MINISTRY OF EDUCATION Te Tähuhu o te Mätauranga

Moving through

Tertiary Education Strategy monitoring 2010-2012

New Zealand Government

Monitoring the Tertiary Education Strategy

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Tertiary Education Strategy monitoring 2010-2012

Tertiary education is key to the country's cultural, social and economic well-being and its future. It is associated with improved economic and social outcomes. Nearly 500,000 New Zealanders participated in formal tertiary education in 2012, including industry training. The Government spends nearly \$4 billion a year in operating expenditure on tertiary education, including research funding and financial support for students. This represents about 1.6% of New Zealand's gross domestic product.

2010-2012 monitoring report

This report covers progress against the 2010-15 Tertiary Education Strategy for the period to 2012. The information in this report is intended to:

- inform Ministers of the overall progress being made against the Strategy
- provide system-level, contextual information to inform ongoing policy and planning by the Ministry of Education, the Tertiary Education Commission, the Ministry of Business, Innovation and Employment, and other government agencies
- provide context for the monitoring of the tertiary education Crown Entities (Tertiary Education Commission, New Zealand Qualifications Authority, Education New Zealand and Careers New Zealand)
- provide alerts to any possible need to reconsider the policy mix
- feed into developing future priorities and strategy, including the next Tertiary Education Strategy
- inform broader public debate about the direction of the tertiary education system.

The report is framed around the seven priority areas of the strategy outlined below. Each section discusses key indicators relating to the priority and includes a summary of key points.

The report is accompanied by a set of crossstrategy indicators that provide enduring measures of the overall health of the tertiary education system. These are available for download from <u>www.educationcounts.govt.nz</u>.

The 2010-15 Tertiary Education Strategy

The Tertiary Education Strategy describes the Government's strategic direction for tertiary education over the next five to 10 years. It outlines the Government's priorities. The strategy guides the Tertiary Education Commission's investment decisions in order to maximise tertiary education's contribution to New Zealand within the constraints of the available funding.

The 2010-15 strategy sets out the Government's vision for a "world-leading education system that equips all New Zealanders with the knowledge, skills and values to be successful citizens in the 21^{st} century." To achieve this vision, the Government expects the tertiary education system to:

- provide New Zealanders of all backgrounds with opportunities to gain world-class skills and knowledge
- raise the skills and knowledge of the current and future workforce to meet labour market demand and social needs
- produce high-quality research to build New Zealand's knowledge base, respond to the needs of the economy and address environmental and social changes
- enable Māori to enjoy education success as Māori.

The strategy sets out the priorities for the tertiary education system over the next three to five years, of:

- increasing the number of young people moving successfully from school into tertiary education
- increasing the number of young people (aged under 25) achieving qualifications at level four and above, particularly degrees
- increasing the number of Māori students enjoying success at higher levels
- increasing the number of Pasifika students achieving at higher levels
- improving literacy, language and numeracy skills outcomes from levels one to three study
- strengthening research outcomes
- improving educational and financial performance of providers.

The strategy acknowledges that these priorities will need to be achieved within a tight fiscal environment, where the Government is unable to provide significant funding increases. Achievement of the priorities will require moving funding away from lower-quality qualifications, with poorer outcomes, to fund growth in high-quality qualifications that benefit New Zealanders and contribute to the nation's economic growth.

The Tertiary Education Strategy takes account of Ka Hikitia – Managing for Success, Māori Education Strategy 2008-2012. Ka Hikitia has a focus on enabling Māori students to enjoy education success as Māori through realising Māori potential, cultural advantage and inherent capability. Ka Hikitia is currently being refreshed. The refreshed strategy will contain explicit goals for tertiary education.

The Tertiary Education Strategy also took account of the Pasifika Education Plan 2009-2012. The Plan focused on enabling Pasifika people, and in particular young Pasifika students, to participate and attain higher levels of tertiary education. This focus has been continued in the 2013-2017 Pasifika Education Plan.

Monitoring the strategy

The purpose of monitoring the strategy is to provide ongoing and timely information to the Government and government agencies on the progress of the tertiary education system against the strategy. Monitoring helps to make sense of the extent to which the intended changes are happening and to what degree.

The strategy identifies indicators for assessing progress and success. These are balanced with other information to provide a fuller picture of change across the system. A narrow focus on indicators could easily miss the 'real' story. The system may be 'scoring' well on a whole range of indicators but not making the substantive shifts indicated by the strategy – or the other way around. The challenge of monitoring, therefore, is to highlight the overall messages, not just report on indicators. Monitoring can only provide a partial and selective view of change across a system as complex and dynamic as tertiary education. Therefore, the results need to be considered alongside other information, such as research results and expert advice.

A new tertiary education strategy

The Government will be undertaking consultation during 2013 leading to the development of an updated tertiary education strategy.

The information in this report is provided as background to that consultation.

Further information

This report complements three other comprehensive reports on the tertiary education system:

- **Profile and Trends: New Zealand's tertiary education system** provides a summary of information on the performance and key characteristics of the New Zealand tertiary education system.
- What we get for what we spend: is a series of periodic reports which describe the inputs, outputs and outcomes of the Government's spending on tertiary education.
- **Tertiary education performance report**, published by the Tertiary Education Commission, provides information on the performance of sub-sectors and individual tertiary education institutions.

The Ministry also provides an annual report to Parliament on the Student Loans Scheme, in conjunction with Inland Revenue and the Ministry of Social Development.

These reports, and a wide range of analytical reports and statistics, are available on the Education Counts website:

http://www.educationcounts.govt.nz/

Moving through the challenges

The period from 2010 to 2012 has been a challenging time for tertiary education in New Zealand. There has been high demand for tertiary education due to increasing school achievement and population changes, coinciding with the recession. At the same time, the Government needed focus on value for money and ensuring that the money available for tertiary education was used for greatest effect.

Most of the indicators in this report show the tertiary education system to be holding steady or improving. The government has implemented a significant set of policy changes. These changes are moving the system to be more responsive to the needs of learners and employers, with a greater focus on outcomes. The results of many of these changes will take two or three years to show through in the measures.

Impact of recession and population change

Demand for tertiary education was increasing. It peaked in 2011 and is expected to reduce gradually over the next few years. The increased demand has been the result of the recession, increases in the youth population and higher school achievement.

The New Zealand recovery from the recession is now picking up. Unemployment has been high, but is forecast to decrease from the end of 2013. The government will continue to keep a tight control on spending.

The growth in the 18 to 22 year old population reached its peak in 2012. Higher demand from young people has been offset by reduced demand from working-age adults.

Raising achievement of young people

Students are staying longer at school. This is consistent with patterns during previous periods of lower economic growth. More students are achieving level 3 school qualifications and university entrance and fewer are reaching the age of 19 with no qualifications.

There has been an increase in the number of young people starting degree-level study. The number starting vocational certificate or diploma study has remained steady.

The proportion of 15-19 year olds not in employment or education has decreased from 9.4% in 2010 to 7.7% in 2013.

The government is supporting and expanding the pathways for young people to achieve qualifications in either school or tertiary education, and progress to vocationally relevant further study. This has included the development of Vocational Pathways, which provide ways of structuring and achieving level 2 qualifications, Youth Guarantee networks, funding for new secondary and tertiary provision, and services for young people not in education, training or employment.

Young people achieving success

The Government has set a Better Public Services target to increase the attainment of qualifications at level 4 and above. By 2017, the aim is to increase the proportion of 25 to 34 year olds with qualifications at this level from 52% to 55%.

An increased proportion of 18- to 19-year- olds who started at levels 4 to 7 moved on to higher level study.

The proportion of 18- to 19-year- olds completing qualifications at bachelors level as decreased slightly, as more have enrolled at this level.

The proportion of 25-year-olds who have completed a tertiary qualification at level 4 or above has increased. The proportion achieving a bachelors degree has remained the same.

