage of previously retired or ‘house-person’ learners. Figure 7 below illustrates this difference for 2009. The effects of the economic downturn – principally the loss of jobs requiring lower skill levels – may mean that more those enrolling in recent years will have been unemployed or beneficiaries, but may also mean that some take the opportunity to retrain and therefore enter education directly after having been in employment.

Figure 8: 2009 Enrolments by qualification level and previous activity (excluding unknown and overseas)



Progression to Higher Study²

A key feature of level 1-3 programmes is that they are foundational, designed to lead to either improved employment outcomes *or* progression on to further – and particularly higher – levels of study. However, rates of progression to higher level study are both currently low and seem to be decreasing over time. For the cohort completing study each year, the 5-year rate of progression to a higher-level qualification fell from 43% in 2002 to 41% in 2003, and 38% in 2004. In other words, in 2004 less than two out of every five graduates went on to study at a higher level within five years.

² This section uses ‘progression’ to mean enrolling in a higher level qualification – for example, a learner enrolling in a level 4 qualification after a level 3 qualification. Information is not available on the success of these learners – e.g. the completion rates of level 4 learners who completed a level 3 qualification.

These percentages could be under-representing the actual situation because they do not include learners transitioning directly into higher-level programmes without actually completing their initial qualification (e.g. enrolling in a level 4 Certificate without completing their level 3 qualification in which they enrolled). However, there is little evidence that this is the case. Progression rates following *enrolment* in a qualification, rather than completion, are below 40% for learners as a whole until seven years after commencement, and even amongst full-time learners these progression rates do not reach 50% by nine years after enrolment.³ In other words, nine years after beginning a qualification at levels 1-3, less than half of learners will have gone on to enrol in a higher level qualification.

As shown in Table 3 below, 5-year progression rates for are low across the board, with only learners in the 18-19 age group having rates higher than 50%. Of particular concern are progression rates for the 40+ age group, given that these learners make up the largest single age-group of learners at levels 1-3 (see figure 9 in *Profiling TES 'Priority' Learners*). Not only is this the age group with the lowest 5-year progression rates, but it is also the only group where cohorts displayed a slight but consistent downward trend over the 2001-2004 period.

Table 3: 5-year Higher Level Study Progression Rates for level 1-3 domestic learners (following completion) by age Group, 2001-2004 Cohorts

Age Group	2001	2002	2003	2004
Under 18 years	44%	46%	49%	48%
18-19 years	52%	55%	54%	56%
20-24 years	44%	45%	43%	46%
25-39 years	40%	42%	40%	40%
40 years & over	33%	35%	30%	28%
All	41%	43%	40%	38%

In terms of variations by ethnicity amongst domestic learners, Table 4 below shows that Māori learners have the highest 5-year progression rates, with rates consistently in the region of 50%. While rates for Pacific and Asian learners trended upward from 2001 to 2003, in 2004 both declined – with the 2004 cohort of Asian learners experiencing a particularly sharp decline of 11 percentage points. European learners, on the other hand, experienced the opposite trend, and in 2002 and 2003 had the lowest progression rates of all learners.

Table 4: 5-year Higher Level Study Progression Rates for level 1-3 domestic learners (following completion) by ethnicity, 2001-2004 Cohorts

Age Group	2001	2002	2003	2004
European	41%	40%	35%	37%
Māori	46%	50%	48%	49%
Pasifika	37%	42%	46%	42%
Asian	41%	42%	46%	35%
Other	38%	38%	44%	38%
All Learners	41%	43%	40%	38%

³ It should be noted, however, that there is significant volatility by year, with 2002, 2004, and 2006 all having noticeably higher progression rates for full-time learners than other years.

There are also notable gender differences in progression rates, with women being more likely to progress to higher study. Amongst the 2001, 2002, 2003, and 2004 cohorts, 5-year progression rates for women were 44%, 44%, 42%, and 41% respectively, while for men the corresponding rates were 38%, 41%, 35%, and 35%.

Employment and Social Outcomes

Beyond simple progression to higher-level qualifications, the wider outcomes of studying at levels 1-3 are more difficult to quantify, and ripe for confounding by other factors (e.g. changing economic conditions, which can have particularly strong effects on lower-skilled and unskilled people).

