

# Youth Training

## *Statistical Profile 1999 to 2008*

This report forms part of a series called Learners in tertiary education. Other topics covered by the series are access, pathways, support, participation, retention and qualification completions.

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# 1 EXECUTIVE SUMMARY

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Youth Training is a programme that provides training for young people at a high risk of unemployment. This paper examines the Youth Training administrative dataset to gain insight into the operation of Youth Training between 1999 and 2008, tracking various facets of the Youth Training programme across time to determine participation trends and changes. It provides participation and outcome information and it uses statistical modelling to determine the factors associated with entrance to and the outcomes of Youth Training.

The analysis finds that participation in Youth Training declined between 1999 and 2008, in line with the number of learners leaving school with low or no qualifications, but not always in line with the youth low qualified unemployment rate or the Not in Education, Employment or Training (NEET) rate. We consider therefore that the statistical connection between youth risk of unemployment and Youth Training participation is not as clear as might be expected.

We find that some of the characteristics that correlate well with participation in Youth Training within three years of leaving school include: the number of NCEA credits attained at school; the proportion of unit standards taken in NCEA over achievement standards; the decile of the last school attended, and whether the trainee was granted an early leaving exemption from school.

Just under half of all Youth Training participants are Māori, another 40 percent are European, 10 percent are Pasifika, with other groups making up the remainder. These proportions have remained fairly constant since Youth Training's inception in 1999. When compared to the target population for Youth Training, that is, young people with low or no qualifications, Māori are overrepresented in Youth Training, while European people are under-represented. There have been targets for Māori and Pasifika participation in the programme, and these may help to explain this.

As would be expected, given the age targeting of the programme to under 18 years on initial acceptance into the programme, most participants are aged 15, 16 or 17 years old. The proportion of learners aged 15 years reached a high of 35 percent in 2005 but has dropped in 2008 to just over 23 percent, reflecting increased school retention, largely due to changes to early leaving exemption rules. This has led to an increasing frequency of placements by older people than previously. In addition, the average age of trainees has risen because learners are now more likely to have had multiple placements in Youth Training.

We find that placements are also increasing in duration. It has been argued that a reduction in newer recruits and an increase in the duration and number of placements for existing participants, is due to the fact the current crop of learners require more attention and longer intervention, presumably because they have deeper needs. However, because the programme is age-targeted, we would expect a flow of new, young entrants at each age, as each year passes. There are obviously potential new participants in the wider population: the youth unemployment and NEET rates show their continued existence. It is beyond the scope of this report to explore *why* Youth Training doesn't reach those young people; further work is needed to establish the reasons for this lack of fit.

There has been some increase in the proportion of learners who attain a 'positive' outcome two months after leaving Youth Training. The proportion of placement outcomes deemed positive has increased from 76 percent in 1999 to 84 percent in 2008, and most of this increase has occurred in the proportion of learners gaining full-time employment (around 10 percentage points). However, statistical modelling shows that a successful outcome is quite heavily determined by factors external to the Youth Training programme. Taking all other factors into account, the largest predictors of an employment or further training outcome at the end of each placement are participants' previous employment history (whether they have worked before entering Youth Training); external factors such as the date (taken as a proxy measure for the

prevailing economic and associated labour market conditions), and the learner's geographic location.

The fact that better employment outcomes are gained over time can be accounted for in part by the increase in the proportion of participants entering the programme who have some form of prior work experience, and in part by the recovery of regional employment markets. The labour market deteriorated for young people in 2008, no doubt a consequence of the early effects of the recent economic downturn on the vulnerable industries that young people predominantly participate in. Youth Training employment outcomes dropped from 33 percent in 2007 to 26 percent in 2008 accordingly.

However, there can be no doubt that participation in Youth Training programmes does have some positive effect, at least for learners with the ability to earn credits. Credit attainment is a strong predictor of success in Youth Training, and credit attainment is strongly associated with placement duration in Youth Training. Employment is the most likely outcome of placements only for those learners who gain more than 20 credits in a single placement, but most participants do not attain this number of credits per placement. Most learners now attain over 30 credits in total in Youth Training, but they do so over multiple spells on Youth Training: the majority of learners (65 percent on average) earn 15 or fewer credits per placement, and 45 percent earn 5 or fewer credits per placement (34 percent earn no credits). This implies that the majority of learners will not attain an employment outcome on leaving their first, or even second placement.

If a learner has high ability and earns lots of credits in as few placements as possible, then they are likely to be successful in the labour market two months after leaving. If they attain lots of credits, but over multiple placements (over 4 placements) then their chances of success in the labour market is diminished compared to the first scenario. This is likely to reflect employer's willingness to engage 'the best people' they can. Multiple placements in Youth Training do lead to increasing odds of engaging in further training outside the programme, which may lead to labour market success further downstream.

The number of placements undertaken by each learner is an important determinant of outcomes, and this along with credit attainment / duration, could be used as a measure of programme quality. Do multiple spells in Youth Training improve learners' chances? The data suggests that taking into account other factors (such as education and employment histories) multiple participation does improve learner's chances of gaining employment, but only up to a point, after which it seems to begin to reduce their chances of immediate labour market success (but not to the point of being worse off than before they first participated). Having more than two placements in Youth Training seems to reduce participants' chances of gaining employment or a further training outcome, though why this is so isn't clear.

On balance it seems likely that participation in multiple Youth Training programmes in some ways 'marks' participants as lacking the skills and abilities employers look for in potential employees. The counter argument, that only learners with high needs participate in multiple programmes, and these are the ones who are least likely to succeed, does not follow when one considers that learners leaving after one placement are less likely to attain an employment than an *other* outcome. If 'need' and number of programmes participated in are positively correlated, then those leaving a first programme placement would do much better than they seem to do.

There are ethnic and gender group differences in the outcomes for trainees, when all other variables are taken into account. For European participants, the odds of a negative outcome are significantly lower than for other types of outcome, but for Māori and Pasifika the opposite is true: unemployment /being out of the labour market is the most likely outcome.

The same pattern exists for males over females. Females do not fare as well as males, controlling for other factors. Males are least likely to attain a negative outcome, while females are most likely to.

Demand for places in Youth Training will no doubt increase as a consequence of the economic downturn, and it will be interesting to assess if this change follows the NEET and the youth unemployment rate. Youth Training employment labour market outcome rates are also likely to continue to decline in the short to medium term as a consequence of rising youth unemployment.

## 2 INTRODUCTION

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This paper provides participation and labour market outcome analysis of Youth Training between 1999 and 2008 using the Youth Training administrative dataset. It tracks various facets of the programme to determine key changes and trends across time.

The Youth Training programme is part of a suite of vocational education and training programmes in operation in New Zealand, collectively referred to as *Targeted Training Programmes*. Youth Training is targeted towards young people who have low or no qualifications and who are at risk of being unemployed. Its genesis lies in the Training Opportunities programme in operation from 1993 to 1998, which in turn evolved from Access programmes.

The Youth Training programme started in 1999, through the creation of a separate stream for young people out of Training Opportunities. In 2002, a policy review led to a widening of the eligibility criteria to young people lacking foundation skills, that is, any person with fewer than a total of 12 credits in English (literacy) and /or mathematics (numeracy) in NCEA.

While the Ministry of Education and the Tertiary Education Commission (TEC) have published participation information for targeted training programmes in several forums, these have often been limited to trainee counts. This paper extends these by providing deeper analysis of Youth Training using programme administration unit record data. Research questions are numerous, but this paper focuses on the following:

- who participates, and why?
- what differences (if any) exist within and between groups?
- who succeeds?
- who does not succeed, and why?

## 3 THE YOUTH TRAINING PROGRAMME

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Youth Training is part of a suite of vocational education and training programmes in operation in New Zealand, which are referred to collectively as *Targeted Training Programmes*. These also include *Training Opportunities* and until 2009, *Skill Enhancement*. They are referenced as *targeted* because they are open only to participation by people who meet certain eligibility criteria.

Youth Training's genesis lies in the Training Opportunities programme in operation from 1993 to 1998, which in turn evolved from Access programmes. ACCESS was principally targeted towards people who were disadvantaged in the labour market, and for whom traditional training methods were unsuitable or unavailable.<sup>1</sup> ACCESS was open entry with a level of funding for each trainee based on the level of disadvantage they faced. Māori ACCESS (MACCESS) ran alongside, and was separately administered by Māori authorities. It focused specifically on Māori, and was largely delivered through Māori providers.

The Training Opportunities Programme (TOPS) developed out of ACCESS at the start of 1993, and MACCESS was subsumed into TOPS later that year. TOPS retained some of the features of ACCESS, but it was targeted more specifically at school leavers and long-term job seekers with low or no qualifications. It aimed to assist them gain recognised qualifications (or credit towards them), and to move into further education and training or employment.

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<sup>1</sup> Ministry of Education, 2002. Pgs. 6-7.

TOPS was funded through Vote: Education and administered by Skill New Zealand until 1998, when a decision was made to split it into two streams: *Training Opportunities*, funded through Vote: Social Development, which retained its focus on work-training for long-term unemployed Work and Income clients; and *Youth Training*, funded through Vote: Education to provide work-readiness training for young learners with low or no qualifications. Both programmes continue to be administered by the Tertiary Education Commission (TEC).

Youth Training is funded to provide training to school leavers with no or low qualifications. It focuses on learners acquiring a valuable set of foundation skills that enable them to move effectively into sustainable employment and/or higher levels of tertiary education.<sup>2</sup>

The programmes are required to have a labour market focus, reflected in training that:

- leads towards national qualifications
- meets local industry and employer requirements
- is mainly at Levels 1 to 3 on the National Qualifications Framework
- is full-time, with typically 30 hours a week or more of tutor contact time
- includes workplace learning.<sup>3</sup>

Training is provided by Tertiary Education Organisations (TEOs) who are required to be New Zealand Qualification Authority (NZQA) registered. Providers offering Youth Training include (or have included): marae; charitable trusts; employers; government training establishments; incorporated societies, kokiri centres; local authorities; private training establishments; polytechnics and institutes of technology; schools; universities and wananga.

The data used in this report is sourced from the TEC, who collects it for administration purposes. The data is used to reimburse training providers for training services provided, and is considered to be robust. Providers are required to track each learner's outcomes two months after the end of their training. These activities are referred to as Labour Market Outcomes (LMOs), and form the basis of funding accountability of providers to the TEC. Any employment and further progressive education activity engaged in by the learner two months after leaving Youth Training is regarded as a positive outcome, while unemployment and 'out of the labour force' status is considered to be a negative outcome for accountability purposes.<sup>4</sup>

Some commentators have reflected on the utility of such an approach to measuring the outcomes of targeted training programmes, in particular, the duration of positive outcomes, as well as the implied causality of outcomes.<sup>5</sup> This paper does not attempt to address these questions, focusing instead on gathering and analysing the programme-related datasets. As such, it is limited in what it can tell us about Youth Training. Future analytical work may include employment and other activities of Youth Training learners long-term, using education, tax collection, benefit receipt and other sources of data.<sup>6</sup>

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<sup>2</sup> TEC, 2007. Pg. 4

<sup>3</sup> Ibid, pg. 5.

<sup>4</sup> Output sections of this paper analyses 'leaving the placement' outcomes, which can be regarded as either as positive or negative. There is a separate reporting regime 'leaving the programme' which has a different emphasis. Under the *leaving the programme* regime, returning to Youth Training would not be considered to be a positive outcome, while under the *leaving the placement* regime it would.

<sup>5</sup> Stolte, 2004. This argument is applied to outcome measures used in the Training Opportunities programme. However, this form of outcome reporting also applies to Youth Training.

<sup>6</sup> Statistics New Zealand is currently managing a project to manage the feasibility of matching tax and tertiary education administrative data. While targeted training is not part of the feasibility project, it may be included if the feasibility is established and if the project is put into production.

## 4 PARTICIPATION IN YOUTH TRAINING BY DEMOGRAPHIC FACTORS

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### 4.1 Participation from 1999 to 2008 <sup>7</sup>

Participation in Youth Training has fluctuated against the cycle of change in Gross Domestic Product (GDP) growth and the associated levels of unemployment, but seems more responsive to the proportions of young people leaving school with no or low qualifications than to the unemployment rate of the young, low qualified population.

There are a number of factors that may influence participation and achievement in Youth Training, chief of which are the performance of the education system, the strength of the economy and demographic factors. 1999 to 2008, the period covered in this report, encompassed a time of record high participation in the labour force in New Zealand, extremely low unemployment, and skills and labour shortages.<sup>8</sup>

The Youth Training fund is distributed by the TEC on the basis of young people leaving school with no or low qualifications. Only one eligibility category in Youth Training (YNYOUTH) relates to the employment status of learners, the rest relate primarily to their age and their qualifications. Placements in the YNYOUTH category are restricted to 15 percent of all placements. However these learners are not required to have low qualifications, but they may not have gained a tertiary level qualification (see table 22). However, it can be difficult to predict the appropriate number of placements in each year because the target group behaves quite differently to the rest of the working age population, and because of the way that unemployment and labour force participation data is collected (for example via sample surveys).

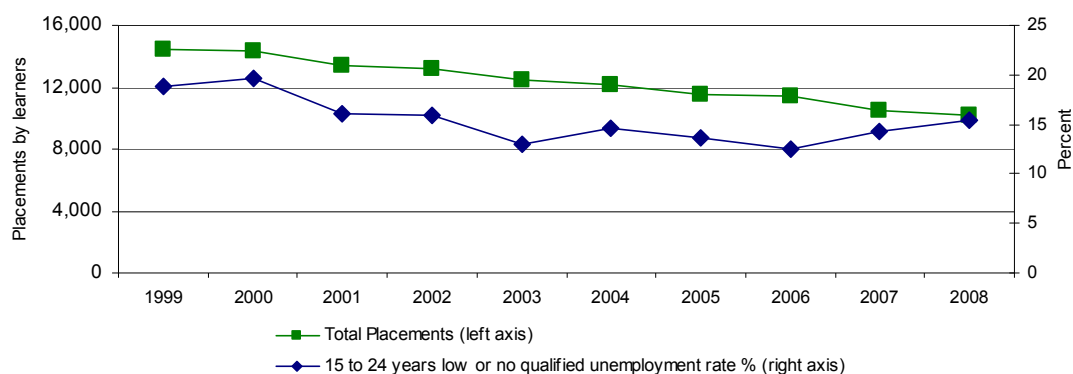
Figure 1 shows that Youth Training placements fell steadily during the 1999 to 2008 period. The rate of unemployment for 15 to 24 year olds who left school with no or low qualifications also fell steadily during this time. The fall in the rate of placements was slightly greater on average than the fall in the unemployment rate for 15 to 24 year olds with no or low qualifications which fluctuated across 1999 to 2008. While the category 15 to 24 years encompasses the main ages of Youth Training participants, the majority of placements occur at ages 15, 16 and 17 years. It is possible to disaggregate the unemployment rate category further, but this can only be done at the expense of precision of estimates when qualification variables are also included.

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<sup>7</sup> In this paper, 'participation' in Youth Training is deemed to occur if a person is placed in a programme in a year. Placements in each year are counted for distinct individuals, that is, if a person is placed into a programme more than once in a year, the person is counted only once. 'Participation' and 'placement' are used interchangeably.

<sup>8</sup> The effects of the present economic downturn were not seriously felt until early 2009 for the majority of the working population of New Zealand, although there are signs that younger people may have been experiencing the early effects by mid-2008.

Figure 1 – Youth Training placement growth and unemployment rate

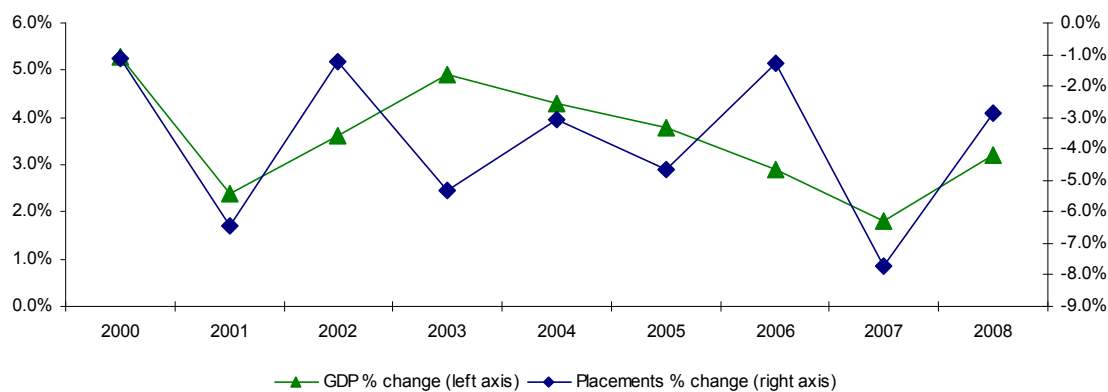


Source: Tertiary Education Commission and Statistics New Zealand.

Overall GDP growth is not a good predictor of Youth Training participation. Comparing Youth Training participation to changes in GDP growth, figure 2 shows that participation change in Youth Training has not matched closely to changes in GDP. GDP is a measure of the change in the level of the country’s economic activity growth and growth in GDP is positively associated with employment growth. If Youth Training was completely sensitive to changes in GDP growth, a graph would show periods of GDP growth alongside corresponding drops in the proportional growth of the number of placements in Youth Training (this pattern can only be seen in 2006).

When GDP growth slows, for example, as it does between 2003 to 2007, the percentage change in Youth Training placements per annum continues to be quite variable between years, but placements drop overall. When GDP grows between years, for example between 2007 and 2008, the Youth Training placements fall, but arguably at a slower rate.

Figure 2 – GDP growth vs. placement growth



**Note** GDP percentage change is from June quarter of each year.

Source: Tertiary Education Commission Statistics New Zealand.

This difference may be accounted for the fact that the Youth Training eligible demographic have a different unemployment profile to the majority of the working population. For example, the Department of Labour estimates that young people tend to work on a part-time basis at a higher rate than any other group in the working population.<sup>9</sup> Almost two-thirds (62 percent) of 15 to 19 year olds in employment as at December 2008 worked part-time. Similarly, 42 percent of all casual workers were aged 15 to 24 years and youth juggle study with work at a greater rate than any other age group.

<sup>9</sup> Department of Labour, 2009.

Moreover, the industries and occupations in which youth work tend to be among the most vulnerable in times of economic downturn. The Department of Labour believes that 15 to 19 year olds' comparatively limited work experience and lack of skills heighten their vulnerability to unemployment. Two industries – retail trade, and accommodation, cafés and restaurants – employ the bulk of youth. These industries are characterised by their high proportion of part-time work. By occupation, most youth fit into the *service and sales workers* group. This may account for the slowing of the decline of Youth Training placements between 2007 and 2008 at a time when overall GDP was growing. The slow in the decline in Youth Training may represent a tightening of opportunities in vulnerable industries young people cluster in and as such young people may have been the first group to feel the effects of the present economic downturn.

Distinct employment patterns also exist between youth aged 15 to 19 years and those aged between 20 to 24 years, with the older youth group tending to be more similar to the total working-age population. As it is common for many 15 to 24 year olds to be involved either in school education or further education, the labour force participation rate for this age group tends to be lower than for other age groups. Over the past decade, there has been a national trend towards lower labour market participation among 15 to 24 year olds as increasing proportions engage in further study.<sup>10</sup> Table 1 shows the labour market and study activity estimates for people aged 15 to 19 years between 2004 and 2008, as measured in the Household Labour Force Survey (HLFS).

The population of 15 to 19 year olds has grown between 2004 and 2008, from an estimated 299,000 to 320,000, or by 7 percent. The main activity of 15 to 19 years olds has shifted slightly during this time, towards staying in school, or taking up informal study over other options such as employment or formal study. The unemployment rate for all 15 to 19 year olds increased from 13 percent in 2005 to 15 percent in 2008.

Around 52 percent of 15 to 19 year olds main activity was school in 2004 and by 2008 this proportion had risen to 56 percent. The main proportional growth occurred in the *not employed, student still in school* category, in 2008, suggesting a lack of employment options occurring for young people in 2008 compared to previous years. This was preceded in 2007 by a proportionally large swing towards informal study as a main activity shown by the growth in the *not employed, engaged in informal study* group.

The proportion who were *employed and not participating in formal study* has remained fairly steady, increasing from 17 percent in 2004 to 18 percent in 2006, and dropping back to 17 percent in 2008. The number who were *Not Employed, Engaged in Formal Study* dropped by 31 percent while Youth Training participants (who if surveyed would fall into this category) fell by 16 percent.

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<sup>10</sup> Department of Labour, 2009.



Table 1 – Labour market / study activity of 15 to 19 year olds 2004 to 2008

HLFS main activity group	2004	2004	2005	2005	2006	2006	2007	2007	2008	2008	% $\Delta$
	(000s)	(%)	(000s)	(%)	(000s)	(%)	(000s)	(%)	(000s)	(%)	2004–2008
Employed, Student still at school	49.7	16.6	54.6	17.9	51.4	16.5	57.8	18.2	59.9	18.7	20.5
Employed, Engaged in Formal Study	25.4	8.5	28.0	9.2	30.4	9.8	32.2	10.1	30.4	9.5	19.7
Employed, Engaged in Informal Study	1.6	0.5	3.3	1.1	2.8	0.9	2.7	0.9	2.7	0.8	68.8
Employed, No Formal Study	50.6	16.9	52.3	17.2	55.8	17.9	57.0	18.0	53.9	16.8	6.5
Not Employed, Student still at school	106.7	35.7	109.0	35.8	100.8	32.4	105.6	33.3	119.1	37.2	11.6
Not Employed, Engaged in Formal Study	36.5	12.2	31.5	10.4	40.8	13.1	29.5	9.3	25.3	7.9	-30.7
Not Employed, Engaged in Informal Study	5.0	1.7	3.5	1.2	3.6	1.2	9.1	2.9	5.9	1.8	18.0
Not Employed, No Study - Caregiver Home Duties	3.2	1.1	3.9	1.3	4.1	1.3	3.5	1.1	3.5	1.1	9.4
Not Employed, No Study - No Care giving (NEET)	20.2	6.8	17.9	5.9	21.4	6.9	20.1	6.3	19.5	6.1	-3.5
Total All Study Statuses	298.8	100.0	304.2	100.0	311.0	100.0	317.4	100.0	320.2	100.0	7.2

Note: Year is at June quarters.

Source: Statistics New Zealand.

While it possible to gain an insight into the activities of young people through the traditional unemployment rate measure, a newer measure that assesses the number of youth who are not engaged in education, employment, training or care giving (NEET) is increasingly recognised internationally.<sup>11</sup> Youth who are not engaged in one of these activities are perceived to be most at risk of poor labour market outcomes.<sup>12</sup> The relationship between NEET incidence and Youth Training participation is however inconclusive.

Many young people leave school and are classified as NEET – that is they are not in education, employment, training or at school. They are not categorised as ‘unemployed’ in the HLFS, but as ‘out of the labour force’ and ‘not employed’, under a subsidiary category *No study – No Care giving (NEET)*. While the highest qualification level of NEETs is hard to assess due to small sampling population sizes, it may be that a reasonable proportion of NEETs have left school with no or low qualifications. It is equally feasible that a number of Youth Training participants spend some time as NEETs.

Youth who are categorised as NEET are disengaged from both formal learning and work, and therefore are considered to be missing the opportunity to develop their potential at an age that heavily influences future outcomes.<sup>13</sup> While the NEET measure does not count young people involved in other activities that could contribute to their well-being, or are ‘in between’ activities for a short period of time (for example, just returned from or about to leave for overseas, or on holiday from work or study), it is still a particularly useful indicator of youth disengagement.<sup>14</sup>

<sup>11</sup> However, it is possible that the NEET rate, as measured in the HLFS, may not adequately reflect the rate of youth inactivity, due to point in time, sampling errors and survey response changes.

<sup>12</sup> Ibid.