The government has set incentives on providers and students to encourage completion of qualifications.

Māori enjoying education success

More Māori students are achieving higher- level school qualifications. However, the proportion not completing a school qualification by age 19 is still about twice that of non-Māori.

More young Māori are enrolling in bachelors degrees, but only at half the rate of non-Māori.

Māori are less likely than non-Māori to complete a bachelors degree by age 25.

A larger proportion of Māori than non-Māori start degrees after the age of 25. However, completion rates for all students over 25 are low.

Enrolments in te reo Māori courses have continued to decrease overall. However, there is growing number of people who have completed at least one full year of study in te reo Māori.

The rapid growth in Māori doctoral participation over the last 20 years is consolidating and showing through in increased high quality research output.

The Tertiary Education Commission is taking a more active approach to improving outcomes for Māori through the investment planning process.

Pasifika achieving at higher levels

More Pasifika students are achieving higherlevel school qualifications. However, the proportion not completing a school qualification by age 19 is still higher than for the total population

More young Pasifika are enrolling in bachelors degrees, but only at about half the rate of non-Pasifika. Pasifika are less likely to complete bachelors degrees by age 25.

A larger proportion of Pasifika than non-Pasifika start degrees after the age of 25. However, completion rates for all students over 25 are low.

The number of Pasifika participating and completing in doctoral studies continues to increase, building a significant base for research and scholarship.

The Pasifika Education Plan 2013-2017 provides a system focus on retention and qualification achievement for Pasifika learners. The Tertiary Education Commission has responded to this through its investment guidance.

Improve literacy, language and numeracy through foundation education

Major reviews have been undertaken of how foundation level programmes are supported and delivered in tertiary education. These have led to a greater focus on literacy and numeracy and progression to further study.

The Targeted Review of Qualifications is providing a systematic process for reviewing both national and provider based qualifications. It will reduce the number of qualifications and ensure they are relevant to learners and employers.

Early results from the Literacy and Numeracy for Adults Assessment Tool provide new information about the skills and needs of learners and they provision they are receiving.

There has been continued support for people who need intensive literacy, language and numeracy provision. There is strong engagement from businesses and employers in looking at how raising literacy and numeracy skills contributes to a more productive workplace.

Quality research driving innovation

New Zealand tertiary education research is improving in terms of the number of staff with international and national standing, output and academic recognition relative to the rest of the world.

One in ten businesses see universities and polytechnics as a direct source of innovation. However, they also indirectly source information from the tertiary sector through research publications, by employing graduates and via intermediaries, such as suppliers.

Private sector investment in research through universities is decreasing as a proportion of total university research expenditure, at sits at only 7% in 2012.

The government is refocusing science and innovation funding on national priorities. It has also increased the investment in the Performance-Based Research Fund.

Improving educational and financial performance

The New Zealand Qualifications Authority has implemented regular external evaluation and reviews of tertiary education organisations, excluding universities. Of 555 providers reviewed to 2012, 85% were judged as confident to highly confident in educational performance and self assessment. Follow up reviews with those below "confident" indicate improvement. Those which have not significantly improved have been placed under closer monitoring and, in some cases, subject to regulatory sanctions.

The Academic Quality Agency (for universities) is launching a new audit framework with emphasis on teaching and learning, and student support.

More information is available publicly on provider performance, and on employment outcomes of qualifications.

The financial performance of providers has been generally improving over the last two to three years.

International student numbers are steady. Research funding from international sources is modest and remains a small proportion of total expenditure.

The changing context of tertiary education

The recent performance of the tertiary education system needs to be considered in the context of wider economic, demographic and educational changes.

Overall demand

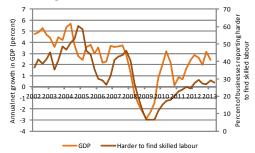
The period from 2009 to 2010 was one of high demand for tertiary education, with enrolments growing faster than funded places. The demand has started to ease from 2011.

This increase in demand was driven by the impact of the recession, demographic changes in the youth age group and the rising school attainment of young people. The increased demand from younger people was offset by reduced demand from people in older age groups.

Impact of the recession

In late 2007, the New Zealand economy went into downturn, mostly in response to global economic conditions. The New Zealand economy was in recession during 2008 and 2009 and has been recovering since then.

Economic growth and labour demand



Sources: Statistics New Zealand and New Zealand Institute of Economic Research, Quarterly Survey of Business Opinion.

The demand for skilled labour closely follows the economic cycle. In the period to 2007, there had been a high demand for skills. This dropped off with the recession. The demand has started to pick up again.

The recession has also had an impact on unemployment, with rates for people with no qualifications and school qualifications increasing significantly during 2008 and 2009. Treasury forecasts predict that unemployment rates will start to decrease at the end of 2013.

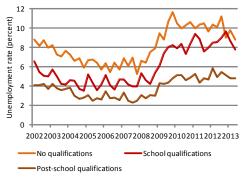
KEY POINTS:

Demand for tertiary education was high. It peaked in 2010 and is expected to reduce gradually over the next few years. The increased demand has been the result of the recession, increases in the youth population and higher school achievement.

The New Zealand recovery from the recession is now picking up. Unemployment rates have been high, but are forecast to decrease. The government will continue to keep tight control on spending.

The growth in the 18 to 22 year old population reached its peak in 2012. Higher demand from young people has been offset by reduced demand from working-age adults.

Unemployment rates by qualification level



Source: Statistics New Zealand, *Household Labour Force Survey*

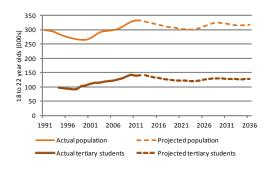
The recession has had an effect decisions to remain in education. In particular, students have been more likely to stay at school rather than enter employment.

The recession also had a significant impact on government finances. It has resulted in falling revenue and increased pressure on social spending. The Christchurch earthquakes have put further pressure on government finances. Government spending went into deficit in 2009 for the first time in several years. The government is expecting to return to surplus in 2014/15, but still expects to retain a firm control over spending after that.

Growing youth participation

The number of young people aged 18 to 22 increased significantly from 2000 to 2011. The population numbers in this age group peaked in 2012. This is expected to be followed by a period of decrease and then renewed growth over the following 20 years.

18- to 22-year-olds in the population and in tertiary education



Sources: Statistics New Zealand, population estimates and projections and Ministry of Education.

The New Zealand population is becoming more ethnically diverse. This is more noticeable in the younger population. In 2012, 68% of 18- to 22-year-olds identified as European, 20% as Māori, 15% in an Asian ethnic group and 10% in a Pasifika ethnic group.¹

Over the period to 2018, the proportion in this age group identifying as European is forecast to decrease to 66% and the proportion identifying as Pasifika to increase to 12%. The proportions for Māori and Asian are forecast to remain about the same.

Participation by working-age adults

Enrolments in formal study by domestic students aged 25 and over decreased from 2010 to 2012. Most of this decrease was in qualifications below degree-level. When looked at in terms of equivalent full-time students, the decrease was smaller.

There has also been a decrease in the number of people involved in industry training over the same period. This has been due to changes in industry training operational policy aimed at improving performance of industry training and getting better value for money, as well as weaker employment conditions.

¹ These proportions are counted on a total response basis. Some people can identify with more than one group. The percentages will add up to more than 100%.

From school to tertiary education

"The Government wants more young people engaged in and successfully completing tertiary education. Completing a vocational or professional qualification early in adult life has a higher return for both the individual and society. ... Many young people (particularly those with lower school qualification levels) fail to successfully make the transition from schooling to tertiary education." (Tertiary Education Strategy 2010-15)

This priority focuses on increasing the number of young people moving successfully from school to tertiary education. It covers improving achievement at school, increasing the number of young people going from school to tertiary education, and improving the retention of young people in tertiary qualifications.