Similarly, there is a relative lack of data tracking learners at this level post-graduation – as Earle (2010) notes, research on the outcomes and benefits of tertiary education has focused on Bachelors degrees and above. Similarly, work on post-education incomes has often used Student Loans and Allowances data to track cohorts of learners, but relatively few sub-degree learners are covered by this dataset (Scott 2009).

Recent work by the Ministry of Education and Statistics New Zealand has explored some of these outcomes – principally Earle (2010), and Scott (2009). Both these works (though less so in the case of Earle) have significant drawbacks, however, in that they omit large groups of priority learners on the basis of age. While there are sound analytical and policy-related reasons for doing so, the distinctively older age profile of priority learners mean that these analyses do need to be treated with caution. The companion report to this document (*Profiling 'Priority' Learners*), describes this age profile in context, but in brief, as a group learners at level 1-3 are noticeably older than learners at other levels, and in particular have a very high proportion of learners aged 40 or older – over 40% in some years.

Earle's (2010) work is the most in-depth exploration of the wider outcomes of qualification completion at this level. This draws on a variety of official data sources, including the New Zealand Census, the Adult Literacy and Lifeskills Survey, General Social Survey, and Household Labour Force Survey, to identify and compare the social and economic outcomes of New Zealanders who have Certificates and Diplomas as their highest qualifications (including at levels above 3). While this is the best data available on the outcomes for such learners, this work focuses on those aged 25-39, excluding the largest single age-group of learners.

This work indicates that, as would generally be expected, social and economic outcomes for level 1-3 graduates are consistently poorer than for those with higher qualifications. Of more concern, however, is that in most cases outcomes for level 1-3 graduates are poorer than for those with only school-level qualifications, and for some markers (e.g. life satisfaction, or economic living conditions for men) results are lower than for those with no qualifications.

The unemployment rate amongst 25-39 year olds with level 1-3 qualifications, while significantly better than that of those with no qualifications at all, has historically been higher than for those with only school qualifications in both recessionary and prosperous economic times, and the employment rates of these two groups has largely mirrored each other over the past two decades (Earle 2010, p10). The only ethnic group for whom this is not the case is Asian New Zealanders.

As noted earlier, analysis of income outcomes for level 1-3 completions cannot be robustly based on the 'traditional' method of Student Loans and Allowances data. However, recent work by Statistics

NZ, the Ministry of Education, and the Department of Labour has led to the creation of the *Employment Outcomes of Education (EOTE)* dataset, drawing on LEED (the *linked Employer-Employee Dataset*) and an associated work programme. This is a comprehensive, powerful dataset that allows the tracking of performance after completion or non-completion of qualifications. Scott (2009) has analysed this dataset to explore earnings of learners post-graduation, including learners at sub-degree levels.

Unfortunately, Scott’s work focuses on young learners. In particular, for ‘Certificate’ learners (i.e. those studying at levels 1-3) Scott only examined those aged 20 or under, who constitute a small sub-set of these learners. In 2003 – the base completion year taken by Scott for most analysis – only 17% of learners were aged under 20, and 68% were 25 or older.

Notwithstanding this limitation, Scott’s analysis indicates that – unsurprisingly – learners graduating from level 1-3 programmes have generally lower earnings levels than graduates from higher level programmes. For example, three years post-study the median earnings of the 2003 cohort was \$25,500 for level 1-3 completers, compared to \$29,100 for completers of level 5-7 Diplomas.

However, as shown in Table 5 below, there does appear to be a clear income premium for those who complete level 1-3 qualifications that is – very broadly – comparable to that for other sub-degree programmes (slightly higher than level 4, but slightly lower than levels 5-7). This suggests that level 1-3 qualifications are successful in improving income outcomes for graduates of these programmes.