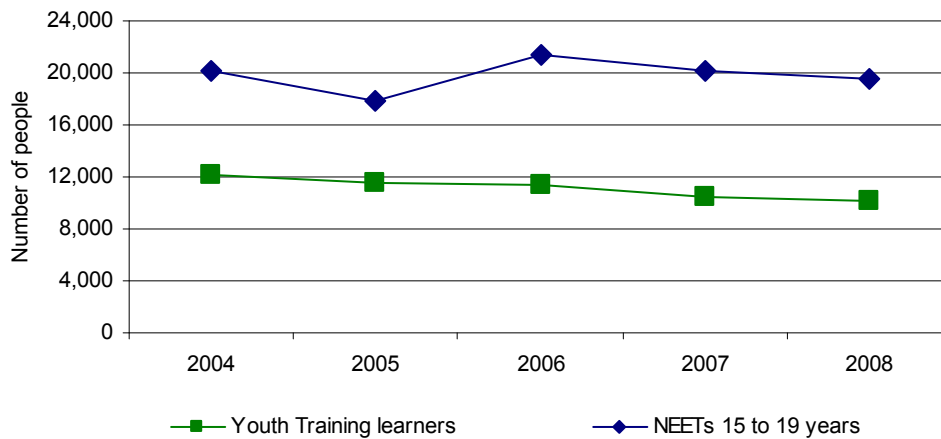
<sup>13</sup> Department of Labour, 2009.

<sup>14</sup> Ibid.

Figure 3 shows the number of Youth Training placements between 2004 and 2008 compared to the estimated number of NEETs aged 15 to 19 years. The number of NEETs is generally around eight to ten thousand higher than the number of learners placed in Youth Training in each year (Youth Training learners would be classified as *Not Employed, Engaged in Formal Study*).

The general trend across 2004 to 2008 is for a fluctuation in the number of NEETs, a pattern not generally matched by Youth Training placements. A large increase in the number of NEETs in 2006 (as well as an increase in the youth unemployment rate from 2006 – see figure 1) does not seem to incur a change of a similar order of magnitude in Youth Training placements.

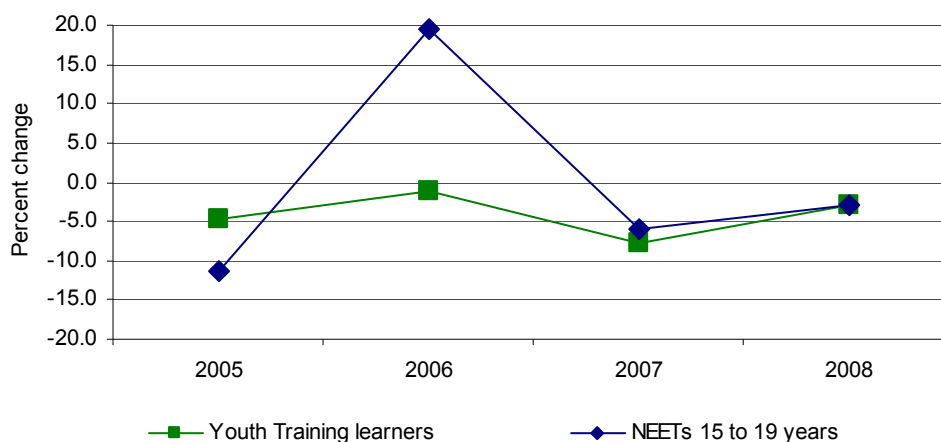
Figure 3 – Youth training placements and NEETs 2004 to 2008



Source: Tertiary Education Commission and Statistics New Zealand.

Figure 4 compares the percentage change in the number of 15 to 19 year NEETs for each year between 2004 and 2008. The large proportional rise in NEETs between 2005 and 2006 was not matched in magnitude by the increase in Youth Training placements. Otherwise, percentage changes in the two populations for the years where data availability enables a comparison to be made, are similar.

Figure 4 – Youth training placements and NEETs percent change 2004 to 2008



Source: Tertiary Education Commission and Statistics New Zealand.

Fewer young people are leaving school with no or low qualifications than in past years which may have contributed to the decline in Youth Training placements. Where a comparable series of data is available, such as between 2005 and 2007, the proportion of students leaving school with less than NCEA level 1 declined by 9 percentage points from 27.7 percent in 2005 to 18.9 percent in 2007, with the majority of this decline occurring in the *little or no formal attainment* category. The proportion of students leaving school with NCEA level 2 increased by 3 percentage points between 2005 and 2007, while those leaving with level 3 qualifications increased by about 6 percentage points (not tabled).

Table 2 – Highest qualification (at level 2 or below ) of school leavers by school leaving year

Category	NCEA Level 2		Halfway to a Level 2 qualification		NCEA Level 1		Halfway to a Level 1 qualification		Less than halfway to a Level 1 qualification		Little or no formal attainment		All leavers
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
2005	8,925	15.8	4,810	8.5	4,052	7.2	4,935	8.7	3,312	5.9	7,409	13.1	56,482
2006	8,864	15.9	4,720	8.5	3,756	6.7	4,641	8.3	3,041	5.5	6,328	11.4	55,705
2007	10,238	18.5	5,046	9.1	3,857	7.0	4,667	8.4	2,973	5.4	2,799	5.1	55,355

Source: Ministry of Education

School leaving age rules and early leaving exemption policy settings may have had an influence, both on school retention and achievement, and on Youth Training participation. In 2007 the early leaving application and approval process was strengthened to reduce the relatively high number of early leavers.

The evidence so far suggests the new process has been successful. After seven years without much change, the rate of demand for early leaving exemptions declined by 78 percent from 70 applications per 1,000 15 year-old students in 2006 to 15 applications per 1,000 15 year-old students in 2008. At the same time the proportion of applications that were declined by the Ministry of Education increased from 6.6 percent in 2006 to 28 percent in 2008.<sup>15</sup>

Table 3 – Early leaving exemption application approval and decline rates (2000 to 2008)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Applications</b>	3,366	3,580	3,864	3,983	4,115	4,518	4,238	3,009	903
<b>Applications declined</b>	148	178	184	155	289	330	281	1080	249
<b>Applications approved</b>	3,218	3,402	3,680	3,828	3,826	4,188	3,957	1,929	654
<b>Percentage of applications declined</b>	4.4	5	4.8	3.9	7	7.3	6.6	35.9	27.6
<b>Declined rate (per 1,000 15 year-old students)</b>	2.9	3.5	3.5	2.8	5.1	5.6	4.6	18.2	4.2
<b>Approved rate (per 1,000 15 year-old students)</b>	63.4	66.4	69.7	68.9	67.3	71.2	65.3	32.4	11

Source: Ministry of Education

<sup>15</sup> Ministry of Education, 2008.

In summary, measuring the appropriate numbers of participants in Youth Training is complicated by the methods used to collect data about young people with no or low qualifications, but it seems that Youth Training placements have not kept up with the estimates of the numbers of the most vulnerable young people. This may be in part because the majority of the eligibility criteria do not refer to the employment status of young people, but to their educational attainment.

Measures of the overall strength of the economy do not appear to predict the activities of young people, or the number of placements in Youth Training well. There may be a disconnect between the level of youth vulnerability and Youth Training participation as evidenced by the phenomena that while youth unemployment has increased, and NEET rates have fluctuated, Youth Training participant numbers have been in steady decline.

The following sections examine participation changes by demographic groups compared with estimates of changes in the structure of the eligible population during the 1999 period, while the final section shows the results of statistical modelling of youth training outcomes.

## 4.2 Participation by ethnic group

Participation in Youth Training differs between ethnic groups, and the proportions of learners identifying with each ethnic group has remained roughly the same across 1999 to 2008.

Table 4 shows that around 47 percent of learners in Youth Training are Māori, another 40 percent are European / Pākehā, while 11 percent are Pasifika (the TEC has required that 45 percent of participants are Māori). European learner placements in Youth Training have declined by 30 percent between 1999 and 2008, for Māori they have declined by 32 percent and for Pasifika, by 19 percent.

The total number of participants has declined by 29 percent between 1999 and 2008 (final column), with some groups (Māori by 32 percent) falling faster than others (the raw number of Pasifika participants fell by 19 percent in the period)

Table 4 – Youth Training participation by ethnic group by year

Ethnic group	1999 (%) of total	2000 (%) of total	2001 (%) of total	2002 (%) of total	2003 (%) of total	2004 (%) of total	2005 (%) of total	2006 (%) of total	2007 (%) of total	2008 (%) of total	% Δ 1999 – 2008
European	39.0	39.4	40.4	40.3	40.2	38.5	39.2	39.9	39.8	38.8	-29.7
Māori	47.7	48.2	47.6	47.2	46.5	48.3	48.0	46.1	45.1	45.9	-32.0
Pasifika	11.1	9.9	9.8	9.9	10.8	10.6	10.4	11.1	11.9	12.7	-18.7
Asian	0.8	0.8	1.0	1.0	0.9	1.0	1.0	1.1	1.3	1.1	-3.3
Other	1.4	1.7	1.3	1.6	1.6	1.6	1.3	1.7	1.9	1.5	-21.7
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>-29.2</b>

**Note** Total placements means the number distinct individuals with one or more placements within each year rather than the total number of placements.

Source: Tertiary Education Commission.

Table 4 shows the changing population of 15 to 24 year olds with no or low qualifications, sourced from the HLFS. This group does not quite match the demographic of Youth Training participants, who are principally school leavers and may be mostly younger than 24 years, but because the data is collected through a sample survey, lower age group disaggregation is not possible.

The European population aged 15 to 24 years with no or low qualifications has grown by 23 percent between 1999 and 2008, while the Māori population has grown 14 percent and Pasifika by 32 percent

Table 5 – HLFS estimate of population 15 to 24 years with low or no qualifications by ethnic group at 30 June 1999 to 2008

Ethnic group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Δ 1999 – 2008
	(000s)	(000s)	(000s)	(000s)	(000s)	(000s)	(000s)	(000s)	(000s)	(000s)	
European	148.5	148.3	144.6	148.8	153.2	156.6	157.4	151.2	178.6	182.6	23.0
Māori	48.9	47.7	51.3	48.9	55.7	51.8	56.2	54.5	53.5	55.8	14.1
Pasifika	22.9	21.5	20.3	26.2	24.9	26.8	21.7	28.6	27.2	30.3	32.3
Other	25.9	22.1	29.7	34.8	39.7	42	44.3	37.2	44.7	44.6	72.2
Total	246.2	239.6	245.9	258.7	273.5	277.2	279.6	271.5	304	313.3	27.3

Source: Statistics New Zealand.

Table 6 shows the proportions of the total of the estimated population of 15 to 24 year olds with no or low qualifications. It shows that proportionally, Māori have declined from 20 percent to 18 percent of young people in the category while Pasifika have continuously represented around 10 percent of people in the category across 1999 to 2008. European representation has generally fallen during the period, while ‘others’ have increased from 11 percent in 1999 to 14 percent.

Table 6 – HLFS ethnic group proportion of population 15 to 24 years with low or no qualifications by ethnic group at 30 June 1999 to 2008

Ethnic group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Δ 1999 – 2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
European	60.3	61.9	58.8	57.5	56.0	56.5	56.3	55.7	58.8	58.3	23.0
Māori	19.9	19.9	20.9	18.9	20.4	18.7	20.1	20.1	17.6	17.8	14.1
Pasifika	9.3	9.0	8.3	10.1	9.1	9.7	7.8	10.5	8.9	9.7	32.3
Other	10.5	9.2	12.1	13.5	14.5	15.2	15.8	13.7	14.7	14.2	72.2
Total	100	100	100	100	100	100	100	100	100	100	27.3

Source: Statistics New Zealand.

When compared to the estimate of the total population aged 15 years and over (see table 7 below), it appears that Europeans are under-represented in the low-qualified group while Māori and Pasifika are both over-represented.

The growth in the estimated population numbers also differs by ethnic group over the period. Table 7 shows the total population estimate of Europeans aged 15 to 24 years or over grew by 20.5 percent over 1999 to 2008, while the number of low-qualified European learners grew 23 percent (see final column in table 4 for comparisons). For Māori the comparison is 14 percent growth against 11 percent growth for all Māori 15 to 24 year olds, and for Pasifika, it is 32 percent compared to 33 percent. In other words, the proportion of European and Māori 15 to 24 year olds who have no or low qualifications has grown faster than the population at those ages, while for Pasifika, it has stayed about the same across 1999 to 2008. The ‘other’ group with no or low qualifications grew more slowly than the wider ‘other’ 15 to 24 year old population.

Table 7– HLFS estimate of population 15 to 24 years and over all qualifications by ethnic group at 30 June 1999 to 2008

Ethnic group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Δ 1999 – 2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
European	67.6	67.8	66.3	64.7	63.6	63.5	61.8	61.9	61.4	63.6	20.5
Māori	15.0	15.4	15.6	14.5	15.1	14.5	14.7	14.5	13.4	12.9	10.7
Pasifika	7.5	7.1	6.8	8.2	7.6	7.8	6.6	7.5	7.3	7.7	32.7
Other	9.9	9.7	11.3	12.6	13.6	14.2	16.9	16.2	17.8	15.8	103.4
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	28.2

Source: Statistics New Zealand.

Table 8 compares growth for just people with no qualifications across 1999 to 2007 in order to determine if this growth has occurred in one category of people (no qualified 15 to 24 year olds) at the expense of the other HLFS highest education attainment category used to define no or low qualified people (5<sup>th</sup> form or less or overseas).

Again, European people and ‘others’ with no qualifications are under-represented in Youth Training when compared to the estimated population of 15 to 24 year olds (shown in table 6), while Maori and Pasifika are overrepresented (Maori significantly so). All no qualifications groups apart from ‘others’ grew faster than their wider populations suggesting that the growth over and above the wider population occurred in the numbers attaining no qualifications rather than in the numbers attaining 5th form or below.

Table 8– HLFS estimate of population 15 to 24 years and over with no qualifications by ethnic group at 30 June 1999 to 2008

Ethnic group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Δ 1999 – 2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
European	57.2	59.6	58.5	54.0	55.5	57.6	56.8	52.9	57.2	57.3	33.8
Māori	23.9	24.4	26.4	24.7	26.6	23.2	25.9	25.6	19.5	21.2	18.7
Pasifika	9.9	8.9	6.7	11.7	8.5	9.5	8.6	12.1	9.3	11.0	47.9
Other	8.9	7.0	8.5	9.5	9.4	9.7	8.8	9.4	14.0	10.5	56.3
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	33.6

Source: Statistics New Zealand.

Table 9 confirms this: growth in the 5<sup>th</sup> form qualifications or below group occurred much more slowly than for the wider 15 to 19 population and than for the no qualification group. The exception are the ‘others’ who grew much more quickly than the rest, but still more slowly than their wider population group.

Table 9 – HLFS estimate of population 15 to 24 years and over with 5<sup>th</sup> form or below by ethnic group at 30 June 1999 to 2008

Ethnic group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Δ 1999 – 2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
European	64.4	65.0	59.2	61.6	56.6	55.3	55.6	59.1	61.4	59.7	10.0
Māori	14.4	13.8	14.5	12.1	13.6	13.8	13.2	13.3	14.3	12.7	3.9
Pasifika	8.5	9.0	10.1	8.2	9.7	9.8	6.8	8.6	8.3	7.7	7.9
Other	12.6	12.2	16.2	18.1	20.1	21.1	24.3	19.0	15.9	19.9	87.2
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	18.7

Source: Statistics New Zealand.

What's interesting is that these findings do not seem to correspond with those shown in Table 2 which suggest an overall reduction in the numbers leaving school with no qualifications, borne out by both the school leaving statistics, and the 84 percent reduction in early leaving exemptions between 2006 and 2008. The difference could be attributed to the HLFS measurement containing a much wider age group than recent school leavers: 15 to 24 years. If we were able to contain our estimates to just school leavers, we might find a corresponding trend.

In any case, the 20 to 24 year old element of our estimates are extraneous to our analysis of Youth Training because they are mostly too old to take part in the programme. We could infer from this that younger school leavers (15 to 19 years) are now better qualified than they were in the past, at least at the lower end of the qualification spectrum. This would tend to reduce the pool of available people needing to participate in Youth Training, which in turn could explain some of the reduction in the number of placements across the period.

### 4.3 Participation by gender

The gender mix of placements has been fairly evenly balanced between 1999 and 2008. Females make up just 44 percent on average of all placements by individuals across the period. However, when examined in the context of the number of young people unemployed with low or no qualifications, females seem to participate at higher rates on average than males (the number of Youth Training placements by women is 31 percent of young unemployed women with low or no qualifications compared to 25 percent for males).

However, females not in the labour force but with no or low qualifications may be slightly underrepresented in Youth Training. This may be due to additional barriers to labour force participation faced by women, such as child care and rearing.<sup>16</sup>

Statistics New Zealand Census data shows that women accounted for 50.3 percent of the resident 15 to 64 years population in 1996, rising to 51 percent in 2006. In this context, participation in Youth Training would seem to be slightly lower for women than for men between 1999 and 2008.

Table 10 – Youth Training participation by gender 1999 to 2008

Gender	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Females	43.5	43.6	43.5	43.0	43.4	43.6	45.5	45.3	44.9	45.2
Males	56.5	56.4	56.5	57.0	56.6	56.4	54.5	54.7	55.1	54.8
Total both sexes	100	100	100	100	100	100	100	100	100	100

Source: Tertiary Education Commission.

<sup>16</sup> The official measure of unemployment is a count of the number of people in the labour force who are not working. Young women may not be considered to be in the labour force if care giving is their main activity .

Table 11 shows the unemployment rate for 15 to 24 year olds with no or low qualifications by gender. Between 1999 and 2003 the unemployment rate for males was higher than for females, while between 2006 and 2007 it was higher for females. A large gap appears between the two sexes in 2008 with male unemployment around 1.5 percentage points higher than for females. Overall, the unemployment rate for this group fell from 9.6 percent to 5.2 percent in 2008.

Table 11 – HLFS unemployment rate 15 to 24 years with low or no qualifications by gender at 30 June 1999 to 2008

Gender	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Females	9.2	7.6	6.8	6.5	5.8	6.1	5.2	5.0	5.1	4.4
Males	9.8	9.1	8.1	7.0	6.6	5.3	5.0	4.7	4.5	5.9
Total both sexes	9.6	8.5	7.5	6.8	6.2	5.7	5.1	4.8	4.8	5.2

Source: Statistics New Zealand.

Table 12 shows the participation rate of unemployed 15 to 24 year olds with low or no qualifications in Youth Training, calculated by dividing the number in Youth Training by the number of unemployed people in the category. The participation rate has increased from 21.5 percent in 1999 to 27.6 percent in 2008. This indicates that the unemployment rate for this group may have fallen faster than the drop in numbers of Youth Training learners across 1999 to 2008.

Table 12 – Participation rate 15 to 24 years with low or no qualifications by gender at 30 June 1999 to 2008

Gender	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Females	21.5	25.4	27.1	27.2	29.3	27.4	31.7	32.3	27.5	31.3
Males	21.4	23.5	26.1	29.4	30.8	35.6	33.8	35.9	33.2	25.1
Total both sexes	21.5	24.3	26.5	28.5	30.1	31.6	32.8	34.1	30.3	27.6

Source: Tertiary Education Commission.

Table 13 shows the unemployment rate by sex for 15 to 19 year olds between 1999 and 2008. This low aggregation of age group is only possible through the loss of the educational attainment variable, so it unfortunately allows for less accuracy of estimation. It shows that the female unemployment rate is consistently a few percentage points below that of males across 1999 to 2008.

Table 13 – HLFS unemployment rate 15 to 19 year olds by gender at 30 June 1999 to 2008

Gender	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Females	16.7	16.1	15.3	15.8	15.1	13.9	12.9	14.4	14.0	13.4
Males	19.2	18.9	17.5	15.5	15.6	14.4	12.9	13.1	14.5	16.1
Total both sexes	18.0	17.6	16.4	15.6	15.3	14.1	12.9	13.7	14.3	14.8

Source: Statistics New Zealand.



NEET rates do not seem to differ substantially by gender. Table 14 shows the proportion of the 15 to 19 year population by gender between 2004 and 2008 who are NEET. NEET rates are fairly even between the sexes until 2008 when a wider gap appears to open to the detriment of males.

Table 14 – HLFS NEET rates by gender 2004 to 2008

Gender	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Females	6.92	5.93	6.64	6.46	5.46
Males	6.61	5.84	7.12	6.21	6.69
Total both sexes	6.76	5.88	6.88	6.33	6.09

Source: Statistics New Zealand.

Young females may have differing labour force and study activities to males. Using HLFS data again, table 15 shows the difference between sexes between 2004 and 2008.

Females are more likely than males to be employed and attending school, and consistently less likely than males to be just at school (and not at the same time in some form of employment). Males are more likely to be employed and not engaged in formal study. Females seem more likely to be involved in care-giving duties at home that do not involve employment, although the small samples sizes for males in this category meant that data could not be analysed for them.

Table 15 – HLFS Labour Force and study status 15 to 19 years

Labour force and study activity	Gender	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Employed, Student still at school	Females	18.1	20.4	18.5	20.7	19.2
	Males	15.2	15.6	14.6	15.8	18.3
Employed, Engaged in Formal Study	Females	8.8	9.3	9.6	9.9	10.5
	Males	8.2	9.2	10.0	10.4	8.5
Employed, Engaged in Informal Study	Females	s	0.8	s	1.1	s
	Males	0.7	1.3	1.2	s	1.3
Employed, No Formal Study	Females	14.5	13.2	16.1	16.6	15.4
	Males	19.4	21.2	19.7	19.2	18.2
Not Employed, Student still at school	Females	33.0	36.0	31.8	31.7	36.8
	Males	38.3	35.8	33.0	34.8	37.6
Not Employed, Engaged in Formal Study	Females	14.5	10.4	13.4	9.1	8.5
	Males	10.0	10.3	12.8	9.4	7.3
Not Employed, Engaged in Informal Study	Females	1.8	1.6	0.9	2.3	1.7
	Males	1.6	0.8	1.3	3.4	2.0
Not Employed, No Study - Caregiver Home Duties	Females	2.0	2.5	2.5	2.2	2.1
	Males	s	s	s	s	s
Not Employed, No Study - No Care giving	Females	6.9	5.9	6.6	6.5	5.5
	Males	6.6	5.8	7.1	6.2	6.7

Note categories with low sample confidence have been suppressed (s).

Source: Statistics New Zealand.

## 4.4 Participation by age

Youth Training is primarily aimed at people with no or low qualifications aged 18 years or younger. The TEC specifies that participants should be less than 18 years old *on initial acceptance* in Youth Training, or have left school within six months.

Table 16 shows Youth Training placements by year by the age of the learner at the time of their placement. There has been a reduction in the number of placements by 15 year olds (down by 42 percent since 2006), and this is probably a consequence of the change to the early leaving exemption criteria in 2006.

Table 16 – Youth Training placements in year by age of learner at placement 1999 to 2008

Age at placement	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
12 years	1									
13 years	5	6	1	3	1	1				
14 years	400	528	464	449	497	511	472	419	182	44
15 years	3378	3831	3677	3906	3829	3920	4030	3953	3043	2299
16 years	5478	5686	5300	5126	4704	4479	4208	4241	4305	4583
17 years	3965	3840	3374	3165	2943	2665	2395	2398	2535	2779
18 years	549	362	500	462	423	453	359	328	372	426
19 years	160	33	40	69	81	66	72	57	56	67
20 years	72	2	5	15	15	16	9	9	20	16
21 years or older	445	3	7	11	12	12	12	6	14	12

Source: Tertiary Education Commission.

Table 17 shows the placements converted into proportions of the total number of placements in each year. The majority of learners (94 percent on average across years) are between the ages of 15 and 17 years at the time of their placement. Placements occurring in 2008 changed the pattern of enrolment established between 1999 and 2007: enrolments by 16, 17 and 18 year olds were proportionally increased at the expense of enrolments by 15 year olds.

Table 17 – Youth Training placements in year by age of learner at placement 1999 to 2008

Age at placement	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
12 years	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 years	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14 years	2.8	3.7	3.5	3.4	4.0	4.2	4.1	3.7	1.7	0.4
15 years	23.4	26.8	27.5	29.6	30.6	32.3	34.9	34.6	28.9	22.5
16 years	37.9	39.8	39.6	38.8	37.6	36.9	36.4	37.2	40.9	44.8
17 years	27.4	26.9	25.2	24.0	23.5	22.0	20.7	21.0	24.1	27.2
18 years	3.8	2.5	3.7	3.5	3.4	3.7	3.1	2.9	3.5	4.2
19 years	1.1	0.2	0.3	0.5	0.6	0.5	0.6	0.5	0.5	0.7
20 years	0.5	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
21 years or older	3.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Source: Tertiary Education Commission.