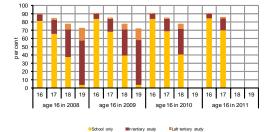
"We will ... identify ways to improve young people's engagement and achievement in tertiary education. As a first step, we are providing fees-free tertiary study for some 16 and 17 year olds through the Youth Guarantee programme" (Tertiary Education Strategy 2010-15)

Students staying longer at school

Students are staying longer at school. The figure below shows participation in school and tertiary education for each annual cohort of students from age 16. The first set of bars shows students aged 16 in 2008, aged 17 in 2009, aged 18 in 2010 and aged 19 in 2011. The next set of bars starts with those aged 16 in 2009, and so on.

There is a trend for students to stay longer at school. The proportion of 16 year olds at school increased from 82% in 2008 to 85% in 2011. The proportion of 17 year olds at school increased from 67% in 2009 to 71% in 2012. This is consistent with patterns during previous periods of lower economic growth.

Progression of students from school to tertiary by year cohorts



However, this is not flowing through to an increase in tertiary study. The numbers in tertiary study have increased, as the number of young people in the population increased. But the proportion has not increased.

Increased student achievement

There has been an increase in the proportion of students achieving higher-level qualifications by

KEY POINTS:

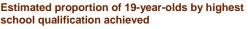
Students are staying longer at school and more are achieving higher qualifications.

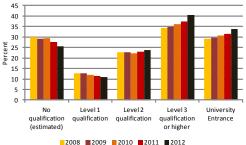
The number of young people starting degree level study has increased. The number starting vocational certificate or diploma study has remained steady.

The proportion of 15-19 year olds not in employment or education has decreased from 9.4% in 2010 to 7.7% in 2013.

The government is supporting and expanding the pathways for young people to achieve qualifications in either school or tertiary, and progress to vocationally relevant further study.

age 19. In particular, a larger proportion of students have achieved level 3 qualifications and met the university entrance requirements.





See Notes for discussion of methodology.

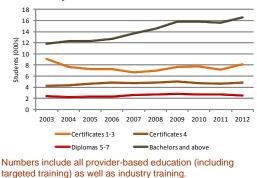
The proportion with no qualification is estimated to have decreased from around 30% in 2008 to 26% in 2012, as has the proportion only achieving a level 1 qualification.

Participation in tertiary education steady

The largest group of 18 and 19 year olds begin their tertiary study at degree level. The number starting study at this level has remained steady after 2009, with an increase in 2012.

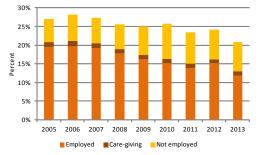
The next largest group enter tertiary study at levels 1 to 3, this includes targeted training and industry training. Many of these students enter tertiary education before the age of 18.

Number of 18- and 19-year-olds starting tertiary education by level



There has been almost no overall growth in certificates and diplomas from level 4 to 7. Underlying these numbers is a shift towards provider-based enrolments. Industry training numbers have decreased for this age group, while enrolments at polytechnics and private training establishments increased. This reflects fewer jobs being available for young people, which led to a drop in the number of people starting industry training. This is also in part a response to policy and operational changes in the industry training system, that have placed emphasis on achievement rather than just enrolment.

Proportion of 15- to 19-year-olds who are not in education or training



Source: Statistics New Zealand, *Household Labour Force Survey*. (annual averages to June quarter) Since the start of the recession in 2008, there has been a decrease in the proportion of 15 to 19-year olds in employment. There has been a corresponding increase in the proportion staying in education, particularly in school. The proportion in neither employment nor education increased to 9.4% in 2010 and has since decreased to 7.7% in 2013.

Secondary-tertiary connections expanded

The Government has increased the support for the transition from secondary to tertiary education.

Vocational Pathways provide a framework for linking education and employment, through supporting programme design and careers advice. It has been produced in partnership between government agencies, industry training, secondary and tertiary representatives and industry and employer representatives. Five pathways have been developed which represent new ways to structure and achieve NCEA level 2 and provide a framework for foundation vocational education.

Commitments from schools and tertiary providers have been secured to establish up to 23 Youth Guarantee Networks around the country, focused on developing new and collaborative approaches to developing the vocational pathways.

In 2010, 1,600 equivalent full-time student places were funded in fees-free provision for 16 to 17 year olds. This increased to 2,600 in 2011. In 2012, funding from Youth Training was transferred, bringing the total places to 7,350. By 2015, 10,500 funded places will be available.

The Secondary-Tertiary Programmes allow schools and tertiary providers to establish coordinated programmes of study for 16- to 17-year-olds, including trades academies. In 2012, there were 22 formal programmes, catering for 2,750 young people. The number of places funded under these programmes will increase to 4,500 by 2015.

The Ministry of Social Development has established community based Youth Services to support young people into education, training or work-based learning. The services are for 16 to 17 year olds not engaged in education, employment or training and young parents.

Young people achieving education success

"There is a significant wage premium for people who complete higher-level study, particularly bachelors degrees. Skills are regarded as one of the Government's six key productivity drivers. ... Although the number of people completing tertiary education in New Zealand has increased significantly since 2000 ...the number of people completing degrees has remained constant." (Tertiary Education Strategy, 2010-15)

This priority is to increase the number of young people (aged under 25) who achieve qualifications at level 4 and above, particularly degrees.

"The Government will ... be looking at funding settings to create incentives for more young people to achieve qualifications at levels four and above. In a capped funding environment, this will involve reducing government funding for some qualifications at levels one to three that do not assist students into higher-level learning or employment, or do not improve their literacy, language and numeracy skills." (Tertiary Education Strategy, 2010-15)

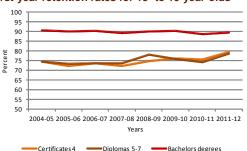
Better Public Services: more focus on level 4 and above

The government has set a Better Public Services target to increase the attainment of qualifications at level 4 and above. By 2017, the aim is to increase the proportion of 25 to 34 year olds with qualifications at this level from 52% currently to 55%.

Staying in study

First-year retention rates for 18- to 19-year olds in bachelors degrees have remained steady, at around 90%.

First-year retention rates are lower for level 4 certificates and level 5 to 7 diplomas in this age group. Rates increased for the 2011-12 period to just under 80%.



First-year retention rates for 18- to 19-year-olds

Progressing to higher levels

Just over half of students who start providerbased tertiary study at levels 1 to 3 go on to higher level study within five years. This proportion has remained fairly steady.

KEY POINTS:

An increased proportion of 18- to 19-yearolds who started at levels 4 to 7 moved on to higher level study.

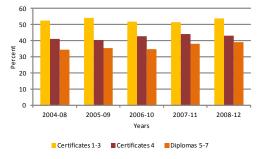
A proportion of 18- to 19-year- olds at bachelors level completing qualifications has decreased slightly, as more enrolled at this level.

The proportion of 25-year-olds who have completed a tertiary qualification at level 4 or above through the New Zealand tertiary education system has increased. The proportion achieving a bachelors degree in New Zealand has remained the same since 2008.

The government has set incentives on providers and students to encourage completion of qualifications.

Progression rates from level 4 certificates and level 5-7 diplomas have been steadily increasing over the last five years.

Five-year progression rates for 18- to 19-year-olds

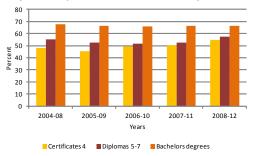


Completing qualifications

Five-year completion rates for 18-to-19-yearolds in bachelors degrees decreased slightly from 68% for 2004 starters to 66% for 2008 starters. While the number of 18- to 19-yearolds starting degrees increased by 23% from 2004 to 2008, the number completing within five years increased by only 20%.

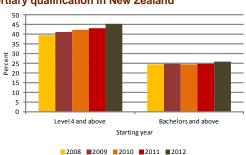
Completion rates for level 4 certificates and level 5 to 7 diplomas have been lower, but starting to increase over the last three cohorts.