Table 5: Percentage difference in median earnings of completers over non-completers aged 20 years or younger, by level of study⁴

Level of Study	One year post-study	Two years post-study	Three years post-study
L 1-3 Certificate	6%	8%	7%
L4 Certificate	4%	6%	6%
L5-7 Diploma	9%	10%	9%
Bachelors	28%	28%	29%
Post-Bachelor's Certificate or Diploma	1%	-5%	-4%
Masters	-4%	2%	11%

According to Earle (2010), people possessing level 1-3 Certificates do have a noticeably higher earning pattern than those with no qualifications. However, as with employment outcomes, graduates from Level 1-3 Certificate programmes appear to have a lower income profile and a lower chance of earning above the median income than those with only school qualifications – the exception to this being graduates of Asian ethnicity.

⁴ Taken from Table 12 (Scott 2009, p26). Note that this is based on data only for those learners who earned income in all three examined tax-years after 2003. The completion premium for level 1-3 learners after only one year was 12%, the same as for level 5-7 Diplomas and noticeably higher than level 4 certificates (at 8%).

Targeted Training

Targeted Training Programmes is a term used to refer to three specific Government schemes that are aimed at building fundamental work and life skills. The first of these – *Skill Enhancement* – has recently been cancelled, and therefore has not been considered in this report. The remaining two programmes are *Training Opportunities* and *Youth Training*. *Training Opportunities* (TO) is a scheme intended to support training for low-qualified learners at risk of long-term unemployment, while *Youth Training* (YT) is a similar scheme aimed specifically at those under 18. From 2010 onwards 40% of the funding for *Training Opportunities* has been transferred to and administered by the Ministry of Social Development (MSD), with MSD focusing on short, employment-focused training and TEC funding being directed more toward literacy, language and numeracy programmes.⁵ The TEC's portion has been renamed *Foundation-Focused Training Opportunities*, and MSD's portion is known as *Training For Work*.

According to this Mahoney (2009a), *Training Opportunities* placements appear to be getting longer, with the percentage of placements lasting for less than 25 weeks decreasing significantly from 92.5% in 1999 to 70.2% in 2007, and the proportion lasting for less than 13 weeks falling from 52% to 44%. Average credit achievement per placement, on the other hand, rose at the very beginning of this period but then fell, so that in 2007 average attainment was 16.5, compared to 21.8 in 1999. Similarly, the proportion of placements resulting in no credits rose from 32.5% in 1999 to 41% in 2007.

The proportion of those experiencing a positive outcome – either moving to employment or engaging in further training, irrespective of credit attainment – two months after completing a placement increased steadily from 71.6% in 1999 to 81% in 2007, but a significant proportion of these (40% of positive outcomes in 2009) involved returning to another *Training Opportunities* placement (*Ibid*).⁶ Analysis by Mahoney (2010c) indicates that, while a range of factors influence the outcomes of *Training Opportunities* programmes, the strongest predictor of trainee outcomes – at least in the short term – is their rate of credit achievement, followed by the region in which they are located, the learner's employment history, and the field in which they are studying

As with *Training Opportunities*, *Youth Training* placements are generally lasting for a longer time, with just under a third lasting for 25 or more weeks in 2007 and 2008. In contrast to *Training Opportunities*, however, average credit attainment has increased over the surveyed period, from 5.9 in 1999 to 10.0 in 2007 and 9.5 in 2008. The proportion of placements attaining a positive outcome likewise rose from 75.8% in 1999 to 83.5% in 2008, but an even greater proportion of these involve a return to the scheme than is the case for the *Training Opportunities* scheme – 43% of positive outcomes in 2009 consisted of enrolling in another *Youth Training* placement (Mahoney 2010b).

As noted above, there have been significant changes to the organisation of targeted training. It is as yet unclear to what extent these will impact on the outcomes of participants in these schemes.

⁵ See <http://www.tec.govt.nz/Funding/Fund-finder/Foundation-Focused-Training-Opportunities/>

⁶ Two months is a very short timeframe for outcomes, but is the formal accountability measure for providers of TO and YT programmes. In the future, datasets integrating education and employment may include variables relating to participation in targeted training, allowing for analysis of outcomes over longer periods.

Focusing on Māori Learners

While Māori do not make up the largest ethnic group of learners at levels 1-3 – that being European learners – Māori are heavily represented at this level. In 2009 28% of level 1-3 learners identified as Māori (compared to 17% of learners at other levels) and the age-standardised participation rate for Māori was 8.7% – the highest of any ethnic group.

