



MINISTRY OF EDUCATION

Te Tāhuhu o te Mātauranga

Facing the challenge

Tertiary Education Strategy monitoring 2010

Published by:
MINISTRY OF EDUCATION

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This report is available from the Ministry of Education's Education Counts website:
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November 2010

ISSN 1176-9238 (print)
ISSN 1179-3074 (online)

Tertiary Education Strategy monitoring 2010

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 700,000 New Zealanders participated in formal tertiary education in 2009, including industry training. The Government spends around \$4 billion a year in operating expenditure on tertiary education, including research funding and financial support for students. This represents about 2 percent of New Zealand's gross domestic product.

2010 monitoring report

This report provides baseline data to monitor progress against the 2010-15 Tertiary Education Strategy. Future annual monitoring reports will look at progress against the strategy. The information in these reports will:

- 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 and other government agencies
- provide context for the monitoring of the tertiary education Crown Entities (Tertiary Education Commission, New Zealand Qualifications Authority and Career Services)
- provide alerts to any possible need to reconsider the policy mix
- feed into developing future priorities and 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 sections identify key challenges to achieving the priorities over the next two to three years. These challenges are overall messages for the tertiary education system. They are deliberately not referenced to specific parts of the system. Responsibility for addressing these challenges is shared between government agencies and tertiary education organisations. The actions they plan to take in response to the strategy are set out in their accountability documents.

The report is accompanied by a set of cross-strategy indicators that provide enduring measures of the overall health of the tertiary education system.

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 over the next investment plan cycle, starting in 2011. 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 21st 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.

The Tertiary Education Strategy also takes account of the Pasifika Education Plan 2009-2012. The Plan focuses on enabling Pasifika people, and in particular young Pasifika students, to participate and attain higher levels of tertiary education.

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 monitoring reports are published annually.

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.

Further information

This report complements two other annual 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.
- **Outputs and outcomes of the Government's tertiary education expenditure** is a new series of annual reports which describe the inputs, outputs and outcomes of the Government's spending on tertiary education.

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/>

Facing the challenge: critical issues for achieving the strategy

“The economy has contracted significantly due to the global downturn and local recession, curtailing government income at the same time as increasing the costs of social welfare and debt servicing. The recession is also raising demand for tertiary education. In this economic environment, the Government will ensure the tertiary system achieves the best return on the public’s investment.” (Tertiary Education Strategy 2010-15)

Impact of recession and population change

Demand for tertiary education has been increasing. It is forecast to peak in 2011 and then return to a level similar to 2009 over the following two to three years.

One of the drivers of demand has been the recession. This has had an uneven effect on tertiary education demand, with falling demand for industry training and increased demand for provider-based education.

Demand is also being driven by demographic and educational changes. The number of young people aged 18 to 22 has been increasing and is expected to rise until 2012. In addition, more young people are achieving higher-level qualifications at school and moving into degree-level study.

A key challenge for the tertiary education system is to allocate existing resources to areas of greatest value.

Raising achievement of young people

In general, students are staying longer at school and more of them are achieving higher school qualifications. This is leading to more students going on to degree study. However, it is not resulting in increased numbers in vocational certificates and diplomas, and a significant proportion of young people still do not go on to tertiary education.

While the number of 18- to 19-year-olds starting degrees increased by 7.6 percent from 2003 to 2005, the number of these students who completed within five years increased by only 2.9 percent. Increased participation has yet to flow through to more significant increases in the proportion of the population achieving degrees by age 25.

The number of 18- and 19-year-olds entering level 4 certificates and level 5 to 7 diplomas has not increased overall. There has been a shift away from industry training to provider-based qualifications as youth unemployment increases. Retention rates have increased for young people in provider-based tertiary education at these levels. A significant number enter this level of study from age 20, so that the proportion of 25-year-olds with a level 4 qualification or above has increased.

A significant proportion of young people still do not go into tertiary education. In 2010, nearly a third of 18- to 19-year-olds were not in education and 10 percent were neither in employment nor education.

Key challenges for the tertiary education system include:

- *developing quality vocational pathways for young people, at a time when employment opportunities are reduced*
- *ensuring that young people stay in study and complete their qualifications, particularly at degree level.*

Māori enjoying success

The number of Māori students achieving higher-level school qualifications is increasing, but proportionally is still about half that of non-Māori.

The participation rates of Māori in qualifications below degree level are similar to, or even higher than, those of non-Māori. However, their completion rates are lower.

The proportion of Māori 18- to 25-year-olds studying at degree level is around half the proportion of non-Māori. Māori remain less likely to achieve a bachelors degree by age 25 than non-Māori.

Māori are more likely than non-Māori to start degree studies over the age of 25. However, completion rates for Māori in this age group are around 30 percent over five years.