Five-year completion rates for 18- to 19-year-olds



Tertiary achievement by age 25

The proportion of people aged 25-year-old who have completed a tertiary qualification at level 4 and above in New Zealand has increased. In 2012, 46% of 25-year-olds had completed a tertiary qualification at level 4 and above, compared with 40% in 2008.



Proportion of 25-year-olds who had completed a tertiary qualification in New Zealand

The proportion of 25-year-olds completing a bachelors degree or higher has remained steady. In 2011, 26% of 25-year-olds had attained a bachelors degree or higher.

Policy changes to support the focus on level 4 and above

The government has set incentives on providers, through Educational Performance Indicators and performance-linked funding, to encourage completion of qualifications and progression to level 4 and above. Performance against these indicators also shapes the Tertiary Education Commission's investment decisions. These changes took effect in 2011.

To complement these incentives, there are now incentives in student loans for students to succeed in their current studies, while a sevenyear life-time limit on student loan borrowing to provides a further incentive to complete qualifications.

The Government has undertaken a major review of industry training. From 2014, New Zealand Apprenticeships will be available. This will expand the number of fully supported apprenticeship places available and increase the educational content requirements.

Note: See technical notes for calculation method.

Māori enjoying success at higher levels

"Tertiary education has a particular responsibility to maintain and develop Māori language and culture to support Māori living as Māori in both Te Ao Māori and in wider societyParticipation rates for Māori aged 18 to 19 in degree-level study remain at less than half of the rate for all students, and the completion rates for Māori at bachelors are also lower." (Tertiary Education Strategy, 2010-15)

This priority focuses on improving Māori success at higher levels of tertiary education. It includes strengthening the delivery of high quality te reo Māori provision.

"Tertiary providers and ITOs need to focus on improving their pastoral and academic support and the learning environment, and must adopt teaching practices that are culturally responsive to Mäori students. Particular emphasis is needed to improve progression to, and achievement at, higher levels of study.

"We also want to strengthen the delivery of high- quality te reo Mäori provision. Improving the quality of te reo Mäori in initial teacher education programmes will be important in helping Mäori to achieve success throughout the education system." (Tertiary Education Strategy, 2010-15)

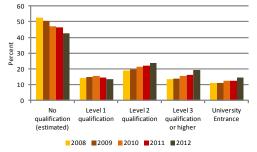
Māori school achievement

More Māori students are achieving higher-level qualifications at school. The number and proportion of Māori students achieving NCEA level 3 and university entrance has increased.

These increases reflect both population growth and an increase in the proportion of Māori students attaining higher level school qualifications.

The estimated proportion of Māori who did not have a school qualification by 19 decreased from around 53% to 43% from 2008 to 2012. However, this was still twice the proportion as for the total population.





See Notes for discussion of methodology.

Māori in higher qualifications

The participation rates of Māori in qualifications below degree level are similar to, or even higher than, those of non-Māori. The significant educational gap between Māori and non-Māori remains at bachelors level.

KEY POINTS:

More Māori students are achieving higherlevel school qualifications. However, the proportion not completing a school qualification by age 19 is still about twice that of non-Māori.

More young Māori are enrolling in bachelors degrees, but only at half the rate of non-Māori. Māori are less likely than non-Māori to complete a bachelors degree by age 25.

A larger proportion of Māori than non-Māori start degrees after the age of 25. However, completion rates for all students over 25 are low.

Enrolments in te reo Māori courses have continued to decrease overall. There is growing number of people who have completed at least one full year of study in te reo Māori.

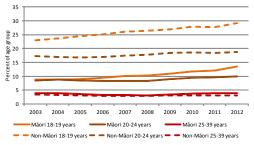
The rapid growth in Māori doctoral participation over the last 20 years is consolidating and showing through in increased high quality research output.

The Tertiary Education Commission is taking a more active approach to improving outcomes for Māori through the investment planning process.

More Māori have continued to enrol in bachelors degrees, particularly in younger age groups. However, the proportion of the Māori population aged 18 to 24 in degrees remains significantly lower than the proportion of the non-Māori population in this age group.

From 2009 to 2012, the proportion of Māori 18 to 19 year olds in bachelors degrees increased from 11% to 13%. Over the same time, the proportion for non-Māori increased from 27% to 29%.

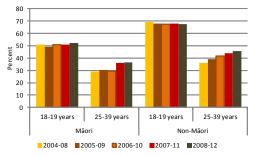
Proportion of Māori and non-Māori populations in bachelors degrees



Completing qualifications

Around 50% of Māori 18-to-19-year-olds who study for a bachelors degree completed their qualification within five years, compared with nearly 70% of non-Māori. Completion rates have stayed steady for Māori while decreasing slightly for non-Māori.

Five-year completion rates for Māori and non-Māori in bachelors degrees

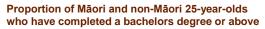


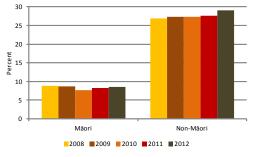
Over 30% of Māori aged 25 to 39 completed a bachelors degree within five years, compared to over 45% of non-Māori. Completion rates have increased for both groups recently.

Māori who study in qualifications below degree-level also had lower completion rates than non-Māori studying at the same level.

Achievement by age 25

The proportion of Māori young people who achieve a bachelors degree by age 25 has remained at about a third of that of the nonMāori population. In 2012, 9% of Māori aged 25 had completed a bachelors degree or higher, compared with 29% of non-Māori.



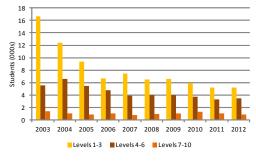


Note: See technical notes for calculation method.

Te reo Māori

Enrolments in te reo Māori courses decreased from 2003 to 2006, largely as a result of reductions in courses offered through two of the wānanga. This was a result of funding reviews of lower level qualifications, organisational change and reduced demand. Numbers of students overall have continued to decrease since then.

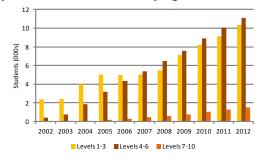




Note: Level refers to the course level, not the qualification level. Only includes enrolments of more than 0.2 EFTS. Includes non-formal and formal courses.

The total number of people who have participated in te reo Māori courses has continued to increase. From 2009 to 2011, the number of people who had successfully studied the equivalent of one or more years in te reo Māori increased from 15,500 to 23,000. This is the minimum level of learning required to establish some basic competency in the language. However, 79% of learners had not reached this point.

To put this in perspective, the 2006 Survey of the Health of the Māori Language estimated that 26% of Māori aged 15 and over could speak Māori "fairly well" to "very well'. This represents about 100,000 people. Cumulative total of people completing at least a year of te reo Māori courses by highest level



Note: Totals are cumulative from 2001 onwards. Level refers to the highest level of course completed. Only includes formal students who have completed at least a year of equivalent fulltime study in te reo Māori.

Research and scholarship

The number of Māori enrolled in doctoral studies grew significantly in the 15-year-period to 2009, from 77 in 1994 to just under 400 in 2009. In the period from 2010 to 2012, the number has been steady at 450 per year. The number completing doctoral qualifications each year has continued to increase, from 58 in 2009 to a peak of 92 in 2011, and 72 in 2012.

The Performance-Based Research Fund assesses the quality of research outputs of tertiary education organisations with research activity. One of the assessment panels looks at "Māori knowledge and development." In the universities, the number of high rated researchers assessed by this panel increased from 35 in 2006 to 52 in 2012. Within this, the number of internationally recognised researchers increased from 4 to 11.2 Research with Māori knowledge components and relevance can also be presented to other panels.

Policy changes

The Tertiary Education Commission has been taking a more active approach to improving outcomes for Māori through the investment planning process. In the 2013/14 investment plan round this includes agreeing to stretch targets for participation and achievement rates for Māori to be at least on a par with other learners. Due to the step up required, these are to be attained by 2018 for universities and 2015 for other tertiary education organisations.