## 4.5 Participation by region

Youth Training is offered throughout New Zealand. Table 18 shows the distribution of placements for each year by the TEC administering area office. These offices closely match the coverage of the administering territorial local authority, for which unemployment statistics are regularly formulated, so it is possible to compare the unemployment rates in each region in each year with the number of placements in Youth Training to assess coverage of the programme: the TEC does this when allocated funding between regions.

The placement distribution seems fairly uniform for most regions over the years. There seems to have been a shift of placements from Taranaki-Wanganui to the Wellington region in 2005 that has been sustained since then (which may be accounted for by an administrative reallocation).

Table 18 – Youth Training placements in year by TEC Region 1999 to 2008

Region	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Northland	6.5	6.2	6.1	6.0	5.8	5.9	5.7	5.6	5.8	5.7
Auckland	26.0	27.4	26.0	26.0	26.6	26.6	25.7	28.0	29.7	29.9
Bay of Plenty	9.7	9.5	9.4	10.1	9.4	9.7	9.8	9.4	8.4	8.0
Waikato	9.7	9.9	10.5	10.3	10.2	10.7	11.2	11.2	10.5	10.8
Eastern	8.1	7.0	7.4	7.2	7.4	7.6	7.1	5.9	6.4	6.5
Taranaki-Wanganui	10.3	10.1	10.6	10.4	9.5	10.2	6.4	6.1	5.9	5.9
Wellington	7.8	8.2	8.2	8.6	8.8	8.6	13.1	13.0	12.1	12.6
Nelson-Marlborough-West Coast	4.4	4.3	4.1	4.1	4.1	3.7	3.6	4.0	3.8	3.9
Canterbury	9.9	10.2	10.0	10.1	10.8	9.9	10.3	10.0	10.5	10.0
Southern	7.6	7.2	7.5	7.2	7.5	7.1	7.0	6.7	7.0	6.7

Source: Tertiary Education Commission.

Table 19 shows the distribution of all unemployed people in the labour force by regional council during this period. The distribution of placements by TEC region quite closely follows the distribution of all unemployed people throughout New Zealand. The unemployment statistics are not limited to young people with no or low qualifications, so where differences occur in the distribution it is not possible to determine if it is due to a different unemployment demographic for young people with no or low qualifications or if there is an issue with Youth Training penetration.

Table 19 – Distribution of unemployed by regional council 1999 to 2008

Region	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Northland	5.9	5.1	4.8	5.8	5.9	4.6	4.9	5.3	4.1	3.8
Auckland	28.0	28.5	29.7	28.2	26.8	27.8	30.1	29.2	32.9	35.4
Waikato	11.3	10.6	10.5	10.5	10.6	7.8	8.5	9.2	9.3	10.0
Bay of Plenty	8.9	8.3	8.4	9.1	8.6	8.1	5.4	6.0	5.5	5.9
Gisborne / Hawke's Bay	5.5	5.8	6.4	5.2	5.3	6.0	6.6	6.6	6.1	6.2
Taranaki-Manawatu-Wanganui	7.2	9.6	8.6	8.3	8.6	9.2	8.6	9.8	9.5	9.5
Wellington	11.4	10.5	10.2	11.7	13.3	14.5	14.5	15.1	14.2	11.9
Canterbury	14.3	14.3	14.8	14.1	13.5	14.3	13.9	12.4	12.5	11.9
Otago-Southland	7.6	7.3	6.7	7.1	7.5	7.8	7.5	6.3	5.9	5.4

Source: Statistics New Zealand.

## 4.6 Participation by education history

Youth Training is targeted to young people with no or low qualifications on leaving school. Table 20 shows the distribution of learner placements by self-reported highest qualification attainment. It shows that the vast majority of learners do have low or no qualifications on placement.

There has been a shift over the years of participation away from young people with no qualifications towards those with level 1 or equivalent NCEA certification. This may be a consequence of the decline in the proportions of learners leaving school with no qualifications since 2006 (see table 2 and associated discussion regarding school leaver education attainment and early leaving exemption policy changes).

The proportion of students leaving school with less than NCEA level 1 declined from by 9 percentage points from 27.7 percent in 2005 to 18.9 percent in 2007, with the majority of this decline occurring in the *little or no formal attainment* category. The drop in Youth Training placements was 10 percentage points between 2005 and 2007.

Table 20 – Youth Training placements by highest school qualification attainment by year

Highest school attainment	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
No formal secondary school qualifications/less than 12 credits at level 1	73.0	72.7	70.5	68.2	64.7	59.8	56.1	52.2	45.8	45.0
School Certificate/ 12+ credits at level 1 or above	23.1	23.7	25.5	27.7	30.8	35.6	39.8	44.2	51.3	52.5
Sixth Form Cert/12 + credits level 2 or above	2.4	2.0	1.9	1.8	1.8	1.7	0.9	0.0	0.0	0.0
University Entrance / National Certificate Level 2	0.6	0.8	1.3	1.4	1.5	1.8	2.1	2.0	1.2	0.8
Higher School Certificate/12-39 credits at level 3 or above BURSARY Exam A or B Bursary Scholarship	0.4	0.3	0.3	0.5	0.6	0.4	0.4	0.3	0.1	0.0
Trade Certificate	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Degree	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown / Other	0.4	0.4	0.3	0.3	0.5	0.5	0.8	1.2	1.6	1.5

Note: qualification attainment is a self report by the learner and is not verified by the TEC on placement in Youth Training.

Source: Tertiary Education Commission.

## 4.7 Participation by employment history

Table 21 shows the employment history of each learner before their placement in Youth Training. Most categories of learners have remained steady at around 1999 levels and the majority of participants have never worked in paid employment or have only ever worked part-time.

The proportion of learners who have worked part-time has increased between 1999 and 2008 by about 5 percentage points. The proportion who have worked full-time for over a year or more has halved between 1999 and 2008.

Table 21 – Youth Training placements by previous employment history by year

Learner employment history	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Unknown / N/a	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0
Never worked in paid employment	36.9	38.5	37.1	35.7	35.7	35.6	35.6	35.0	36.4	38.4
Only Worked Part-time	37.7	37.6	38.5	40.5	39.0	39.0	40.3	42.2	42.2	41.7
Worked Full-time for less than 1 year	15.3	15.2	15.9	16.3	17.3	17.6	16.6	16.0	16.1	15.4
Worked Full-time for 1 year or more	10.1	8.6	8.4	7.5	8.0	7.8	7.3	6.6	5.2	4.5
Unknown / N/a	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0

Note: employment history is a self report by the learner and is not verified by the TEC on placement in Youth Training.

Source: Tertiary Education Commission.

## 4.8 Participation by original eligibility criteria

Learners must meet certain eligibility criteria to be allowed to participate in Youth Training. Nationality criteria require learners to hold New Zealand, Cook Islands, Niuean or Tokelauan citizenship; hold New Zealand residency status, or have been granted refugee status and are required to study as part of their residency requirements. Learners should be less than 18 years old on initial acceptance in Youth Training or have left school within six months.

In addition, learners' educational and labour market histories are inferred from their report of their educational attainment and their employment history (see preceding sections). The TEC

collects two forms of eligibility criteria for each learner: their 'original' eligibility, which is the criteria under which they are initially permitted to enter Youth Training, and if their current placement is not their first, their 'current' eligibility, which is the criteria under which they are permitted to enter their current placement. Table 22 shows the various eligibility criteria and associated short codes as at May 2007.

Table 22 – Youth Training eligibility criteria as at May 2007

Eligibility for Youth Training	Short code
Aged less than 18 with low qualifications and have left school or been exempt from school	LQ16/17
Aged 18 or over and have left school within the last 26 weeks with low or no qualifications	SL18+
Aged less than 18, enrolled in Workbridge, and referred after an in-depth interview	WBR-YT
Aged less than 18 and a refugee who has left the Mangere refugee centre or entered the country within the last year	REF-YT
Aged less than 18 years, referred by Work and Income as a youth client, referred by the Youth Transitions service or registered unemployed for 13 weeks or more, with no tertiary qualifications. The TEC applies an upper limit of 15% regionally for learners with higher qualifications entering under this criterion. The TEC grants approval on a case by case basis for learners without low qualifications. A letter from the Youth Transitions service is considered sufficient evidence	YNYOUTH
Aged less than 18 years, have left or been exempt from school with 81 or more credits on the National Qualifications Framework (NQF) but have NCEA results that show fewer than a total of 12 credits in English (literacy) and/or mathematics (numeracy)	YT_FDS
Learners re-entering the Youth Training programme within a period of six months retain eligibility if they have fewer than 240 credits	ASSESYT

Note: qualification attainment is a self report by the learner and is not verified by the TEC on placement in Youth Training.

Source: Tertiary Education Commission.

Table 23 shows the proportion of the total number of placements by each of these categories by the original eligibility of each learner. The majority of learners participating at any one time qualified for entrance to the programme originally under the LQ16/17 criteria. The YNYOUTH category grew a little across 1999 to 2008 so that it now accounts for 1.3 percent of placements by learners. The YT\_FDS skills category was introduced after the Building Futures review in 2002 concluded that the Youth Training (and Training Opportunities) should be widened to include learners who lack foundation skills. The proportion of placements by YT\_FDS learners peaked at 7.5 percent of all learners in 2006 but had dropped down to 4.4 percent by 2008.

Table 23 – Youth Training placements by original eligibility criteria by year

Original eligibility criteria of learner	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
EXCPTN	0.4	0.4	0.4	0.5	0.5	0.9	1.0	2.1	1.6	1.5
LQ16/17	88.2	96.2	94.8	94.8	93.6	90.0	88.6	87.0	89.7	90.5
Other	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refugee	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SL 18+	2.0	0.7	2.3	2.8	2.5	2.1	1.3	1.3	1.8	1.9
UNKNOWN	3.3	0.7	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
WorkBridge	2.1	1.1	1.4	1.1	0.7	0.8	0.6	0.9	0.7	0.4
YNYOUTH	0.5	0.8	0.9	0.8	1.1	1.7	2.1	1.2	1.4	1.3
YT_FDS	n/a	n/a	n/a	n/a	1.6	4.5	6.4	7.5	4.8	4.4

Learners may have multiple placements in Youth Training, which occur usually sequentially rather than concurrently as training is close to full-time. Table 24 shows the eligibility criteria for each learner at each placement. It shows that at any one time, around 37 percent of learners have re-entered Youth Training from a previous placement. The proportion placed under the LQ16/17 category has fallen by around 5 percentage points between 1999 and 2008 and exception to eligibility criteria placements have increased by almost 1 percentage point in that time.

Table 24 – Youth Training placements by eligibility criteria by year

eligibility criteria of learner at placement	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
ASSESYT	36.8	36.9	37.2	35.5	36.9	36.4	37.2	34.8	39.3	37.1
EXCPTN	0.3	0.3	0.3	0.3	0.4	0.7	0.7	1.7	0.9	1.1
LQ16/17	60.3	61.0	59.1	60.9	58.4	56.2	54.7	55.9	54.8	56.5
REF_YT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SL18+	1.3	0.5	1.7	1.9	1.6	1.3	0.7	0.9	1.2	1.2
WBR-YT	0.8	0.7	1.0	0.7	0.4	0.6	0.3	0.7	0.4	0.3
YNYOUTH	0.5	0.6	0.6	0.6	0.8	1.4	1.6	0.7	1.0	0.9
YT_FDS	n/a	n/a	n/a	n/a	1.4	3.5	4.7	5.3	2.4	2.9

Source: Tertiary Education Commission.

## 5 PARTICIPATION BY PROVIDER, COURSE-RELATED AND OTHER FACTORS

### 5.1 Learner placements by training provider type

Youth Training is provided by a range of tertiary education organisations (TEOs). These providers are distinguished by their ownership and governance structures, and range from private training establishments (PTEs)<sup>17</sup> who are mostly privately owned, for-profit entities; through incorporated societies and charitable, non-profit independent bodies, to publicly-owned institutions like schools; universities and polytechnics and institutes of technology (ITPs).

There has been a change in the number of providers of each type offering Youth Training programmes: the number of providers in all categories has declined, but some at faster rates than others, while some have increased as a proportion of the whole. For example, 22 percent of learners were placed in programmes with charitable trusts in 1999 and 14 percent of learners in 2008, while for PTEs, these figures are 61 percent of learners in 1999 and 78 percent of learners in 2008.

Table 25 shows that the majority of learners participate in Youth Training at PTEs, followed although not closely, by charitable trusts. The proportion of participants placed at PTEs has increased by approximately 15 percentage points from 1999 to 2007; to the detriment of all other provider types, but most particularly charitable trusts, which recorded a drop of 8 percentage points.

Table 25 – Youth Training learner placements by training provider type 1999 to 2008

Training provider type	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)	% change in raw number of placements
Marae	1.4	1.3	1.0	0.5	0.7	0.4	0.3	0.2	0.3	0.4	-80.3
Charitable trust	21.8	19.0	16.9	16.1	14.1	13.4	12.5	13.2	13.6	14.1	-55.6
Employer	1.3	1.0	0.9	0.8	1.0	0.9	0.8	0.6	0.4	0.4	-76.8
Government training establishment	0.1	0.5	0.1	0.3	0.5	0.4	0.2	0.3	0.0	0.0	-100.0
Incorporated society	9.0	8.1	6.5	5.8	5.0	4.9	5.0	4.5	4.2	4.4	-66.6
Kokiri centre	0.7	0.8	0.5	0.5	0.4	0.0	0.0	0.0	0.0	0.0	-100.0
Local authority	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	-44.7
Private training establishment	60.9	64.5	69.7	71.1	73.1	75.1	75.9	76.2	75.5	75.7	-14.6
ITP	2.7	2.3	1.6	1.8	1.9	1.7	2.0	1.8	2.1	1.9	-51.1
School	1.4	1.8	2.2	2.7	2.9	3.0	3.0	3.1	3.3	2.7	37.0
University	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	-70.8
Wānanga	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-100.0

Source: Tertiary Education Commission.

Table 26 shows the number of active training providers by type in each year. The number of active training providers<sup>18</sup> has declined over the period by 30 percent while the number of participants fell by 31 percent. The number of active charitable trust providers has fallen by 44

<sup>17</sup> Most of these provider types (apart from the schools and the TEIs) are legally identified as private training establishments, however, the TEC has coded them this way for the purposes of tracking performance by sub-category.

<sup>18</sup> Active is defined as enrolling learners.



percent while the number of PTEs providing Youth Training learning has fallen by 15 percent. Incorporated societies fell by 53 percent and the number of ITPs offering Youth Training programmes declined by 54 percent over the period.

Declines in involvement by provider types may be due to a number of reasons: providers may cease trading; they may be declined further funding by the TEC (which may contribute to the former); or they may decide they no longer wish to provide training. Some may amalgamate with or take-over other providers. The TEC has recently reviewed the relevance of provision by PTEs and some may have consequently exited Youth Training and/or ceased to trade.

Table 26 – Youth Training training provider counts by type 1999 to 2008

Training Provider Type	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% $\Delta$ 1999 – 2008
Marae	6	5	6	2	2	2	2	1	1	1	-83.3
Charitable trust	69	60	53	59	51	47	41	41	40	39	-43.5
Employer	11	10	7	5	6	3	3	2	2	2	-81.8
Government training establishment	2	2	1	1	3	3	2	2			-100.0
Incorporated society	38	35	29	27	24	23	20	18	18	18	-52.6
Kokiri centre	1	1	1	1	1						-100.0
Local authority	2	2	2	2	1	1	1	1	1	1	-50.0
Private training establishment	200	206	213	216	211	211	188	178	172	169	-15.5
ITP	13	12	8	8	9	8	8	6	6	6	-53.8
School	11	10	11	14	16	15	13	12	11	10	-9.1
University	1	1	1	1	1				1	1	0.0
Wānanga	1	2	1	1							-100.0
<b>Total</b>	<b>355</b>	<b>346</b>	<b>333</b>	<b>337</b>	<b>325</b>	<b>313</b>	<b>278</b>	<b>261</b>	<b>252</b>	<b>247</b>	<b>-30.4</b>

Source: Tertiary Education Commission.

## 5.2 Placements by programme ‘major’ field of study

Youth Training is often classified as generic or ‘mixed field’ learning under classification systems such as the New Zealand Standard Classification of Education (NZSCED) when compared to other types of tertiary education. This is because the emphasis in Youth Training lies in attainment of work-related, ‘generic’ skills, rather than those required particularly for any specific industry, field or occupation.

NZSCED is a subject-based classification system for courses and qualifications at universities, polytechnics, colleges of education, wānanga and private training establishments in receipt of government funding. The classification system consists of three levels of detail (broad, narrow and detailed fields) defining each subject or field of study.<sup>19</sup>

Youth Training courses are linked to the National Qualifications Framework (NQF) through unit standards: learners gain credits that can be used as the bases of national qualifications (later on, but not through Youth Training, which does not lead directly to national qualifications). Each of these unit standards carries a sum of credits that are awarded if the standard is achieved. No credits are awarded if the standard is not achieved.

<sup>19</sup> See Ministry of Education, *New Zealand Standard Classification of Education (NZSCED)*.

For the purposes of this study only, each course offered in Youth Training has been assigned a classification under NZSCED, based on the NZQA domain of NQF credits attainable in them.<sup>20</sup>

Table 27 shows the distribution of placements by learners between the different ‘Major Fields of Study’. The majority of learners are placed in courses consisting of fields: ‘Mixed Field Programmes’ and ‘Society and Culture’.<sup>21</sup> There has been little overall change in placements across the fields between 1999 and 2008, however, ‘Mixed Field Programmes’ has declined from 35 percent of placements in 1999 to 23 percent in 2008.

‘Agriculture Environmental and Related Studies’ courses accounted for 10 percent of placements in 1999, climbing to 14 percent in 2002 before declining steadily back down to 9 percent in 2008.

‘Engineering and Related Technologies’ major courses accounted for a high of 12 percent of placements in 2004, dropping back to 8 percent in 2008. ‘Information Technology’ major courses have fluctuated similarly, accounting for 8 percent of placements in 2002, declining down to 6 percent of placements in 2008. The proportion of placements in programmes where no credits are achieved (so a major was unable to be identified) was 3 percent in 1999 declining to 1 percent in 2008.

Table 27 – Youth Training learner placements by course major field of study 1999 to 2008

Major Field of Study	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Agriculture Environmental and Related Studies	9.6	10.5	11.0	14.2	13.6	9.8	9.0	10.2	9.9	9.0
Architecture and Building	2.0	3.4	3.9	4.2	3.4	3.9	4.4	5.4	4.9	9.9
Creative Arts	1.5	1.2	0.7	1.2	0.5	1.5	0.1	0.2	0.2	0.2
Education	0.3	0.3	0.3	0.1	0.1	0.1	0.9	1.0	0.7	1.0
Engineering and Related Technologies	6.2	8.2	8.8	8.6	9.7	12.0	9.8	9.6	11.5	7.5
Information Technology	3.5	6.9	7.3	8.0	8.0	5.8	6.3	6.9	4.3	5.8
Management and Commerce	5.8	4.7	6.0	5.5	6.7	7.1	8.6	5.6	9.4	6.3
Mixed Field Programmes	35.3	31.8	29.7	28.5	28.1	28.1	31.2	27.7	22.9	22.6
Natural and Physical Sciences	0.6	0.0	0.0	0.5	0.4	0.3	0.5	0.2	0.8	1.8
Society and Culture	31.9	30.5	30.0	27.0	27.6	29.0	27.8	32.2	33.8	35.0
No Standards passed/Identified for CSE	3.2	2.6	2.3	2.2	2.0	2.4	1.4	1.0	1.7	1.1

Source: Tertiary Education Commission.

### 5.3 Placements by programme ‘major’ NQF level

Youth Training courses are commonly referred to as located at levels 1 and 2 on the National Qualifications Framework (NQF). In the absence of a specific NQF level variable in the Youth Training data collection and for the purposes of investigation of trends, an NQF level variable has been created for each course using a similar method to that used above to identify a major field of study: an NQF level is assigned according to where the majority of credits available are positioned for Unit Standards taken in each course.<sup>22</sup>

<sup>20</sup> See appendix 1 for course field of study allocation method.

<sup>21</sup> ‘Mixed Field Programme’ has been assigned as a course major field if:

- ‘Mixed Field’ makes up the major field of each course, as described above, or
- there is a tie: two or more fields constitute the same highest proportion of credits available in a course.

<sup>22</sup> It should be noted that this is not the method used by NZQA to assign NQF levels to courses or programmes of study linked to the framework. The method used to allocate level is shown in appendix 2.

Table 28 shows the distribution of placements of learners in courses by the variable ‘Major NQF level’ between 1999 and 2008. Using this method, it appears that the majority of courses in Youth Training ‘major’ at level 2 on the NQF, with 10 percent of placements in courses located at higher levels.

The distribution of placements of learners by major NQF level appears to be quite stable until 2008, where there is a sudden proliferation of placements in courses at level 1 (39 percent of placements compared to 28 percent in 2007) with a corresponding drop in placements at level 2 (down by 11 percentage points in 2008 on 2007) compared to previous years. A small but significant proportion of courses contain mixes of standards that place them at levels 4, 5 and even level 6 of the NQF using this method.

Table 28 – Youth Training learner placements by course major NQF level

Major NQF Level	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Level 1	37.0	33.3	28.0	27.0	23.6	25.6	29.4	27.6	27.9	39.9
Level 2	52.1	56.2	59.6	59.9	64.6	64.4	61.7	63.2	64.9	53.8
Level 3	7.6	7.8	9.7	10.8	9.4	7.2	7.3	7.9	5.0	4.9
Level 4	0.0	0.0	0.3	0.1	0.3	0.3	0.1	0.2	0.4	0.2
Level 5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Level 6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
No Standards passed/Identified for CSE	3.2	2.7	2.4	2.2	2.0	2.5	1.5	1.0	1.7	1.1

Source: Tertiary Education Commission.

## 6 PARTICIPATION FREQUENCY AND DURATION

### 6.1 Order of placement

Between 2000 and 2008 around 53 percent of learners participating at any one time in Youth Training were participating in their first placement (not including 1999 when the programme first commenced). Table 29 shows the proportions of learners participating in each year by the order of placement. The proportion of learners placed for the first time peaked in 2006 with 56 percent of participants in first placements.

Table 29 – Youth Training placements by order of placement per learner by participation year

Order of programme placement	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
First placement	71.8	51.3	51.8	54.8	53.7	54.0	52.8	56.1	51.8	53.7
Second placement	22.0	27.8	26.3	26.3	28.0	26.7	27.5	26.4	29.1	26.4
Third placement	5.0	13.2	12.2	10.8	11.3	11.9	11.7	10.4	12.0	11.5
Fourth placement	0.9	5.3	5.7	4.7	4.3	4.5	5.0	4.2	4.6	5.2
Fifth placement	0.2	1.7	2.3	2.1	1.7	1.7	1.8	1.7	1.6	2.0
Sixth or more placement	0.1	0.7	1.7	1.4	1.0	1.2	1.1	1.0	1.0	1.2

Note - Learners can be placed a number of times in each year so may appear in more than one category

Source: Tertiary Education Commission

### 6.2 Placement frequency

Around 35 percent of learners participating at any one time in Youth Training are placed only once. Table 30 shows the proportions of learners participating in each year by the total number of placements that each learner is identified as having made throughout the whole 1999 to 2008 period.<sup>23</sup>

Learners may be placed in the same programme more than once (including more than once in the same year), or in a succession of programmes, depending on need. Of learners active in placements in 2002, 84 percent have been placed three or fewer times throughout the coverage of the dataset. By 2008, this proportion is 88 percent. The number of learners placed twice throughout the dataset who were active in placements in 2002 was 33 percent, and this proportion increased to 40 percent in 2008 showing evidence of an increase in the frequency of placements per learner as the dataset progresses.

The proportion of learners placed once does not really shift between 2002 and 2008, remaining steady at approximately 33 percent. The proportion placed 4 or more times active in 2008 is 11 percent, having reduced from 15 percent in 2002.

By ignoring the boundary years (that is 1999, 2000 to exclude developmental programme effects and 2007 and 2008 where active learners may be placed in future years that have not yet occurred), and comparing instead 2001 to 2006 we are able to see a slight increase in the proportion of learners who undertake two placements (from 31.5 percent to 34.1 percent). This appears to be at the expense of learners placed in 4 or more programmes which fell from 17.5 percent in 2001 to 15.8 percent in 2006).

<sup>23</sup> this is necessarily limited by the timeframe of the dataset. Learner whose first placement occurs towards the end of this period may be placed subsequent to 2008.

