

Monitoring the Youth Guarantee policy 2010-2012



This report forms part of a series called Supporting the tertiary education system.

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SUMMARY

Youth Guarantee provides new opportunities for 16- and 17-year-olds to achieve education success, and progress into further education, training and employment. It offers a range of programmes providing opportunities for young people to engage in education. It supports schools, tertiary education providers and employers to work together in new ways and has developed vocational pathways that clarify the options for young people and identify the skills and knowledge valued by employers.

The Youth Guarantee policy was implemented progressively from 2010. **Fees-free places** were established in 2010, providing opportunities for 16- and 17-year-olds, not currently engaged in education, to re-engage with education in a tertiary rather than school-based setting. The number of places was increased each year. In 2012, funding from the **Youth Training** programme was transferred to further expand the number of fees-free places. **Secondary-tertiary programmes** were established in 2011 and 2012. These programmes allow students to remain enrolled at secondary school, while participating in various forms of education delivered by tertiary education providers. Many of these programmes are known as 'trades academies'.

The Tertiary Education Commission and the New Zealand Qualifications Authority have worked with tertiary education providers to build their capability to deliver quality programmes through fees-free places and secondary-tertiary programmes. They have actively supported providers to move from delivering employment-based training under Youth Training to full qualifications through fees-free places.

The next phase of the implementation has been to influence the wider framework for transitions from school through tertiary education and into employment. **Vocational pathways** provide new ways to structure and achieve NCEA Level 2. They enable students, education providers and employers to see how their learning is relevant to a wide range of jobs and further study. Five pathways were finalised in 2013 for implementation in 2014. A sixth pathway will be developed by June 2014. The Ministry of Education is also leading **Youth Guarantee networks** of schools, tertiary education providers, employers and communities, to develop new ways in which education can be offered from 2014 onwards.

This report focuses on the initial implementation of the Youth Guarantee policy in the period from 2010 to 2012 and looks at how effective the fees-free places and secondary-tertiary programmes were in improving educational outcomes for young people. Youth training is also included, as funding was transferred from this programme to fees-free places.

Monitoring approach

The purpose of monitoring and evaluating the Youth Guarantee policy is to understand the extent to which the education system is changing to meet the vision and expected outcomes of the policy. It is informed by an outcomes framework that identifies four key areas:

Outcome areas	Question
Retention in education and training	What effect are Youth Guarantee policies having on more 16 and 17 - year-olds remaining in school and tertiary education?
Achievement of NCEA Level 2 (or equivalent)	What effect are Youth Guarantee policies having on more young people achieving at least NCEA Level 2 or equivalent?
Progression to tertiary study and skilled employment	What effect are Youth Guarantee policies having on more young people moving on to study in tertiary education and work-based training at level 4 and above?

Outcome areas	Question
Sustainable system level change which empowers young people to	Have the Youth Guarantee policy changes helped create an
move successfully into a range of post-school education and	education system which actively empowers learners and employers
employment options	to easily navigate the system and achieve successful outcomes?

Progress towards the outcome areas is monitored by tracking year-of-birth cohorts of students through the education system and beyond. The first cohort are those born in 1993, who turned 15 in 2008 and were 17 in 2010 when the first Youth Guarantee programmes were introduced. Their experiences are compared with the next cohort, who had more experience of the Youth Guarantee programmes.

For each programme, we compare the outcomes for those who participated on the programme to a group of young people who did not participate who had similar characteristics and backgrounds. The comparison groups are specific for each programme and match the characteristics of the young people on the programme.

The characteristics used to choose the comparison group have strong associations with the outcomes being measured. This means that if the programmes had not existed, both groups would most likely achieved similar outcomes. There is still a possibility that a part of the difference may be due to further unmeasured factors that explain why some people participate in programmes and others don't. However, the approach sufficiently robust to attribute the difference to the presence of the programmes.

Participation in Youth Guarantee programmes

In 2011, 10.6% of 18 -year-olds had participated in one or more Youth Guarantee programmes (1993 birth cohort), 8.1% had participated in Youth Training and 3.0% in a fees-free place.

In 2012, 12.0% of 18 -year-olds had participated in one or more Youth Guarantee programmes (1994 birth cohort), 6.1% had participated in Youth Training, 7.1% in a fees-free place and 0.9% in a secondary-tertiary programme.

There were more males than females participating in Youth Guarantee programmes. Māori had higher participation rates in Youth Guarantee programmes, making up nearly half of Youth Training participants and a third of participants in other programmes.

Around 90% of young people who participated in Youth Guarantee programmes had NCEA level 1 achievement below the mean. More than half of those who participated in Youth Guarantee programmes had also had at least one experience of disengagement from school – stand-down, suspension or serious truancy.

Even though there was a shift in funding from Youth Training to fees-free places from 2011 to 2012 and the nature of the provision changed, the characteristics of the young people engaged across the two programmes has remained very similar.

Overall shifts in outcome areas

Looking at all young people, the proportion staying in education at 16 and 17 has been steady. Around 95% of all 16 -year-olds were in education and 88% of 17-year-olds. The overall rate of achievement of NCEA Level 2 or equivalent has been increasing. The proportion who achieved

¹ This is based on an achievement score which takes account of the proportion of assessment standards with achieved, merit or excellence. Further details are set out in section 3.2.

² Further details on this are set out in section 3.2.

NCEA Level 2 or equivalent by age 18 increased from 70% in 2011 to 73% in 2012. By age 19 in 2012, 46% of all young people had enrolled in a level 4 or higher qualification after leaving school.

To get a better understanding of outcomes for different groups of students, we can look at young people by their level of achievement at NCEA level 1. For those with lower level 1 achievement, we can also look at whether they had experienced at least one instance of disengagement from school.

Of young people who had higher achievement at level 1 NCEA, 96% were in education at age 17 in 2010, 93% achieved NCEA Level 2 or equivalent by age 18 in 2011 and 67% had enrolled in level 4 and above qualifications by age 19 in 2012.

Where young people had lower achievement at level 1 NCEA, and had not experienced any disengagement from school, 83% were in education at age 17 in 2010, 58% achieved NCEA Level 2 or equivalent by age 18 in 2011 and 31% had enrolled in level 4 and above qualifications by age 19 in 2012.

Where young people had lower achievement at level 1 NCEA and had experienced some disengagement from school, 64% were in education at age 17 in 2010, 34% achieved NCEA Level 2 or equivalent by age 18 in 2011 and 18% had enrolled in level 4 and above qualifications by age 19 in 2012.

There has been some improvement in retention rates for young people with lower achievement at level 1 NCEA. The NCEA Level 2 achievement rates for these young people also improved by 5 percentage points from 2011 to 2012.

Youth Training

Two-thirds of participants in Youth Training had lower achievement at NCEA level 1 and had also experienced at least one instance of disengagement from school.

Youth Training was effective in increasing education retention for 16 and 17-year-olds who had experienced disengagement from school. However, for young people who had not experienced disengagement at school, being on Youth Training did not increase their rate of retention in education and may have encouraged them out of education.

Youth Training participants had lower levels of attainment of NCEA Level 2 or equivalent before starting a programme. Having starting the programme, they still had lower attainment at NCEA Level 2 or equivalent than others with similar characteristics and background. This was particularly noticeable for young people who had not experienced any disengagement from school.

Youth Training did not provide any pathway towards level 4 and above qualifications. For young people who had not experienced disengagement in school, it appears to have encouraged them away from study at higher levels.

Fees-free places

Just under half (40-44%) of participants in fees-free places had lower achievement at level 1 and had experienced disengagement from school.

³ These figures exclude the international qualifications, such as Cambridge International Examinations and the International Baccalaureate, and so are lower than the numbers used to report the Better Public Services target. See section 5 for more detail.

Fees-free places were effective in maintaining and improving retention for 16 and 17 years olds in education. Where young people had not experienced any disengagement from school, participating in a fees-free place maintained their retention in education. Where young people had experienced disengagement from schooling, fees-free places were effective in improving their retention in education.

Young people started fees-free places with similar levels of NCEA Level 2 achievement to other young people with the same characteristics and background. A greater proportion of those who started fees-free places attained NCEA Level 2 or equivalent by age 18 than in the comparison group. This was particularly notable for young people who had experienced disengagement at school.

Initially fees-free places made little difference to whether young people went on to study at higher levels. It would appear that as the programmes have developed, they are encouraging a larger proportion of young people to move into higher level study.

Secondary-tertiary programmes

Only a quarter of participants in secondary-tertiary programmes had lower achievement at level 1 and had experienced disengagement from school. A quarter had higher achievement at level 1.

Secondary-tertiary programmes are aimed at young people who have remained at school. Participation in the programmes does have an effect of increasing their retention in education to age 18. The programmes are effective in improving retention for both those who had and who had not experienced disengagement from school.

Young people on secondary-tertiary programmes started with similar NCEA Level 2 attainment as other young people with similar characteristics and background. A larger proportion of those who started the programme achieved NCEA Level 2 by age 18 than those who did not.

It is too soon to measure progression to level 4 and above qualifications for secondary-tertiary programmes.

Conclusion

Youth Guarantee programmes, including Youth Training, have reached up to 12% of young people up to the age of 18. Most of those participating in the programmes had lower levels of achievement at NCEA level 1 and more than half had experienced disengagement from school. These two factors are strongly associated with lower rates of retention in education, attainment of NCEA Level 2 and progression to level 4 and above tertiary qualifications.

Youth Training, fees-free places and secondary-tertiary programmes were all effective in retaining young people in education. This effect has increased as the new programmes have been implemented.

Youth Training actually resulted in fewer young people attaining NCEA Level 2 or equivalent by age 18 than would be expected if they had not gone on the programme. By contrast, fees-free places are resulting in more young people attaining NCEA Level 2 or equivalent. Secondary-tertiary programmes are adding further to this contribution. It is expected in 2013 that the contribution of Youth Guarantee programmes to the attainment of NCEA Level 2 or equivalent will further increase.

Youth Guarantee programmes have had little impact so far on the proportion of young people going on to level 4 and above study after leaving school. It is likely this will improve from 2013

onwards. There are signs of improvement in fees-free places, and secondary-tertiary programmes are likely to add positively to this outcome. It is too early to measure the contribution of the latter at this stage.

These results are summarised in Table 1 below. The table shows for each programme the proportion of young people who achieved the outcome measure (in the rows labelled "programme") and the proportion in the comparison group not on the programme who achieved the outcome measure (in the rows labelled "comparison"). The difference is the amount that can be attributed to the programme. This is shown as a percentage point difference and as the number of young people.

Table 1
Summary of outcomes from Youth Guarantee programmes

		1993 cohort		1994 cohort			
	In education at 17 (2010)	NCEA Level 2 or equivalent by 18 (2011)	Enrolled at level 4+ by 19 (2012)	In education at 17 (2011)	NCEA Level 2 or equivalent by 18 (2012)	Enrolled at level 4+ by 19 (2013)	
Youth Training							
Programme	73%	27%	15%	71%	27%	-	
Comparison	62%	38%	22%	65%	39%	-	
Difference (%)	11%	-11%	-7%	6%	-12%	-	
Difference (no)	529	-515	-340	166	-323	-	
Fees-free places							
Programme	96%	62%	29%	90%	62%	-	
Comparison	78%	54%	28%	75%	52%	-	
Difference (%)	18%	9%	1%	15%	10%	-	
Difference (no)	327	163	24	517	328	-	
Transitional grou	ıp: Youth Traini	ing to fees-free 201	1/2012	·			
Programme	85%	20%		92%	35%	-	
Comparison	72%	38%		60%	37%	-	
Difference (%)	21%	-18%		32%	-2%	-	
Difference (no)	60	-52		313	-17	-	
Secondary-tertia	ry programmes	•		·			
Programme	-	-	-	99%	83%	-	
Comparison	-	-	-	87%	70%	-	
Difference (%)	-	-	-	12%	13%	-	
Difference (no)	-	-	-	66	73	-	
Total difference	to outcomes ac	ross all programme	s			•	
Additional number of people	916	-404	-316	1,062	61	-	
Cohort population at 15	63,125	63,125	63,125	61,831	61,831	-	
As % of cohort	1.5%	-0.6%	0.5%	1.7%	0.1%	-	
Cohort performance	88%	70%	46%	88%	73%	-	

The bottom rows of the table show the combined impact of the Youth Guarantee programmes (including Youth Training) on the performance of each age cohort as a whole in relation to the outcome measures. The impact of each programme, in terms of the number of people affected on the outcome, is totalled to provide the figure for the "additional number of people". This is

then shown as a percentage of the cohort population which can be interpreted as the percentage point contribution of the Youth Guarantee programmes to the overall performance of the cohort.

The 'transitional group' are young people who started in Youth Training in 2011 and transferred to fees-free places in 2012. They were not included in the analysis for either Youth Training or fees-free places as they had partial experience of both programmes. They are included here to ensure that all young people in each cohort are counted.

1 INTRODUCTION

This report monitors the implementation of the Youth Guarantee policy from 2010 to 2012. It looks at retention in school and tertiary education, achievement of NCEA Level 2 or equivalent and progression to tertiary study at level 4 or higher. It considers the effectiveness of the Youth Training, fees-free places and secondary-tertiary programmes during this period.

This is the start of an annual series of monitoring reports. Future reports will also look at vocational pathways, changes in the education system and employment outcomes.

1.1 Messy transitions

The tertiary education and employment outcomes of students in the New Zealand school system are very different depending on the level of achievement at school. The vast majority of students who gain NCEA Level 3 and meet university entrance requirements progress to bachelors-level study after leaving school, with few not involved in further study. But only two-thirds of students with lower levels of attainment go on to further study, most of them navigating multiple pathways, including training programmes and low-level tertiary study (Engler, 2011).

Longitudinal research with a sample of New Zealand students found those who left school with NCEA Level 3 had the most straightforward path. They were well supported, had a reasonable idea of what they wanted to do and most went on to university. Those who left with lower level qualifications found it much more challenging. Although many went on to post-school study, they needed more support and advice than they got (Wylie, 2011).