Tertiary education providers are taking a more active and sophisticated approach towards supporting Māori achievement. Many have introduced initiatives to reduce barriers to entry. Most universities have targeted admissions programmes. There are several programmes working with schools to improve pathways to tertiary education. There is increased attention to effective teaching practices. Many providers also have various forms of mentoring programmes.

The Performance-Based Research Fund provides extra weighting for research degree completions, where theses are published in te reo Māori. These provide twice the underlying funding available for each completion to recognise the value and cost of te reo postgraduate research.

The Government has announced the expansion of Māori Trades Training. This is based on the partnership model trialled with *He Toki ki te Rika*, developed by Ngai Tahu in partnership with Christchurch Polytechnic and Institute of Technology. The expansion will build to 3,000 trainees by 2015. Trainees will be supported by partnerships between industry, iwi and education providers into employment and a New Zealand Apprenticeship.

Ka Hikitia – Managing for Success: the Māori Education Strategy is being refreshed. The refreshed strategy will contain explicit goals for tertiary education.

² The comparison is shown for universities only to provide consistency between the two evaluation rounds. Not all other institutions were present in both rounds. Numbers refer to full-time equivalents. High-rated refers to "A" and "B" rated staff. Internationally recognised refers to "A" rated staff.

Pasifika achieving at higher levels

"The tertiary education sector can play a role in meeting the development needs and aspirations of Pasifika peoples in New Zealand. While the last five years have seen a greater proportion of Pasifika people in tertiary education studying at bachelors level and above, they are still over-represented in lower-level study. Completion rates for Pasifika students are lower than for any other group." (Tertiary Education Strategy 2010-15)

This priority focuses on improving the achievement of Pasifika students, particularly at degree level.

"Tertiary education providers and ITOs need to focus on how they can assist Pasifika students to progress to and achieve at higher levels of study. This will involve working with Pasifika community groups and improving pastoral and academic support, learning environments, and pathways into tertiary education." (Tertiary Education Strategy 2010-15)

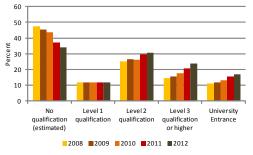
Pasifika school achievement

More Pasifika students are achieving higherlevel qualifications at school. The number and proportion of Pasifika students achieving NCEA level 3 and university entrance are increasing.

These increases reflect both population growth and an increase in the proportion of Pasifika students attaining higher level school qualifications.

The estimated proportion of Pasifika who did not have a school qualification by 19 has decreased from around 48% to 34% from 2008 to 2012. However, this was still higher than for the total population.





See Notes for discussion of methodology.

Pasifika in higher qualifications

The participation rates of Pasifika people in qualifications below degree-level are similar to, or even higher than, those of other ethnic groups. The significant educational gap between Pasifika and non-Pasifika remains at bachelors level.

KEY POINTS:

More Pasifika students are achieving higher-level school qualifications. However, the proportion not completing a school qualification by age 19 is still higher than for the total population.

More young Pasifika are enrolling in bachelors degrees, but only at about half the rate of non-Pasifika. Pasifika are less likely to complete bachelors degrees by age 25.

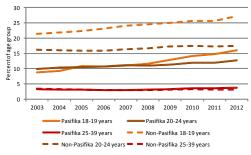
A larger proportion of Pasifika than non-Pasifika start degrees after the age of 25. However, completion rates for all students over 25 are low.

The number of Pasifika participating and completing in doctoral studies continues to increase, building a significant base for research and scholarship.

The Pasifika Education Plan 2012-2017 provides a system focus on retention and qualification achievement for Pasifika learners. The Tertiary Education Commission has responded to this through its investment guidance.

More Pasifika people are continuing to enrol in bachelors degrees, particularly under 25 year olds. However, the proportion of the Pasifika 18- to 24-year-olds in degrees remains significantly lower than the proportion of the non-Pasifika population in this age group.

Proportion of Pasifika population in bachelors degrees

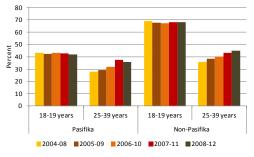


From 2009 to 2012, the proportion of Pasifika 18 to 19 year olds in bachelors degrees increased from 13 to 16%. Over the same time, the proportion for non-Pasifika increased from 25 to 27%.

Completing qualifications

Just over 40% of Pasifika 18-to-19-year-olds who started a bachelors degree completed their qualification within five years, compared with nearly 70% of non-Pasifika. Completion rates stayed steady for Pasifika while decreasing slightly for non-Pasifika..





Around 35% of Pasifika 25- to 39-year-olds completed a bachelors degree within five years, compared with about 45% of non-Pasifika. Completion rates for both groups have increased recently.

Pasifika people who study in qualifications below degree-level also had lower completion rates than non-Pasifika studying at the same level.

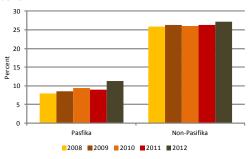
Achievement by age 25

16

The proportion of Pasifika young people who achieve a bachelors degree by age 25 remains at just over a third of that of the non-Pasifika population. In 2012, 11% of Pasifika aged 25 had completed a bachelors degree or higher, compared with 27% of non-Pasifika.

While there has an some increase in the proportion of Pasifika people achieving bachelors degrees by age 25, the gap between the Pasifika and non-Pasifika populations is still large.

Proportion of Pasifika and non-Pasifika 25-yearolds who have completed a bachelors degree or above



Note: See technical notes for calculation method.

Pasifika research and scholarship

The number of Pasifika enrolled in doctoral studies has increased significantly over the last two decades. In 1994, there were only 17 Pasifika students enrolled at doctoral level. By 2009, this number had increased to 140. By 2012 it had increased further to 175. The number completing doctoral qualifications each year has continued to increase, from 32 in 2009 to a peak of 46 in 2011, and 32 in 2012.

Low quality ethnic data in the Performance-Based Research Fund makes it difficult to provide an accurate picture of the contribution of Pasifika researchers to the research output of tertiary education organisations.

Policy changes

The focus for Pasifika tertiary learners, as outlined by the Pasifika Education Plan, 2013-2017, is enabling more Pasifika learners to achieve higher level tertiary qualifications. This is being done by increasing participation, but also by demanding the system focus more on the retention and qualification achievement of Pasifika learners.

The key over-arching goal of the Pasifika Education Plan is to ensure Pasifika people are highly skilled and make a stronger contribution to the national economy. Pasifika learners should participate and achieve at least on par with other learners in tertiary education. The Tertiary Education Commission has responded to this through its investment guidance, focusing providers on being more innovative and responsive to Pasifika learners. Tertiary education providers are taking a more active and sophisticated approach towards supporting Pasifika achievement. Many have introduced initiatives to reduce barriers to entry. Most universities have targeted admissions programmes. The Pacific Island Leaders of Tomorrow programme aims to inspire, engage and develop Pasifika secondary school students. It involves a collaboration of five universities, two polytechnics and two private training establishments and Career Services. There is increased attention to effective teaching practices. Many providers also have various forms of mentoring programmes.

The Government has announced the expansion of Pasifika Trades Training. Trainees will be supported by partnerships between industry, Pasifika groups, and education providers into employment and a New Zealand Apprenticeship.

Improving literacy, language and numeracy skills

"Improving literacy, language and numeracy skills is a priority as they provide a foundation for further study or employment Students who need to improve their literacy, language and numeracy skills should be able to do so." (Tertiary Education Strategy 2010-15)

This priority focuses on improving the literacy, language and numeracy skills of people as they engage in level 1 to 3 tertiary study. This includes both provider-based and work-based study. The priority aims to improve the skills of learners in order to go on to higher level study and skilled employment.