Table 30 – Youth Training placement frequency by learner by participation year

Frequency of programme placements per learner	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1	49.5	33.4	32.8	34.0	31.6	32.3	31.5	32.6	30.7	32.2
2	27.0	31.4	31.5	32.6	34.3	32.8	34.3	34.0	34.1	39.9
3	12.9	18.3	18.1	17.6	18.4	18.9	18.0	17.6	19.8	16.7
4	6.3	9.8	9.7	8.8	9.0	9.2	9.3	9.2	9.4	7.1
5	2.5	4.1	4.4	4.0	3.8	3.9	4.1	4.0	3.5	2.4
6 or more	1.8	3.0	3.4	3.0	2.9	2.9	2.8	2.6	2.4	1.7

Source: Tertiary Education Commission.

Around 70 percent of learners participating at any one time in Youth Training are participating in their first calendar year in the programme. This proportion is steadily decreasing. Table 31 shows the proportions of learners placed in any one year by the rank of that year in terms of their participation. This differs from the order of the placement in section 6.1 because it is the year of placement that is ranked, not the placement itself.

The vast majority (approximately 92 percent) of learners participate in Youth Training across 2 or more (not necessarily consecutive) calendar years. The proportion of learners participating in their first calendar year has fallen between 2002 to 2008 from 69 percent to 63 percent.

Table 31 – Youth Training placement frequency by participation year and year rank

Participation year rank	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1	100.0	70.2	68.3	68.8	65.7	64.9	63.0	65.6	60.5	62.6
2		29.8	24.5	24.0	26.9	26.6	27.8	25.6	29.8	26.0
3			7.1	6.2	6.2	7.1	7.7	7.2	7.8	9.3
4				1.1	1.2	1.1	1.5	1.4	1.7	1.8
5					0.1	0.1	0.1	0.1	0.2	0.2
6						0.0	0.0	0.0	0.0	0.1
7							0.0	0.0	0.0	0.0
8								0.0	0.0	0.0

Source: Tertiary Education Commission.

## 6.3 Placement duration

Placements on programmes are now generally for longer periods of time than in the past: the average length of placements is increasing. Table 32 shows the duration of completed placements by the year in which the placement ended. The majority of placements (78 percent) last for 24 or fewer weeks: this proportion was 82.5 for placements ending in 2001 and 68 percent for placements ending in 2008. Looking at it another way, there has been a large increase in the proportion of placements lasting for 25 weeks or longer, from 17 percent of the total number of placements ending in 2001 to 32 percent in 2008.

Table 32 – Youth Training placement duration by placement exit year

Trainee weeks	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
less than 1 week	0.5	0.7	0.5	0.7	0.6	0.7	1.0	0.4	0.7	0.4
1 to 4 weeks	16.3	14.9	13.2	12.8	13.9	14.6	14.0	12.8	11.7	12.1
5 to 8 weeks	18.6	18.4	18.0	16.7	15.9	15.6	15.3	15.7	14.9	14.9
9 to 12 weeks	16.1	16.6	14.6	14.0	12.9	13.2	13.7	13.2	13.2	12.0
13 to 16 weeks	12.7	12.4	13.5	12.9	11.0	11.1	11.7	11.7	10.7	11.4
17 to 20 weeks	10.9	10.5	10.3	9.9	10.3	9.2	9.6	9.6	9.7	9.5
21 to 24 weeks	17.4	14.5	13.0	11.3	10.8	8.5	8.1	7.9	7.9	8.2
25 or more weeks	7.5	12.1	17.0	21.7	24.5	27.1	26.6	28.7	31.2	31.6

Source: Tertiary Education Commission.

## 6.4 Total average duration

Table 33 shows the average total number of trainee weeks per learner by their first start year. Leaving a margin of two years to allow for learners active for the first time in 2007 and 2008 (and assuming that learners participate in Youth Training in consecutive years rather than in non-consecutive blocks), the average total number of trainee weeks per learner in total has increased between 1999 and 2006 from 27 to 34 weeks. There does not appear to be any major differences between the different participating ethnic and gender groups.

Table 33 – Youth Training learner average total duration by their first placement year

Ethnicity and gender	1999	2000	2001	2002	2003	2004	2005	2006
European	26.0	28.2	30.2	30.9	32.4	33.8	32.9	33.1
Māori	28.8	31.2	32.7	33.3	33.0	32.9	32.6	34.4
Pasifika	26.8	30.0	29.5	34.5	35.1	32.5	34.2	34.3
Males	27.5	30.0	31.4	32.3	33.2	33.1	33.4	34.0
Females	27.4	29.5	31.1	32.4	32.6	33.2	32.4	33.8
Total	27.4	29.8	31.3	32.3	33.0	33.2	32.9	33.9

Source: Tertiary Education Commission.

## 7 CREDIT ATTAINMENT

### 7.1 Credit attainment per placement

Table 34 shows the number of credits attained by each learner per placement by placement start year. Learners attained 20 or fewer credits in around 72 percent of placements in 2008, down from 76 percent in 1999. The proportion of learners attaining no credits in each placement has increased to 38 percent in 2008.

Table 34 – Youth Training learner credit attainment each placement by placement start year

Credit category	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
None	35.7	31.5	31.3	33.6	32.9	34.6	35.6	29.2	38.5	38.2
1 to 5	13.5	12.3	12.2	11.6	10.9	11.1	12.0	11.7	11.5	11.3
6 to 10	11.4	11.4	11.0	10.3	10.6	10.4	10.8	10.9	10.2	9.9
11 to 15	8.8	8.0	8.2	7.8	7.6	8.0	8.0	8.1	7.5	7.0
16 to 20	6.8	6.8	6.5	6.5	6.1	6.3	6.0	6.5	5.6	6.0
21 to 30	9.3	10.6	10.7	9.7	9.6	8.3	8.8	10.0	8.2	8.2
31 or more	14.5	19.3	20.1	20.4	22.2	21.3	18.9	23.7	18.5	19.5

Source: Tertiary Education Commission.

### 7.2 Average credit attainment per placement

Table 35 shows the average total number of credits attained per learner per placement by placement start year. The average number of credits attained across all learners for all years is 8.9 credits per placement. European and Pasifika learners consistently attain more credits than Māori while females earn more credits than males. Learners in other ethnic groups consistently gain the most credits of all groups.

Table 35 – Youth Training learner average credit attainment each placement by placement start year

Ethnicity and gender	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
European	6.4	8.1	8.5	9.4	11.0	11.1	10.1	11.4	12.0	10.5
Māori	5.1	6.7	7.0	8.1	8.2	8.4	8.2	10.4	8.7	8.3
Pasifika	6.0	8.8	9.3	10.4	10.6	11.1	9.1	10.1	7.7	9.0
Others	12.4	16.2	17.5	15.7	17.4	19.4	13.6	19.1	14.5	18.5
Females	6.9	8.7	9.1	10.4	11.6	11.8	10.3	12.4	11.3	10.8
Males	5.0	6.9	7.3	8.1	8.5	8.6	8.2	9.9	9.0	8.4
Total	5.9	7.7	8.1	9.1	9.9	10.0	9.1	11.0	10.0	9.5

Source: Tertiary Education Commission.

### 7.3 Average credit attainment per year

Table 36 shows the average total number of credits attained per learner in each year. The average credits attained for all learners across all years is 21.1 credits per learner per year. The rate of attainment peaked in 2000 and in 2006 at 23 credits per learner per year, but has fallen to 19.1 in 2008.

The rate of attainment for Māori and Pasifika learners is consistently lower than for European learners while females attain more credits on average per year than do males.

Table 36 – Youth Training learner average credit attainment by year

Ethnicity and gender	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
European	20.7	24.5	24.0	23.2	24.3	23.3	21.3	24.5	22.4	20.6
Māori	18.0	21.5	21.0	20.4	19.9	19.5	18.7	22.9	17.6	17.5
Pasifika	16.6	23.0	20.6	21.5	21.8	19.5	18.6	20.1	16.3	19.4
Others	18.3	24.1	22.5	22.2	23.6	24.7	17.5	23.5	17.9	22.7
Females	20.4	24.8	24.2	23.3	24.5	23.2	21.4	25.2	21.0	20.9
Males	17.7	21.5	20.7	20.4	20.0	19.6	18.2	21.7	18.0	17.5
Total	18.9	22.9	22.2	21.7	21.9	21.1	19.7	23.3	19.4	19.1

Source: Tertiary Education Commission.

### 7.4 Average credit per learner

Table 37 shows the average total number of credits attained per learner by the first placement year of each learner. The average number of credits attained for each learner has increased from 26 credits for learners starting for the first time in 1999 to 33 for those starting for the first time in 2006.<sup>24</sup> Māori and Pasifika learners consistently earn fewer credits on average than European learners while females attain more credits on average than males.

Table 37 – Youth Training learner average credit attainment across all years recorded by first placement year

Ethnicity and gender	1999	2000	2001	2002	2003	2004	2005	2006
European	28.2	32.8	33.9	34.6	36.5	35.6	32.2	35.2
Māori	25.5	30.8	32.1	31.0	30.7	30.3	28.5	31.6
Pasifika	22.3	29.8	29.2	31.3	34.4	28.4	26.4	29.8
Other	25.1	31.8	33.4	30.3	36.2	32.9	30.5	30.6
Females	28.1	33.8	35.8	35.2	37.2	35.3	31.9	35.7
Males	24.7	29.7	30.2	30.4	31.0	29.8	28.0	30.3
Total	26.2	31.5	32.6	32.5	33.6	32.2	29.8	32.8

Source: Tertiary Education Commission.

<sup>24</sup> Assuming learners participate in consecutive early blocks, and based on average duration, 2007 and 2008 first starters would still be earning credits in 2009 and 2010 respectively.



## 8 PLACEMENT OUTCOMES

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### 8.1 Placement outcomes

This section shows the distribution of placement outcomes by five main variables: ethnic group, gender, age, eligibility criteria and by provider type. A number of other variables could be used in an analysis of this sort, but are omitted on this occasion due to space considerations.

Training providers are required to track the activity of learners two months after they leave Youth Training. They report these ‘outcomes’<sup>25</sup> to the TEC, who attribute them to Youth Opportunities activity. The TEC reports the proportions of learners who are active in employment (full-time or part-time) or engaged in ‘further progressive training’ as positive outcomes attributable to the Youth Training intervention. Unemployment, or ‘out of the labour force’ status is recorded as a ‘negative’ outcome.

Youth Training outcomes are collated at two different levels:

- Leaving placements – where the proportion of positive and negative outcomes are derived from all placement outcomes
- Leaving the programme – where further progressive training outcomes which show a return into Youth Training are excluded from the calculation.

The latter are used to report against targets set in the TEC’s output agreements with the Minister of Tertiary Education. In a statistical study such as this it is interesting to examine both measures. However the majority of analysis focuses on leaving placement outcomes.

Table 38 shows the mixture of destinations for learners two months after leaving Youth Training placements across the 1999 to 2008 period. For around 30 percent of placement exits, learners are employed full-time two months after leaving the programme; approximately 33 percent have returned to Youth Training and around 16 percent are engaged in further training elsewhere. Around 20 percent are recorded as ‘unemployed’ or ‘out of the labour force’ (referred to as *other*).

All outcomes, barring *others*, are deemed ‘positive’, reflecting that TEC consider that for learners to be engaged in these activities two months after leaving Youth Training is a preferable outcome.

The proportion of outcomes regarded as positive has increased from 76 percent in 1999 to 84 percent in 2008 and correspondingly, the proportion of learners who are unemployed or out of the labour force declined from 24 percent for learners leaving placements in 1999 to 17 percent for learners leaving placements in 2008.

There has been a substantial drop in the proportion of learners gaining full-time employment after leaving placements in 2008. This may be a consequence of the poorer labour market conditions experienced in the lead-in to the current economic downturn. A slightly higher proportion of learners returned to Youth Training after leaving placements in 2008 than in previous years, while the proportion of learners going into further progressive training elsewhere also increased.

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<sup>25</sup> There is some debate about whether two month destinations recorded for accountability purposes in targeted training programmes can be considered to be ‘outcomes’ due to their short term nature, however this issue is not addressed in this paper and destinations are referred to variously as outputs, outcomes, destinations and labour market outcomes.

Table 38 – Two month placement outcomes 1999 to 2008<sup>26</sup>

Two-month placement outcome	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Employment – Full-time	23.8	26.9	28.0	30.5	29.8	31.6	30.3	31.7	32.9	25.9
Employment – Part-time	2.3	2.0	1.9	2.4	2.5	2.6	2.9	3.0	3.3	4.0
Return to Youth Training	32.3	34.5	34.1	31.2	33.2	32.5	32.8	33.2	32.3	35.8
Further Progressive Training Elsewhere	17.5	14.0	15.3	16.4	15.7	14.9	15.1	16.0	16.0	17.8
Other (including unemployed, out of the labour Force)	24.2	22.6	20.8	19.5	18.9	18.3	18.9	16.1	15.5	16.5

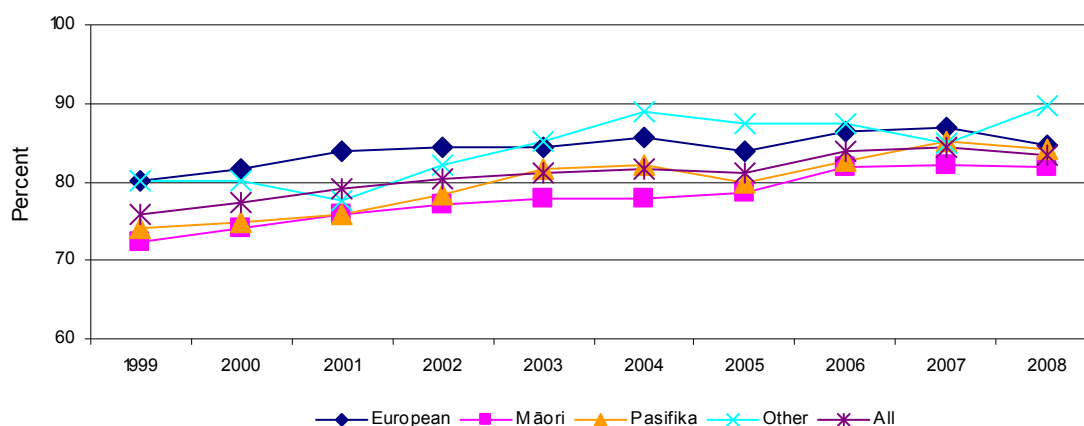
Source: Tertiary Education Commission.

Note: 'Year' applies to the year in which a placement ended.

## 8.2 Placement outcomes by ethnic group

Figure 5 shows the mixture of positive destinations by ethnic group by placement exit year. Māori learners are the least likely to leave Youth Training with a positive outcome while European learners are consistently the most likely to. The proportion of positive outcomes dropped slightly in 2008 after a plateau between 2006 and 2007, with the exception of for 'other' learners.

Figure 5 – Positive placement outcomes by ethnic group 1999 to 2008

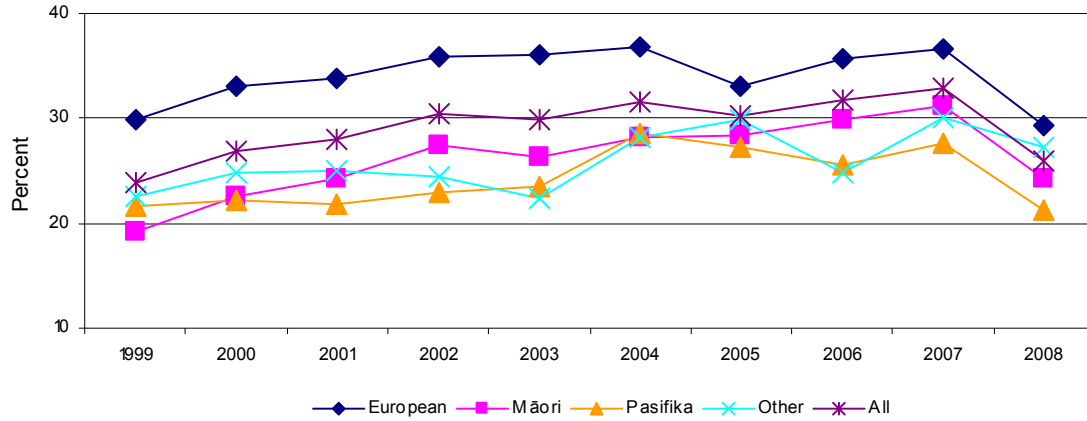


Source: Tertiary Education Commission.

<sup>26</sup> where labour market outcomes are known.

Figure 6 shows the proportion of placement exits recorded as full-time employment destinations by ethnic group. European learners are consistently the most likely to be working full-time within two months of leaving a Youth Training placement, while Pasifika learners are consistently the least likely to be. The drop in employment outcomes for 2008 affected all groups, but seems less dramatic for *other* learners, which includes Asian, Middle Eastern, Latin American, African and *ethnic group not specified* learners.

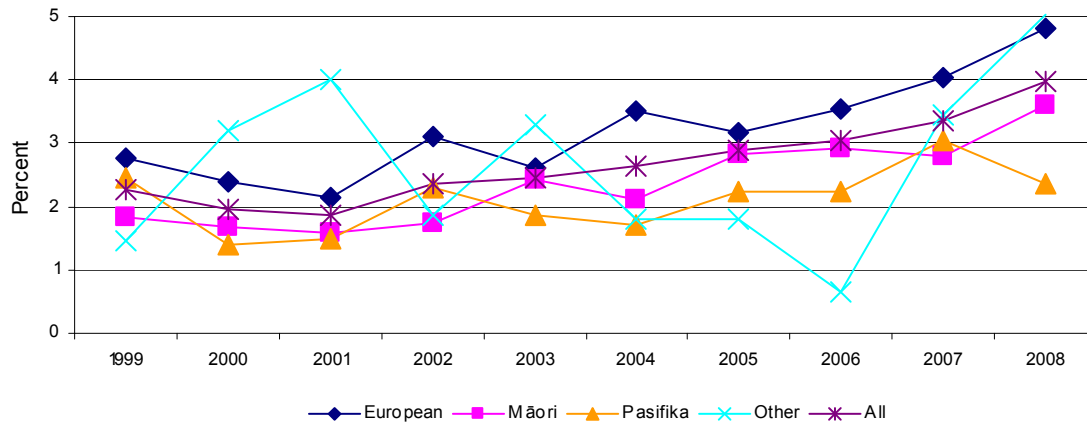
Figure 6 – Full-time employment placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 7 shows the mixture of part-time employment destinations by ethnic group. European learners are consistently the most likely to be working part-time within two months of leaving a Youth Training placement, while Pasifika learners are consistently the least likely to be. Māori learners are generally less likely than European learners to be employed part-time directly after leaving Youth Training.<sup>27</sup>

Figure 7 – Part-time employment placement outcomes by ethnic group 1999 to 2008

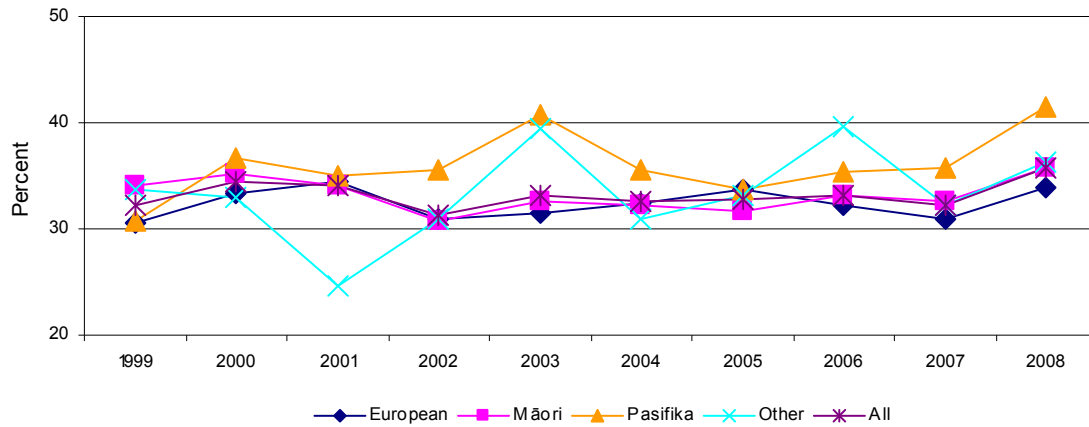


Source: Tertiary Education Commission.

<sup>27</sup> Where groups size is small and percentage shown is also small (i.e. for the *other* group), high volatility from year to year may be observed.

Figure 8 shows the proportion of learners returning to Youth Training within two months of leaving a programme. Pasifika learners are consistently the most likely to return to Youth Training, while European learners are consistently the least likely to.

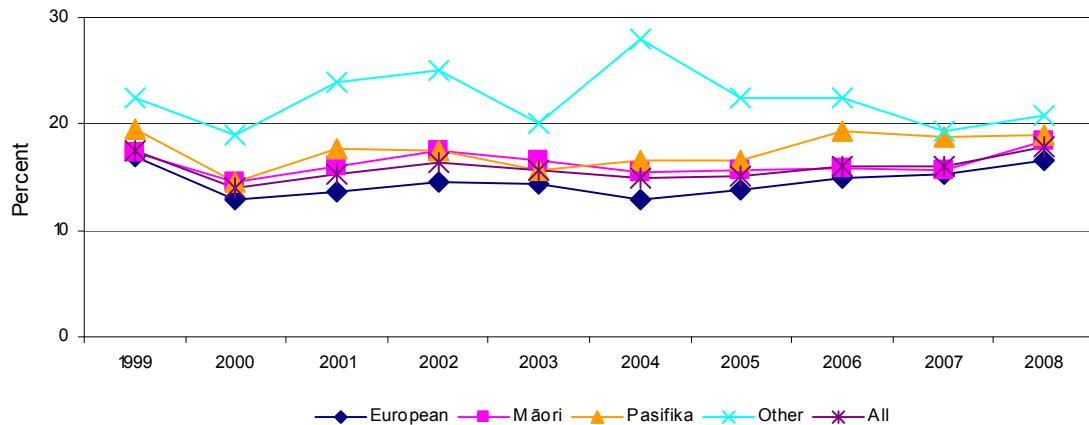
Figure 8 – Youth Training placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 9 shows the proportion of learners going on to further training outside of Youth Training within two months of leaving a programme. Other learners are consistently the most likely to do so while European learners are consistently the least likely to. The majority of these are engaged in full-time polytechnic training while around four percent go to Training Opportunities programmes.

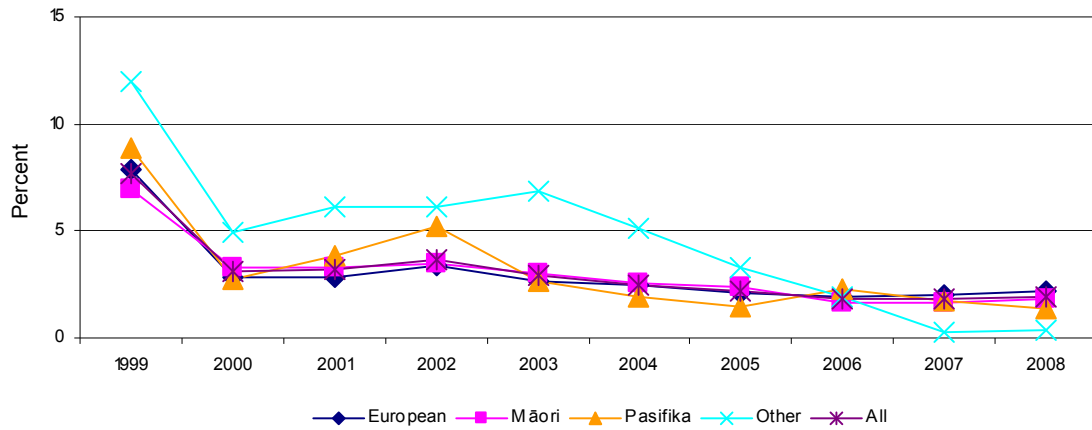
Figure 9 – Further progressive training elsewhere placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 10 shows the proportion of learners going in to the Training Opportunities programme within two months of leaving a Youth Training programme. According to these data, the proportion going into Training Opportunities directly from Youth Training has declined to under two percent in 2008, down from 8 percent in 1999. *Other* learners are consistently the most likely to do so (but are now the least likely to) while Pasifika learners seem consistently the least likely to.