Māori priority learners are concentrated primarily in ITPs (47%) and Wānanga (31%) – unsurprisingly, in Wānanga just under half of all learners at this level identify as Māori. Māori learners also have a slightly younger age profile than other ethnic groups, with 31% aged 40 or older, and 36% aged under 25 in 2009, compared to 38% and 33% respectively for all ethnic groups.

Five-year completion rates for Māori learners have varied over time. Until 2003, rates for full-time learners were broadly comparable to European learners, but a notable improvement amongst European learners has led to a significant gap between rates for domestic Asian and European learners, and rates for Māori. A downward trend in completion rates is apparent over the 2004 and 2005 cohorts, with 5-year completion rates for the 2005 cohort being 69%. Completion rates for part-time learners are even more variable, but the 2005 cohort had a similar rate to both Pacific and European learners at 36%. Course completion rates in 2009 were 64% - the lowest for all ethnic groups.

Māori learners at level 1-3 are significantly more likely than other ethnic groups to have low qualifications prior to entering their programme – in 2009 75% of these learners had either no qualification or only NCEA level 1, with the next highest comparable figure being 61% for Pacific learners.

Neither Scott (2009) nor Earle (2010) examine differences in outcomes for level 1-3 learners by ethnicity, with the exception of likelihood of employment. According to Earle (*ibid.*), Māori learners aged 25-39 with level 1-3 certificates as their highest qualification fit the same pattern as the overall population – improved likelihood of employment compared to those with no qualifications, but lower likelihood compared to those with any other qualification level, including only school qualifications. However, the strength of this effect is lower than for all other ethnic groups.

Focusing on Pacific Learners

Learners from Pacific backgrounds have a strong presence at levels 1-3, with 41% of all Pacific learners in 2009 studying at this level, and the age-standardised participation rate for such learners being 4.9% - the second highest after Māori learners. Nine percent of 2009 learners at levels 1-3 identified as of a Pacific ethnicity.

Amongst Pacific learners, priority learners are concentrated primarily in ITPs (42%) and PTEs (37%) – of all ethnic groups, these learners have the highest concentration studying at PTEs. Pacific priority learners also have a dramatically younger age profile than other ethnic groups, with only 23% aged 40 or older, and 26% aged under 20 – unlike all other ethnic groups, almost half of Pacific learners at this level are aged under 25.

Five-year completion rates for Pacific learners have varied over time, but have consistently been comparatively low in relation to learners from other ethnic groups. Rates for full-time learners in

the 2000-2005 cohorts mirrored those of other ethnic groups, but were the lowest in every year. The final two cohorts – 2004 2005 – saw a narrowing of the gap between Māori and Pacific priority learners (due to both a notable increase in completion rates of Pacific learners in 2004 and a fall in Māori completion rates), but there is a clear gulf between completion rates for these two groups and those for domestic European and Asian learners. Amongst part-time learners, conversely, completion rates have been broadly comparable to all ethnic groups other than Asian learners, generally being slightly higher than those of European learners and slightly lower than those of Māori. Course completion rates in 2009 were the second lowest at 68%.

Pacific learners at level 1-3 are more likely than domestic European or Asian learners to have low qualifications prior to entering their programme, but less likely than Māori learners – in 2009 61% of these learners had either no qualification or only NCEA level 1, compared to 56% of European learners.

Neither Scott (2009) nor Earle (2010) examine differences in outcomes for level 1-3 learners by ethnicity, with the exception of likelihood of employment. According to Earle (*ibid.*), Pacific learners aged 25-39 with level 1-3 certificates as their highest qualification fit the same pattern as the overall population – improved likelihood of employment compared to those with no qualifications, but lower likelihood compared to those with any other qualification level, including only school qualifications.

Reference List

Crichton, S. (2010). *Does Workplace Based Industry Training Improve Earnings?*. Wellington: Department of Labour and Statistics New Zealand.

Earle, D. (2010). *Benefits of Tertiary Certificates and Diplomas: Exploring economic and social outcomes*. Wellington: Ministry of Education.