A key challenge for the tertiary education system is to support more Māori students to achieve qualifications, particularly at degree level.

The expansion of te reo Māori programmes in tertiary education has allowed more adults to become familiar with the language. The number of people who have completed the equivalent of a full year of study in te reo Māori continues to increase. However, 92 percent of learners have not reached this point.

A key challenge for the tertiary education system is to continue to increase the number of learners undertaking substantial amounts of te reo Māori study.

Pasifika achieving at higher levels

More Pasifika students are achieving higher-level school qualifications, with a substantial increase in the numbers achieving NCEA level 2. However, the proportion of the Pasifika population aged under 25 studying at degree level is around half of the proportion of the non-Pasifika population. Pasifika people are less likely to achieve a bachelors degree by 25.

Over 40 percent of Pasifika students starting degrees for the first time are aged over 25. However, completion rates for Pasifika students in this age group are around 30 percent over five years.

The participation rates of Pasifika people in qualifications below degree level are similar to, or even higher than, those of non-Pasifika. However, their completion rates are lower.

A key challenge for the tertiary education system is to support more Pasifika students to achieve qualifications, particularly at degree level.

Building capacity for literacy and language

Considerable work has been put into building the capacity to improve the delivery of literacy and numeracy at levels 1 to 3.

There has been a focus on embedding provision within provider-based and work-based

qualifications, as well as providing intensive provision in the workplace and the community.

The Literacy and Numeracy Assessment Tool will provide a set of common tests referenced to the learning progressions that enable providers to better understand learner progress. It will also provide new information on the effect of different approaches on different learners.

A key challenge for the tertiary education system is to use the new sources of information to understand better what works for which groups of learners in developing their literacy, language and numeracy skills.

Quality research driving innovation

New Zealand tertiary education research is improving in terms of output and academic recognition relative to the rest of the world.

There is very limited consistent information on the extent to which tertiary education research contributes to increased productivity and economic performance. Universities and polytechnics are just one of many sources of information for business innovation. Much of their influence on businesses is indirect, through publications, conferences and the skills and knowledge of graduates employed by businesses.

A key challenge for the tertiary education system is to understand better how tertiary education research can contribute to increased productivity and improved economic performance.

Improving educational and financial performance

The Tertiary Education Commission and the New Zealand Qualifications Authority are placing greater focus on the educational performance of tertiary education organisations.

The financial situation of tertiary education institutions improved in 2009. However, the phase out of short-term revenue streams in 2011 is likely to adversely affect polytechnics and wānanga.

Key challenges for the tertiary education system are to:

- *make use of educational performance information in ways that lead to ongoing improvements in teaching and learning*

- *manage the financial stability of institutions as significant changes in the funding mix take place over the next two years.*

Key policy changes and initiatives

Since the introduction of the 2010-2015 Tertiary Education Strategy, there have been a number of policy changes made to support the tertiary education system to achieve the priorities:

- Additional university places have been funded through 2010 budget and through transfers from under-spending in industry training.
- Special admissions to universities are being reviewed to allow universities to set entry priorities, while still supporting pathways for adult learners.
- A broad ranging youth guarantee work programme is underway to improve pathways from secondary school to vocational education, which includes youth guarantee places, trades academies, service academies and a variety of local initiatives.
- An operational policy review is underway for industry training.
- The New Zealand Qualifications Authority is conducting a targeted review of qualifications aimed at improving the overall design of the vocational qualification system, in order to improve the clarity and relevance of qualifications and reduce duplication.
- The Government is undertaking a review of its investments in te reo Māori, which includes looking at how education can best support revitalisation.
- From 2011, changes will be made to the training opportunities programme. Sixty percent of funding will be retained by the Tertiary Education Commission to provide support for people at risk of medium- to long-term unemployment, with a stronger focus on literacy, language and numeracy skills. The other 40 percent will be used by Work and Income to provide employment-focused training for those closer to participating in work.
- The assessment process for the Performance-Based Research Fund is being reviewed to give greater recognition to patents and to the commercialisation of research.
- Performance-linked funding is being developed for Student Achievement Component funding. Performance requirements have also been added to the student loan scheme.
- The Tertiary Education Commission has developed improved financial risk profiling of public tertiary education providers. Tairāwhiti Polytechnic and Eastern Institute of Technology are investigating a merger in order to improve sustainability – as are Telford Rural Polytechnic and Lincoln University.