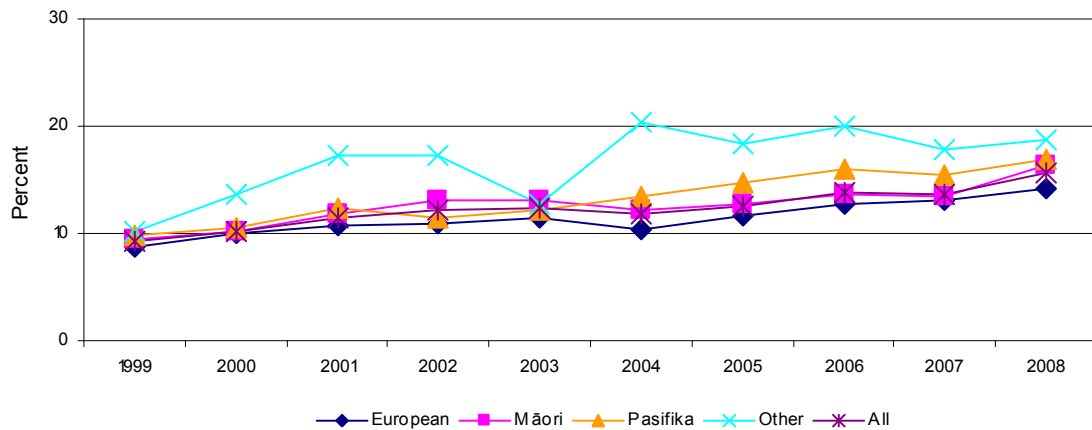
Figure 10 – Further progressive training elsewhere - Training Opportunities placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 11 shows the proportion of learners going in to full-time polytechnic training and other full-time training within two months of leaving a programme has increased to 16 percent in 2008 from 9 percent in 1999. *Other* learners are consistently the most likely to do so. Pasifika and Māori learners are consistently more likely to than European participants, who are generally the least likely to.

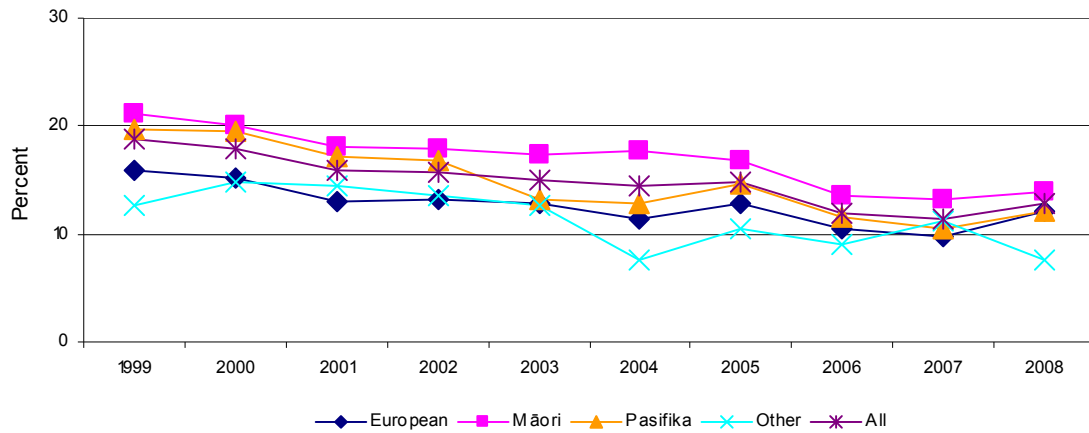
Figure 11 – Further progressive training elsewhere - polytechnic training or other full-time training placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 12 shows the proportion of learners who are reported as unemployed within two months of leaving a programme. Māori learners are consistently more likely to be unemployed than all other learners, and while the overall trend is a decline in the proportion who are unemployed, it has risen slightly in 2008 to now account for 13 percent of all placement exits.

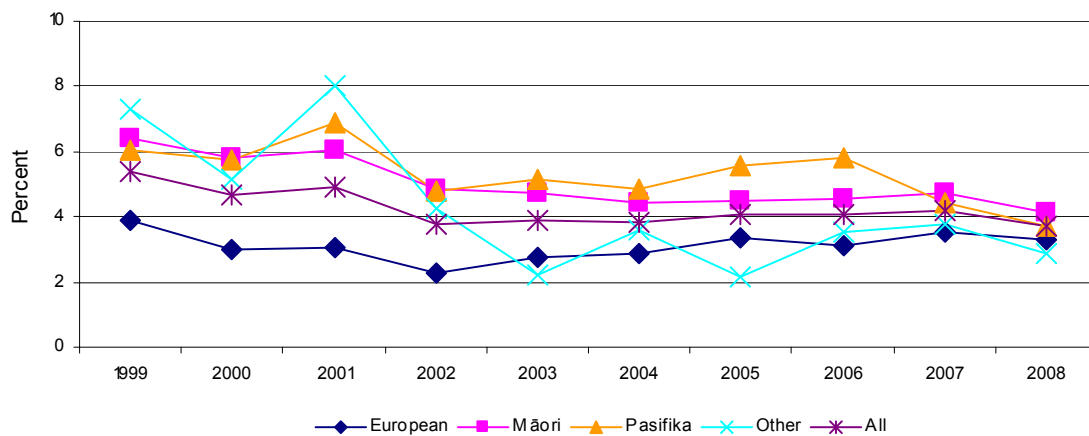
Figure 12 – Unemployed placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

Figure 13 shows the proportion of learners who are reported as *out of the labour force* within two months of leaving a programme. Pasifika and Māori learners are consistently more likely to be out of the labour force than all other learners and European participants are far less likely to be economically inactive than them overall, however, the gap between them has narrowed in recent years.

Figure 13 – Out of the labour force placement outcomes by ethnic group 1999 to 2008



Source: Tertiary Education Commission.

### 8.3 Placement outcomes by gender

Table 39 shows the outcome destinations of males and females across the 1999 to 2008 period. Males are consistently more likely than females to attain a positive outcome. They are much more likely to attain a full-time employment outcome and are less likely to attain unemployed / out of the labour force status on exit from Youth Training.

Females are more likely to attain part-time employment than males, and also to go directly to other full-time training. The proportion of males and females returning to Youth Training are consistently, fairly even.

Table 39 – Two month placement outcomes for males and females

Two month placement outcomes	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
<b>Males</b>										
Employment – full-time	26.7	30.1	31.8	35.7	34.1	36.5	34.6	35.8	37.3	29.6
Employment – part-time	1.9	1.6	1.4	1.6	1.8	2.0	2.3	2.3	2.2	3.3
Return to Youth Training	32.0	34.3	33.7	30.1	33.4	32.4	32.6	33.3	32.8	35.9
Further progressive training elsewhere	16.6	13.2	13.3	14.6	13.7	13.1	13.5	14.1	13.8	15.4
Other (including unemployed, out of the labour force)	22.8	20.9	19.7	18.0	17.0	16.0	17.0	14.5	13.9	15.7
% Positive	77.2	79.1	80.3	82.0	83.0	84.0	83.0	85.5	86.1	84.3
<b>Females</b>										
Employment – full-time	20.1	22.8	23.0	23.5	24.3	25.4	25.2	26.8	27.7	21.5
Employment – part-time	2.7	2.5	2.4	3.3	3.3	3.4	3.6	3.9	4.7	4.7
Return to Youth Training	32.6	34.8	34.5	32.7	32.9	32.7	33.0	33.0	31.7	35.7
Further progressive training elsewhere	18.6	15.0	18.0	18.9	18.1	17.3	17.1	18.3	18.5	20.7
Other (including unemployed, out of the labour force)	25.9	24.8	22.1	21.5	21.3	21.2	21.2	17.9	17.5	17.4
% Positive	74.1	75.2	77.9	78.5	78.7	78.8	78.8	82.1	82.5	82.6

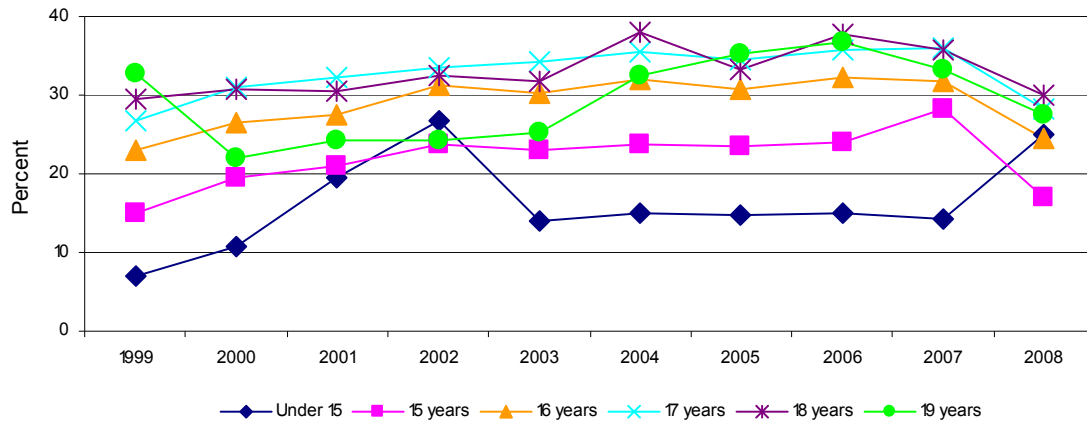
Source: Tertiary Education Commission.

Note: 'Year' applies to the year in which a placement ended.

## 8.4 Placement outcomes by age

Figure 14 shows the full-time employment destinations by age at leaving each placement. In general, the younger the learner at exit, the lower the likelihood that they will be in full-time employment two months after leaving a Youth Training programme. The proportion of learners engaged in full-time employment within two months declined for all groups in 2008 except for those aged under 15 years.

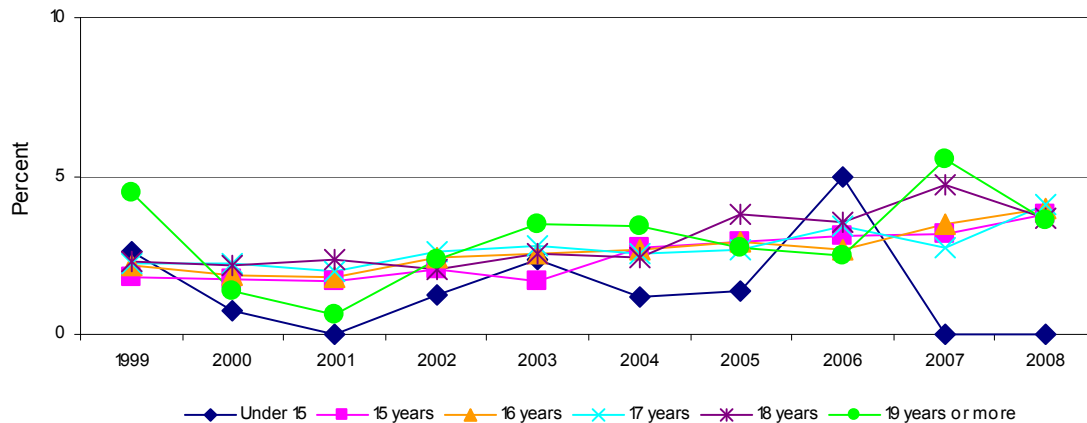
Figure 14 – Full-time employment placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 15 shows the part-time employment destinations by age at leaving placement. The proportion of learners gaining part-time employment is on the whole increasing slowly and there does not seem to be much difference between the age groups in 2008 (with the exception of under 15 years olds).<sup>28</sup>

Figure 15 – Part-time employment placement outcomes by age 1999 to 2008



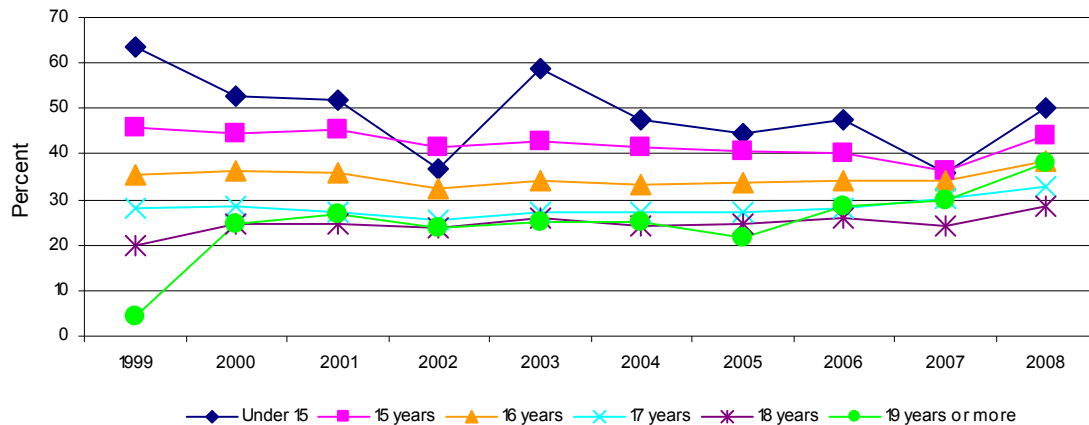
Source: Tertiary Education Commission.

<sup>28</sup> Where groups size is small and percentage shown is also small, high volatility from year to year may be observed.



Figure 16 shows the proportion of leavers who return to Youth Training within two months. In general, the younger learners are when they leave placements, the more likely they are to go directly into another placement.

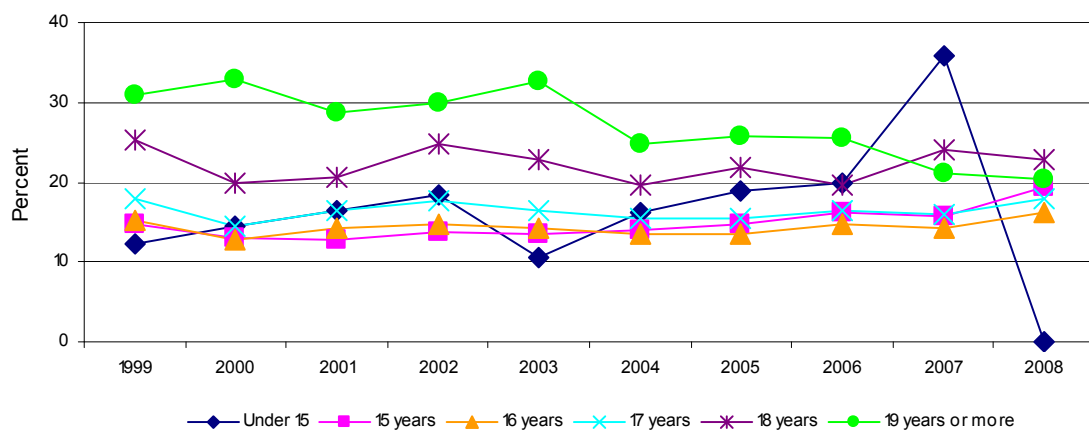
Figure 16 – Youth Training placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 17 shows the proportion of leavers who return to go to further progressive training outside Youth Training within two months. In general, older learners are more likely to transition into training outside the programme than the younger learners. Eighteen and 19 year olds and over seem significantly more likely to do so than the younger aged learners. The proportion of 19 years or older learners transitioning to further training within two months has steadily declined across 1999 to 2008. The data shows a steep fall in the proportion of under 15 year olds transitioning to further training between 2007 and 2008.

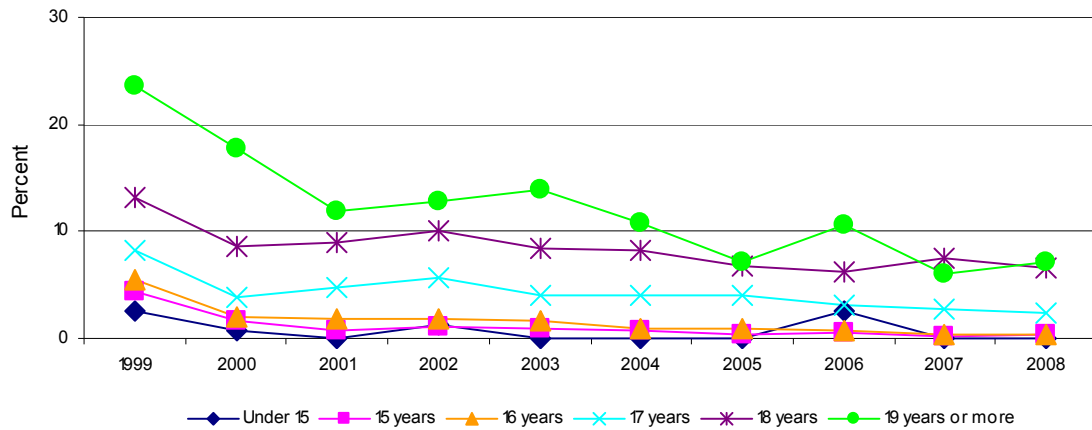
Figure 17 – Further progressive training placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 18 shows the proportion of leavers who go directly into the Training Opportunities programme within two months of leaving a Youth Training placement. In general, older learners are more likely to transition into Training Opportunities than younger learners. This is likely to be a targeting issue: older learners are more likely to meet the criteria for the programme than younger ones. The proportion transitioning to Training Opportunities has declined between 1999 and 2008.

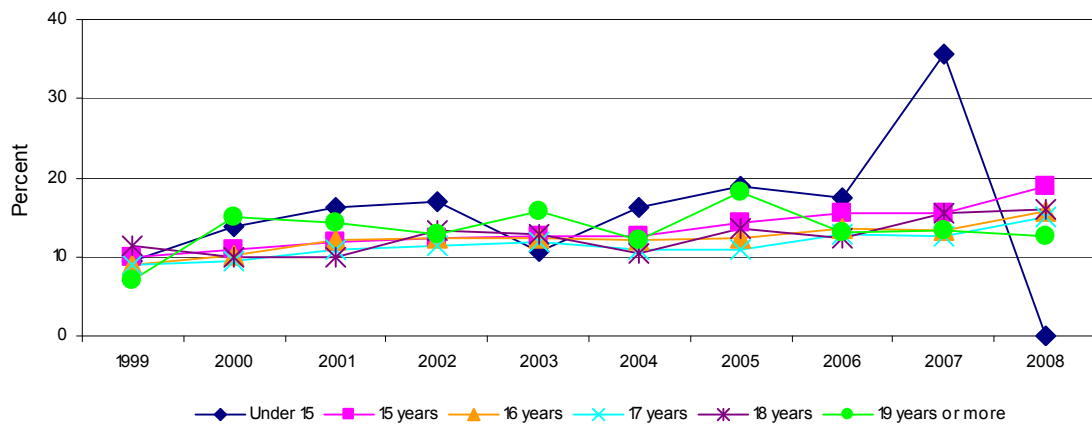
Figure 18 – Further progressive training elsewhere - Training Opportunities placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 19 shows the proportion of leavers who go directly into the other full-time training at a polytechnic or elsewhere within two months. There is a uniformly slow but steady increase in proportions going directly to this type of training across all age groups between 1999 and 2008. A surge in the proportion under 15 year olds in 2007 is followed by a steep decline in this group for 2008, the reasons for which are not entirely clear.

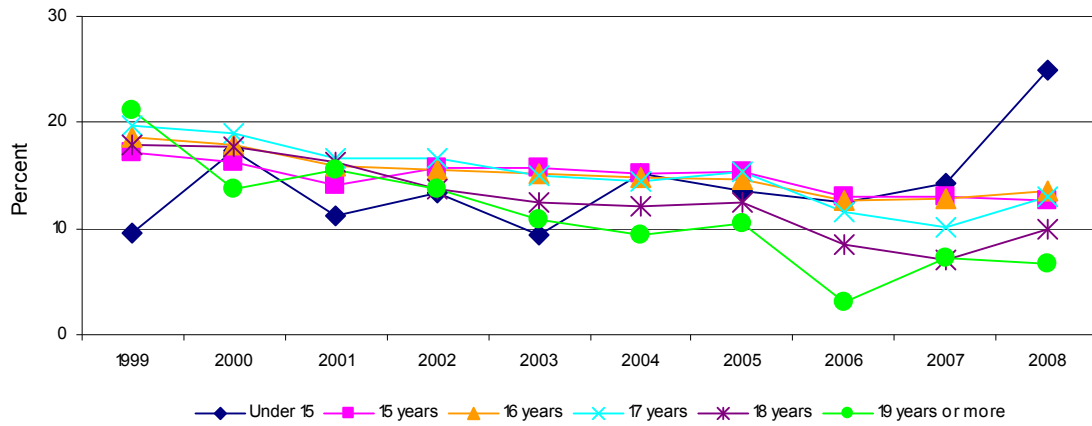
Figure 19 – Further progressive training elsewhere- polytechnic training or other full-time training placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 20 shows the proportion of leavers who are unemployed within two months of leaving a placement. Most obvious is the large increase in the proportion of under 15 year olds who are unemployed after leaving a placement between 2007 and 2008. In 1999 there is reasonable uniformity between the groups but more diversity is evident in 2008. The oldest learners are now the least likely to be unemployed, but in 1999 they were the most likely to be.

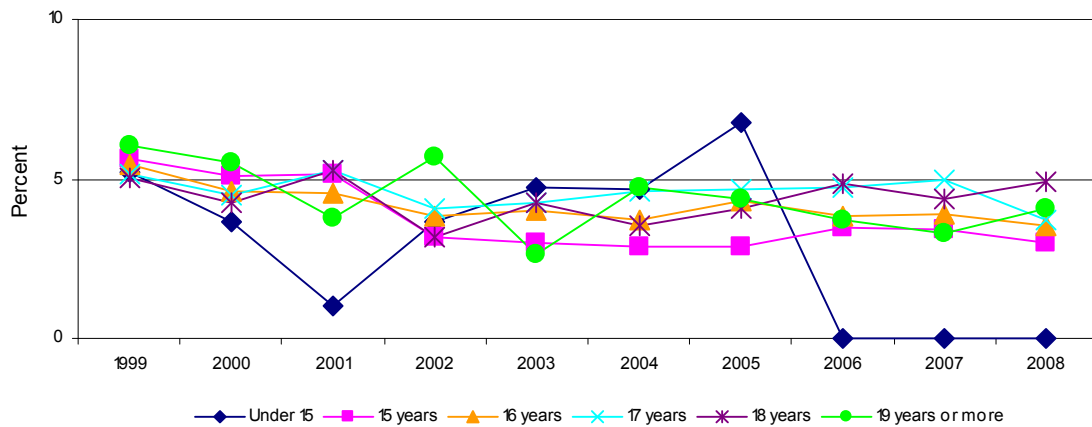
Figure 20 – Unemployed placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

Figure 21 shows the proportion of leavers who are *out of the labour force* within two months of leaving a placement. The proportion of under 15 year olds considered economically inactive declined to zero in 2006 and has not changed since.

Figure 21 – Out of the labour force placement outcomes by age 1999 to 2008



Source: Tertiary Education Commission.

## 8.5 Placement outcomes by eligibility

Table 40 shows the proportion of placement outcomes deemed positive for each eligibility category. In general, school leavers aged 18 years or more and the foundation skills category of learners tend to have higher proportions of learners with positive outcomes than from the largest category, the low qualified 16 and 17 year olds.

Table 40 – Positive placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	74.6	76.3	78.0	80.5	81.4	82.4	81.7	83.8	85.4	83.4
Exception	80.5	76.6	74.4	73.2	77.5	75.3	82.7	88.4	81.6	84.9
Low qualified 16/17	76.4	78.1	80.3	80.3	80.4	80.8	80.1	83.2	83.8	83.2
Refugees	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	94.4
School leaver 18+	84.9	82.1	81.5	84.9	89.4	89.2	87.5	91.1	93.4	89.0
Workbridge	84.8	81.0	80.7	92.7	91.7	86.8	92.5	88.3	75.7	80.0
YNYOUTH	67.1	69.8	70.2	77.1	83.3	79.1	85.1	80.8	74.0	77.9
Foundation skills	n/a	n/a	n/a	n/a	91.0	87.3	83.5	90.0	85.2	89.2

Source: Tertiary Education Commission.