There is wide agreement that the senior secondary school system was well designed to access to academic and university education post school. It did not provide as clear support and pathways for students who wished to pursue other options. In addition, the post-school options for many of these students were not delivering optimal outcomes. An analysis of Youth Training found it provided limited additional benefits for employment and education outcomes, and could reduce learner's ability to get employment by being marked as 'low skilled' (Mahoney, 2010)

At the same time, it is clear that the minimum level of school qualification needed to be successful in further study and employment is NCEA level 2. This is the entry standard for an increasing number of vocational and trade certificates and diplomas. Research shows that people who have a school qualification at this level have similar median incomes to those with level 4 tertiary certificate and higher incomes than those whose highest qualification is a tertiary level 1 to 3 certificate. They also rated higher on social outcomes, than people who left school with lower level qualifications only (Scott, 2010).

These realisations led to two related policy drivers: improving transition for all young people from school to further and work, and setting NCEA Level 2 as the minimum expected qualification for leaving school.

1.2 Youth Guarantee policy

"When young people transition from school to work, or to further study, we need to ensure they all have the knowledge and skills they require to succeed and progress. The Government is committed to supporting all 16- and 17-year-olds to participate in education or training to help them get to where they want to be.

"The Youth Guarantee is about providing new opportunities for 16- and 17-year-olds to achieve education success, and to progress into further education, training or

employment. Young people need clarity, flexibility and choice in how they get to where they want to go. The goal of Youth Guarantee is that all young people will achieve level 2 NCEA, which is seen as the minimum qualification for success in today's world."

(The Ministry of Education, 2012a)

Youth Guarantee provides young people with a wider range of choices to achieve NCEA Level 2 or equivalent, move into further education and participate in the workforce. It offers a range of programmes to provide young people with opportunities to engage in education. It supports schools, tertiary education providers and employers to work together in new ways and has developed vocational pathways that clarify the options for young people and identify the skills and knowledge valued by employers (The Ministry of Education, 2012b).

Implementing programmes

The Youth Guarantee policy was implemented progressively starting in 2010. The first part of the policy to be implemented was **fees-free places**. These provide opportunities for 16- and 17-year-olds, not currently engaged in education, to re-engage with education in a tertiary rather than school-based setting, in order to attain qualifications they would not otherwise have achieved. In 2010, around 2,000 places were established at 28 tertiary education providers. This was increased to 2,500 places at 35 providers in 2011. The number of places was further expanded to 7,500 in 2012 spread across 150 providers by transferring funding from the **Youth Training** programme. The Youth Training programme had been established in 1999 and was aimed at providing training for employment and further education for 16- and 17-year-olds who had become disengaged from education. The programme focused on providing short, foundation skills courses. By moving the funding to fees-free places, a greater emphasis was put on providing programmes aimed at improving educational outcomes, and pathways towards higher-level qualifications (Tertiary Education Commission, 2013a).

The transition from Youth Training to Youth Guarantee required many of the small providers to focus more on educational outcomes and less on training aimed at immediate employment outcomes. As part of this process, they have been required to gain approval through the New Zealand Qualifications Authority (NZQA) to deliver full qualifications on the New Zealand Qualifications Framework. Both NZQA and the Tertiary Education Commission (TEC) have been working actively with providers throughout 2012 and early 2013 to support them in this process. The TEC has also provided active support to ensure the providers can meet other funding and reporting requirements and are delivering quality programmes.

The next part of the policy to be implemented was **secondary-tertiary programmes**. These are programmes which allow students to remain enrolled with a secondary school, while participating in various forms of education delivered by tertiary education providers. Many of the programmes are known as 'trades academies.' Each has a lead provider, which can be a secondary school, a tertiary education provider or an industry training organisation. There is no single model of provision. Each programme has developed its own approach. During 2011, 11 programmes were established catering for 624 students. This was increased to 22 programmes during 2012, for 2,300 students.

Fees-free places and secondary-tertiary programmes form the substantive part of the Youth Guarantee policy that was implemented in the period from 2010 to 2012. These form the main focus of this report. Youth training is also included in this report as funding from this programme was transferred to fees-free places during this period.

Vocational Pathways and Youth Guarantee networks

The next phase of implementation has been to influence the wider framework for transitions from school through tertiary education and into employment. **Vocational Pathways** provide

new ways to structure and achieve NCEA Level 2. They enable students to see how their learning is relevant to a wide range of jobs and study. This will support young people to make more effective transitions to further education, training and work. They help schools and tertiary education providers develop learning programmes that will enable a young person to achieve NCEA Level 2 with a Vocational Pathway endorsement. Five Vocational Pathways were finalised in early 2013 for implementation in 2014. A sixth pathway, for the creative industries, is being developed by June 2014.

The Ministry of Education is also establishing local **Youth Guarantee networks** of schools, tertiary providers, employers and communities to develop new ways in which education can be offered and be made more effective and relevant. The networks are being established in 2013 and will influence how schools and tertiary providers can develop and deliver more coordinated education programmes from 2014.

The NZQA and the TEC are continuing to work with tertiary education providers to build capability to deliver quality programmes through fees-free places and secondary-tertiary programmes. Other work is ongoing to improve careers information, advice and guidance for young people and develop better information systems to track and monitor at-risk young people.

Better Public Services

In February 2012, the Government committed to delivering improved outcomes in 10 areas over the following three to five years. One of these was to increase the proportion of 18-year-olds who achieve NCEA Level 2 or an equivalent qualification. The target is to increase the proportion from 74% in 2011 to 85% by 2017 (The Ministry of Education, 2012c)⁴.

The Youth Guarantee policy provides a set of interventions that will help reach this target. The Ministry of Education is also working with secondary schools in order to improve teaching and learning for students from years 9 through 13. However, the Youth Guarantee policy is also focused beyond the achievement of NCEA Level 2 on how well young people are prepared for tertiary education and employment.

The Government also set a target of increasing the proportion of 25- to 34-year-olds who have attained a level 4 and above qualification from 52% in 2011 to 55% by 2017. Qualifications at level 4 on the New Zealand Qualifications Framework represent the minimum standard of competency for many vocational occupations. This is the lowest level qualification required to enter skilled employment (The Ministry of Education, 2012d). While the Youth Guarantee policy cannot influence the achievement of the target by 2017, this target sets the expectation that more young people will complete tertiary education at level 4 and above.

1.3 Monitoring and evaluation

The purpose of monitoring and evaluating the Youth Guarantee policy is to understand the extent to which the education system is changing to meet the vision and expected outcomes of the policy.

Over time, monitoring and evaluation will address three high-level questions:

- Is the Youth Guarantee policy meeting its goals?
- Is this resulting in further positive educational and employment outcomes for young people?

⁴ These figures include international qualifications, such as Cambridge International Examinations and the International Baccalaureate, and are higher than the numbers shown in this report. See section 5 for more detail.

• Is there evidence of a shift in how the education system perceives and engages with young people so that improved outcomes are sustainable over time?

Monitoring and evaluation is informed by an outcomes framework that identifies four key areas:

Outcome areas	Question
Retention in education and training	What effect are Youth Guarantee policies having on more 16- and 17-year-olds remaining in school and tertiary education?
Achievement of NCEA Level 2 (or equivalent)	What effect are Youth Guarantee policies having on more young people achieving at least NCEA Level 2 or equivalent?
Progression to tertiary study and skilled employment	What effect are Youth Guarantee policies having on more young people moving on to study in tertiary education and work-based training at level 4 and above?
Sustainable system level change which empowers young people to move successfully into a range of post-school education and employment options	Have the Youth Guarantee policy changes helped create an education system which actively empowers learners and employers to easily navigate the system and achieve successful outcomes?

Cohort approach

Progress towards the outcome areas is monitored by tracking year-of-birth cohorts of students through the education system and beyond. This starts with everyone born in 1993. These young people turned 15 in 2008, and some of this group engaged with the first implementation of Youth Guarantee programmes in 2010 at age 17.

The retention, achievement and progression of the 1993 birth-cohort are compared with students born in 1994. These students turned 15 in 2009, and had a greater opportunity to participate in Youth Guarantee programmes. This is followed by the 1995 birth cohort, and so on. In this manner, it will be possible to look at the changes for each cohort as the policy changes are implemented.

The cohort approach measures the effectiveness of programmes by looking at everyone in an age cohort who started a programme and whether they met a specific outcome or not, irrespective of how long they stayed on the programme or whether they were on the programme at the age when they met the outcome. It looks at whether those young people within each cohort who experienced the programme had a better or worse outcome than those who did not.

This approach produces different results than used in individual programme reporting and accountability. These typically look at all young people who started the programme in particular year and what outcomes they achieved while participating in the programme. The birth cohort approach and programme accountability approach provide complementary views of programme performance.

Selecting a comparison group

For each indicator in this report, we will look at what effect each of the three programmes had for those who participated compared with those who did not participate. It is necessary to identify a comparison group of similar young people who did not participate in the programmes in order to provide a meaningful comparison.

We have selected a specific comparison group for each programme. This allows for the different characteristics and backgrounds of the young people on the different programmes. The comparison groups were selected to have similar characteristics and backgrounds to the programme participants.

The comparison groups were identified by using the characteristics of young people on each programme to develop a stratified sample frame. The variables used were birth cohort, gender, Māori ethnicity, Pasifika ethnicity, experience of disengagement at school and level 1 NCEA achievement score. These variables are explored in section 3.2. This sample frame was then used to draw a sample of students who had not participated in the programme. A more detailed discussion of the method is set out in Appendix B .

The average results for the comparison groups are shown for each programme and compared with the programme results. The results are also split out for students who had and had not experienced disengagement at school. This provides a more detailed look at how effective each programme is for these two groups of students.

This method provides a way of controlling for the multiple variables that characterise the young people who participate in the programme, without the need for sophisticated multivariate analysis. It allows us to look at two groups of young people, with similar characteristics and backgrounds, and see if the group that participated in the programme have any difference in outcome from the group that did not.

The characteristics used to choose the comparison groups have strong associations with the outcomes being measured. This means that if the programmes had not existed, both groups would most likely have achieved similar outcomes. There is still a possibility that a part of the difference may be due to further unmeasured factors that explain why some people participate in programmes and others don't. For example, those who go on a programme might have higher motivation or greater persistence than those who don't. However, the as variables used to choose the comparison groups are strongly associated with the outcomes, we can be reasonably confidence in attributing the different in outcomes to the effect of the programmes.

2010-2012 monitoring report

This report covers the period from 2010 to 2012. We are focussing on participation in three main programmes: youth training, fees-free places and secondary-tertiary programmes. The report includes *overall outcomes* of each intervention. For example, it looks at the impacts for each cohort of students according to whether they participated in secondary-tertiary programmes or in fees-free places. However, it does not examine detailed questions of policy implementation and differences of performance *within* interventions. For example, it does not comment on the performance of individual providers or different models of structuring courses for fees-free places. It examines the first three of the outcome areas detailed above. The fourth area will be addressed in future reports.

Future monitoring

Future monitoring reports will continue to report on programmes using the cohort approach. Over 2013 and 2014, monitoring will examine the consolidation of the fees-free provision and expansion and outcomes from secondary-tertiary programmes. It will also start to look at the vocational pathways. This will involve looking at the range of credits being taken towards NCEA Level 2 and linking credit choices to outcomes. The fourth outcome area of system change will be picked up, using qualitative information from a range of sources. It is also intended to include information on employment outcomes, sourced from the Statistics New Zealand Integrated Data Infrastructure⁵.

⁵ For further details see: http://www.stats.govt.nz/browse for http://www.stats.govt.nz/browse for stats/snapshots-of-nz/integrated-data-infrastructure.aspx

2 THE COHORTS

As discussed in section 1.3, this report looks at the experiences of successive cohorts of young people. These cohorts are defined as birth cohorts, that is, everyone born in a specific year. The young people in each cohort were identified through the school enrolment system in the year that they turned 15, and are then followed through school and tertiary education in subsequent years.

In this report, years refer to calendar years. The ages refer to the age as at their birthdays during that year. So for the 1993 birth cohort, we measure their educational participation and achievement from 1 January 2009 to 31 December 2009 and refer to this as the 2009 year. During this year, they all turn 16. So we refer to their age as 16. At different times during the year, there will be a mix of 15- and 16-year-olds in the cohort.

Most of the analysis in the report focuses on the 1993 and 1994 cohorts. Later comparative data is also provided for the 1995 and 1996 cohorts. The earliest cohort for which there is complete and accurate data is the birth cohort of 1993. This is because of the implementation of a new enrolment data collection system in schools. They turned 15 in 2008 and 17 in 2010, when the first Youth Guarantee initiatives were introduced. They were aged 19 in 2012. The number of students in this cohort counted from school enrolments is very close to the Statistics New Zealand estimate of the population of 15-year-olds.

The 1994 cohort turned 15 in 2009 and was 16 in 2010 when the first initiatives were introduced. They were aged 18 in 2012.

The cohorts are shown by age and year in the table below. This format is used to display the detailed results for the main indicators in the report.

Table 2Birth cohorts by age and year

	Age					
Born in	15	16	17	18	19	
1993	2008	2009	2010	2011	2012	
1994	2009	2010	2011	2012		
1995	2010	2011	2012		•	
1996	2011	2012				

The bold-italic highlights the ages of interest for the Youth Guarantee initiatives (i.e. 16 to 18) and the shaded cells highlight the progressive implementation of the Youth Guarantee policy, with the colours being used to indicate the years.

There have been some shifts in the demographic distribution of the cohorts. In particular, the ethnic composition is shifting. There are slightly higher proportions of Pasifika and Asian students and lower proportions of European students in the more recent cohorts, as shown in Table 3.

The geographic distribution of the cohorts has not changed over this period. The proportions who attended schools at age 15 within each region in New Zealand remained fairly much the same.