"We will:

- look at how we resource and support lower-level tertiary education
- reduce the proliferation of provider qualifications
- continue to work with providers and ITOs to embed literacy, language and numeracy in levels one to three qualifications
- continue to support intensive literacy programmes in workplaces
- prioiritise qualifications that link strongly to higher-level learning and skilled employment." (Tertiary Education Strategy 2010-15)

Reviewing resourcing and support for lower-level tertiary education

There have been major reviews of how foundation level programmes are supported and delivered in tertiary education.

From 2013, level 1 and 2 programmes are funded under specific provisions within the Student Achievement Component. The programmes are expected to be targeted to people with little or no prior qualifications and provide progression to higher-level study and skilled employment. The programmes include a strong emphasis on foundation skills, including literacy, language and numeracy. There are broader entry criteria to enable wananga to mātauranga continue to offer Māori programmes at this level.

Funding from Youth Training provision was transferred to the fees-free Youth Guarantee places in 2012. This provides a consolidated approach to foundation education and training for 16 and 17 year olds.

There were also changes for adult foundation learners. From 2011, the Training Opportunities fund was split between the Ministry of Social Development and the Tertiary Education Commission. Foundation-focussed Training Opportunities, funded by the Tertiary Education Commission, provides programmes for people with the highest risk of unemployment and has an explicit focus on improving literacy and numeracy. Training for Work, funded through

KEY POINTS:

Major reviews have been undertaken of how foundation level programmes are supported and delivered in tertiary education. These have led to a greater focus on literacy and numeracy and progression to further study.

The Targeted Review of Qualifications is providing a systematic process for reviewing both national and provider based qualifications. It will reduce the number of qualifications and ensure they are relevant to learners and employers.

Early results from the Literacy and Numeracy for Adults Assessment Tool provide new information about the skills and needs of learners and they provision they are receiving.

There has been continued to support for people who need intensive literacy, language and numeracy provision. There is strong engagement from businesses and employers in looking at how raising literacy and numeracy skills contributes to a more productive workplace.

the Ministry of Social Development, focuses more on local employment needs.

Rationalisation of qualifications

The Targeted Review of Qualifications aims to provide a more streamlined approach to qualifications and ensure all qualifications are useful and relevant to learners. The first stage of the review was to bring all qualification (New Zealand and provider-developed) on to the same framework and strengthen the requirements for clear outcome statements and involvement of industry in qualification development. This stage was completed in 2010.

The next stage is to undertake a schedule of reviews of qualifications to ensure that they meet the needs of learning and the broader society and economy. These started in 2011 and will run through to 2014. After that, all qualifications will be reviewed at least fiveyearly to ensure they remain fit for purpose.

One immediate result of the review has been a reduction in the number of different qualifications being funded at levels 1-3, from 920 qualifications in 2009 to 660 in 2012.³

Embedding literacy, language and numeracy into level one to three qualifications

In 2010, the Tertiary Education Commission released the Literacy and Numeracy for Adults Assessment Tool. This tool provides diagnostic information on reading, numeracy, writing and vocabulary. For most funded provision, providers are required to at least assess on reading and/or numeracy for courses with an embedded component.

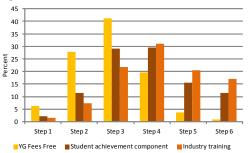
In level 1-3 student achievement component courses, there were 22,560 students assessed in 2011 and 35,000 in 2012. This represented 25% and 40% of learners respectively. In the youth guarantee fees-free programme, there were 2,630 learners assessed in 2011 and 7,300 in 2012. This represented 76% and 81% of learners respectively.

Looking at students' first reading assessments in 2012, 14% of student component funded learners and 34% of youth guarantee learners scored at steps 1 and 2. These students are likely to need significant help to meet the literacy demands of their courses.

In both funds, around a further 60% were assessed at step 3 and 4. These students may

need some aspects of literacy in order to successfully complete and progress to higher levels of study.

Results of reading assessments in selected programmes in 2012



Source: Tertiary Education Commission

In industry training, there were 11,050 learners assessed in 2011 and 18,950 assessed in 2012. This represented 11% and 20% of industry trainees respectively.

Industry trainees overall had a higher literacy profile than those in provider-based programmes. Of those assessed in reading, 9% were assessed on their first assessment at steps 1 and 2 and 53% at steps 3 and 4. However, there was significant variance across industry training organisations in both the skills profiles and the extent of assessment.

It is too early at this stage to draw system level conclusions about gains in literacy and numeracy.

Specialist literacy, language and numeracy provision

The Intensive Literacy and Numeracy Fund was introduced in 2010, replacing previous funding for specialist provision. It provides support for individuals with high-need for literacy and numeracy, who cannot access learning through work. Around \$13 million is allocated to more than 40 providers around the country. Additional funding has been allocated within the fund for English for speakers of other languages from 2012.

Working with business to meet needs

The Workplace Literacy Fund provides support for employees to increase their literacy, language and numeracy skills. Around \$17 million was allocated in this fund in 2012, reaching over 7,000 learners. It is provided in three different streams. Most of the funding goes to providers working with employers.

³ This reduction is a combination of the review and decisions by the Tertiary Education Commission on funding.

However, a proportion of funding is available for employers to directly purchase training themselves and some funding is available for employees to access learning outside the workplace.

The Skills Highway programme is a way of engaging employers in understanding improving workplace literacy and numeracy can contribute to improved business performance. It includes an information website, coordinated communication through the Workplace Literacy Leaders forum and the annual Skills Highway Awards. The programme has been instrumental in encouraging employers to take leadership on literacy and numeracy in the workplace.

Quality research driving innovation

"Researchers in tertiary institutions ... undertake a significant proportion of research in New Zealand. ... Innovation is critically important for New Zealand's economy as a driver of productivity growth. Research supports innovation by building New Zealand's knowledge base, developing better ways of applying existing knowledge for commercial use and addressing social and environmental concerns." (Tertiary Education Strategy 2010-15)

This priority focuses on improving the use and impact of research from the tertiary education sector to increase productivity and improve economic performance.

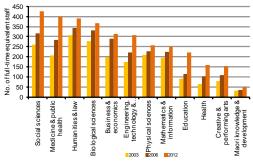
"We will ensure that the Performance-Based Research Fund recognises research of direct relevance to the needs of firms and its dissemination to them. We will also ensure there are further incentives for tertiary education organisations, other research organisations and firms to work together." (Tertiary Education Strategy 2010-15)

Research quality

The Performance-Based Research Fund includes a six-yearly quality evaluation of the research outputs of tertiary education organisations. The results for the 2012 quality evaluation round were released this year.

The quality evaluation includes a rating of the outputs of research staff. An "A" rating indicates staff who produce research of international standing, and a "B" rating indicates staff who produce research of national standing.

Full-time equivalent staff in universities rated A or B by PBRF panels



Source: Tertiary Education Commission

From 2006 to 2012, the number of staff with an A or B rating grew in every subject area. The subjects with the largest number of A and B rated staff are social sciences, medicine and public health, humanities and law, and biological sciences. The subjects with the largest relative growth have been education, health and Māori knowledge and development.

KEY POINTS:

New Zealand tertiary education research is improving in terms of the number of staff with international and national standing, output and academic recognition relative to the rest of the world.

One in ten businesses see universities and polytechnics as a direct source of innovation. However, they also indirectly source information from the tertiary sector through research publications, by employing graduates and via intermediaries.

Private sector investment in research through universities is decreasing as a proportion of total university research expenditure, at sits at only 7% in 2012.

The government is refocusing science and innovation funding on national priorities. It has also increased the investment in the Performance-Based Research Fund.

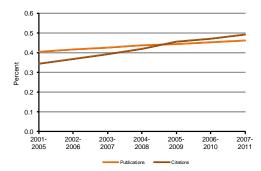
Research impact

Measuring the impact and use of academic research in a consistent and internationally comparable way is difficult. Publication rates and citations provide one way of comparing academic impact across countries and disciplines.