Table 41 shows the proportion of full-time employment placement outcomes for each eligibility category. The largest group of learners, the low qualified 16 and 17 year olds, tend to have lower proportions of learners going on to full-time employment two months after Youth Training than other groups. The foundation skills and return to youth training eligible learners are generally more likely than other learners to attain a full-time employment outcome. The proportion of return to youth training learners gaining full-time employment outcomes dropped by seven percentage points in 2008, as did low qualified 16/17 year old outcomes.

Table 41 – Full-time employment placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	26.5	28.8	30.1	35.1	34.4	36.6	35.9	36.3	36.9	29.8
Exception	36.6	29.8	20.9	24.4	22.5	28.8	20.0	38.6	41.4	38.7
Low qualified 16/17	21.6	25.3	26.2	27.5	26.4	27.3	25.3	27.6	29.6	22.3
Refugees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	5.6
School leaver 18+	26.4	13.4	22.6	21.0	21.6	31.6	25.0	24.8	24.6	31.4
Workbridge	28.8	39.7	43.6	46.4	46.7	28.9	35.0	28.6	29.7	10.0
YNYOUTH	30.0	32.6	36.9	24.1	28.7	41.1	44.3	31.5	31.3	23.4
Foundation skills	n/a	n/a	n/a	n/a	38.8	37.7	33.7	40.9	36.9	34.4

Source: Tertiary Education Commission.

Table 42 shows the proportion of part-time employment placement outcomes for each eligibility category. The proportion of learners gaining part-time employment increased slightly across most groups in 2008.

Table 42 – *Part-time employment* placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	2.2	2.0	1.9	2.4	3.0	2.7	3.1	3.4	3.8	4.3
Exception	4.9	0.0	0.0	2.4	0.0	6.8	6.7	2.6	1.1	5.7
Low qualified 16/17	2.2	2.0	1.8	2.3	2.2	2.5	2.8	2.7	3.1	3.7
Refugees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
School leaver 18+	3.8	3.0	2.9	1.5	1.9	1.9	2.5	1.0	3.3	2.5
Workbridge	4.8	2.6	1.4	3.6	1.7	1.3	2.5	5.2	2.7	3.3
YNYOUTH	1.4	0.0	2.4	2.4	2.8	1.8	1.1	4.1	2.1	3.9
Foundation skills	n/a	n/a	n/a	n/a	1.1	4.5	2.7	3.7	2.9	3.5

Source: Tertiary Education Commission.

Table 43 shows the proportion of learners who return to Youth Training placement outcomes for each eligibility category. Around a third of learners in the *Return to Youth Training* eligibility category go on to return after their placement, implying that around a third of learners at any one time are in their third placement. Low qualified 16 and 17 year olds seem the most increasingly likely to return to the programme across 1999 to 2008 reflecting the relatively low proportion of this group who move into employment or further training. The proportions of most groups returning to Youth Training increased between 2007 and 2008 perhaps due to a weakening of employment options.

Table 43 – *Return to Youth Training* placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	27.1	31.6	30.5	27.1	28.1	28.0	27.9	28.4	28.1	31.0
Exception	24.4	27.7	32.6	14.6	30.0	20.5	30.7	29.6	21.8	29.2
Low qualified 16/17	36.3	36.8	37.2	34.2	36.9	36.7	37.1	37.0	35.8	39.5
Refugees	60.0	60.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	38.9
School leaver 18+	30.2	49.3	34.2	31.3	36.5	26.6	31.3	38.6	36.9	33.9
Workbridge	32.0	21.6	22.9	23.6	25.0	38.2	27.5	35.1	29.7	40.0
YNYOUTH	20.0	27.9	16.7	25.3	25.0	20.2	22.4	27.4	24.0	32.5
Foundation skills	n/a	n/a	n/a	n/a	34.0	30.4	31.9	28.7	34.0	37.5

Source: Tertiary Education Commission.

Table 44 shows the proportion of learners who go on to further progressive training within two months for each eligibility category. School leavers 18 years old (or over) are the most consistently likely to be engaged in polytechnic or other type full-time training within two months of leaving Youth Training.<sup>29</sup>

Table 44 – Further progressive training placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	18.8	13.8	15.5	15.8	15.9	15.2	14.8	15.7	16.7	18.3
Exception	14.6	19.1	20.9	31.7	25.0	19.2	25.3	17.5	17.2	11.3
Low qualified 16/17	16.4	14.0	15.1	16.2	14.8	14.3	15.0	15.9	15.3	17.7
Refugees	40.0	40.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	50.0
School leaver 18+	24.5	16.4	21.8	31.3	29.3	29.1	28.8	26.7	28.7	21.2
Workbridge	19.2	17.2	12.9	19.1	18.3	18.4	27.5	19.5	13.5	26.7
YNYOUTH	15.7	9.3	14.3	25.3	26.9	16.0	17.2	17.8	16.7	18.2
Foundation skills	n/a	n/a	n/a	n/a	17.0	14.6	15.2	16.6	11.5	13.9

Source: Tertiary Education Commission.

Table 45 shows the proportion of learners in the *Other* category within two months of leaving Youth Training for each eligibility category. This category consists of *unemployed, out of the labour force* and *community work* sub categories. YNYOUTH learners, that is those without low qualifications, under 18 years of age who have been unemployed for 13 weeks or more (YNYOUTH) are most likely of all categories to attain this outcome. Most categories have declined in respect to proportion gaining this outcome between 1999 and 2008, as the general level of labour market participation increased. However Workbridge clients have increased their proportion of *Other* outcomes.

Table 45 – Other placement outcomes by eligibility criteria category 1999 to 2008

Criteria category	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	2007 (%)	2008 (%)
Return to Youth Training	25.4	23.7	22.0	19.5	18.6	17.6	18.3	16.2	14.6	16.6
Exception	19.5	23.4	25.6	26.8	22.5	24.7	17.3	11.6	18.4	15.1
Low qualified 16/17	23.6	21.9	19.7	19.7	19.6	19.2	19.9	16.8	16.2	16.8
Refugees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5.6
School leaver 18+	15.1	17.9	18.5	15.1	10.6	10.8	12.5	8.9	6.6	11.0
Workbridge	15.2	19.0	19.3	7.3	8.3	13.2	7.5	11.7	24.3	20.0
YNYOUTH	32.9	30.2	29.8	22.9	16.7	20.9	14.9	19.2	26.0	22.1
Foundation skills	n/a	n/a	n/a	n/a	9.0	12.7	16.5	10.0	14.8	10.8

Source: Tertiary Education Commission.

<sup>29</sup> Where groups size is small and percentage shown is also small, high volatility from year to year may be observed.

## 8.6 Placement outcomes by provider type

Placement outcomes also differ depending on the type of organisation providing Youth Training. Figure 22 shows the proportion of placement outcomes deemed positive for each provider type. In general, learners placed in private training establishments and other provider types are observed to attain the highest proportion of positive outcomes. Learners placed with employers vary considerably across the years (as is often observed for categories with small numbers of learners). Learners placed with polytechnics / institutes of technology (only 1.9 percent of learners in 2008 – see table 24) are the least likely to attain a positive outcome over 1999 to 2008.

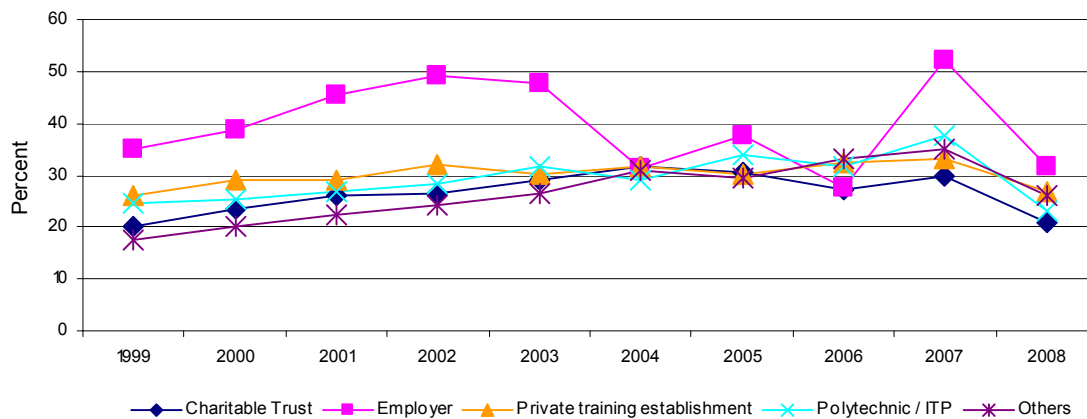
Figure 22 – Positive placement outcomes by provider type 1999 to 2008



Source: Tertiary Education Commission.

Figure 23 shows the proportion of full-time employment placement outcomes for each provider type. As might be expected, in general learners placed with employers are the most likely to attain a full-time employment outcome (but there is high variability due to low numbers). A general decline between 2007 and 2008 is evident for all groups after what seems a period of slow increase. This again may be the early effects of the present economic downturn manifesting itself among young people with low or no skills and poor previous employment histories.

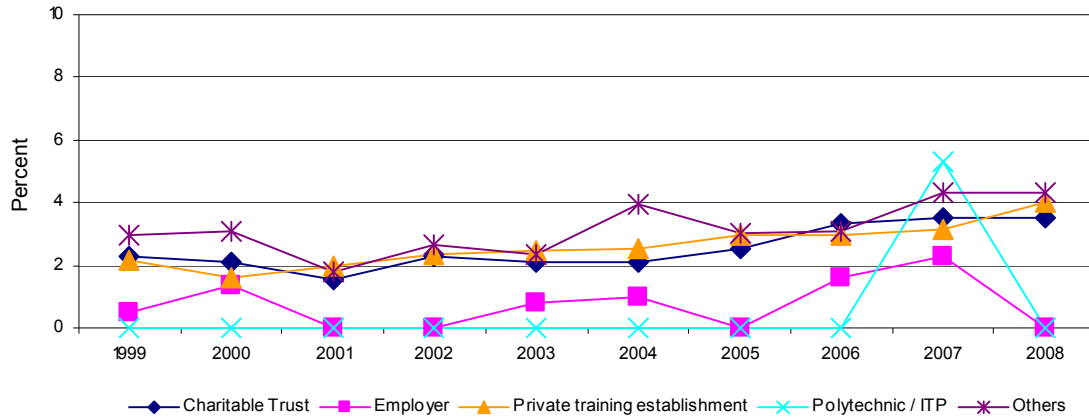
Figure 23 – Full-time employment placement outcomes by provider type 1999 to 2008



Source: Tertiary Education Commission.

Figure 24 shows the proportion of part-time employment placement outcomes for each provider type. Learners placed in other organisations (consisting of all provider types not separately plotted) are most likely to be engaged in part-time employment two months after leaving a Youth Training placement. There is a general upwards trend across most provider types, and only learners leaving programmes in polytechnics/ITPs and employers seem to have shown decline between 2007 and 2008.

Figure 24 – Part-time employment placement outcomes by provider type 1999 to 2008



Source: Tertiary Education Commission.

Figure 25 shows the proportion of placement outcomes for each provider type resulting in a direct return to Youth Training. In general, learners placed with charitable trusts, private training establishments and other provider types are more likely than those placed with employers to return directly to Youth Training. Learners with most provider types increased proportionally in this category between 2007 and 2008, perhaps driven by a declining labour market as the first effects of the economic downturn begin to be felt.

Figure 25 – Return to Youth Training employment placement outcomes by provider type 1999 to 2008

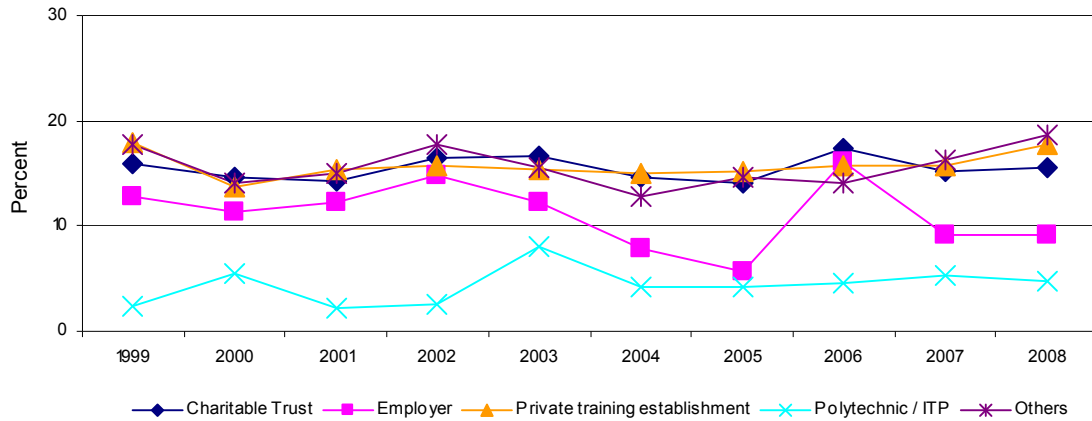


Source: Tertiary Education Commission.



Figure 26 shows the proportion of further progressive training outside Youth Training placement outcomes for each provider type. In general, learners placed with polytechnics and institutes of technology are less likely than the other types to go on to further progressive training outside the programme. This finding is interesting given the location of most further progressive training programme destinations.

Figure 26 – Further progressive training placement outcomes by provider type 1999 to 2008



Source: Tertiary Education Commission.

Figure 27 shows the proportion of *other* (including unemployed, out of the labour force and community work) placement outcomes for each provider type. In general, learners placed with employers are most likely of all provider types to be unemployed, out of the labour force or involved in community work directly after leaving a Youth Training placement. This is an interesting observation when placed against the finding, noted earlier, that those placed with employers also have the highest propensity to move into full-time employment. This reflects a low propensity of this group moving into further training or part-time employment.

Charitable trust, employer-based and polytechnic/ITP-based learners were more likely to attain an *other* outcome in 2008 than in 2007, following a period of overall decline.

Figure 27 – Other placement outcomes by provider type 1999 to 2008



Source: Tertiary Education Commission.

## 9 STATISTICAL MODELLING USING SCHOOLS DATA

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The Ministry of Education has created a longitudinal transitions dataset that integrates schools data and records of all formal post-school education activity. The advantage of using this dataset to analyse Youth Training is that it contains schools-related variables not present in Youth Training administrative datasets, and it can provide further richness of demographic-related variables, particularly for ethnic group.

By linking schools data with the Youth Training administrative dataset, it is possible to get a clearer view of the sorts of things that are important in predicting entrance into Youth Training. These variables are used as independent variables in a logistic regression model.

The main research question was, for all school leavers leaving school in certain years, what predicts transition to Youth Training? For the purposes of this study, entrance into Youth Training may be directly from school, or the transition may be indirect. A transition into Youth Training occurs when a person participates in a Youth Training programme in the same year or a year subsequent to (that is within three years of) the year in which the learner is judged to have left school. This definition of a transition may differ from those used in other analyses. This means that whatever occurs between school and the first Youth Training enrolment, if anything, is not accounted for in this model.

School leavers leaving school in 2005, 2006 and 2007 were included in this analysis. A combination of a Youth Training variable (*date left school*) and a transitions dataset variable *school leaving date* was used to roughly determine the date the student left school.

Linking Youth Training and schools data is complicated by the fact that the schools record is in this case derived using NQF achievement data. Youth Training learners may have a National Student Number, but may not have an entry on their record of learning. This is because schools (until recently) were not required to report 'not achieved' standards to NZQA. Because Youth Training learners are more likely to have no qualifications on entry, they are less likely to have 'populated' NQF records, and so schools-related data is difficult to source for them.

This is controlled in the model through the *Unit Standards taken* variable, which measures the proportion of standards achieved that are identified as unit standards. It also records if a learner has no credits in their record of learning, taken as a proxy measure that they have attained no qualifications or standards at school.

Ussher (2008) found that school leavers who participate in vocational type learning (as opposed to academic-type learning) in post-school destinations are more likely to have taken unit standards at secondary school than those participating in bachelors-level study. Inclusion of this variable in the model tests whether this is also the case for entrants into Youth Training.

The transitions dataset contains information collected over a period of time and in different settings, making it possible to assess ethnic group based on the consistency of ethnic response. Three levels of ethnic identification have been derived and applied to each learner, based on the frequency and consistency of their ethnic self-identification, and dummy variables for each possible ethnic group have been created for each learner. These levels are: *never*, *ever* and *sole*. A learner is categorised as 'never European' if he/she has never selected the European ethnic grouping in the included administrative data collections. If they have selected *European* in one or more collection, in conjunction with some other ethnic group, they will be recorded as *ever* European. If they have always identified as *European* in the constituent datasets, they are categorised as *sole* for each ethnic group.<sup>30</sup>

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<sup>30</sup> See Engler, 2010, for further discussion on *never*, *ever* and *sole* ethnic identification variables.

## 9.1 Summary of effects

The model was able to explain 15 percent of the observed variance, a relatively low explanatory power ( $n=174,355$ ,  $R \text{ square} = 0.1488$ ). There are likely to be a great deal of things that cannot be measured that contribute to a person's education choices, so it is not unusual for statistical models of education data to have low explanatory power.

A number of other variables could have been included in this model, but are omitted because of collinearity issues. For example, highest educational attainment at school correlated highly with the unit standards taken variable because of the inclusion of the non-attainment category.

Table 46 shows the summary of the model. The variables are ranked in the order of the amount of variation in the model accounted for by each. The higher the variable is in the list, the more important it is in predicting the dependent variable.

The most important predictor in this model was the proportion of standards achieved in NCEA that are unit standards, followed whether the learner identifies as Asian or Māori, the school decile, the year the learner left school and whether the learner was granted an early leaving exemption (which is likely to be highly correlated with the year left school variable). Our analysis identified high correlation between these two variables and school decile, however, decile was left in as a proxy measure of socio-economic status of the learner. The cost of including decile is the possibility of inflated explanatory power of the model, so predicted probabilities should be interpreted cautiously.

Table 46 – Model specifications by variable

Variable	Degrees of Freedom	Chi-Square	Pr > ChiSq)
Unit standards taken	5	9,353.5	<.0001
Asian	2	621.4	<.0001
Māori	2	529.6	<.0001
School decile	4	288.3	<.0001
Year left school	2	243.5	<.0001
Early leaving exemption	1	243.0	<.0001
School isolation	3	68.8	<.0001
School gender	2	35.1	<.0001
Pasifika	2	8.5	0.0143

Table 47 shows the summary of the model. The variables are again shown in the order of the amount of variation in the model accounted for by each variable. The predicted probability and the odds ratio columns are probably the most important ones to pay attention to. The odds ratios are the odds of each category of the variable over the reference category with respect to the chances of transitioning to Youth Training.

The strongest effect was the unit standard variable. School pupils who attained no credits overall, or took high proportions of unit standards at school were more likely to transition to Youth Training than those who took mainly achievement standards.

The odds of not transitioning to Youth Training are almost double for those who have never indicate Asian ethnicity over those who have always done so. This indicates that Asian pupils have not been transitioning to Youth Training at the same rate as other ethnic groups.

The odds of transiting to Youth Training improve with the frequency of identification as Māori. Pupils who have never indicated Māori ethnic affiliation are less likely to enter Youth Training than pupils who have sometimes, or have always indicated they are Māori.

Pupils leaving schools with low school deciles (1 and 2) were 1.24 times as likely to transition to Youth Training as a pupil leaving a decile 7 or 8 school. The year the pupil left school also has a bearing on whether they transition to Youth Training. This variable probably encompasses a variety of external effects, such as the variability of the strength of the economy and by association the labour market between years, as well as the variability between further education options. School leavers who left in 2007 were more likely to transition to Youth Training than those who left in 2005, possibly due to a weakening in the labour market for industries young people traditionally work in.

If a learner is granted an early leaving exemption, they are over twenty times as likely to enter Youth Training than similar school leavers who have not. The predicted probability of an early leaving exemption leaver entering Youth Training is 10 percent, compared to the reference category's 1 percent. This may be because many of those who leave school early are routinely referred to a Youth Training provider.

School leavers in highly urbanised areas and in isolated areas are more likely to transition to Youth Training than those leaving schools situated in less dense urban areas or those that are considered to be highly isolated, but the difference is small.

School gender has a small effect. Pupils leaving all-boys senior schools were less likely to transition to Youth Training than those leaving co-ed or all-girls senior schools.

Pupils who have never indicated Pasifika ethnicity are less likely to enter Youth Training than pupils who have sometimes indicated they are Pasifika. Pupils who have always indicated Pasifika ethnicity are slightly less likely to transition into Youth Training than those who sometimes have.

Table 47 – Logistic regression results

Explanatory variable	Category	Predicted probability	Significance	Logit	Odds ratio
Unit standards taken	Quintile 1 <sup>31</sup>	0.00	<.0001	-1.0924	0.34
	Quintile 2	0.01	ref	ref	ref
	Quintile 3	0.01	<.0001	0.6299	1.88
	Quintile 4	0.01	<.0001	0.9543	2.60
	Quintile 5	0.02	<.0001	1.4679	4.34
	No NQF standards <sup>32</sup>	0.08	<.0001	2.7611	15.82
Asian	Never	0.01	<.0001	0.685	1.98
	Ever	0.01	ref	ref	ref
	Always	0.00	<.0001	-1.9139	0.15
Māori	Never	0.01	ref	ref	ref
	Ever	0.01	<.0001	0.5991	1.82
	Always	0.01	<.0001	0.5195	1.68
School decile	1 and 2	0.01	0.0028	0.2139	1.24
	3 and 4	0.01	0.8683	0.1021	1.11
	5 and 6	0.01	0.5416	0.0972	1.10
	7 and 8 (ref)	0.01	ref	ref	ref
	9 and 10	0.00	<.0001	-0.6181	0.54
School Leaving year	2005	0.01	ref	ref	ref
	2006	0.01	<.0001	0.3438	1.41
	2007	0.01	<.0001	0.3835	1.47
Early Leaving Exemption?	Yes	0.10	<.0001	3.0024	20.13
	No	0.01	ref	ref	ref
Isolation	Dense urban	0.01	<.0001	0.2334	1.26
	Less dense urban	0.01	0.0527	0.0835	1.09
	Isolated	0.01	<.0001	0.2748	1.32
	Most isolated	0.01	ref	ref	ref
School Gender	CO-ED	0.01	ref	ref	ref
	Boys	0.00	<.0001	-0.2122	0.81
	Girls	0.01	0.9717	-0.00134	1.00
Pasifika	Never	0.01	ref	ref	ref
	Ever	0.01	0.018	0.1233	1.13
	Always	0.01	0.1538	-0.0561	0.95

<sup>31</sup> Quintiles refer to the proportion of standards attempted that are unit standards. Learners categorised in quintile 1 show a low ratio of unit standards attempted over achievement standards, while a quintile 5 category denotes that over 80 percent of standards attempted by the learner were unit standards.

<sup>32</sup> This means no unit or achievement standards are recorded for the learner.

## 10 OUTCOME MODELLING

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In previous sections we have shown the observed labour market outcomes of Youth Training. However, these observations are not likely to show the full picture of what happens for each learner type because of the cumulative effects of different variables. This is where statistical modelling becomes useful. It enables us to determine the strength of the relationship between individual variables and the labour market outcome while controlling for all the other variables.

Using multinomial logit analysis, it is possible to calculate the contribution of each variable value with respect to the labour market outcomes recorded at the end of each placement. The dependent variable in this case is the category of outcome two months after the end of each Youth Training placement, and the independent or explanatory variables are those already described in preceding sections.

Logits were calculated for all variables in the model with respect to their contribution to a negative (an *other*) output over other outcomes. This makes it possible to calculate an odds ratio for that level of the variable for each possible output. For example, for the year variable, the logit shows how much more or less likely learners leaving placements in one year are likely to attain one type of labour market outcome compared with the *other* outcome.

The advantage of this approach is that it enables control of all the other variables within the model so that the contribution of each variable to the attainment of each labour market outcome can be more accurately assessed.

Simply put, we can show how powerful each variable is in predicting outcomes. We can also calculate the odds<sup>33</sup> of a positive outcome over a negative outcome for any single variable value. For example, we can assess the likelihood of an outcome for a person aged 16 years, controlling for the fact that they are also male, European, and for their previous qualifications and employment experience. This is important because any number of possible combinations of these variables are possible for a person, and various interactions between them may change the final result. For instance young learners who are males in Auckland may have different outcomes from young people who are female in the Southern region. If we calculate the odds for each iteration of each variable, while controlling for all other possible iterations of other variables, we can be more sure of what's driving the attainment than by just looking at the observed results.