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

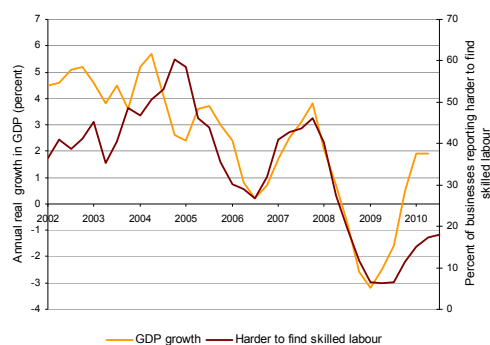
Overall demand for tertiary education has been increasing, with enrolments exceeding the funded baseline in 2009. Demand is forecast to continue to increase until 2011, and then start to decrease towards 2009 levels over the following two to three years.

This increase in demand has been driven by the impact of the recession, demographic changes in the youth age group and the rising school attainment of young people.

Impact of the recession

In late 2007, the New Zealand economy went into downturn, firstly as a result of prolonged drought affecting agricultural production and then in response to global economic conditions and economic downturns in its major trading partners. The New Zealand economy was in recession between mid 2008 and mid 2009 and is now starting to show signs of recovery.

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 growth period to 2008, there had been a high demand for skills. This dropped off with the recession. There are signs that some demand is returning.

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. There is yet to be any sign of a sustained

KEY POINTS:

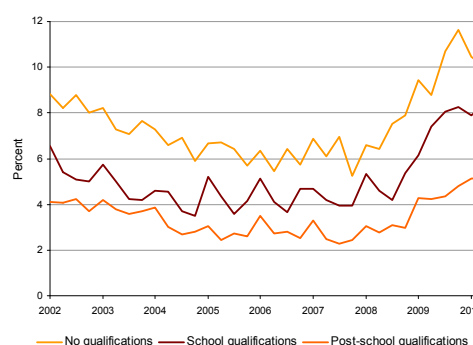
Demand for tertiary education has been increasing. It is expected to peak in 2011 and return to 2009 levels over the following two or three years. The increased demand has been the result of the recession and increases in the youth population.

The New Zealand economy is beginning to recover from the recession. However, government finances are not predicted to recover in the short term.

The growth in the 18 to 22 year old population is predicted to peak in 2012. The proportion of school leavers going on to degree studies continues to increase.

decrease in unemployment. Unemployment rates for young people remain high.

Unemployment rates by qualification level



Source: Statistics New Zealand, Household Labour Force Survey

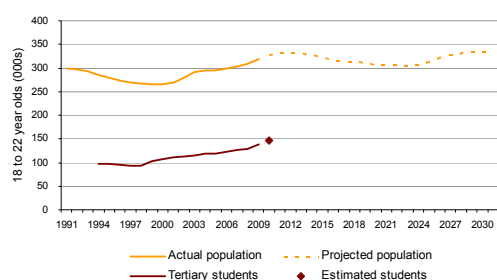
The recession also had a significant impact on government finances. It has resulted in falling revenue and increased pressure on social spending. Government spending went into deficit in 2009 for the first time in several years. Spending is forecast to remain in deficit for several more years, accompanied by increasing government debt.

Growing youth participation

The number of young people aged 18 to 22 has been increasing significantly over the last 10 years. The population in this age group is expected to peak in 2012. This will be followed by a period of decline and then renewed growth over the following 20 years.

School achievement has also been increasing. The proportion of school leavers attaining university entrance increased from 29 percent in 2005 to 39 percent in 2008. This is reflected in higher rates of participation in tertiary education. Tertiary education participation rates of 18- to 22-year-olds increased from 39 percent in 1999 to 43 percent in 2009, and are estimated to have increased to 45 percent in 2010. Most of this increase is happening at degree level, where students are nearly all studying full-time.

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



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

Students aged over 25 made up 44 percent of equivalent full-time students in 2009. While the number of students in this age group has been decreasing since 2005, there was an increase in full-time study in this age group in 2009.

A key challenge for the tertiary education system is to allocate existing resources to areas of greatest value.

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)

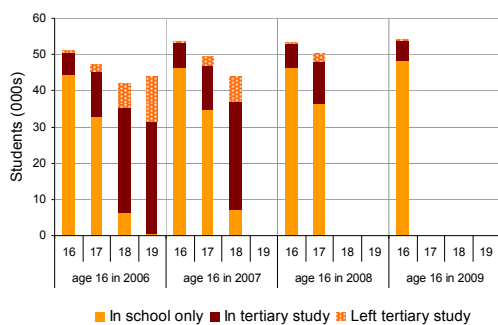
This priority focuses on increasing the number of young people moving successfully from school to tertiary education. It covers improving achievement at school, increasing the number of young people going from school to tertiary education, and improving the retention of young people in tertiary qualifications.

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 2006, aged 17 in 2007, aged 18 in 2008 and aged 19 in 2009. The next set of bars starts with those aged 16 in 2007, and so on.