The share of world-indexed publications provides one measure of the overall research output of New Zealand tertiary institutions relative to the rest of the world. The share of citations provides one measure of recognition of research and is often used as a measure of the quality of research.

The indicators show that New Zealand tertiary education institutions continue to increase their share of publications, and at the same time gain greater recognition for their work.

New Zealand tertiary education institutions' share of world-indexed publications and citations

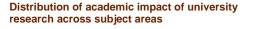


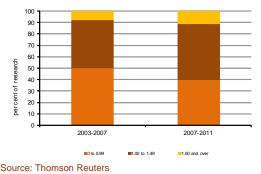
Source: Thomson Reuters

Academic research impact takes the rate of citations per publication in New Zealand and compares it with the world average within each subject area.⁴ An impact of 1.0 is equal to the world average for that subject area.

The figure below shows the changing distribution of academic research impact across subject areas. The proportion of subject areas with higher than average research impact continues to increase. By the 2007-2011 period, 60% of subject areas had an academic impact above the world average and 10% had an academic impact of more than 1.5 times the world average.

These figures show a trend towards the production of higher quality research from New Zealand universities.





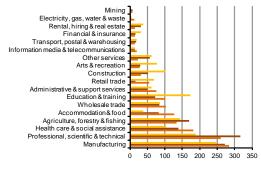
⁴ Only subjects with 50 or more publications have been included in this analysis.

Innovation and commercialisation

Around 10% of businesses seek innovation ideas from universities and polytechnics. The largest number is in manufacturing and professional, scientific and technical services. Emerging areas for engagement include construction, education and training, and arts and recreation (based on absolute growth from 2007 to 2011).

Direct provision of information to businesses is one of several ways that the tertiary education system contributes to innovation. Other ways include published research, use of intermediaries, including suppliers, and the knowledge and skills of graduates.

Number of businesses seeking innovation ideas from universities and polytechnics by industry



Source: Statistics New Zealand, Business Operations Survey, 2007, 2009 and 2011

2011 2009

2007

The amount of private sector investment in research through universities has fluctuated. As a proportion of total expenditure of universities on research, it has declined from 14% of expenditure in 2006 to 9% in 2008 and 2010 and 7% in 2012.⁵

Policy improvements

Operational improvements were made to the Performance-Based Research Fund for the 2012 Quality Evaluation. These included establishing an expert advisory group to advise on the professional, practice and commercial impact of research.

The government is refocusing Vote: Science and Innovation funding on national priorities and maximising overall benefit to New Zealand. This focuses tertiary education research funded by Vote: Science and Innovation more closely on innovation priorities.

⁵ As measured by the Statistics New Zealand Research and Development Surveys.

The Government has increased the investment in the Performance-Based Research Fund. It has directed the Ministry of Education to review policy for both the Fund and the Centres of Research Excellence to ensure that these are operating as effectively as possible.

Improving provider performance

"The Government wants to see ongoing improvements in the performance of the system. In particular, we want providers and industry training organisations to be more responsive to the demands of both students and industry and to make better use of scarce resources. We expect to see better course and qualification completion and progression rates for students as a result of higher-quality teaching and learning, and more effective and culturally responsive pastoral care. Public tertiary providers need to ensure they are financially viable so they provide quality education on an ongoing basis. ... Strong international linkages can improve the quality of teaching and research in New Zealand institutions." (Tertiary Education Strategy 2010-15)

This priority focuses on improving the educational and financial performance of providers, as well as continuing to build strong international linkages.

"To improve sector performance, we need to:

- enhance quality assurance
- provide better incentives for providers to respond to students and market signals, by: making provider-level performance information publicly available - linking funding more closely to performance
- support and encourage student performance
- strengthen collaboration and shared resources for greater efficiency
- continue to build international linkages. (Tertiary Education Strategy 2010-15)

Enhancing quality assurance

The New Zealand Qualifications Authority has implemented regular external evaluation and reviews of tertiary education organisations (other than the universities). Each review provides an independent judgement of the educational performance and capability in selfassessment of the organisation.

Educational performance assesses the extent to which the educational outcomes achieved by the organisation represent quality and value for learners and the wider community.

Capability in self-assessment indicates how effectively an organisation uses information to understand its performance and bring about improvement.

The judgements reached through external evaluation and reviews are expressed as statements of confidence, ranging from "highly confident" to "not confident".

In the period from 2009 to 2012, 555 tertiary organisations have had external evaluations and reviews. Most were private training establishments (523), 15 were industry training organisations and 16 out of the 18 polytechnics were completed. The results are shown in the table below.

KEY POINTS:

The New Zealand Qualifications Authority has implemented regular external evaluation and reviews of tertiary education organisations (other than universities). Of 555 providers reviewed to 2012, 85% were judged to confident to highly confident in educational performance and self assessment. Follow up reviews with those below "confident" are showing improvement.

The Academic Quality Agency (for universities) is launching a new audit framework from 2013 with emphasis on teaching and learning, and student support.

More information is available publicly on provider performance, and on employment outcomes of qualifications.

The financial performance of providers has been generally improving over the last two to three years.

International student numbers are steady. Research funding from international sources is modest and remains a small proportion of total expenditure. Of the 555, 471 providers (85%) were judged as confident to highly confident on both dimensions (Categories 1 and 2). Of the remainder, most were not yet confident in their capability for self assessment, while being confident in their educational performance.

Where a provider is judged as "not yet confident" or "not confident", the NZOA requires an action plan to address issues. These plans are closely monitored and sanctions can be applied if progress is not achieved.

Results from most recent external evaluation and reviews for tertiary education organisations

		Educational performance				
		Highly confident	Confident	Not yet confident		Not confident
Self-assessment capability	Highly confident	111 20%	15 2.7%			
	Confident	127 23%	218 39%	3 0.5%		
	Not yet confident		52 9.4%	12 2.2%		
	Not confident		2 0.4%	10 1.8%		5 0.9%
Source: New Zealand Qualifications Authority						
Category 1		Category 2	Catego	Category 3		ategory 4

There were 44 tertiary education organisations where a second or third review was conducted where the first review was below "confident" or there were quality concerns. In general, there has been improvement shown at each review, with more than half showing at above "confident" on the second or third review. Any organisations that have not made significant levels of improvement have been placed under tighter monitoring, and in the most serious cases have also been subjected to regulatory sanctions.

An analysis of the review reports from 360 PTEs found a match between the review findings and the Tertiary Education Commission's education performance indicators. It also showed that within the reviews, the overall confidence rating of the provider was most strongly influenced by the provider's focus on achievement and outcomes for stakeholders.

Quality assurance for universities rests with the Academic Quality Agency (previously known

as the New Zealand Universities Academic Audit Unit).

The Agency is starting a fresh cycle of audits using a new framework. The framework gives emphasis to teaching and learning and student support. The framework also provides guidelines for universities to undertake selfreview. The efficacy of the self-review processes is addressed as part of the audits.

Provider performance

The Tertiary Education Commission has published information on the performance of individual tertiary education organisations. The indicators used to monitor performance cover: students successfully completing courses and qualifications; students progressing to higher level study from levels 1 to 4; and students continuing in study.

The Ministry of Education has also produced information for students on the employment outcomes of fields of study by level. This includes incomes and employment rates. This information is made available to students through the Careers New Zealand website.

Financial performance

The Tertiary Education Commission monitors the financial performance of tertiary education institutions on seven key performance measures. In 2006, the institutions as a group were performing close to the recommended level on most measures. By 2011, their overall performance had strengthened on all measures. In the period from 2009 to 2011 only one or two institutions each year were in deficit.

Key financial performance indicators for TEIs



TEC recommended level

2011 Source: Ministry of Education and Tertiary Education

2006 •

Commission Note: In order to compare indicators on differing scales, the percentage for each indicator has been transformed into an index, where 100 represents the Tertiary Education Commission's recommended threshold for the indicator.