Table 3Birth cohorts by ethnic group

Born in	European	Māori	Pasifika	Asian	Total
1993	40,930	13,809	6,340	5,478	63,125
	65%	22%	10%	9%	100%
1994	39,333	13,376	6,351	5,692	61,831
	64%	22%	10%	9%	100%
1995	38,917	13,534	6,457	5,892	61,889
	63%	22%	10%	10%	100%
1996	37,784	13,123	6,519	5,934	60,863
	62%	22%	11%	10%	100%

Note: Ethnic groups are reported on total response basis. This means that students are counted in each group they identify with and the sum of the group percentages can be more than 100. See Appendix B for further details.

School decile provides an approximate measure of the socio-economic deprivation of the community in which the students attending a school reside. The deciles are based on the total number of primary and secondary schools, rather than the total number of students. As low decile schools tend to be smaller and more likely to be primary schools, the proportion of secondary school students attending lower decile schools is quite low. In these cohorts, at age 15, 19% of students attended decile 1 to 3 schools (which had the highest community deprivation rating), while 36% of students attending decile 8 to 10 schools. This distribution has also remained constant across the cohorts.

Table 4
Labour market indicators by cohort and age

		Age					
Born in	Aged 15 in	15	16	17	18	19	
In employm	nent (not in study)						
1993	2008	-	4%	11%	28%	29%	
1994	2009	-	3%	11%	25%		
1995	2010	-	3%	11%		!	
1996	2011	-	3%				
Not in emp	loyment, education	or training					
1993	2008	-	6%	8%	15%	14%	
1994	2009	-	5%	9%	16%		
1995	2010	-	4%	10%		•	
1996	2011	-	4%				

Source: Statistics New Zealand, Household Labour Force Survey.

Note: Data is average of the quarters for each year to December. These figures represent point-in-time status and do not necessarily reconcile with other data in this report which counts status across a whole academic year. Figures are based on survey data and subject to sample error.

The cohorts have also had a fairly similar labour market experience, as shown in Table 4. The 1993 cohort turned 15 just at the start of the recession, when employment opportunities for young people dramatically reduced and the proportion of young people not in employment, education or training increased. The employment rates have stayed fairly stable for each age

across the cohorts. The proportion of 16-year-olds not in education, employment or training has decreased, while there has been a small increase at ages 17 and 18.			

3 PARTICIPATION IN PROGRAMMES

3.1 Overall programme participation

KEY POINTS

In 2011, 10.6% of 18-year-olds had participated in one or more Youth Guarantee programme (1993 birth cohort), 8.1% had participated in Youth Training and 3.0% in a feesfree place.

In 2012, 12.0% of 18-year-olds had participated in one or more Youth Guarantee programme (1994 birth cohort), 6.1% had participated in Youth Training, 7.1% in a fees-free place and 0.9% in a secondary-tertiary programme.

There were more males than females participating in Youth Guarantee programmes. Māori had higher participation rates in Youth Guarantee programmes, making up nearly half of Youth Training participants and a third of participants in other programmes.

Two-thirds of participants in Youth Training had lower achievement at NCEA level 1 (below the mean achievement score) and had experienced at least one instance of disengagement from school (stand-down, suspension or serious truancy).

Just under half (40-44%) of participants in fees-free places had lower achievement at level 1 and had experienced disengagement from school.

Only a quarter of participants in secondary-tertiary programmes had lower achievement at level 1 and had experienced disengagement from school. A quarter had higher achievement at level 1.

Even though there was a shift in funding from Youth Training to fees-free places from 2011 to 2012 and the nature of the provision changed, the characteristics of the young people engaged across the two programmes has remained very similar.

This report focuses on three programmes: youth training, fees-free places and secondary-tertiary programmes. In 2012, funding from youth training was transferred to fees-free places. This section looks at the overall participation rates in these programmes, characteristics of the participants and the effect of the changes in programmes and funding on these.

Overall participation

Table 5 shows the overall participation in the programmes. People in each cohort are counted as having participated in a programme if they have been on that programme at some stage up to and including the year to date. So it is a cumulative count of participation.

By age 18, 8.1% of the 1993 birth cohort had participated in a youth training programme and 3.0% in a fees-free place. A total of 10.6% had participated in one or both programmes. Some of the young people had been in both programmes, so the total is less than the sum for the two programmes. This was in 2011, the year before the transfer of youth training funding to fees-free places. The 1994 birth cohort turned 18 in 2012, the year that the funding was transferred. Of that cohort, 6.1% had participated in youth training and 6.5% in fees-free places by age 18. So they had a slightly higher participation rate across the two programmes of 11.1%

Table 5Participation of birth cohorts in Youth Guarantee programmes

			Age								
				Number				Per	cent of c	ohort	
Born in	Aged 15 in	15	16	17	18	19	15	16	17	18	19
	Youth training										
1993	2008	112	1,934	4,122	5,114	5,114	0.2%	3.1%	6.5%	8.1%	8.1%
1994	2009	105	1,641	3,752	3,752		0.2%	2.7%	6.1%	6.1%	
1995	2010	76	1,672	1,672			0.1%	2.7%	2.7%		
1996	2011	59	59				0.1%	0.1%			
				Fees-	free plac	es					
1993	2008	-	-	1,049	1,866	2,166	-	-	1.7%	3.0%	3.4%
1994	2009	-	351	1,835	4,377		-	0.6%	3.0%	7.1%	
1995	2010	-	407	4,023			-	0.7%	6.5%		
1996	2011	-	1,412				-	2.3%			
		1	otal of Y	outh Trair	ning and	Fees-free	places				
1993	2008	112	1,934	5,033	6,678	6,694	0.2%	3.1%	8.0%	10.6%	10.6%
1994	2009	105	1,963	5,317	6,874		0.2%	3.2%	8.6%	11.1%	
1995	2010	76	2,037	4,765			0.1%	3.3%	7.7%		
1996	2011	59	1,431				0.1%	2.4%			
			Sec	ondary-Te	ertiary Pr	ogramme	s				
1993	2008				45	78	-	-	-	0.1%	0.1%
1994	2009			178	560		-	-	0.3%	0.9%	
1995	2010		201	1,195			-	0.3%	1.9%		
1996	2011	50	859				0.1%	1.4%			
				Total of a	all progra	mmes					
1993	2008	112	1,934	5,033	6,722	6,768	0.2%	3.1%	8.0%	10.6%	10.7%
1994	2009	105	1,963	5,492	7,409		0.2%	3.2%	8.9%	12.0%	
1995	2010	76	2,230	5,918			0.1%	3.6%	9.6%		
1996	2011	109	2,277				0.2%	3.7%			

Note: Young people can participate in more than one programme, so the sum of the programmes may be more than the totals.

However, looking at the following 1995 cohort, some drop in participation across the two programmes is evident. Participation in Youth Training had been decreasing. This was due to fewer students leaving school at younger ages. While the participation in fees-fee places doubled, the participation rate across both programmes decreased from 8.6% for the 1994 cohort to 7.7% for 1995 cohort as at age 17. In the 1996 cohort a further drop in participation across both programmes at age 16 is also evident.

The implementation of the secondary-tertiary programmes has led to a net expansion of the number of young people involved in Youth Guarantee programmes. The key feature of these programmes is young people remain enrolled with a secondary school, irrespective of where

their education is undertaken. The numbers presented here are an undercount for 2011, due to data collection. The data shows that for 2012, around 2% of 16- and 17-year-olds had been engaged in secondary-tertiary programmes.

Looking across all three programmes, the total participation rate is increasing for each cohort at each age. By age 18, 10.6% of the 1993 cohort had participated in one or more programmes and this increased to 12.0% of the 1994 cohort. By age 17, 8.0% of the 1993 cohort had participated in one or more programmes, increasing to 9.6% for the 1995 cohort.

3.2 Programme participants

This section looks at the characteristics of programme participants at age 18. The counts of programme participation are based on the same cumulative count as used in Table 5. It provides a comparison of the characteristics of the participants in the 1993 and 1994 birth cohorts. These two cohorts show the differences before and after the changes to funding for youth training and fees-free places, and the establishment of secondary-tertiary programmes. By comparing these two cohorts in more detail, we can see which groups of young people are involved in which programmes over time.

The following tables look at the distribution of participants in each programme by selected characteristics. When funding for Youth Training ceased in 2011, there was a group of young people who were part way through Youth Training programmes in 2011 who then continued their training in fees-free places in 2012. This group has been separated out and labelled as transition. In the subsequent chapters, they are omitted from the analysis of the effectiveness of the programmes, as it is not clear which programme they should be counted in. Their experience is a combination of both programmes.

Gender and ethnicity

Table 6 shows the distribution of young people who had participated in each programme up to age 18 by gender. For both youth training and fee-free places, males made up just over 55% of participants. This proportion was maintained between the 1993 and 1994 cohorts even as funding was shifted between Youth Training and fees-free places.

Table 6Distribution of 18-year-olds who had participated in Youth Guarantee programmes by gender

	1993	cohort (2011)		1994 cohort (2012)			
	Female	Male	Total	Female	Male	Total	
Youth training	2,089	2,728	4,817	1,180	1,531	2,711	
	43%	57%	100%	44%	56%	100%	
Fees-free places	807	1,042	1,849	1,476	1,860	3,336	
	44%	56%	100%	44%	56%	100%	
Transition	122	175	297	478	563	1,041	
	41%	59%	100%	46%	54%	100%	
Total Youth Training and	2,880	3,798	6,678	3,037	3,837	6,874	
Fees-free Places	43%	57%	100%	44%	56%	100%	
Secondary-Tertiary Places	-	-	-	172	388	560	
				31%	69%	100%	
Total Youth Guarantee	-	-	-	3,203	4,206	7,409	
Programmes				43%	57%	100%	

Note: Young people can participate in more than one programme, so the sum of the programmes may be more than the totals.

By contrast, the proportion of males in secondary-tertiary programmes was much higher at 69%. This likely reflects the programme content, with a predominant focus on areas such as forestry,

construction and automotive trades, which tend to draw more interest from male students than from females.

Table 7 shows the distribution of programme participants at age 18 by ethnic group. In Youth Training, nearly half the participants identified as Māori. This proportion was similar in both cohorts, and was double the proportion of Māori in the total cohort. Fees-free places had a slightly lower proportion of Māori participants at 31% in the 1993 cohort, increasing to 35% in the 1994 cohort. Across the two cohorts, the proportion of Māori participants remained the same at 42%. So while the programmes changed, Māori participation was maintained.

Table 7Distribution of 18-year-olds who had participated in Youth Guarantee programmes by ethnic group

	199	3 birth cohort (2011	1)		
	Māori	Pasifika	Europeans	Asians	Total
Youth Training	2,237	602	2,362	72	4,817
_	46%	12%	49%	1%	100%
Fees-free places	576	292	1,069	61	1,849
_	31%	16%	58%	3%	100%
Transition	139	65	112	7	297
	47%	22%	38%	2%	100%
Total Youth Training and Fees-	2,812	913	3,412	135	6,678
Free —	42%	14%	51%	2%	100%
	199	4 birth cohort (2012	2)		
	Māori	Pasifika	Europeans	Asians	Total
Youth Training	1,277	328	1,332	31	2,711
_	47%	12%	49%	1%	100%
Fees-free places	1,175	533	1,759	133	3,336
_	35%	16%	53%	4%	100%
Transition	558	150	425	13	1041
_	54%	14%	41%	1%	100%
Total Youth Training and Fees-	2,907	976	3,424	172	6,874
Free —	42%	14%	50%	3%	100%
Secondary-Tertiary Programmes	187	76	313	16	560
	33%	14%	56%	3%	100%
Total Youth Guarantee	3,083	1,047	3,724	188	7,409
programmes	42%	14%	50%	3%	100%

Note: Young people can participate in more than one programme, so the sum of the programmes may be more than the totals.

Pasifika made up 12% of Youth Training participants and 16% of those on fees-free places in the 1993 cohort. These proportions were the same in the 1994 cohort and their overall participation across the two programmes remained the same.

Both Māori and Pasifika were more highly represented in secondary-tertiary programmes than in the cohort overall.

Previous school achievement

Using NCEA results it is possible to calculate an achievement score based on the proportion of assessment standards with not achieved, achieved, merit or excellence that students achieve relative to their peers. This provides an achievement score from 0 to 1 for each student for each level of NCEA that they have attempted achievement standards in.

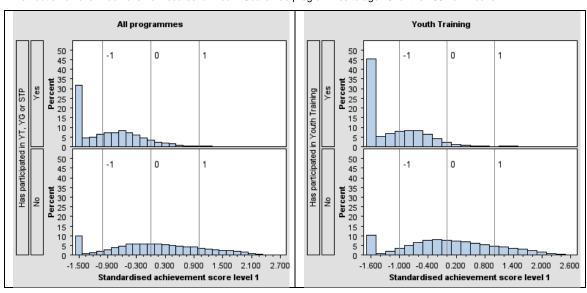
Students have been assessed for nearly all of the level 1 achievement standards they are likely to take by the end of the year in which they turn 16. This means the level 1 achievement score provides a reflection of the level of their educational achievement around the age of 15 through to 16. It can then be used as a variable for looking at their subsequent participation and achievement.

For this analysis, the level 1 achievement scores have been standardised for each birth cohort to a mean of zero and a standard deviation of one for all students in the cohort. Before standardising the scores, the scores for students who undertook no achievement standards were set to zero. This included students with no credits at level 1 or who were only assessed on unit standards. Unit standards are standards which are most often developed for work-place training. A large proportion only be either passed or failed and do not have grades of achieved, merit and excellence assigned to them.⁶

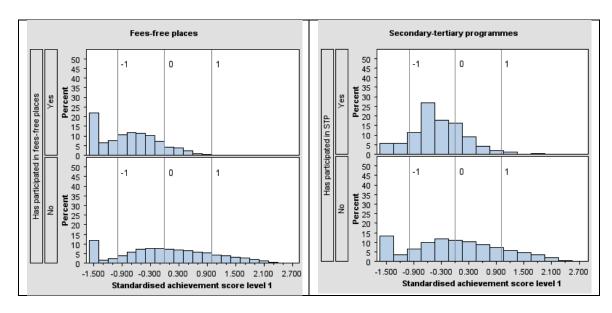
Figure 1 compares the standardised level 1 achievement scores for two groups of young people from the 1994 birth cohort: those who participated and those who did not participate in Youth Guarantee programmes. The top graph in each pair is the distribution of the group who did not participate and the lower graph is the distribution of the group who did participate. The percentage distribution in each graph adds up to 100.