The model is limited by the data that is available to it, so its explanatory power may be relatively low.<sup>34</sup> However, this is common where analyses of education programmes are concerned. It is simply not possible to account for every variable that may have an effect on the outcome of Youth Training. The administrative dataset is a rich source of information, and by performing this analysis we are able to show with some confidence what some of the more powerful predictors of each outcome may be.

It is also not possible to include all of the administrative variables within the model, primarily because of collinearity issues. For example, trainee weeks and credit attainment are highly correlated, as are learner age and educational attainment. Where collinearity is indicated, one or more correlated variables are excluded to increase the precision of model estimates.

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<sup>33</sup> In contrast, if the predicted probability were calculated, it would apply to a chosen reference category of learner.

<sup>34</sup> A pseudo R Square statistic for the model was not produced.

## 10.1 Summary of effects

Table 48 shows the summary of the model. The variables are ranked in the order of the amount of variation in the model each accounts for. The closer the variable is to the top of the list, the more important it is in terms of explaining how the dependent variable relates to the independent variable. In this case, the most important predictor is the number of credits attained variable, which explained 20 percent of the variance explained by the model. The second largest effect was Region, which explained 15 percent. The employment history of the learner accounted for 11 percent of the observed variance, while the ethnicity of the learner was the next most powerful predictor.

The model suggests that the number of credits attained in each placement, regional conditions / differences, ethnic group of learner and order of placement have the most influence on their success after leaving a placement. The employment and education history of the learner before entering Youth Training is also important. The field of study of the course, gender and the year have lesser but still important explanatory effects. In fact, all of the variables tabulated show statistical significance; that is they are shown to have an influence on outcomes. However, some (those closer to the top of the table) are more influential than others.

Table 48 – Model specifications by variable

Variable	Degrees of Freedom	Chi-Square	% Variance explained	Pr > ChiSq)
Credits achieved	12	1,993.3	20.0	<.0001
Region	27	1,482.6	14.9	<.0001
Employment history	9	1,112.3	11.2	<.0001
Ethnicity	9	962.5	9.7	<.0001
Placement order	9	944.4	9.5	<.0001
Course Major Field	27	850.4	8.5	<.0001
Education history	6	748.7	7.5	<.0001
Gender	3	704.0	7.1	<.0001
Year	24	695.9	7.0	<.0001
Training provider type	12	463.2	4.7	<.0001

The tables in the remainder of this chapter compare the likelihood of different outcomes from Youth Training. They do this by comparing the probability of an outcome category with the probability of the outcome being unemployment/out of the labour force (which is referred to as an *other* outcome). This gives an ‘odds ratio’. If the odds ratio of an outcome category is greater than 1, this means that the outcome is more likely than unemployment/out of the labour force. If the odds ratio of an outcome is less than 1, then the outcome is less likely than unemployment/out of the labour force. These odds ratio apply to the average learner rather than to any particular reference category of learner.<sup>35</sup>

## 10.2 Credit attainment

The number of credits attained in each placement was the largest predictor of programme outcome. The more credits learners attain, the greater propensity they have to move into employment or further training.

<sup>35</sup> See Allison, 1999 for a description of the outputs of generalised logit models.

Table 49 shows that for learners who attained no credits, or 10 or fewer credits, an *other* outcome (i.e. unemployment/out of the labour force) was the more likely to occur of any of the other outcome categories.

For learners gaining 11 to 20 credits, the odds of any outcome were even. There was no statistical significance between any of the categories and the *other* outcome category, apart from further progressive training, which was less likely to occur.

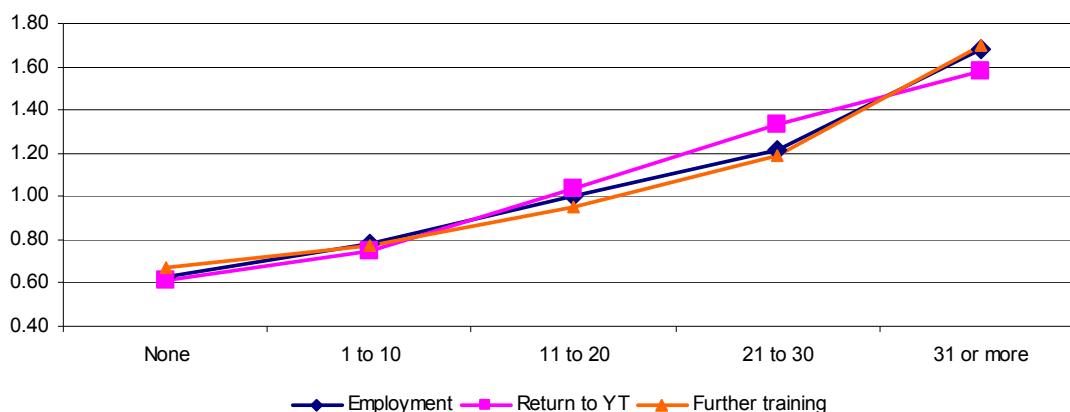
Learners who gained between 21 and 30 credits were most likely to return to Youth Training, followed by employment and then by further progressive training (in order of odds of their occurring).

Learners attaining 31 or more credits were most likely to engage in further progressive training; be in employment, or return to Youth Training two months after leaving a placement.

Table 49 – Odds ratio of labour market outcome to *other* outcome category by credits attained on placement

Credits attained	Outcome	Estimate	Pr > ChiSq	Odds ratio
None	Employed (full and part-time)	-0.47	ref	0.63
	Return to Youth Training	-0.49	ref	0.61
	Further progressive training	-0.39	ref	0.68
1 to 10	Employed (full and part-time)	-0.25	0.00	0.78
	Return to Youth Training	-0.29	0.00	0.75
	Further progressive training	-0.26	0.00	0.77
11 to 20	Employed (full and part-time)	0.00	0.93	1.00
	Return to Youth Training	0.04	0.06	1.04
	Further progressive training	-0.05	0.04	0.95
21 to 30	Employed (full and part-time)	0.20	0.00	1.22
	Return to Youth Training	0.28	0.00	1.33
	Further progressive training	0.17	0.00	1.18
31 or more	Employed (full and part-time)	0.52	0.00	1.68
	Return to Youth Training	0.46	0.00	1.58
	Further progressive training	0.53	0.00	1.70

Figure 28 – Odds ratio of labour market outcome to *other* outcome category by credits attained on placement



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.



## 10.3 Region

Learners differed by geographical location in the likelihood of attaining each labour market outcome. An *other* outcome (i.e. unemployment/out of the labour force) is the most likely outcome in the Northland and Wellington regions. A return to Youth Training is most likely in Auckland where further progressive training and *other* outcomes are just as likely to occur.

Learners in the Bay of Plenty, Eastern Coast, Nelson-Marlborough-West Coast regions are most likely to be employed two months after leaving Youth Training. Learners in the Southern and Auckland Regions are most likely to return to Youth Training directly after leaving a placement while learners leaving placements in the Central and Waikato regions are the only ones who are more likely to go on to further progressive training directly after leaving a Youth Training placement.

It is not entirely clear whether this variable is showing a geographic isolation effect, an administration effect, a regional labour market effect or something else entirely. Generally learners placed in programmes in non-metropolitan areas have a higher propensity to gain an employment outcome over an *other* outcome than those placed in metropolitan areas. Further progressive training outcomes also follow this pattern, except for learners placed in the south island. This points to an isolation effect, but one that operates differently for employment than for training outcomes.

It may be that Youth Training participants in more densely populated areas face stiffer competition for jobs than learners in less densely populated areas. South Island participants may also face less competition for placement in further training establishments such as polytechnics and institutes of technology than learners in the more densely populated north island. Regional effects may also reflect the different concentrations of various industries within them, and differing work patterns. For example, some regions have high concentrations of agricultural and horticultural industry concentration, and employment in those regions may be more casually and seasonally-based as a consequence.

There is bound to have been some difference in the strength of the youth labour market between regions across the time period, and this is also likely to have contributed to the variance explained by this variable. It would be worthwhile modelling regional youth unemployment rates by year as a predictive factor to determine if this is the case.

It may also be that learners in metropolitan areas / certain regions have higher needs and therefore present more complex cases than those in less dense areas, and these needs are not necessarily correlated with other learner-related variables present in the model.

Table 50 – Odds ratio of labour market outcome to *other* outcome category by region

Region	Outcome	Estimate	Pr > ChiSq	Odds ratio
Northland	Employed (full and part-time)	-0.14	0.00	0.87
	Return to Youth Training	-0.28	0.00	0.75
	Further progressive training	-0.31	0.00	0.74
Auckland	Employed (full and part-time)	-0.06	0.00	0.94
	Return to Youth Training	0.09	0.00	1.09
	Further progressive training	-0.03	0.19	0.97
Waikato	Employed (full and part-time)	0.09	0.00	1.09
	Return to Youth Training	0.14	0.00	1.15
	Further progressive training	0.19	0.00	1.21
Bay of Plenty	Employed (full and part-time)	0.22	0.00	1.25
	Return to Youth Training	-0.36	0.00	0.70
	Further progressive training	0.16	0.00	1.17
Eastern Coast	Employed (full and part-time)	0.24	0.00	1.28
	Return to Youth Training	0.25	0.00	1.29
	Further progressive training	0.26	0.00	1.30
Central	Employed (full and part-time)	0.00	0.96	1.00
	Return to Youth Training	0.03	0.22	1.03
	Further progressive training	0.22	0.00	1.24
Wellington	Employed (full and part-time)	-0.35	ref	0.70
	Return to Youth Training	-0.22	ref	0.81
	Further progressive training	-0.01	ref	0.99
Nelson-Marlborough-West Coast	Employed (full and part-time)	0.07	0.06	1.08
	Return to Youth Training	-0.11	0.01	0.90
	Further progressive training	-0.28	0.00	0.75
Canterbury	Employed (full and part-time)	-0.15	0.00	0.86
	Return to Youth Training	0.13	0.00	1.14
	Further progressive training	-0.26	0.00	0.77
Southern	Employed (full and part-time)	0.07	0.03	1.07
	Return to Youth Training	0.32	0.00	1.38
	Further progressive training	0.06	0.09	1.07

## 10.4 Employment history

The employment history of the learner prior to first entering Youth Training was the third most important predictor of labour market outcome, taking all of the other variables included in the model into account.

Table 51 shows the odds of an outcome over an *other* outcome for learners in each employment history category. For those who had never been in employment before first entering Youth Training, the odds of a return to Youth Training and further progressive training over an *other* outcome are higher than an employment outcome over an *other* outcome.

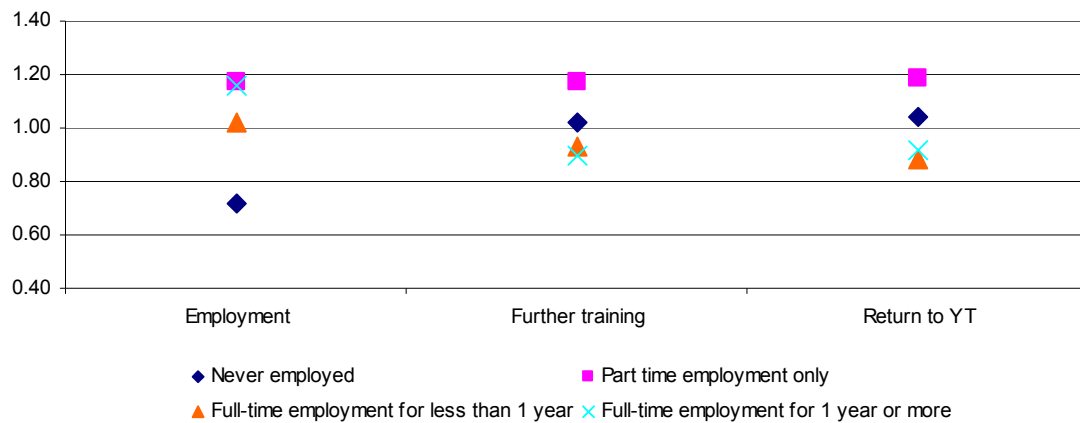
For those who have worked before entering (even part-time) the odds of employment after Youth Training are higher than for an *other* outcome. Learners with part-time work experience only are more likely to go into further progressive training than gain employment or return to Youth Training, but the odds of these are all greater than attaining an *other* outcome.

Employment is the most likely outcome only for those who have worked full-time prior to entering Youth Training, suggesting that their employment experience in conjunction with Youth Training that is most influential. It suggests that in the absence of work experience, Youth Training participation can only go some of the way to making a person employment ready.

Table 51 – Odds ratio of labour market outcome to *other* outcome category by employment history

Employment history	Outcome	Estimate	Pr > ChiSq	Odds ratio
Never	Employed (full and part-time)	-0.33	0.00	0.72
	Return to Youth Training	0.02	0.11	1.02
	Further progressive training	0.04	0.03	1.04
Part-time only	Employed (full and part-time)	0.16	0.00	1.17
	Return to Youth Training	0.16	0.00	1.17
	Further progressive training	0.17	0.00	1.18
Worked full time for less than 1 year	Employed (full and part-time)	0.02	ref	1.02
	Return to Youth Training	-0.07	ref	0.93
	Further progressive training	-0.12	ref	0.89
Worked full time for 1 year or more	Employed (full and part-time)	0.15	0.00	1.16
	Return to Youth Training	-0.11	0.00	0.90
	Further progressive training	-0.09	0.00	0.92

Figure 29 – Odds ratio of labour market outcome to *other* outcome category by employment history of learner



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 10.5 Ethnicity

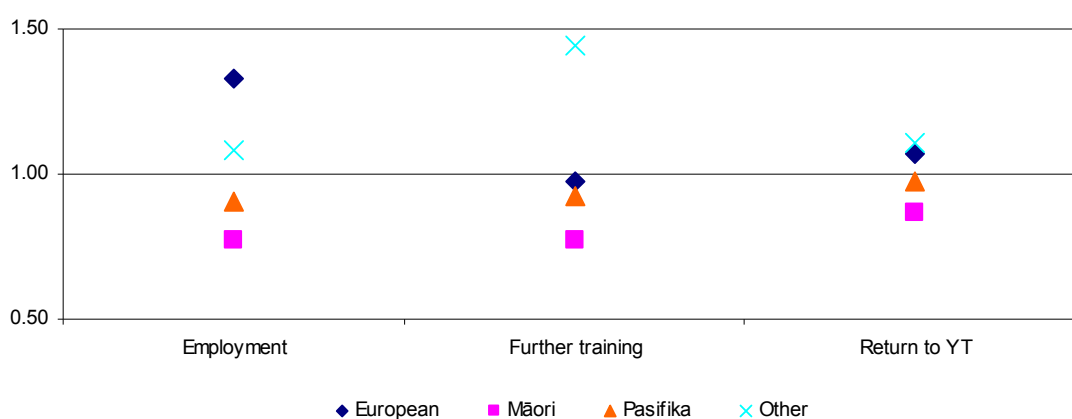
The ethnic group of the learner was the fourth largest predictor in the model of placement outcome. Employment is the most likely outcome for European learners, followed by a return to Youth Training. There is no statistical difference between the chances of going on to further progressive training and being unemployed two months after leaving Youth Training for European learners.

Māori and Pasifika learners are most likely to be unemployed on leaving over all other categories of outcomes (Pasifika are as likely to return to Youth Training as gaining an *other* outcome). Other learners have the highest odds of going on to further training, and are the only group where the odds of an *other* outcome are lower than all possible alternative categories.

Table 52 – Odds ratio of labour market outcome to *other* outcome category by ethnic group

Ethnic group	Outcome	Estimate	Pr > ChiSq	Odds ratio
European / Pakeha	Employed (full and part-time)	0.28	0.00	1.33
	Return to Youth Training	0.07	0.00	1.07
	Further progressive training	-0.03	0.23	0.97
Māori	Employed (full and part-time)	-0.26	0.00	0.77
	Return to Youth Training	-0.14	0.00	0.87
	Further progressive training	-0.26	0.00	0.77
Pasifika	Employed (full and part-time)	-0.10	0.00	0.90
	Return to Youth Training	-0.02	0.36	0.98
	Further progressive training	-0.08	0.01	0.92
Other	Employed (full and part-time)	0.08	ref	1.08
	Return to Youth Training	0.10	ref	1.11
	Further progressive training	0.37	ref	1.45

Figure 30 – Odds ratio of labour market outcome to *other* outcome category by ethnic group of learner



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 10.6 Placement order

This variable simply shows the order of the placement for each learner, controlling for the other effects in the model. Overall, the odds of an employment outcome over an *other* outcome increase with the order of the placements until the learner reaches their third or more placement, when the odds of employment occurring begin to decline.

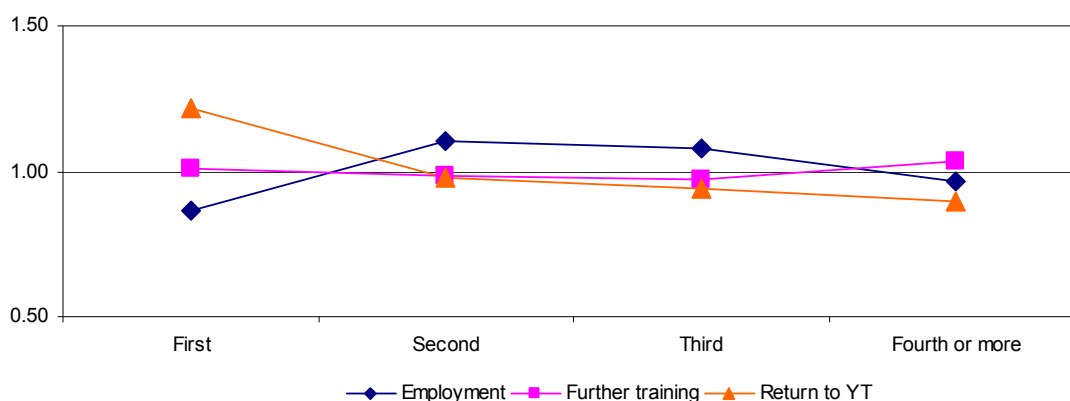
The odds of attaining a further training outcome decline when the learner leaves the second or further placement (but increase at the fourth or more), while the odds of a return to the programme consistently decline with each successive placement.

Learners leaving their first placement were most likely to attain a return to Youth Training outcome. They were less likely to attain an employment outcome than an *other* outcome and were just as likely to attain a further progressive outcome as an *other* outcome.

Table 53 – Odds ratio of labour market outcome to *other* outcome at each placement by order of placement

Order of placement per learner	Outcome	Estimate	Pr > ChiSq	Odds ratio
First	Employed (full and part-time)	-0.15	0.00	0.86
	Return to Youth Training	0.20	0.00	1.22
	Further progressive training	0.01	0.57	1.01
Second	Employed (full and part-time)	0.10	0.00	1.11
	Return to Youth Training	-0.02	0.14	0.98
	Further progressive training	-0.02	0.39	0.98
Third	Employed (full and part-time)	0.08	0.00	1.08
	Return to Youth Training	-0.06	0.01	0.94
	Further progressive training	-0.03	0.26	0.97
Fourth or more	Employed (full and part-time)	-0.03	ref	0.97
	Return to Youth Training	-0.11	ref	0.90
	Further progressive training	0.04	ref	1.04

Figure 31 – Odds ratio of labour market outcome to *other* outcome category by placement order



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 10.7 Course major field

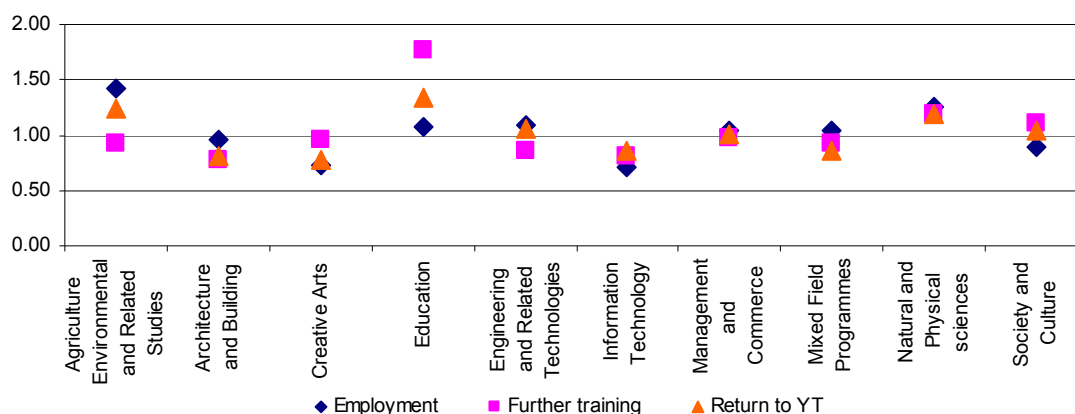
The major field of the course was the sixth largest predictor in the model of placement outcome. The two single largest fields represented in Youth Training are ‘Society and Culture’ and ‘Mixed field programmes’ (see table 27). Learners in courses in both of these fields are as likely to attain an *other* outcome than an employment outcome.

Employment is the most likely outcome where the majority of credits available are in applied vocational fields such as the ‘Agriculture Environmental and Related studies’ and ‘Engineering and Related Technologies’ fields. Further training is the most likely outcome of programmes in the ‘Education’ field.

Table 54 – Odds ratio of labour market outcome to *other* outcome category by course major field

Field of study	Outcome	Estimate	Pr > ChiSq	Odds ratio
Agriculture environmental and related studies	Employed (full and part-time)	0.35	0.00	1.42
	Return to Youth Training	0.22	0.00	1.24
	Further progressive training	-0.07	0.10	0.93
Architecture and building	Employed (full and part-time)	-0.05	0.30	0.95
	Return to Youth Training	-0.22	0.00	0.80
	Further progressive training	-0.26	0.00	0.77
Creative Arts	Employed (full and part-time)	-0.33	0.00	0.72
	Return to Youth Training	-0.26	0.00	0.77
	Further progressive training	-0.04	0.70	0.96
Education	Employed (full and part-time)	0.07	0.63	1.07
	Return to Youth Training	0.29	0.04	1.33
	Further progressive training	0.57	0.00	1.77
Engineering and related technologies	Employed (full and part-time)	0.09	0.02	1.09
	Return to Youth Training	0.06	0.08	1.07
	Further progressive training	-0.15	0.00	0.86
Information technology	Employed (full and part-time)	-0.33	0.00	0.72
	Return to Youth Training	-0.15	0.00	0.86
	Further progressive training	-0.20	0.00	0.82
Management and commerce	Employed (full and part-time)	0.04	0.29	1.04
	Return to Youth Training	0.01	0.86	1.01
	Further progressive training	-0.03	0.48	0.97
Mixed Field Programmes	Employed (full and part-time)	0.04	0.21	1.04
	Return to Youth Training	-0.15	0.00	0.86
	Further progressive training	-0.08	0.01	0.92
Natural and physical sciences	Employed (full and part-time)	0.23	0.09	1.26
	Return to Youth Training	0.17	0.22	1.18
	Further progressive training	0.17	0.28	1.19
Society and Culture	Employed (full and part-time)	-0.11	ref	0.90
	Return to Youth Training	0.04	ref	1.04
	Further progressive training	0.10	ref	1.10

Figure 32 – Odds ratio of labour market outcome to *other* outcome category by course major field



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 10.8 Education history

The education history of the learner prior to first entry into Youth Training was the seventh largest predictor in the model of placement outcome.

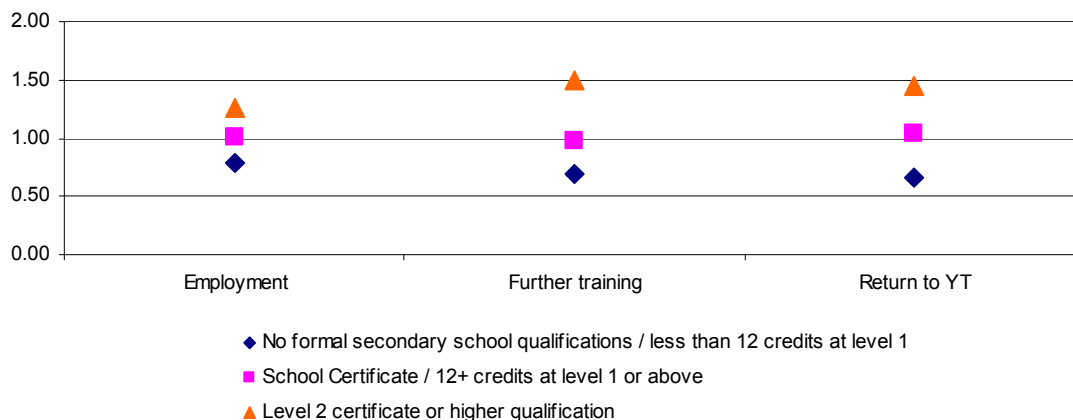
The odds of a positive outcome increase with the level of prior education. Unemployment or out of the labour force status (*other* outcome) is the most likely outcome for learners who had no or low qualifications on entering Youth Training.