The 2010 and 2011 earthquakes in Christchurch have had a significant effect on the institutions located there. In general, their underlying

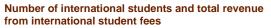
financial performance has only been slightly affected in the short term. However, as the institutions develop their plans for the renewal of their facilities, they will face very significant capital expenditure commitments. This will place a great deal of pressure on the institutions' cash flows and financial performance. The government has provided financial assistance in the form of operating grants and has agreed in principle to provide capital financial support to these institutions.

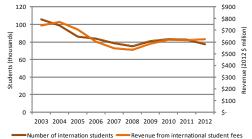
Following the earthquakes, all public buildings in New Zealand have been required to be seismically assessed. It is likely most tertiary education institutions will need to undertake strengthening to meet the outcomes of these assessments. This is likely to put significant pressure on capital expenditure across the tertiary education system over the next four or five years.

International linkages

It is difficult to collate meaningful information on the extent and strength of international linkages in the New Zealand tertiary education system.

One indicator of international linkages is the number of international students in New Zealand. From 2003 to 2007, there was a decrease in the number of international students studying at New Zealand tertiary education providers. This was the result of a number of factors relating to the international economy and international security concerns.





Note: Numbers are sourced from provider enrolment returns to the Ministry of Education. Revenue is sourced from the Export Education Levy and has been adjusted to 2012 dollar values. Figures include public and private providers.

There was a moderate recovery from 2008 to 2010. This overall growth has not continued, mostly due to reduced international demand.

While the total numbers have not increased, there has been a steady increase in the number

of international students studying at diploma level and above. Average fees for international students at public tertiary institution have also increased over this period.

Since 2007, international doctoral students have been able to enrol at domestic student fees. This has encouraged a large increase in international doctoral students, who now make up 40% of all doctoral enrolments in New Zealand.

Another indicator is the amount of international investment in research in New Zealand tertiary education institutions. The total real value of international research investment in New Zealand has only grown modestly, from \$24 million in 2008 to \$29 million in 2012. As a proportion of total research expenditure of universities, this amount has remained steady at around $6\%^{6}$.

The CWTS Leiden Ranking measures the scientific performance of 500 major universities worldwide, including New Zealand's three largest universities.

The 2013 rankings show that in the three New Zealand universities, around 50% of publications involved international collaboration. This was a small increase on the previous Leiden Ranking period.⁷ It is higher than the average for the "G8" universities, of 45% and the average of all 500 universities in the ranking of 38%.

Policy directions for international education

In 2011, the Government issued a "Leadership Statement for International Education." The Statement proposed stretch goals for continued growth in the value of international education. A new Crown agency, Education New Zealand, was established in 2012 to support the achievement of these goals. It is responsible for marketing New Zealand as an education destination to international students, and supporting New Zealand providers to deliver and deliver their education services to the international market.

⁶ As reported in the Statistics New Zealand Research and

Development Surveys. Amounts are expressed in 2012 dollar values. ⁷ The 2013 rankings covered publications from 2008 to 2011. The previous rankings covered the period 2005 to 2009.

Data sources

Where a data source for a graph is not stated, the source of the data is the Ministry of Education. All student numbers in this report refer to domestic students, unless otherwise stated.

Statistics New Zealand

Gross domestic product growth is the annual growth compared to the same quarter in the previous year. It uses the production-based series.

The *Household Labour Force Survey* is a quarterly survey of 15,000 households, providing information on labour force status. The information in this report is from each quarter and has not been adjusted for seasonal variations.

Population estimates are derived from the latest census data with adjustments for net census undercount, residents temporarily overseas on census night, and births, deaths and migration since the census. Population projections give an indication of the future size and composition of the population. Multiple projection series are produced using different combinations of assumptions about future fertility (births), mortality (deaths), and migration. For this report, 2011 base projection (50th percentile) was used.

The *Business Operations Survey* is conducted annually. Questions about innovation were included in the 2007, 2009 and 2011 surveys. An innovation is defined as the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.

The *Research and Development Survey* is conducted every two years. It is a joint survey with the Ministry of Business, Innovation and Employment. The survey measures the level of research and development activity, employment and expenditure by business sector enterprises, government departments, government-owned trading enterprises and universities.

New Zealand Institute of Economic Research

The *Quarterly Survey of Business Opinion* samples manufacturers, builders, architects, wholesalers and retailers, and service sector firms. Firms are surveyed regarding both their recent experience and expectations for the next three to six months.

Thomson Reuters

The Thomson Reuters *Web of Science* database provides information on research published in selected academic journals, mostly based in Europe and North America. The database provides information on the authors, their institutional affiliations and citations of works.

The database excludes research published in books and book chapters, as well as research in the form of performances or exhibitions. Therefore, the research output in subject disciplines such as the social sciences, humanities and performing arts is not well represented compared with the biological and physical sciences. The database also excludes a large proportion of research published in New Zealand and Australian journals.

Nevertheless, despite these caveats, this data source still provides one of the few independent ways of monitoring the international impact of New Zealand tertiary education research.

Data by subject area uses subjects as defined in the Thomson Reuters "Web of Science".

Tertiary Education Commission

Educational Performance Indicators provide information on how well students are achieving at different tertiary education providers. The performance information only relates to funded places and does not include international students.

New Zealand Qualifications Authority

External evaluation and review provides an independent judgement of the educational performance and capability in self-assessment of tertiary education organisations

Educational performance refers to the extent to which the educational outcomes achieved by the organisation represent quality and value for learners and the wider community. An evaluation of educational performance involves answering questions focused primarily on the quality of learning and teaching, and the achievements of learners.

Judgements on capability in self-assessment indicate how effectively an organisation uses self-assessment information to understand performance and bring about improvement.

Through periodic external evaluation and review, organisations are held accountable to their students, employers, funders, quality assurance bodies and other interested parties. The review process also provides information to support improvement across the tertiary education sector.

Achievement of qualifications by age 19

All proportions presented in these figures should be treated as estimates. The proportions may not exactly agree with other published data due to differences in methodology. The key information in the graphs is differences between levels, ethnic groups and the overall trends.

The counts of students and qualifications are established by matching domestic students school-based Enrol system with achievement records from the New Zealand Qualifications Authority.

From 2011, nearly all 19 year olds in the population can be counted in this way. In previous years, those who left school without achieving or attempting a qualification were less likely to be counted.

Completing a qualification by age 25

The proportion of people who have completed a qualification in New Zealand is estimated from two numbers.

The numerator is the number of people in the relevant birth year who have completed a tertiary qualification as a domestic student at the specified level through a New Zealand tertiary education provider by the age of 25.

The denominator is the estimated 25-year-old population resident in New Zealand.

People who attained qualifications overseas are not included in the numerator, but are included in the denominator. The majority of these people will be immigrants. Some will be New Zealand citizens educated overseas. In this way, the rate is an underestimate of the total qualification attainment of the 25-year-old population.

Glossary

New Zealand Qualifications Framework (NZQF)

From July 2010, the National Qualification Framework and the wider New Zealand Register of Quality Assured Qualifications were replaced by the New Zealand Qualifications Framework (NZQF) and the Directory of Assessment Standards (DAS). Qualifications reside on the NZQF and standards reside on the DAS.

Equivalent full-time student

Equivalent full-time student is a measure of the 'size' of each student's enrolment. One equivalent full-time student represents the study load taken by a student enrolled full-time for one year.

Performance-Based Research Fund

The Performance-Based Research Fund allocates research funding to tertiary providers based on a systematic assessment of the research outputs and activities of staff. A quality score can be derived for each provider and each subject area based on these assessments.

Further information

Further information on tertiary education in New Zealand can be found in the Ministry of Education's annual <u>Profile and Trends</u> report. The web version includes links to pages describing the overall system and what the system provides. This includes information on the roles of government agencies, types of providers and the qualifications system.