Mahoney, P. (2010a). *Comparing Modern Apprenticeships and Industry Training*. Wellington: Ministry of Education.

___ (2010b). *Youth Training: Statistical Profile 1999 to 2008*. Wellington: Ministry of Education.

___ (2010c). *Training Opportunities: Exploring what happens two months later*. Wellington: Ministry of Education.

___ (2009a). *Training Opportunities: Statistical Profile 1999 to 2007*. Wellington: Ministry of Education.

___ (2009b). *Industry Training: Exploring the Data*. Wellington: Ministry of Education.

Scott, D. (2009). *What Do Students Earn After Their Tertiary Education?*. Wellington: Ministry of Education and Statistics New Zealand.

Appendix: Supplementary Graphs and Tables

Table 6: Highest secondary school qualification of learners by qualification level (excluding postgraduate); 2001-2009

Level	Highest School Qualification	2001	2002	2003	2004	2005	2006	2007	2008	2009
Certificates 1-3	No formal school qualification	29.9%	39.1%	39.5%	38.3%	38.7%	37.3%	37.8%	37.8%	36.6%
	School Certificate/ NCEA Level 1	19.3%	21.9%	20.2%	18.8%	18.8%	19.3%	19.8%	20.2%	20.7%
	6 th Form Certificate/ NCEA Level 2	13.5%	13.7%	12.2%	11.5%	11.1%	11.6%	12.0%	12.3%	13.1%
	Higher School Certificate/ NCEA Level 3 or above	13.4%	14.5%	13.3%	13.4%	14.3%	15.0%	14.7%	14.2%	14.1%
	Other/ Unknown/ Overseas	24.0%	10.8%	14.8%	18.0%	17.1%	16.8%	15.7%	15.5%	15.5%
Certificates 4	No formal school qualification	25.4%	31.2%	31.1%	29.4%	28.4%	30.2%	31.5%	31.6%	30.8%
	School Certificate/ NCEA Level 1	23.8%	22.7%	23.3%	22.7%	22.0%	21.0%	20.5%	21.4%	21.6%
	6 th Form Certificate/ NCEA Level 2	20.5%	17.4%	16.4%	16.3%	16.1%	15.7%	16.1%	17.3%	18.0%
	Higher School Certificate/ NCEA Level 3 or above	17.8%	18.0%	19.2%	19.9%	20.2%	18.9%	17.3%	16.0%	15.7%
	Other/ Unknown/ Overseas	12.5%	10.7%	10.0%	11.7%	13.2%	14.1%	14.6%	13.7%	13.9%
Diplomas 5-7	No formal school qualification	13.0%	15.0%	15.9%	15.9%	15.9%	15.2%	15.5%	15.0%	15.1%
	School Certificate/ NCEA Level 1	17.9%	18.6%	18.4%	18.1%	17.9%	17.2%	16.4%	16.4%	16.4%
	6 th Form Certificate/ NCEA Level 2	23.6%	22.7%	22.2%	21.7%	20.9%	21.4%	22.1%	22.5%	22.3%
	Higher School Certificate/ NCEA Level 3 or above	31.4%	30.9%	30.7%	30.4%	30.4%	30.0%	28.4%	28.1%	27.8%
	Other/ Unknown/ Overseas	14.1%	12.8%	12.8%	13.9%	14.9%	16.1%	17.6%	18.0%	18.4%
Bachelors degrees	No formal school qualification	5.2%	7.0%	6.7%	6.1%	5.7%	5.1%	4.9%	4.7%	4.9%
	School Certificate/ NCEA Level 1	7.4%	7.6%	7.7%	7.6%	7.3%	7.2%	6.8%	6.5%	6.6%
	6 th Form Certificate/ NCEA Level 2	20.3%	20.6%	20.6%	20.4%	19.4%	18.5%	16.6%	16.0%	16.5%
	Higher School Certificate/ NCEA Level 3 or above	53.5%	54.5%	54.6%	55.3%	56.0%	55.2%	52.3%	54.6%	54.5%
	Other/ Unknown/ Overseas	13.6%	10.3%	10.3%	10.7%	11.6%	14.0%	19.4%	18.2%	17.4%