Looking at all three programmes, 90% of participants had level 1 achievement scores below the mean for their cohort and 30% did not have a level 1 achievement score. Those who participated in Youth Training had the lowest mean score and 94% of them had achievement scores below the mean for their cohort. Nearly half had no level 1 achievement score. Participants on feesfree places had slightly higher level 1 achievement on average, with 87% having scores below the mean for the cohort and only 20% having no level 1 achievement score.

Figure 1
Distribution of level 1 achievement scores for Youth Guarantee programmes to age 18 for the 1994 birth cohort.



⁶ Developmental work is underway to incorporate unit standards into the achievement score. This methodology will be picked up in future monitoring.



Participants in secondary-tertiary programmes had the highest level 1 achievement, with only 76% having level 1 achievement scores below the mean for their cohort and only 4% with no score. In fact, those who participated on these programmes were more likely to have achievement scores than those who did not.⁷

Table 8
Key statistics for the distribution of level 1 achievement scores for Youth Guarantee programmes to age 18 for the 1994 birth cohort

	Mean	10 th percentile	Median	90 th percentile	Proportion with no score	Proportion with score below mean
Youth training	-1.07	-1.57	-1.32	-0.26	45%	94%
Fees-free places	-0.74	-1.57	-0.74	0.09	20%	87%
Secondary-tertiary programmes	-0.37	-1.11	-0.44	0.33	4.2%	76%
All programmes	-0.92	-1.57	-0.92	0.00	30%	90%

School engagement

The Ministry of Education collects information on individual students who have been suspended from school, stood down or been involved in serious truancy. These students can be linked to their national student numbers, so it is possible to connect these records to the cohort data. If a student has been reported for one or more of these reasons, they can be assigned a variable of being disengaged from school.

It should be noted that there is a wide variety of circumstances involved across the various cases, making it difficult to generalise the reasons for students to be in this group. It may be that the student had disengaged from education, or the school had withdrawn educational services from the students, as a sanction for unacceptable behaviour, or both. The period of disengagement can vary from a few days to longer and repeated periods over several years. And the severity of the issues involved varies widely. However, this variable denotes a group of young people who have experienced at least one serious issue affecting their engagement with schooling.

This variable is not a precise measure of engagement and disengagement. There are levels of engagement and disengagement that are not well captured in this approach. It also does not

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⁷ The result raises a question of whether this difference in distribution reflects a different intake of students or is to some extent the result of students on these programmes going on to achieve more level 1 achievement standards. The latter is to some extent plausible given the school-connected nature of these programmes. However, further examination of the data suggests that any effect due to the nature of the programme is likely to be minimal. Students on these programmes had achieved nearly all their level 1 credits before starting the programme. The average number of level 1 credits only increased by only about 4 credits while students were on the programme.

capture how well each young person was engaged with learning and education, as opposed to issues to do with school attendance and discipline. Nonetheless it does appear to distinguish two groups of young people who have had different experiences of schooling.

There is a very strong relationship between school engagement and level 1 achievement scores, as shown in Figure 2. Those who had been disengaged at some point were much more likely to have a low achievement score at level 1. Nearly 30% of them did not have a level 1 achievement score. The mean standardised score for this group was -0.66 and about 80% were below the mean achievement score for the cohort.

Figure 2
Distribution of achievement score at age 18 in 1994 cohort by whether or not been disengaged from school

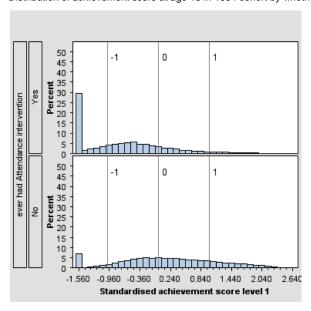


Table 9 shows the distribution of programme participants at age 18 by the combination of level 1 achievement score and engagement at school. Higher level 1 achievement includes those whose scores were above the mean, and lower includes those whose scores were below the mean. A small proportion with scores above the mean had also experienced disengagement from school. They have been combined with the total for higher achieving students in Table 9.

Youth training had the highest proportion of participants who had lower achievement and had experienced disengagement from school at 62% in the 1993 cohort, and 66% in the 1994 cohort. Youth training was quite deliberately targeted towards this group of young people. The participants in fees-free places were more evenly distributed, with 40% in the 1993 cohort having lower achievement and experiencing disengagement from school. This increased to 44% in the 1994 cohort as the programme expanded.

As the funding shifted from Youth Training to fees-free places, the overall proportions from each group remained about the same and the numbers in each group grew by a similar amount.

Table 9
Distribution of 18-year-olds who had participated in Youth Guarantee programmes by level 1 achievement and disengagement with school

		1993 birth co	hort (2011)	1994 birth cohort (2012)					
	Higher L1	Lower L1 a			Higher L1	Lower L1 a	Total		
	achievement —	No lisengagement	Disengagement		achievement 1	No Disengagement		_	
Youth Training	299	1,510	3,008	4,817	153	761	1,797	2,711	
	6%	31%	62%	100%	6%	28%	66%	100%	
Fees-free	244	860	745	1,849	416	1,454	1,466	3,336	
places	13%	47%	40%	100%	12%	44%	44%	100%	
Transition	14	105	178	297	43	297	701	1,041	
	5%	35%	60%	100%	4%	29%	67%	100%	
Total Youth	550	2,404	3,724	6,678	606	2,457	3,811	6,874	
Training and Fees-Free	8%	36%	56%	100%	9%	36%	55%	100%	
Secondary-	-	-	-	-	138	281	141	560	
Tertiary Programmes					25%	50%	25%	100%	
Total Youth	-	-	-	-	740	2,729	3,940	7,409	
Guarantee programmes					10%	37%	53%	100%	

Note: Young people can participate in more than one programme, so the sum of the programmes may be more than the totals.

Secondary-tertiary programmes have a different mix of young people. In the 1994 cohort, a quarter of the students had higher level 1 achievement and only a quarter had experienced disengagement from school. This fits with the programmes being targeted to young people in school who are looking for different options in order to continue study at school that will lead them towards a vocational career.

There were concerns raised that shifting the funding from Youth Training to fees-free places could reduce the opportunities for young people with low achievement who have been less engaged in schooling. Based on the numbers from these two cohorts, that does not appear to be the case during the transition from 2011 to 2012. Further monitoring is needed through 2013 and 2014 to see the full effects of the change, as cohorts who have only participated in fees-free places are followed through.

Type of school attended

Table 10 looks at the decile of the school attended at age 15 by young people on Youth Guarantee programmes. In general, young people from low-decile schools had a higher participation rate in Youth Guarantee programmes. Around 30% of each cohort were from low-decile schools. This compares with 18% of all young people in each cohort and 26% of those with lower achievement.

A slightly larger proportion of young people who had participated in Youth Training had been at a low decile school than those who participated in fees-free places. As with other characteristics, the distribution across the two programmes remained similar between the 1993 and 1994 cohorts even though the balance between the programmes had shifted.

Secondary-tertiary programmes had the largest proportion of young people from low-decile schools, at 44%. This is a reflection of the schools in which these programmes are located.

Table 10Distribution of 18-year-olds who had participated in Youth Guarantee programmes by the decile of the school they attended at age 15

		1993	birth cohort (2	011)	1994 birth cohort (2012)					
	No decile	Low (1-3)	Medium (4-7)	High (8-10)	Total	No decile	Low (1-3)	Medium (4-7)	High (8-10)	Total
Youth	219	1,587	2,268	743	4,817	129	826	1,269	487	2,711
Training	5%	33%	47%	15%	100%	5%	30%	47%	18%	100%
Fees-free	57	477	799	516	1,849	98	944	1,532	762	3,336
places	3%	26%	43%	28%	100%	3%	28%	46%	23%	100%
Transition	8	129	117	43	297	40	418	460	123	1,041
	3%	43%	39%	14%	100%	4%	40%	44%	12%	100%
Total Youth	269	2,099	3,062	1,248	6,678	258	2,123	3,166	1,327	6,874
Training and Fees-Free	4%	31%	46%	19%	100%	4%	31%	46%	19%	100%
Secondary-	-	-	-	-	-	14	248	199	99	560
Tertiary Programmes						3%	44%	36%	18%	100%
Total Youth	-	-	-	-	-	271	2,358	3,358	1,422	7,409
Guarantee programmes						4%	32%	45%	19%	100%
Lower achieving	3%	26%	45%	25%	100%	3%	26%	45%	26%	100%
All	2%	19%	43%	36%	100%	2%	18%	43%	37%	100%

Note: Young people can participate in more than one programme, so the sum of the programmes may be more than the totals.

Schools with no decile include private schools, Te Kura / Correspondence School, home schooled students and schools for young people in Children and Young Person's care.

4 STAYING IN EDUCATION

The first outcome area for monitoring is the effect the Youth Guarantee programmes have had on more 16- and 17-year-olds remaining in school and tertiary education.

KEY POINTS

Overall retention rates for 16- and 17-year-olds have been steady. Around 95% of all 16-year-olds were in education and 88% of 17-year-olds.

Of the 1993 birth cohort, at age 17 in 2010:

- 96% of young people with level 1 achievement scores above the mean were in education
- 83% of those with level 1 achievement scores below the mean who had not experienced any disengagement from school were in education
- 64% of those with level 1 achievement scores below the mean who had experienced any disengagement from school were in education.

There has been some improvement in retention rates for young people with level 1 achievement scores below the mean.

Youth Training was effective in increasing education retention for 16- and 17-year-olds who had experienced disengagement from school. However, for young people who had not experienced disengagement at school, being on Youth Training did not increase their rate of retention in education and may have encouraged them out of education.

Fees-free places were effective in maintaining and improving retention for 16- and 17-yearolds in education. Where young people had not experienced any disengagement from school, participating in a fees-free place maintained their retention in education. Where young people had experienced disengagement from schooling, fees-free places were quite effective in improving their retention in education.

Secondary-tertiary programmes are aimed at young people who have remained at school. Participation in the programmes does have an effect of increasing their retention in education to age 18. The programmes are effective in improving retention for both those who had and who had not experienced disengagement from school.

The retention indicator is the proportion of each cohort that is enrolled in either school or tertiary education for at least 75 weekdays during the year.

Seventy-five days has been set as the minimum period in which a student can undertake meaningful learning. It represents about 1½ school terms or slightly less than the minimum period in which a student could complete a 40 credit course at a tertiary education provider. Forty credits is the smallest credit value for which a qualification can be registered on the New Zealand Qualifications Framework.

4.1 Overall rates

Table 11 shows the retention rates for each birth cohort. It starts with the rates for all young people and then compares the rates for young people with achievement scores above the mean to those with scores below the mean. The latter group is split into those who had or had not experienced some disengagement from school.

The retention rates across all young people have been stable across the birth-year cohorts. Around 95% of students were in education at age 16 and 87% at age 17. Young people with level 1 achievement scores above the mean were much more likely to stay in education, with 96% of them being in education at age 17.

Table 11
Proportion of birth cohorts retained in school and tertiary education

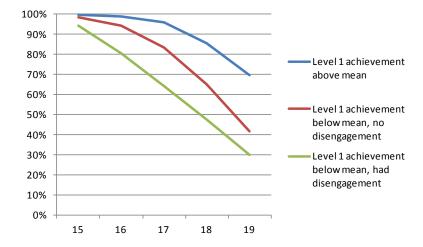
		Age					
Born in	Aged 15 in	15	16	17	18	19	
All young pe	eople						
1993	2008	98%	94%	86%	72%	53%	
1994	2009	98%	95%	88%	73%		
1995	2010	99%	95%	87%			
1996	2011	99%	95%				
With level 1	achievement scor	es above the	mean				
1993	2008	100%	99%	96%	85%	70%	
1994	2009	100%	99%	97%	86%		
1995	2010	100%	99%	96%			
1996	2011	100%	99%				
With level 1	achievement scor	es below the	mean				
Wh	o have not been d	isengaged fro	om school				
1993	2008	98%	94%	83%	65%	42%	
1994	2009	98%	95%	86%	67%		
1995	2010	99%	95%	86%			
1996	2011	98%	95%				
Wh	o have been diser	ngaged from s	school				
1993	2008	94%	81%	64%	48%	30%	
1994	2009	96%	83%	68%	49%		
1995	2010	96%	84%	68%			
1996	2011	96%	84%				

Young people with level 1 achievement below the mean had much lower retention rates than those with higher achievement. For those who had not experienced disengagement from school, 86% were in education at age 17, compared with an average of 88% for all students and 96% for students with scores above the mean. If they had experienced disengagement from school, only 68% were in education at age 17.

The data shows there has been some improvement in retention rates for those with achievement scores below the mean. The improvement is greater for those who had experienced disengagement from school. Their retention rate at 17 increased from 64% for the 1993 cohort in 2010 to 68% for the 1995 cohort in 2012. This has happened at a time when employment rates for this age group have been stable, as shown in Table 4.

Figure 3 provides a visual illustration of the differences in retention rates between the three groups for the 1993 birth cohort. It shows the substantially different retention patterns of each group.

Figure 3
Proportion of 1993 birth cohort retained in school or tertiary education by level 1 achievement and school engagement



4.2 Effect of participating in Youth Guarantee programmes

The first question for monitoring the effectiveness of the Youth Guarantee policy is whether the programmes are having an effect on 16- and 17-year-olds remaining in school or tertiary education.