Curiously, those with the highest level of education pre-entry into Youth Training have the highest odds of returning to the programme over an *other* outcome than any other group, while learners with no qualifications pre-entry are less likely to attain any other outcome than *other*.

Table 55 – Odds ratio of labour market outcome to *other* outcome category by education history

Education history	Outcome	Estimate	Pr > ChiSq	Odds ratio
No formal secondary school qualifications/less than 12 credits at level 1	Employed (full and part-time)	-0.24	0.00	0.79
	Return to Youth Training	-0.41	0.00	0.66
	Further progressive training	-0.37	0.00	0.69
School Certificate/ 12+ credits at level 1 or above	Employed (full and part-time)	0.01	0.70	1.01
	Return to Youth Training	0.05	0.03	1.05
	Further progressive training	-0.03	0.21	0.97
Level 2 certificate or higher qualification	Employed (full and part-time)	0.23	ref	1.26
	Return to Youth Training	0.37	ref	1.45
	Further progressive training	0.40	ref	1.49

Figure 33 – Odds ratio of labour market outcome to *other* outcome category by education history of learner



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 10.9 Gender

The learner’s gender was the seventh largest predictor in the model of placement outcome. Employment was the most likely outcome for males, followed by a return to Youth Training and further progressive training (this category may not be significantly higher than *other*).

Females were more likely to be unemployed than any other category of outcome, while males are more likely to attain an employment or return to Youth Training outcome.

Table 56 – Odds ratio of labour market outcome to *other* outcome category by gender

Gender	Outcome	Estimate	Pr > ChiSq	Odds ratio
Female	Employed (full and part-time)	-0.22	0.00	0.80
	Return to Youth Training	-0.12	0.00	0.89
	Further progressive training	-0.02	0.02	0.98
Male	Employed (full and part-time)	0.22	ref	1.24
	Return to Youth Training	0.12	ref	1.13
	Further progressive training	0.02	ref	1.02

## 10.10 Placement end year

The odds of attaining each placement outcome differs over calendar years. This is probably due to a number of unmeasured factors, such as a changing macro-economic environment from year to year, changing labour market conditions and the availability of other / further education options, and others.

The odds of an *employment* outcome over an *other* outcome gradually increased across years from 1999 so that by 2004 an employment outcome was more likely than an *other* outcome. The odds of a return to Youth Training are lower than the odds of an other outcome until 2007 when it becomes as likely.



Table 57 – Odds ratio of labour market outcome to *other* outcome category by placement end year

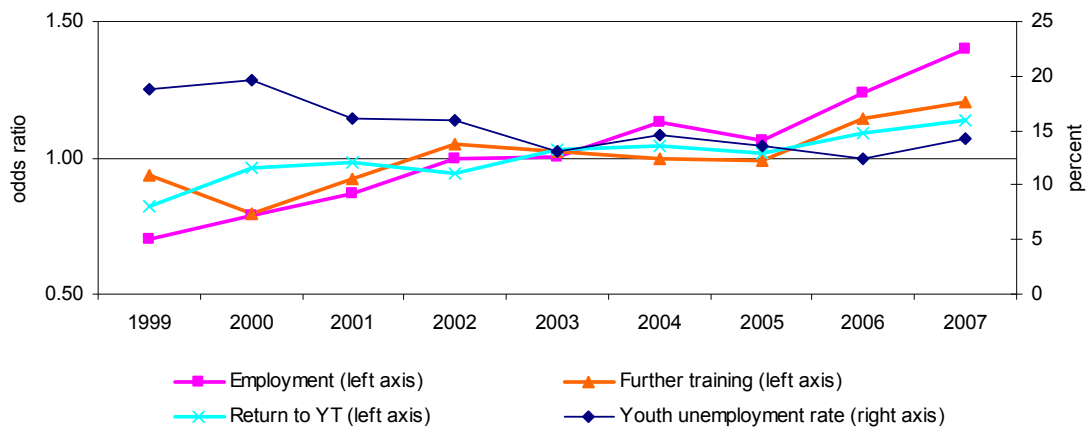
Year	Outcome	Estimate	Pr > ChiSq	Odds ratio
1999	Employed (full and part-time)	-0.35	ref	0.70
	Return to Youth Training	-0.20	ref	0.82
	Further progressive training	-0.07	ref	0.94
2000	Employed (full and part-time)	-0.24	0.00	0.79
	Return to Youth Training	-0.04	0.10	0.97
	Further progressive training	-0.23	0.00	0.79
2001	Employed (full and part-time)	-0.14	0.00	0.87
	Return to Youth Training	-0.02	0.50	0.99
	Further progressive training	-0.08	0.00	0.93
2002	Employed (full and part-time)	0.00	0.96	1.00
	Return to Youth Training	-0.06	0.02	0.95
	Further progressive training	0.05	0.08	1.05
2003	Employed (full and part-time)	0.00	0.85	1.00
	Return to Youth Training	0.03	0.22	1.03
	Further progressive training	0.02	0.48	1.02
2004	Employed (full and part-time)	0.12	0.00	1.13
	Return to Youth Training	0.04	0.09	1.04
	Further progressive training	0.00	0.97	1.00
2005	Employed (full and part-time)	0.06	0.02	1.06
	Return to Youth Training	0.01	0.59	1.01
	Further progressive training	-0.01	0.66	0.99
2006	Employed (full and part-time)	0.22	0.00	1.24
	Return to Youth Training	0.09	0.00	1.09
	Further progressive training	0.13	0.00	1.14
2007	Employed (full and part-time)	0.34	0.00	1.40
	Return to Youth Training	0.13	0.00	1.13
	Further progressive training	0.19	0.00	1.21

Figure 34 shows the odds of each outcome over an *other* outcome by year, compared to the youth unemployment rate for low and no qualified fifteen to twenty-four year olds for each year.

The odds of an employment outcome increase inversely with decreases in the youth unemployment rate, and vice versa. The difference between the two is almost symmetrical: in the years where an employment outcome is more likely than an *other* outcome, the youth no / low qualified unemployment rate is below 15 percent.

This symmetrical relationship reinforces the finding that an employment outcome after a Youth Training placement is quite dependent on the prevailing labour market conditions at the time.

Figure 34 – Odds ratio of labour market outcome to *other* outcome category by year



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

### 10.11 Training provider type

The type of training provider was the tenth largest predictor in the model of placement outcome. For learners placed with charitable trusts, the most likely outcome is a return to Youth Training while learners placed with tertiary education institutions are most likely to go on to further progressive training.

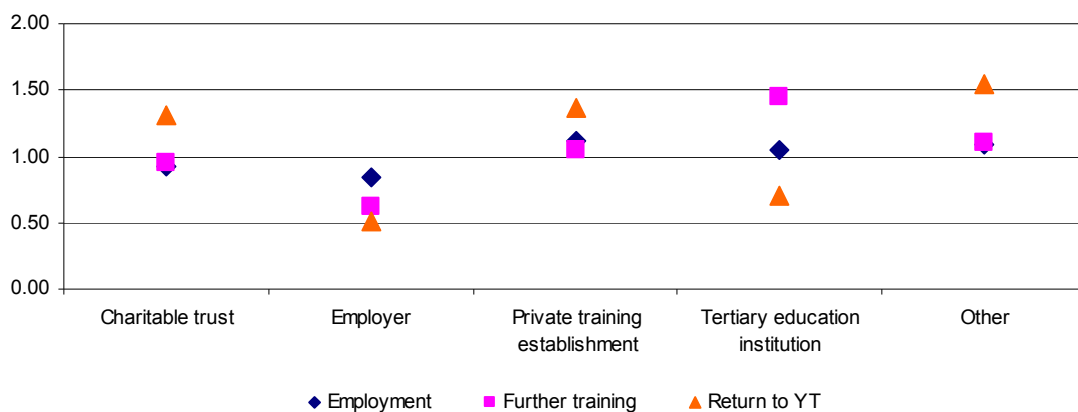
This may reflect the differing trainee selection effects of each provider type, driven by their primary motivations for offering training. Charitable trusts for instance may choose people they perceive to be the most ‘in need’ to participate in Youth Training out of a conviction to assist the neediest members of society, and as such, may not attain as ‘good’ outcomes as frequently as other provider types. Private training establishments may be less inclined to do this as they operate as primarily as profit-making businesses. They may try to ensure they to fulfil outcome targets set on them by the TEC by choosing learners who are less ‘in-need’ to participate in their programmes. There are competing influences at work for them: they may want to assist those perceived to be most in need, but incentives built into the funding system may lead them to choose participants showing less complex learning requirements.

Learners placed with employers are most likely to have an *other* outcome, while for learners placed with private training establishments a return to Youth Training is the most likely outcome, followed by an employment outcome. Learners placed with tertiary education institutions are most likely to go on to further training over any other form of outcome.

Table 58 – Odds ratio of labour market outcome to *other* outcome category by training provider type

Training provider type	Outcome	Estimate	Pr > ChiSq	Odds ratio
Charitable trust	Employed (full and part-time)	-0.08	0.01	0.93
	Return to Youth Training	0.27	0.00	1.31
	Further progressive training	-0.04	0.21	0.96
Employer	Employed (full and part-time)	-0.17	0.01	0.84
	Return to Youth Training	-0.67	0.00	0.51
	Further progressive training	-0.47	0.00	0.63
Private training establishment	Employed (full and part-time)	0.11	0.00	1.12
	Return to Youth Training	0.31	0.00	1.37
	Further progressive training	0.04	0.17	1.04
Tertiary education institution	Employed (full and part-time)	0.05	0.36	1.05
	Return to Youth Training	-0.36	0.00	0.70
	Further progressive training	0.37	0.00	1.44
Other	Employed (full and part-time)	0.09	ref	1.09
	Return to Youth Training	0.44	ref	1.55
	Further progressive training	0.10	ref	1.11

Figure 35 – Odds ratio of labour market outcome to *other* outcome category by training provider type



Note: points above 1 indicate more likely to occur than an *other* outcome, while points below 1 indicate the outcome is less likely to occur than an *other* outcome.

## 11 CONCLUSIONS

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This paper provides a statistical analysis of the Youth Training programme, using data sourced from the Tertiary Education Commission's (TEC's) administrative dataset.

Youth Training is a government funded programme which focuses on young learners who have left school with no or low qualifications. It aims to impart a set of foundation skills to enable participants to move into sustainable employment and/or higher levels of tertiary education. Funding is provided by Vote: Education and is administered by the TEC. Youth Training originated as a separation of young participants from the Training Opportunities programme, in 1999.

Aside from some basic quantitative information in accountability documents, and occasional qualitative exploration, there has been little by the way of publicly available information on the Youth Training programme. This statistical study is therefore a first. It provides participation and outcome information and statistical modelling of factors associated with entrance to and the outcomes of Youth Training. It examines:

- who participates in Youth Training, and why
- how representative is participation
- how responsive is Youth Training to labour market / education / population changes
- how success is measured
- who succeeds, and why.

### 11.1 Participation

The analysis finds that participation in Youth Training has declined slowly between 1999 and 2008, in line with the number of learners leaving school with low or no qualifications, but not always in line with the youth unemployment rate. Youth unemployment has been rising since 2006, while Youth Training placements have continued to decline. The connection between youth risk of unemployment and Youth Training participation is not as clear as might be expected.

GDP growth does not appear to be a good predictor of Youth Training participation. In part, this may be because young people have different work and study patterns than the rest of the population. As it is common for many 15 to 24 year olds to be involved either in school education or further education, the labour force participation rate for this age group tends to be lower than for other age groups. There has been a national trend towards lower labour market participation over the past decade among 15 to 24 year olds as increasing proportions engage in further study.

Young people tend to work on a part-time basis, at a higher rate than any other group. The Department of Labour estimates that almost two-thirds (62 percent) of 15 to 19 year olds in employment worked part-time as at December 2008 and 42 percent of all casual workers were aged 15 to 24 years. Youth juggle study with work at a greater rate than any other age group and they work in industries characterised by their high proportion of part-time work. By occupation, most youth fit into the service and sales workers group. The industries and occupations in which youth work tend to be amongst the most vulnerable in times of economic downturn. The comparatively limited work experience and lack of skills of young people also heighten their vulnerability. There are differences between the employment patterns of youth aged 15–19 and those aged 20–24 years, with the older youth group being more similar to the total working-age population.

It is increasingly recognised internationally that young people who are out of the labour force and not otherwise economically active (NEETs) are the most vulnerable of all young people. However, there seems to be little statistical relationship between Youth Training participation and the number of NEETs. The NEET rate reached a high in 2006, however, Youth Training placements did not react in the same scale as these increases, but continued along a path of steady decline (although the rate of decline in placements fell slightly in 2006).

Fewer young people are leaving school with no or low qualifications than in the past. This has contributed to the decline in Youth Training placements. This trend is particularly evident between 2005 and 2007. The proportion of Youth Training placements by young people with no formal secondary school qualifications or less than 12 credits at level 1 has also declined from 73 percent in 1999 to 45 percent in 2008. The proportion of placements by learners with school certificate level / level 1 qualifications has increased from 23 percent in 1999 to 53 percent in 2008.

Higher school education attainment rates have not translated into higher employment for all young people. In contrast, the unemployment rate for 15 to 19 year olds has been increasing since 2006, while the NEET rate has fluctuated, all during periods of record low unemployment for the general population (before the current financial crisis). This suggests that there are young people in the community at risk of unemployment who do not have access to Youth Training.

This may be an allocation problem. Even while the proportion of young people leaving school with no or low qualifications has declined, there is still a significant proportion of young people who are vulnerable to labour market and educational exclusion. It could be that, with improving school qualification attainment, the requirements and expectations of employers have risen but the disparity in outcomes between those with lower and higher attainment has remained: employers will choose young people with higher qualifications over those with lower or no qualifications and the fact that there are now more of the former than the latter may make it more difficult for the latter to gain employment.

Alternatively, it may be a selection problem. Some young people may not participate in Youth Training because they are simply not accessible, for example if they are at home and are inactive and do not come to the attention of organisations or individuals that may be able to refer them to a Youth Training course. They may not have knowledge of Youth Training and so will be unlikely to refer themselves to the programme. They may not have the self-confidence to believe they can achieve in an educational setting or they may be wary of trying education again, having perhaps not succeeded at school. Some young people with serious problems may be too preoccupied with these to be able to opt for training. They also may not be selected to participate in Youth Training because they may be perceived to be too difficult to work with. This is a risk where funding depends on the attainment of good outcomes: providers may be incentivised to select learners who they think will succeed and reject the ones they feel won't for fear of not meeting their positive outcome targets.

We have identified some of the characteristics that correlate well with participation in Youth Training within three years of leaving school. These include the number of NCEA credits attained at school. Learners who show no credit attainment at school were most likely to participate. For those who did attain some credits, the proportion of unit standards taken (over achievement standards) also made a difference. School leavers who took mostly unit standards were more likely to enter Youth Training within three years than those who took mainly achievement standards.

Learners leaving lower decile schools were more likely to enter Youth Training within three years than learners from higher decile schools, and school leavers granted early leaving exemptions were over 20 times as likely to participate as those who were not.

Just under half of all Youth Training participants are Māori, another 40 percent are European, 10 percent are Pasifika with other groups making up the remainder. These proportions have remained fairly constant since Youth Training's inception. When compared to the target population for Youth Training – young people with low or no qualifications – Māori are overrepresented in Youth Training, while European people are under-represented. This may be due to TEC's participation targets for Māori.

As would be expected, given the age targeting of the programme to under 18 years on initial acceptance into the programme, most participants are aged 15, 16 or 17 years. The proportion of learners aged 15 years at any one time reached a high of 35 percent in 2005 but has dropped to just over 23 percent in 2008. This is a reflection of increased school retention, specifically of changes to the criteria for early leaving exemptions, meaning much fewer are now granted.

The increasing frequency of placements in Youth Training for learners may also be a contributor to the change in the Youth Training age profile. Learners are less likely to be younger than in early days of the programme, in part because learners are now more likely to have had multiple placements in Youth Training. The flow of new learners into Youth Training has reduced: the proportion of learners participating in their first calendar year has fallen between 2002 and 2008 from 69 percent to 63 percent. At the same time, the proportion of learners placed twice who were active in placements in 2002 was 33 percent, and this proportion increased to 40 percent in 2008.

Placements are also increasing in duration. The proportion of placements lasting for 25 or more weeks has increased from 17 percent in 2001 to 32 percent in 2008. It has been argued that reduction in newer recruits and an increase in the duration and number of placements for existing participants is due to the fact the current crop of learners require more attention and longer intervention because they have deeper needs. Proponents of this argument note that former sources of participants have reduced, with the increasing school retention, the lower rate of early leaving exemptions and increased school qualification attainment rates. This means that those with more complex needs are a higher proportion of the total.

While there is possibly some truth to this argument, it cannot be the sole reason. Youth Training is age targeted so there should be a smooth flow of new, young entrants who require some help at each age, as each year passes. The youth unemployment and NEET rates confirm that there are young people in the community with the sorts of needs Youth Training was set up to address. It is a question of the programme being able to reach them.

## 11.2 Outcomes of Youth Training

There has been an increase in the proportion of learners who attain a 'positive' outcome two months after leaving Youth Training. The proportion of placement outcomes deemed positive has increased from 76 percent in 1999 to 84 percent in 2008, and most of this increase has occurred in the proportion of learners gaining full-time employment (around 10 percentage points).

Statistical modelling shows that a successful outcome is quite heavily determined by factors external to the Youth Training programme. Taking all other factors into account, three of the largest predictors of an employment or further training outcome at the end of each placement are:

- participants' location
- previous employment history (whether the trainee has worked before entering Youth Training)
- their educational attainment prior to entering the programme.

External factors such as the date (which is a proxy measure for the prevailing labour market conditions), ethnic group and the gender of the learner also appear to be important. In addition, placement order and training provider type affect outcomes.

The fact that there are better employment outcomes over time can be accounted for in part by the increase in the proportion of participants entering the programme who have some form of prior work experience. The proportion of learners participating in Youth Training who had part-time work experience increased from 38 percent in 1999 to 42 percent in 2008.

The year of completion of training, a proxy for the labour market, is another determinant. Labour market conditions deteriorated for young people in 2008, no doubt a consequence of the early effects of the current economic downturn on the vulnerable industries that young people predominantly participate in, and Youth Training employment labour market outcomes dropped from 33 percent in 2007 to 26 percent accordingly. Regional effects are also likely to encompass changes in regional labour markets over time, affecting the availability of jobs to take up both before and after participation in Youth Training.

However, there can be no doubt that participation in Youth Training programmes does have some effect. Credit attainment is a strongest predictor of success in Youth Training: if learners attain a certain number of credits in Youth Training placements, (20 or more) then their chances of a positive outcome are increased.

The modelling described in this report shows that prior educational attainment is a relatively low predictor of credit attainment in Youth Training, which implies that, when done well, what occurs on Youth Training courses makes a difference. There is a relatively small effect from prior educational attainment in that the odds of a positive outcome increase with the level of prior educational attainment but the effect of duration in a placement / accumulation of credits is the most powerful.

In the statistical model, duration of training and credit attainment appear interchangeable. This shows that these variables are positively correlated, suggesting that the longer a learner stays in a programme, the more credits he or she will accumulate. A return to Youth Training outcome, and further progressive training, and an employment outcome are all things that may be quite highly influenced by the accumulation of credits.

Do multiple spells in Youth Training improve learners' chances of gaining a positive outcome? The effects of multiple placements and credit attainment / duration, could be used as a measure of programme quality. We have already seen that credit accumulation, strongly correlated with duration spent in a placement, is an important predictor of outcomes. But, taking everything else in the model into account, there is a reduction in the probability of employment or further progressive training with more than two placements. It might seem that multiple placements are in some way detrimental to a learner's progression outside the programme.

It could be argued that external factors, such as previous work experience and educational history, mean that people who do multiple spells in Youth Training are those who have lower chances of gaining employment anyway. However, many of these effects may have been accounted for in the regression model; additional placements in the programme still seem to have a detrimental effect, even when controlling for all variables. However, there may be factors not captured in the model which contribute to the apparently negative effect of multiple placements.

There are also ethnic and gender group differences in outcomes when all other variables are taken into account. For European participants, the odds of a negative outcome – unemployment or out of the labour force – are significantly lower than for all other types of outcome, but for Māori and Pasifika the opposite is true: the odds of unemployment / out of the labour market status are higher than any of the positive outcomes. The same pattern exists for males over females. Males are least likely to attain a negative outcome while females are most likely to.

The reasons for all these observed effects are not clear, and as such, Youth Training could benefit from some further analysis. Youth Training placements are becoming longer, and more frequent for learners already in the programme, but additional placements may not improve the chances of a positive outcome.

### 11.3 Summary

Youth Training helps some vulnerable people, but this paper shows that Youth Training may not be accessed by the some in the most vulnerable group, that is the NEETs. Of those who do participate, the people who are clearly relatively advantaged in terms of prior educational achievement and previous history of employment, living in areas with high job availability and participating in times of low unemployment do better than the less well-advantaged in these respects. Those with more need are often less successful than those with lower need. Further, multiple spells in the programme may attach a label to some learners in the eyes of potential employers which can make it more difficult to gain employment after leaving.

To determine the longer term outcomes of Youth Training, it may be feasible to incorporate targeted training data into future releases of the Employment Outcomes of Tertiary Education project. This will enable a much longer term view of participants outcomes to be reached, and will enable matching of participants to similar non-participants to assess the predictors of longer term outcomes.



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## 13 APPENDICES

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### 13.1 Appendix 1 – Course field of study assignment

For the purposes of this study only, each course offered in Youth Training has been assigned a classification under NZSCED, based on the NZQA domain of NQF credits attainable in them. This method is:

- A unit standard is identified as applicable to a course if at least one learner has attained credits from it in during placement in a course
- The total number of credits available in each course by the standard ‘field’ (attracted by presence of one instance of a distinct unit standard) is summed.
- Standard field is aggregated to NZSCED.

Example:

Placed in course number 99999999; a learner attains credits from Unit Standard 1 (field: A, worth 6 credits) and Unit Standard 7 (field: B, worth 4 credits). Another learner gains credits from Unit Standard 1 and Unit Standard 9 (field: C, worth 9 credits).<sup>36</sup>

The number of credits available in course 99999999, by field, regardless of how many learners passed, failed or took the Unit Standard, is therefore calculated:

- A, 6 credits (32 percent)
- B, 4 credits (21 percent)
- C, 9 credits (47 percent)
- Total is 19 credits (100 percent)

In this case, the ‘Major Field of Study’ for course 99999999 is indicated as C, because 47 percent of the total number of credits available in the course lie in this field (and this is the largest single field). In the case of a tie for the largest field the course is allocated to ‘Mixed Field Programmes’.

### 13.2 Appendix 2 – Course level assignment

For the purposes of this study only, each course offered in Youth Training has been assigned a course level, based on the NZQA domain of NQF credits attainable in them.

Placed in course number 99999999; a learner attains credits from Unit Standard 1 (positioned at level: 1, worth 6 credits) and Unit Standard 7 (level: 2, worth 4 credits). Another learner gains credits from Unit Standard 1 and Unit Standard 9 (level: 3, worth 9 credits).<sup>37</sup>

The number of credits available in course 99999999, by NQF level, regardless of how many learners passed, failed or took the Unit Standard, is therefore calculated:

- Level 1 – 6 credits (32 percent)
- Level 2 – 4 credits (21 percent)
- Level 3 – 9 credits (47 percent)
- Total is 19 credits (100 percent)

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<sup>36</sup> These values are fictitious, used for example purposes only.

<sup>37</sup> These values are fictitious, used for example purposes only. This is not the method used by NZQA to assign NQF levels to programmes or courses.

In this case, the NQF level for course 99999999 is indicated as 'level 3', because 47 percent of the total number of credits available in the course lie at this level (and this is proportionally the largest single level in this course).



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