To answer this question, we look at the education retention rates of those who did and did not participate in each Youth Guarantee programme. As discussed in section 1.3, we have selected a comparison group for each programme. The comparison group has a similar background and experiences to the young people who participated on the programme. The main difference is that they did not participate in the programme.

The graphs below show the education retention rate for the comparison group as the dotted line, labelled "Never on a programme". This is compared with the education retention rate of programme participants before they started the programme and after they had started the programme. The latter group includes those on the programme, as well as those who left the programme at various stages.

This analysis tests the extent to which the opportunity to start in a Youth Guarantee programme changed the overall retention rate of that group of young people. Once they were on a Youth Guarantee programme, they had as much choice as other young people to continue on their current programme, change to another programme or provider, or leave education.

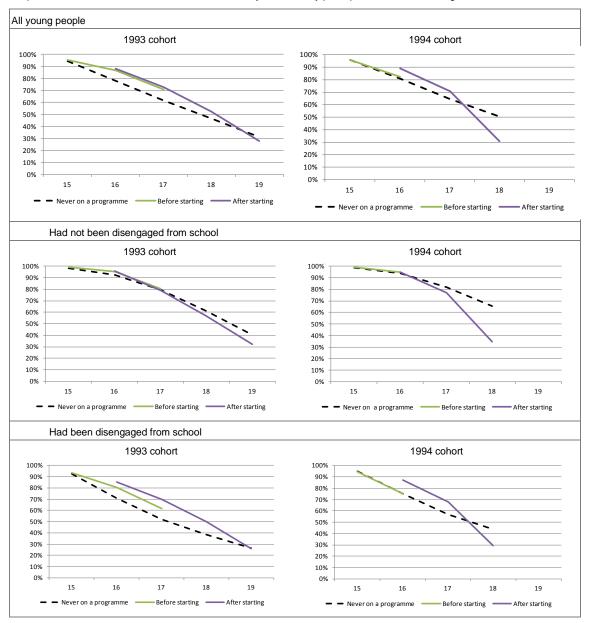
The comparisons are shown for all young people on each programme and then for those who did and did not experience disengagement at school. This provides a view of the effectiveness of the programmes for young people who had these different experiences.

As noted in section 3.2, there was a group of young people who started in youth training in 2011 and carried on in fees-free places in 2012. This group has been excluded from the analysis, as it is unclear which programme to attribute their outcomes to.

Youth training

Figure 4 shows the effects of participation in Youth Training on retention in school and tertiary education for the 1993 and 1994 birth cohorts.

Figure 4
Proportion of birth cohorts retained in school and tertiary education by participation in Youth Training



The results show different patterns for each cohort. In the 1993 cohort, the intake of participants had had somewhat higher retention in education on average than the comparison group. This can be seen by the green "before starting" line being above the comparison "never on a programme" line. Before starting the programme, 87% of participants were in education at age 16, compared with 78% of non-participants. Once they started the programme, they maintained their higher rate of participation. This can be seen by the purple "after starting" line following almost exactly the same trend as the before line.

In the 1994 cohort, participants going into Youth Training had very similar retention to those who did not go on the programme. Having started the programme, the proportion in education increased from 82% to 89% at age 16.

Two things changed between these two cohorts. The size of the Youth Training programme reduced, as shown in Table 5, and more fees-free places became available. It is likely that Youth Training became more targeted towards young people who had not been retained in education.

The next two pairs of graphs in Figure 4 show the results for each cohort for the young people who had and had not experienced disengagement from school. These show that across the two cohorts, there was a similar effect for each group on retention. Where young people had not experienced disengagement from school, participating in a Youth Training programme has no effect on increasing their retention rates at ages 16 and 17. If anything, it may have reduced their retention rates by providing an early exit from education. This is consistent with the focus of the programme on employment outcomes. Where young people had experienced disengagement from school, starting Youth Training did have an effect on increasing their retention at ages 16 and 17. This was evident in both cohorts and more so in the 1994 cohort.

In summary, Youth Training was effective in increasing education retention for 16- and 17-year-olds who had experienced disengagement from school. This effect was greater in the 1994 cohort as the programme became more targeted to young people who were not retained in education. This concurs with the increased proportion of participants who had been disengaged at school (see Table 9). However, for young people who had not experienced disengagement at school, being on Youth Training did not increase their rate of retention in education and may have encouraged them out of education.

Fees-free places

Figure 5 shows the effects of participation in fees-free places on retention in school and tertiary education for the 1993 and 1994 birth cohorts.

The results show a similar pattern for both cohorts. Young people who started fees-free places had had slightly higher retention in education than similar young people who did not participate. At age 16, 94% of those starting in the 1993 cohort were in education, compared with 90% of the comparison group. In the 1994 cohort, the figures were 92% compared with 89%.

Starting a programme resulted in increased retention rates from age 16 to 18 for both cohorts. At age 17, 96% of those who had started a fees-free place in the 1993 cohort were in education, compared with 78% of the comparison group. In the 1994 cohort, the figures were 90% compared with 75%.

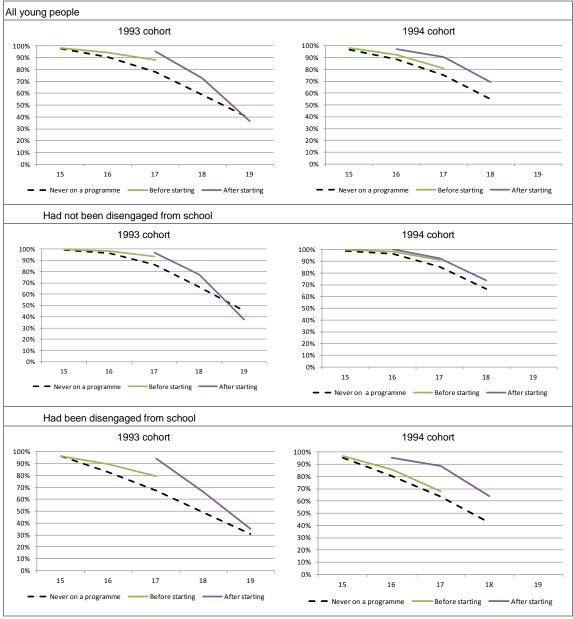
The next pair of graphs show the effects on retention for participants who had not been disengaged from school. The results suggest that in this group the participants in fees-free places were already more likely to stay in education anyway. Starting a fees-free place did not further increase the proportion retained in education.

The last pair of graphs show the effects on retention for participants who had been disengaged from school. While this group was slightly more likely to be in education than others with the same experience in the comparison group, participating in fees-free places did increase the proportion who were retained in education. So for this group, fees-free places did have an effect on improving retention.

In summary, fees-free places were effective in maintaining and improving retention for 16- and 17-year-olds in education. Where young people had not experienced any disengagement from school, participating in a fees-free place maintained their retention in education. Where young

people had experienced disengagement from schooling, fees-free places were quite effective in improving their retention in education.

Proportion of birth cohorts retained in school and tertiary education by participation in fees-free places



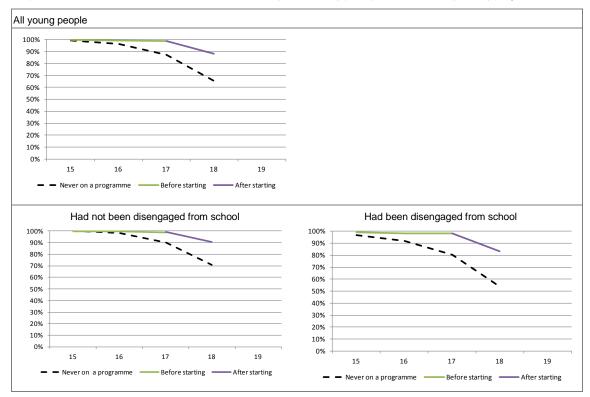
Secondary-tertiary programmes

Figure 6 shows the effects of participation in secondary-tertiary programmes on retention in school and tertiary education for the 1994 birth cohorts. There were insufficient numbers participating in the 1993 birth cohort to draw meaningful conclusions.

The results show that nearly all young people starting a secondary-tertiary programme were already engaged in education. This is consistent with the design of the programmes, which are targeted to students at school. By age 18, 88% of young people who had started a secondary-tertiary programme were in education, compared to 66% of the comparison group. For students who had not experienced disengagement at school, 90% were in education at 18, compared with

71% in the comparison group. For students who had experienced disengagement, 83% were in education compared with 54% of the comparison group.

Figure 6
Proportion of 1994 birth cohort retained in school and tertiary education by participation in secondary-tertiary programmes



Because the participant and comparison groups have very different levels of retention at age 17, it is quite hard to see from these figures as to how much different their retention was at age 18. An easier way to compare the results is to compute retention as the number of 18-year-olds still in education as a proportion of the 17-year-olds who were in education. These results are shown in Table 12 below.

These results confirm that given that young people were in education at age 17, a greater proportion of those who participated in secondary-tertiary programmes remained in education at age 18 than those in the comparison group.

Table 12

18-year-olds retained in education as a proportion of all 17-year-olds in education for secondary-tertiary programmes

	Secondary-Tertiary Programme	Comparison group
All young people	89%	75%
Had not disengaged from school	91%	78%
Had been disengaged from school	85%	67%

In summary, secondary-tertiary programmes are aimed at students who have remained in education. Participation in the programmes does have an effect of increasing their further retention in education to age 18. The programmes are effective in improving retention for both those who had and who had not experienced disengagement from school

5 ACHIEVING NCEA LEVEL 2

The second outcome area for monitoring is the effect the Youth Guarantee programmes have had on more young people achieving NCEA Level 2 or equivalent.

KEY POINTS

Overall achievement rates have been increasing. The proportion who achieved NCEA Level 2 or equivalent by age 18 increased from 70% in 2011 to 73% in 2012.⁸

Of the 1993 birth cohort, by age 18 in 2011:

- 93% of young people with level 1 achievement scores above the mean had achieved NCEA Level 2 or equivalent
- 58% of those with level 1 achievement scores below the mean who had not experienced any disengagement from school had achieved NCEA Level 2 or equivalent
- 34% of those with level 1 achievement scores below the mean who had experienced disengagement from school achieved NCEA Level 2 or equivalent.

The NCEA Level 2 achievement rates for all those with level 1 achievement scores below the mean had improved by 5 percentage points from 2011 to 2012.

Youth Training participants had lower levels of attainment of NCEA Level 2 or equivalent before starting a programme. Being on a programme resulted in them being less likely to attain NCEA Level 2 or equivalent than others with similar characteristics and background. This was particularly noticeable for young people who had not experienced any disengagement from school.

Young people started **fees-free places** with similar levels of NCEA Level 2 achievement compared to other young people with the same characteristics and background. A greater proportion of those who started fees-free places attained NCEA Level 2 or equivalent by age 18 than in the comparison group. This was particularly notable for young people who had experienced disengagement at school.

Young people on **secondary-tertiary programmes** started with similar NCEA Level 2 attainment as other young people with similar characteristics and background. A larger proportion of those who started the programme achieved NCEA Level 2 or equivalent by age 18 than those who did not.

In this report, NCEA Level 2 or equivalent includes:

- being awarded NCEA Level 2
- completing 80 credits on the New Zealand Qualifications Framework, with at least 60 at level 2 or higher (the requirement for award of NCEA Level 2)
- being awarded another level 2 New Zealand Qualification Framework qualification; or
- being awarded a level 3 or higher New Zealand Qualification Framework qualification, including NCEA Level 3.

It does not include being awarded a secondary school qualification from an international educational body, such as Cambridge or International Baccalaureate. The data on the award of these qualifications is reported to the Ministry of Education when students leave school. This

⁸ These figures exclude the international qualifications, such as Cambridge International Examinations and the International Baccalaureate, and are lower than the numbers used to report the Better Public Services target. See the discussion below for more detail.

means it is difficult to attribute on a cohort basis by single years of age. These qualifications are included in the reporting of the Better Public Services target for attainment of NCEA Level 2 or equivalent by age 18. This means that the figures reported here are 3 to 4 percentage points lower for all young people than those reported for the Better Public Services target as at age 18.

5.1 Overall rates

Table 13 shows the proportions of each birth cohort who attained NCEA Level 2 or equivalent. As with retention in chapter 4, it starts with all young people and then compares the rates for those with level 1 achievement scores above the mean to those with scores below the mean. The latter group is split into those who had and who had not experienced some disengagement from school.

The overall achievement rates have been increasing. The proportion who had achieved NCEA Level 2 or equivalent by age 18 increased from 70% in 2011 for the 1993 birth cohort to 73% in 2012 for the 1994 birth cohort.

Table 13
Proportion of birth cohorts who attained NCEA Level 2 or equivalent

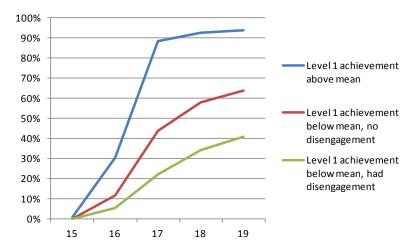
			Age					
Born in	Aged 15 in	15	16	17	18	19		
All young p	eople							
1993	2008	0%	20%	61%	70%	74%		
1994	2009	0%	20%	64%	73%			
1995	2010	0%	21%	66%				
1996	2011	0%	22%					
With level 1	achievement score	es above the	mean					
1993	2008	1%	30%	88%	93%	94%		
1994	2009	1%	30%	89%	93%			
1995	2010	1%	31%	91%	,			
1996	2011	1%	31%					
With level 1	achievement score	es below the	mean					
WI	ho have not been dis	sengaged fro	om school					
1993	2008	0%	12%	44%	58%	64%		
1994	2009	0%	14%	48%	63%			
1995	2010	0%	15%	52%				
1996	2011	0%	16%					
WI	ho have been disenç	gaged from s	school					
1993	2008	0%	5%	22%	34%	41%		
1994	2009	0%	7%	25%	39%			
1995	2010	0%	7%	29%				
1996	2011	0%	9%					

Young people with level 1 achievement scores above the mean were much more likely than other young people to attain NCEA Level 2 by age 18. Their attainment rate was 93% in both years. There was very little overall change to their attainment rate. Nearly all of the increase in attainment has been for young people with level 1 achievement scores below the mean.

In 2011, 58% of those with lower achievement who had experienced no disengagement from school achieved NCEA Level 2 or equivalent by age 18. This rate increased by 5 percentage points to 63% in 2012. In 2011, 34% of those with lower achievement who had experienced disengagement from school achieved NCEA Level 2 or equivalent by age 18. This rate also increased by 5 percentage points to 39% in 2012 (for the 1994 birth cohort).

Figure 7 provides a visual illustration of the differences in achievement rates between the three groups for the 1993 birth cohort. There are clearly different achievement patterns of each group.

Figure 7
Proportion of 1993 birth cohort achieving NCEA Level 2 or equivalent by level 1 achievement score and school engagement



5.2 Effect of participating in Youth Guarantee programmes

The second question for monitoring the effectiveness of the Youth Guarantee policy is whether the programmes are having an effect on more young people achieving at least NCEA Level 2 or equivalent.

To answer this question, we can look at the achievement rates of those who did and did not participate in Youth Guarantee programmes. As with retention, this can be done by comparing achievement with other young people with similar characteristics and backgrounds. For young people who participated in the programmes, achievement is shown before starting the programmes and after starting the programmes. Achievement after starting the programmes includes qualifications achieved while on the programmes as well as qualifications achieved after leaving the programmes. Both of these cases are considered to be an effect of the programmes. In the latter case, it shows how effective the programmes were in supporting young people to continue in a successful educational pathway.

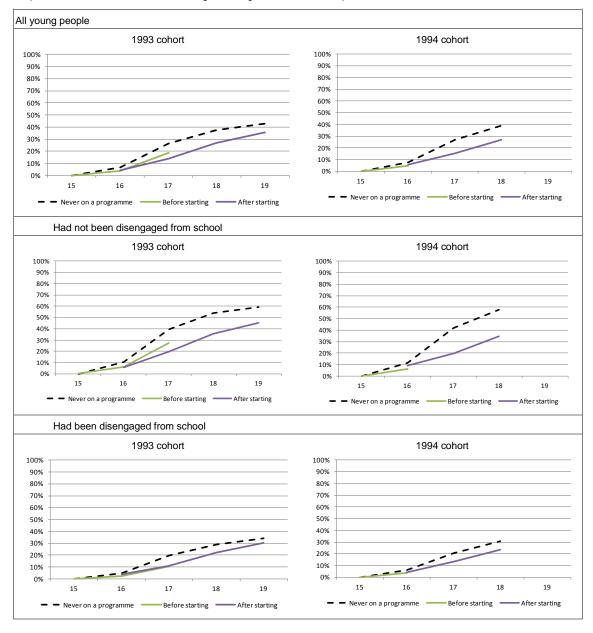
As with the retention analysis, the group of learners who moved directly from youth training to fees-free places from 2011 to 2012 has been omitted.

Youth Training

Figure 8 shows the effect of participation in Youth Training on achievement of NCEA Level 2 or equivalent.

The results are similar for both cohorts. The young people starting Youth Training were less likely to have attained NCEA Level 2 than other young people with the same background characteristics. Participating in Youth Training did not raise their attainment rate relative to their peers. In the 1993 cohort, by age 18, 27% those who started Youth Training had attained NCEA Level 2 or equivalent compared to 38% of the comparison group,. The figures were almost identical in the 1994 cohort.

Figure 8
Proportion of birth cohorts in Youth Training achieving NCEA Level 2 or equivalent



Where students had not been disengaged from school, those who started Youth Training were much less likely to achieve NCEA Level 2 or equivalent than the comparison group. By age 18 36% of those who had started youth training had attained NCEA Level 2 or equivalent compared with 54% of the comparison group, in the 1993 cohort. In the 1994 cohort, the figures were 35% compared with 58%.

Where young people had been disengaged from school, those who started Youth training were only slightly less likely to achieve NCEA Level 2 or equivalent than the comparison group. By

age 18 22% of those who started youth training had attained NCEA 2 compared with 29% of the comparison group, in the 1993 cohort, In the 1994 cohort, the figures were 24% compared with 31%.

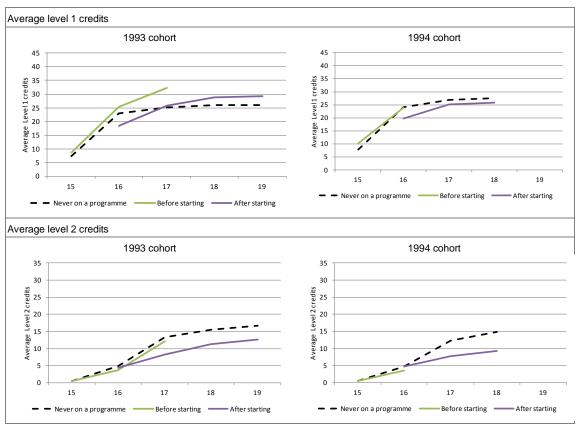
Figure 9 looks at the patterns of credit attainment at levels 1 and 2 in Youth Training. It provides more detail about how Youth Training programmes contributed towards the achievement of NCEA Level 2. It looks at the average number of credits young people had attained before and after starting Youth Training and compares this with the average credits attained by the comparison group. The figures shown in the graphs are the average of all credits attained at as the age for the group of young people. So the graphs show a cumulative count of credits.

At level 1, Youth Training participants and the comparison groups follow a similar pattern for the average number of credits achieved. Youth Training participants started with a similar average to the comparison group.

At level 2, the Youth Training participants also had a similar average number of credits on starting as the comparison group. However, once they started the programme there was less increase in the average number of credits achieved than in the comparison group.

Figure 9

Average level 1 and 2 credits attained by age and participation in Youth Training



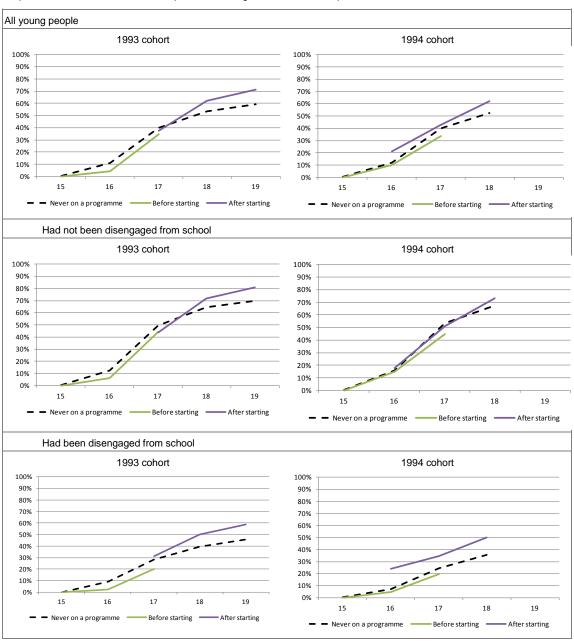
In summary, Youth Training participants had lower levels of attainment of level 2 NCEA or equivalent before starting a programme. Being on a programme resulted in them being less likely to attain NCEA Level 2 or equivalent than others with similar characteristics and background. This was particularly noticeable for those who had not experienced any disengagement from school.

Fees-free places

Figure 10 shows the effect of participation in fees-free places on achievement of NCEA Level 2 or equivalent.

The results show that in both cohorts, participants in fees-free places had similar levels of NCEA Level 2 attainment before starting the programme as the comparison group. After starting, they had somewhat higher attainment. By age 18, 62% of young people who had started a fees-free place had attained NCEA Level 2 or equivalent, compared with 54% of the comparison group, in the 1993 cohort. In the 1994 cohort, the rate was 62% compared with 52%.

Figure 10
Proportion of birth cohorts in fees-free places achieving NCEA Level 2 or equivalent



Where young people had not had any disengagement from school starting a fees-free place appears to have had a small effect on attaining NCEA Level 2 or equivalent by age 18. The

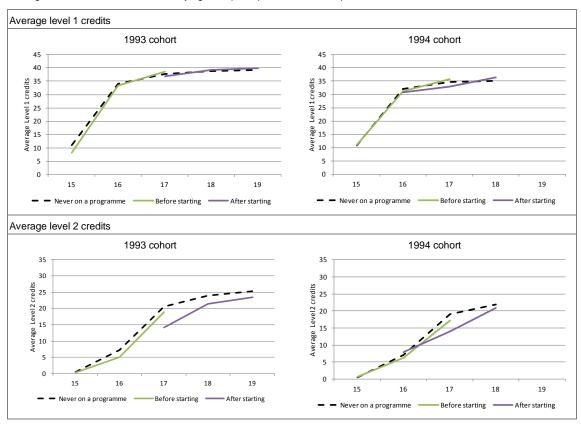
effect was much larger for young people who had experienced disengagement from school. For this group, a definite change in achievement can be seen before and after starting the programme and there is a larger difference compared to the comparison group.

Figure 11 looks at the patterns of credit attainment at levels 1 and 2 in fees-free places. It looks at the average number of credits young people had attained before and after starting fees-free places and compares this with the average credits attained by the comparison group.

At level 1, participants in fees-free places and the comparison groups follow almost exactly the same pattern of achievement. This indicates that participants in fees-free places have already attained nearly all of the level 1 credits they are likely to have attained before starting and participation makes no difference to achievement at this level.

At level 2, it shows that young people start fees-free places with a similar average number of credits to the comparison group. There is then something of a lag in credit attainment for participants before catching up to the comparison group. This probably reflects two things. Credits from the fees-free places are reported through tertiary providers and reporting can be subject to greater time lag than reporting through schools. The number of credits offered on average through tertiary programmes tends be lower than offered through school-based learning. At school, many learners end up achieving more credits than required for the NCEA qualifications, whereas in tertiary settings the credit amounts are more tightly related to the qualification requirements. This would explain why young people in fees-free places had a lower average credit attainment at level 2, while also having a higher rate of qualification attainment.

Figure 11
Average level 1 and 2 credits attained by age and participation in fees-free places



In summary, young people started **fees-free places** with similar levels of NCEA Level 2 achievement to other young people with the same characteristics and background. A greater proportion of those who started fees-free places attained NCEA Level 2 or equivalent by age 18 than in the comparison group. This was particularly notable for young people who had experienced disengagement at school.

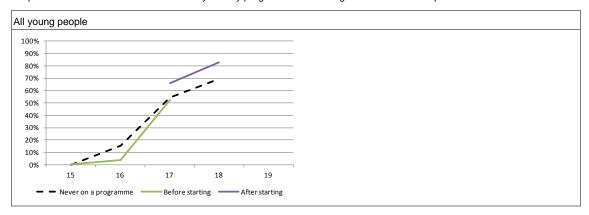
Secondary-tertiary programmes

Figure 12 shows the effect of participation in secondary-tertiary programmes on achievement of NCEA Level 2 or equivalent.

The results show that those starting a secondary-tertiary programme had a similar level of NCEA Level 2 achievement as other young people with the same background and characteristics. Having started a programme, the proportion achieving NCEA Level 2 or equivalent by age 18 was much higher, at 83%, compared with 70% for the comparison group.

This increase in achievement was evident both for young people who had and had not experienced disengagement at school. For young people who had not experienced disengagement, 89% of those who started a secondary-tertiary programme achieved NCEA Level 2 or equivalent by age 18, compared with 77% in the comparison group. For those who had experienced disengagement, 68% achieved NCEA Level 2 or equivalent compared with 53%.

Figure 12
Proportion of 1994 birth cohort in secondary-tertiary programmes achieving NCEA Level 2 or equivalent



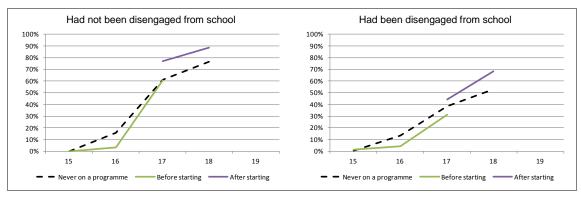
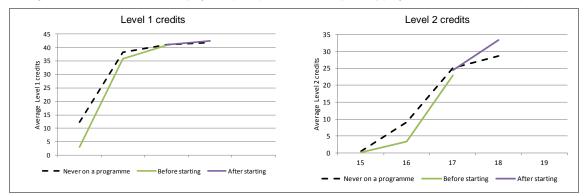


Figure 13 looks at the patterns of credit attainment at levels 1 and 2 in secondary-tertiary programmes. It looks at the average number of credits young people had attained before and after starting secondary-tertiary programmes and compares this with the average credits attained by the comparison group.

It shows that young people who participated in secondary-tertiary programmes had a similar attainment of level 1 credits as the comparison group. At level 2, their attainment was similar also to the comparison group before starting the programme. After starting, they attained more credits on average than the comparison group.

Figure 13

Average level 1 and 2 credits attained by age and participation in secondary-tertiary programmes (1994 birth cohort)



In summary, young people on secondary-tertiary programmes started with similar NCEA Level 2 attainment as other young people with similar characteristics and background. A larger proportion of those who started the programme achieved NCEA Level 2 by age 18 than those who did not.

6 PROGRESSING TO TERTIARY STUDY

The third outcome area for monitoring is the effect of the Youth Guarantee programmes have had on more young people progressing to tertiary education and work-based employment at level 4 and above.

KEY POINTS

Of the 1993 birth cohort, by age 19 in 2012:

- 46% of all young people had enrolled in a level 4 or higher qualification
- 67% of those with level 1 achievement scores above the mean had enrolled in a level 4 or higher qualification
- 31% of those with level 1 achievement scores below the mean who had not experienced any disengagement from school had enrolled in a level 4 or higher qualification
- 18% of those with level 1 achievement scores below the mean who had experienced any disengagement from school had enrolled in a level 4 or higher qualification

Youth Training did not provide any pathway towards level 4 and above qualifications. For young people who had not experienced disengagement in school, it appears to have encouraged them away from study at higher levels.

Initially **fees-free places** made little difference to whether young people went on to study at higher levels. It would appear that as the programmes have developed, they are encouraging a larger proportion of young people to move into higher level study.

It is too soon to measure this indicator for **secondary-tertiary programmes**.

Level 4 on the New Zealand Qualifications Framework represents the lowest end of qualifications that leads to skilled employment. A level 3 certificate provides training for specific roles within an area or work and/or preparation for further study. A level 4 certificate qualifies individuals to work or study in a broad or specialised area (New Zealand Qualifications Authority, 2011).

The indicator presented here counts whether students have ever enrolled in a level 4 or higher qualification after leaving school. So if a young person enrolled in a degree programme at age 18 and then withdrew, that student will still be counted in the indicator at age 19 as having had a level 4 or higher enrolment. Where a young person enrolled in a level 4 or higher tertiary course while also being enrolled at school, this is not counted for this indicator. Enrolments through industry training organisations are included, as well as at tertiary education providers.

6.1 Overall rates

Table 14 shows the proportion of each birth cohort who enrolled in qualifications at level 4 and above. As with retention and NCEA Level 2 achievement, it starts with all young people and then compares the rates for those with level 1 achievement scores above the mean to those with scores below the mean. The latter group is split into those who had and had not experienced disengagement from school. The results are only shown for the 1993 and 1994 cohorts as changes in this indicator are only measureable from age 18 onwards.

In the 1993 birth cohort, 46% of all students had enrolled in a level 4 or higher qualification by age 19. Of those with level 1 achievement scores above the mean, 67% had enrolled at level 4 or higher by age 19. Having a level 1 achievement score below the mean halved this rate to 31%, assuming no disengagement from school, and to 18% for those who had experienced disengagement from school.

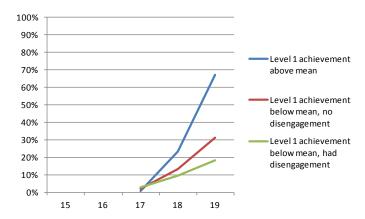
Comparing the 1993 and 1994 results at age 18, there appears to be a small drop in rates. The drop is largest for those with level 1 achievement scores above the mean.

Table 14Proportion of birth cohorts who enrolled in qualifications at level 4 or higher by age

		Age					
Aged 15 in	15	16	17	18	19		
pple							
2008	0%	0%	2%	18%	46%		
2009	0%	0%	2%	17%			
With level 1 achievement scores above the mean							
2008	0%	0%	1%	24%	67%		
2009	0%	0%	1%	23%			
chievement scor	es below the	mean					
have not been d	isengaged fro	om school					
2008	0%	0%	2%	13%	31%		
2009	0%	0%	2%	13%			
have been diser	ngaged from	school					
2008	0%	0%	3%	10%	18%		
2009	0%	0%	3%	10%			
	chievement scor 2008 2009 chievement scor have not been d 2008 2009 have been diser	chievement scores above the 2008 0% 2009 0% chievement scores above the 2008 0% 2009 0% chievement scores below the have not been disengaged from 2008 0% 2009 0% have been disengaged from s 2008 0%	2008	Aged 15 in 15 16 17 ople 2008 0% 0% 2% 2009 0% 0% 2% chievement scores above the mean 2008 0% 0% 1% 2009 0% 0% 1% chievement scores below the mean 0% 1% have not been disengaged from school 2008 0% 0% 2% have been disengaged from school 2008 0% 0% 3% 2008 0% 0% 3%	Aged 15 in 15 16 17 18 pple 2008 0% 0% 2% 18% 2009 0% 0% 2% 17% chievement scores above the mean 2008 0% 0% 1% 24% 2009 0% 0% 1% 23% chievement scores below the mean have not been disengaged from school 2008 0% 0% 2% 13% have been disengaged from school 2008 0% 0% 3% 10%		

Figure 14 provides a visual illustration of the differences in participation rates in level 4 and higher qualifications between the three groups for the 1993 birth cohort. It shows the notably different levels for each group.

Figure 14
Proportion of 1993 birth cohort enrolling at level 4 or above by level 1 achievement score and school engagement



6.2 Effect of participating in Youth Guarantee programmes

The third question for monitoring the effectiveness of the Youth Guarantee policy is whether the programmes are having an effect on more young people progressing to tertiary education at level 4 and above.

As with retention and NCEA Level 2 achievement, we can answer this question by looking at the progression rates of young people with similar characteristics who did and did not participate in Youth Guarantee programmes. For this indicator, it makes sense to just look at the progression rates for young people starting from when they had finished or left a Youth Guarantee programme, rather than at the point where they started a programme. All young people who participated in the programmes are included, even if they were only on the programme for a short time and did not complete any programme requirements. As with the retention and NCEA achievement, those who moved directly from youth training to fees-free places from 2011 to 2012 have been omitted.

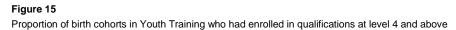
Youth Training

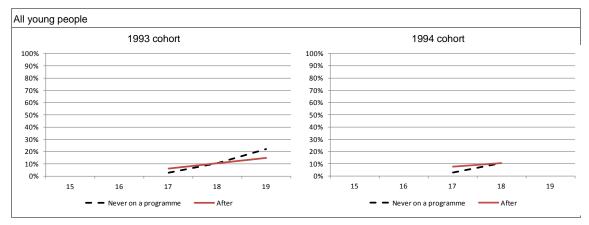
Figure 15 shows the effect of participating in Youth Training on going on to enrol in qualifications at level 4 or above.

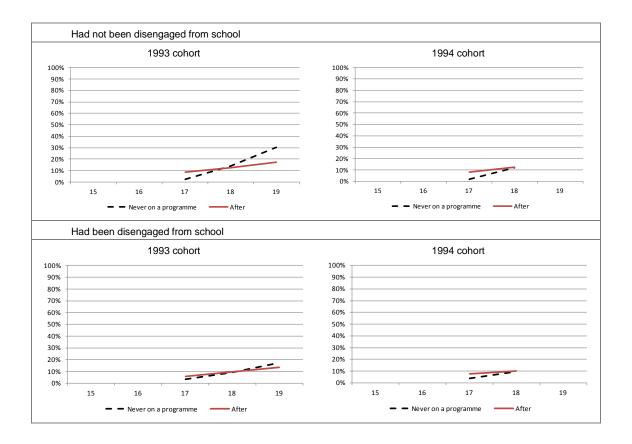
The results show that by age 19, young people who had been on Youth Training were less likely to have gone on to study at level 4 and above, than similar young people who did not participate in Youth Training. In the 1993 cohort, 15% of the ones who had been on Youth Training had gone on to level 4 and above, compared to 22% of the comparison group. The data as at age 18 for the 1994 cohort shows a similar trend developing.

For young people who had not experienced disengagement from school, there was a much lower proportion going on to level 4 and above from Youth Training than of those who had not participated in Youth Training. For young people who had experienced disengagement from school, there was much less difference between those who did and did not participate in Youth Training.

In summary, Youth Training did not provide any clear pathway towards level 4 and above qualifications. For young people who had not experienced disengagement in school, it appears to have encouraged them from study at higher levels.





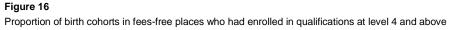


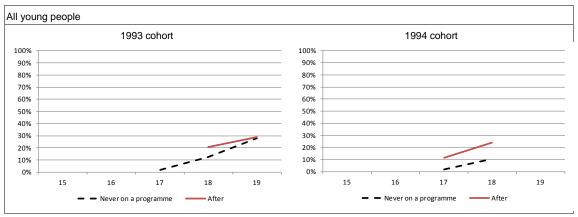
Fees-free places

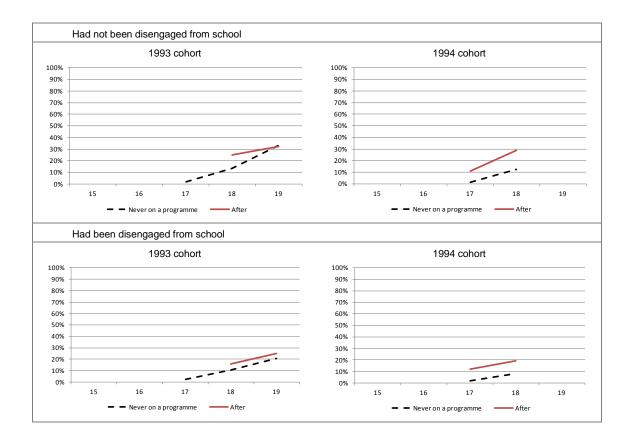
Figure 16 shows the effect of participating in fees-free places enrolment in qualifications at level 4 or above.

The results for the 1993 cohort show that by age 19 the same proportion of those who had been on a fees-free place went on to study at level 4 and above as those who did not participate. The 1994 cohort shows some improvement with a higher proportion of participants going on to study at level 4 and above at age 18.

These results are fairly similar for young people who had and had not been disengaged from school. In the 1993 cohort both groups had similar outcomes to the comparison group. In the 1994 cohort, both groups had better outcomes at age 18 than the comparison group.







In summary, initially fees-free places made little difference to whether young people went on to study at higher levels. It would appear that as the programmes have developed, they are encouraging a larger proportion of young people to move into higher level study.

Secondary-tertiary programmes

There was only a very small number of young people who had participated in a secondary-tertiary programme in 2011 and then left as of 2012. This group is not representative in that they were part of the early establishment of the programmes and will include a large proportion who left the programme early. Therefore, it is too soon to report data for this indicator.

7 CONCLUSION

The Youth Guarantee programmes have been successful in reaching a significant proportion of young people, who we would expect to have lower rates of retention, attainment of NCEA Level 2 or equivalent and progression to level 4 and above tertiary education qualifications.

Up to 12% of 18-year-olds have participated in programmes, including Youth Training. Most of those participating in the programmes had lower levels of achievement at NCEA level 1. More than half of them had experienced at least one instance of disengagement from school – such as stand-down, suspension or serious truancy. These two factors are strongly associated with lower retention, achievement and progression.

Table 15 summarises the outcomes from the Youth Guarantee programmes for the 1993 and 1994 birth cohorts and provides an estimate of the net impact of the programmes on each of the measures.

Table 15Summary of outcomes from Youth Guarantee programmes

		4000			4004		
		1993 cohort		1994 cohort			
	In education at 17 (2010)	NCEA Level 2 or equivalent by 18 (2011)	Enrolled at level 4+ by 19 (2012)	In education at 17 (2011)	NCEA Level 2 or equivalent by 18 (2012)	Enrolled at leve 4+ by 19 (2013)	
Youth Training							
Programme	73%	27%	15%	71%	27%		
Comparison	62%	38%	22%	65%	39%		
Difference (%)	11%	-11%	-7%	6%	-12%		
Difference (no)	529	-515	-340	166	-323		
Fees-free places							
Programme	96%	62%	29%	90%	62%		
Comparison	78%	54%	28%	75%	52%		
Difference (%)	18%	9%	1%	15%	10%		
Difference (no)	327	163	24	517	328		
Transitional grou	ıp: Youth Traini	ing to fees-free 201	1/2012				
Programme	85%	20%		92%	35%		
Comparison	72%	38%		60%	37%		
Difference (%)	21%	-18%		32%	-2%		
Difference (no)	60	-52		313	-17		
Secondary-tertia	ry programmes	.					
Programme	-	-	-	99%	83%		
Comparison	-	-	-	87%	70%		
Difference (%)	-	-	-	12%	13%		
Difference (no)	-	-	-	66	73		
Total difference	to outcomes ac	ross all programme	es				
Additional number of people	916	-404	-316	1,062	61		
Cohort population at 15	63,125	63,125	63,125	61,831	61,831		
As % of cohort	1.5%	-0.6%	0.5%	1.7%	0.1%		
Cohort performance		70%	46%	88%	73%		

Table 15 shows for each programme the proportion of young people who achieved the outcome measure (in the rows labelled "programme") and the proportion in the comparison group not on the programme who achieved the outcome measure (in the rows labelled "comparison"). The difference is the amount that can be attributed to the programme. This is shown as a percentage point difference and as the number of young people.

The bottom rows of the table show the combined impact of the Youth Guarantee programmes (including Youth Training) on the performance of each age cohort as a whole in relation to the outcome measures. The impact of each programme, in terms of the number of people affected on the outcome, is totalled to provide the figure for the "additional number of people". This is then shown as a percentage of the cohort population which can be interpreted as the percentage point contribution of the Youth Guarantee programmes to the overall performance of the cohort.

The 'transitional group' are young people who started in Youth Training in 2011 and transferred to fees-free places in 2012. They were not included in the analysis for either Youth Training or fees-free places as they had partial experience of both programmes. They are included here to ensure that all young people in each cohort are counted.

It can be seen that Youth Training, fees-free places and secondary-tertiary programmes have all been effective at retaining young people in education. Fees-free places and secondary-tertiary programmes have been more effective, with larger differences between the participant and comparison groups. The estimated net impact of all three programmes has been that around 1,000 more young people remained in education at age 17 who would not otherwise have done so. This represented 1.5% of the 1993 cohort and 1.7% of the 1994 cohort. So we can say that 1.7 percentage points of the 88 per cent retention rate in 2011 can be attributed to the effect of Youth Guarantee programmes.

The table demonstrates the effect on NCEA Level 2 or equivalent achievement of shifting funding from Youth Training to fees-free places, and introducing secondary-tertiary programmes. Youth Training resulted in fewer young people attaining NCEA Level 2 or equivalent by age 18 than would be expected if they had not gone on the programme. By contrast, fees-free places and secondary-tertiary programmes have resulted in more young people attaining NCEA Level 2 or equivalent by 18.

In the 1993 birth cohort, a larger proportion went through Youth Training than fees-free places. This means there was a net difference of 400 fewer young people who may have achieved NCEA Level 2 or equivalent, due to the effect of Youth Training. This represented 0.6% of the total cohort. So we can say that the overall achievement of NCEA Level 2 or equivalent by 18 was 0.6 percentage points lower than it might have been if Youth Training had not been provided in the way it was.

In the 1994 birth cohort, the proportion going through Youth Training was smaller, there were more young people who had participated in fees-free places and the first group of 18-year-olds had come through the secondary-tertiary programmes. For this cohort, the negative effect of Youth Training was balanced out by the positive effects of the new programmes. While the net contribution of the three programmes is only 0.1 percentage points, the improvement over the previous year is 0.7 percentage points.

It is anticipated that the following cohort in 2013 will show a larger contribution to the attainment of NCEA Level 2 by age 18. Only a very small proportion will have participated in Youth Training, a larger number will have been in fees-free places and more than double the number of young people will be come through from secondary-tertiary programmes.

The effect of the programmes on increasing enrolments at level 4 and above has yet to be realised. Youth Training again had a negative effect on this indicator. For the 1993 cohort, feesfree places did not have much effect. It is too soon to measure this outcome for the 1994 cohort. There are signs that the progression rate is improving for fees-free places and it is likely there will be a positive effect from secondary-tertiary programmes.

APPENDIX A PROGRAMME SUMMARIES

A.1 Youth Training

Youth Training was separated from the Training Opportunities programme in 1999. It was funded to provide training to school leavers with no or low qualifications. The focus of the programmes was on developing foundation skills to move into sustainable employment and/or higher levels of tertiary education.

Programmes were required to have a labour market focus, be mainly at Levels 1 to 3 of the New Zealand Qualifications Framework, be offered full-time and could include workplace learning. The programmes were offered by a wide range of providers including marae, charitable trusts, employers, private training establishments, polytechnics, schools and wānanga (Mahoney, 2010).

Table 17 shows that the numbers for youth training participants in the dataset used in this report are lower than the total in the programme for each year. This is due to the mismatching of national student numbers between schools and youth training programmes. In 2009 and 2010, some of the older participants are not included in the dataset.

Table 16Youth training participants by birth cohort and year

Birth cohort	2009	2010	2011	2012
1991	2349	565	120	-
1992	3,533	2,375	579	-
1993	1,909	3,271	2,274	-
1994	105	1,596	3,030	-
1995		76	1,657	-
1996			59	-
1997				-
Total in dataset	7,896	7,883	7,719	-
Total in programme	9,590	8,752	8,309	-

A.2 Fees-free places

The fees-free places create opportunities for 16- and 17-year-olds, who are not currently engaged in education, to re-engage with education in a tertiary setting rather than at school. The programmes provide a foundation point for entry into higher levels of education (Tertiary Education Commission, 2013b).

The places are targeted to learners who have low school achievement and priority is given to those who are new to tertiary education (Tertiary Education Commission, 2013c). The programmes provide one year of full-time study in vocationally-focussed training (The Ministry of Education, 2013). The programmes must include embedded literacy and numeracy. Funding for the programmes includes provision for pastoral care services for learners. This can include a range of services tailored towards their needs, including the cultural needs, of individual learners (Haggland & Earle, 2013).

Table 16 shows that the numbers for fees-free places in the dataset used in this report are fairly close to the total in the programme for each year. The numbers are slightly lower in each year due to data matching, especially between schools and tertiary education providers.

Table 17Fees-free participants by birth cohort and year

Birth cohort	2009	2010	2011	2012
1991	-			10
1992	-	496	48	47
1993	-	1,049	1,140	388
1994	-	351	1,674	3,023
1995	-		407	3,827
1996	-			1,412
1997	-			26
Total in dataset	-	1,896	3,269	8,733
Total in programme	-	1,991	3,437	8,923

A.3 Secondary-tertiary programmes

Secondary-tertiary programmes provide opportunities for young people to access tertiary education while still remaining enrolled in a secondary school. The programmes are led by a lead provider, who is either a school or tertiary provider, and may involve several different providers.

Most of the programmes are run in the form of trades academies. These focus on vocational education for students in years 11 to 13 in specific industry areas. The programmes are run in partnership with industry organisations and employers. Students work towards achieving a minimum of NCEA Level 2, as well as industry recognised trades qualifications (The Ministry of Education, 2012b).

Table 18Secondary-tertiary programme participants by birth cohort and year

Birth cohort	2009	2010	2011	2012
1991	-	-		2
1992	-	-	6	3
1993	-	-	45	44
1994	-	-	178	461
1995	-	-	201	1096
1996	-	-	50	842
1997	-	-		169
Total in dataset	-	-	480	2617
Total in programme	-	-	713	2745

Table 18 shows that the dataset used in this report has captured about two thirds of the participants in secondary-tertiary programmes in 2011.

The data for secondary-tertiary programme participation was taken from several sources. The Ministry of Education collected a list of the national student numbers of learners from providers in 2012. Most schools also provided information about which student were participating in the programmes on their school roll return files. Where there was a tertiary lead provider, they were also required to report students through their data return.

These three data sources were combined to develop a full list of students participating in secondary-tertiary programmes. The coverage of these sources were more complete for 2012 than for 2011.

The start and end dates for secondary-tertiary programme enrolments were derived from school and tertiary enrolment records. The first step was to match the main list to school enrolments using national student number, year and school. This assumes that their secondary-tertiary programme enrolment is the same as their school enrolment for that year. Where there was no match, records were then matched to secondary-tertiary provider course records from tertiary providers, which include a start and end date. The remaining unmatched records were then matched to school enrolment records without using the school code from the secondary-tertiary programme list. This assumes that a student may have shifted schools while in the secondary-tertiary programme. Around 50 records across 2011 and 2012 remained unmatched at the end of this process and were not used.

APPENDIX B METHODOLOGY

B.1 Cohort methodology

The members of each birth cohort were identified from the school enrolments system (ENROL). A young person was included in the cohort if they were enrolled at a New Zealand school as a domestic student for one or more days during the year of their 15th birthday. From the 1993 birth cohort onwards, this provides a count of the cohort which is very similar to the Statistics New Zealand population estimates. On this basis, the 1991 and 1992 cohorts have not been used in this analysis.

Table 19Comparison of Statistics New Zealand population estimates and cohort population at age 15

	Population estimate	School-based cohort	Cohort as proportion of population
1991	65,330	63,096	97%
1992	64,260	63,159	98%
1993	63,300	63,272	100%
1994	62,170	61,937	100%
1995	62,050	61,970	100%
1996	61,020	60,960	100%

The population estimates are taken from the Statistics New Zealand 2011-based projections for the 50th percentile.

The cohort population is fixed at age 15. It is not further adjusted for either migration or mortality. There is no reliable for information for doing this adjustment on any consistent basis. This means that the population of the cohort is slightly over estimated for each year of age.

Domestic students who arrive in the NZ school system after the age of 15 are not added to the cohort. There is a small, but noticeable, group who arrive around age 16. They are thought to be children of New Zealanders returning mostly from Australia and children of migrants who qualify for enrolment in schools as domestic students. They have a very different educational experience, which is not comparable with those who have studied longer term within the New Zealand system.

Each member of the cohort has a national student number, which is identified through the school enrolment system. This is used to match the individual with further school enrolment records, other schooling data, NCEA results, tertiary enrolments and completions and industry training participation and completions.

A cohort dataset was developed which has one record for each individual for each year of age starting from age 15. The records capture the individuals' educational enrolment, participation and completion within that year.

The cohort method counts everyone in a birth cohort who started a programme and whether they met an outcome by a particular age, irrespective of how long they spent on the programme. This will provide a different result from programme accountability measures, which usually look at all learners in a year intake and the success of those while they were on the programme.

Ethnicity is established from the school enrolment system for each person in the cohort. Ethnicity as collected through tertiary providers is not used, as this creates inconsistencies for

those who did and did not go to tertiary education. This means that the ethnic distribution in programmes may differ from that reported by the programmes themselves.

B.2 Comparison groups

A comparison group was selected for each programme. The distribution of young people in the 1993 and 1994 cohorts who had ever participated on the programme was used to develop a sample frame. The variables used for the sample frame were:

- Cohort: 1993 or 1994 birth cohort
- Gender: Male or female
- Maori ethnicity: whether identified as Maori or not
- Pasifika ethnicity: whether identified as Pasifika or not
- School engagement: whether had one or more instances of disengagement from school or not (stand-down, suspension, serious truancy)
- NCEA Level 1 achievement score: standardised score, divided into categories.

The sample frame was then used to draw a random, stratified sample of young people who had not participated in the programme to form the comparison group. The sample was drawn from a data set that contained one record per young person. The records for each year of age were then added to the sample data set from the main cohort dataset.

In order to get an efficient sampling frame, the number of variables needed to be limited. The variables chosen above, along with random selection, were sufficient to ensure that the samples were also fairly closely representative of school decile. This is shown in Table 20 below.

Table 20Distribution of school decile in programme participants and comparison groups

School Decile		Progra	mme		Comparison Group			
	1993		1994		1993		1994	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
			Youth T	raining				
None or Low (1-3)	1,806	37%	955	35%	1,515	36%	844	36%
Medium (4-7)	2,268	47%	1,269	47%	1,812	44%	1,007	43%
High (8-10)	743	15%	487	18%	833	20%	487	21%
Total	4,817	100%	2,711	100%	4,160	100%	2,338	100%
	<u>'</u>		Fees-fre	e places				
None or Low (1-3)	534	29%	1,042	31%	461	29%	857	30%
Medium (4-7)	799	43%	1,532	46%	779	48%	1316	46%
High (8-10)	516	28%	762	23%	374	23%	713	25%
Total	1,849	100%	3,336	100%	1,614	100%	2,886	100%
		Se	condary-tertia	ary programm	nes			
None or Low (1-3)			262	47%			252	48%
Medium (4-7)			199	36%			157	30%
High (8-10)			99	18%			116	22%
Total			560	100%			525	100%

The proportion of young people in the comparison groups from high decile schools is slightly higher than the programme participants. This suggests that students from these schools are less likely to participate in these programme, even when these other factors are controlled for. Engler (2011) also found that students from high decile schools with low NCEA achievement were less likely to go on these types of programmes and more likely to go on to industry training or diploma-level study than low achieving students from low decile schools.

B.3 Indicator definitions

Retention in education

The retention rate is number of young people in the cohort, within a year of age, who were retained in education, as a proportion of the cohort population.

Being retained in education is defined as being enrolled in one or more education programmes for a total period of at least 75 week days during a year. This equates to 15 weeks of education. In school terms, it is an enrolment of 1½ terms. In tertiary terms, it falls just below the minimum time required to complete a 40 credit certificate through full-time study. Students who are enrolled for less than 75 days in a year are unlikely to make substantial learning progress during that time.

Enrolment time is counted from the administrative records. For schools, the first and last date of attendance entered on the ENROL database are used. These dates are then adjusted for secondary school holidays. For tertiary education providers, the start and finish dates supplied with course enrolments are used. No adjustments can be made for breaks, as these vary between courses and providers. For industry training, the start and finish dates of training programmes are used.

NCEA Level 2 or equivalent

The NCEA Level 2 or equivalent attainment rate is the number of young people in the cohort who have attained NCEA Level 2 or equivalent by a year of age, as a proportion of the cohort population. It includes those who attained it during that year and those who attained in preceding years.

In this report, NCEA Level 2 or equivalent includes

- being awarded NCEA Level 2
- completing 80 credits on the New Zealand Qualifications Framework, with at least 60 at level 2 or higher (the requirement for award of NCEA Level 2)
- being awarded another level 2 New Zealand Qualification Framework qualification; or
- being awarded a level 3 or higher New Zealand Qualification Framework qualification, including NCEA Level 3.

The option of further restricting to definition to exclude level 2 qualifications on the New Zealand Qualifications Framework that require less than 80 credits to complete was investigated. This was not adopted as the credit information for qualifications completed through tertiary information providers is of variable reliability. Qualifications with the same title can have different credit requirements depending where and when they were offered. It appears to be only a very small number of young people who have attained a level 2 qualification on the New Zealand Qualification Framework without also meeting the credit requirements for NCEA Level 2 (as set out in the second bullet).

The definition used in this report does not include being awarded a secondary school qualification from an international educational body, such as Cambridge or International Baccalaureate. The data on the award of these qualifications is only reported to the Ministry of Education when students leave school. This means it is difficult to attribute on a cohort basis by single years of age. These qualifications are included in the reporting of the Better Public Services target for attainment of NCEA Level 2 or equivalent by age 18. This means that the figures reported here are 3 to 4 percentage points lower for all young people than those reported for the Better Public Services target as at age 18.

Enrolling at Level 4 and higher

The level 4 and higher progression rate is the number of young people who have had an enrolment in a New Zealand Qualifications Framework qualification at level 4 or higher after leaving school, as a proportion of the cohort population.

Level 4 on the New Zealand Qualifications Framework represents the lowest end of qualifications that leads to skilled employment. A level 3 certificate provides training for specific roles within an area or work and/or preparation for further study. A level 4 certificate qualifies individuals to work or study in a broad or specialised area (New Zealand Qualifications Authority, 2011).

Enrolments in bachelors degrees and university qualifications are included in this indicator. All these qualifications are on the New Zealand Qualifications Framework and above level 4. Enrolments through industry training organisations are included, as well as at tertiary education providers.

All enrolments after leaving school are counted up to the year of age. So if a young person enrolled in a degree programme at age 18 and then withdrew, that student will still be counted in the indicator at age 19 as having had a level 4 or higher enrolment. Where a young person enrolled in a level 4 or higher tertiary course while also being enrolled at school, this is not counted for this indicator.

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