The graph shows that with each successive cohort there is both a larger number and proportion of students staying at school at ages 16 and 17. However, this is not flowing through to a similarly large increase in tertiary study.

Progression of students from school to tertiary by year cohorts



Increased school achievement

There has been an increase in the number of students achieving higher-level school qualifications. The number of students achieving a level 3 qualification at school by age 19 increased by 4,600 (30 percent) from 2006 to 2009. The number of students achieving university entrance increased by 4,200 students (28 percent). While there has been population growth in this age group, these increases are largely the result of an overall increase in school achievement, as shown in the graph below.

KEY POINTS:

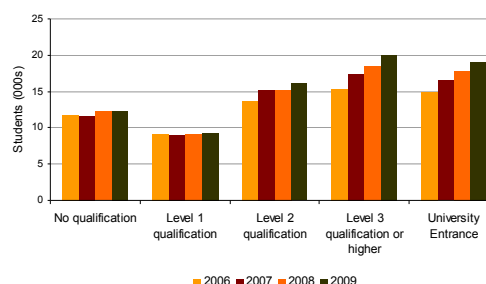
Students are staying longer at school and more are achieving higher qualifications.

The number and proportion going to degree level study is increasing.

The proportion going from school to vocational certificate or diploma study has remained steady.

Of those not going on to tertiary study, an increased proportion is not in employment.

Highest NCEA qualification achieved for 19-year-olds



Students without NQF results are excluded, such as those who left school before attempting NQF standards and those who only took alternative examinations.

More students going to certificates and degrees

Looking at the number of 18- to 19-year-olds starting in tertiary education reveals that the growth in tertiary enrolments has been in level 1 to 3 certificates and bachelors degrees.

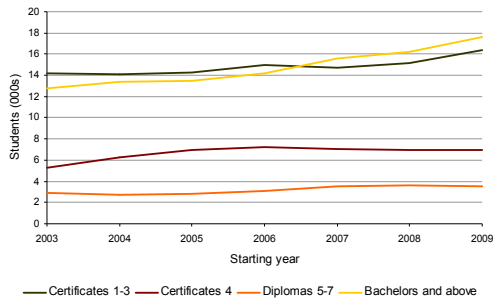
For level 1 to 3 certificates, the growth is more recent and largely a result of population growth. At this level, there has been a shift away from

industry training and targeted training to provider-based enrolments.

Growth at bachelors level has been evident for several years and has been the result of a combination of population growth and an increased proportion of young people going into degree study.

A key challenge for the tertiary education system is to develop quality vocational education pathways for young people, at a time when employment opportunities are reduced.

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

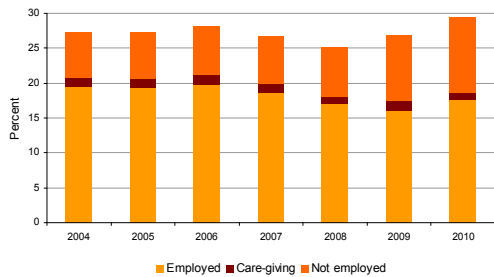


Numbers include all provider-based education (including targeted training) as well as industry training.

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 in 2009. Industry training numbers 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.

The proportion of young people who are not in education or training is showing signs of increasing. Since 2008, there has been significant growth in the number of those neither employment nor education. In 2010, around 11 percent of young people were estimated to be in this group.

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



Source: Statistics New Zealand, *Household Labour Force Survey*. (annual averages)

Young people achieving 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)

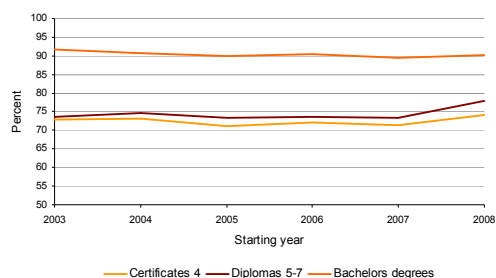
This priority is to increase the number of young people (aged under 25) who achieve qualifications at level 4 and above, particularly degrees.

Staying in study

As stated in the previous section, the number of 18- and 19-year-olds enrolling in bachelors degrees has been increasing. First-year retention rates for these students have remained steady, at around 90 percent for full-time students.

First-year retention rates are lower for level 4 certificates and level 5 to 7 diplomas in this age group. Rates improved slightly in students who started in 2008, possibly as a result of the tightening labour market and increasing youth unemployment.

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



Progressing to higher levels

Just over half of students who start provider-based tertiary study at levels 1 to 3 go on to higher level study within five years. This proportion has been slowly increasing, even as the number of enrolments at this level increased.

Around a third of those who start provider-based tertiary study in level 4 certificates or level 5 to 7 diplomas go on to higher level study within five years.

KEY POINTS:

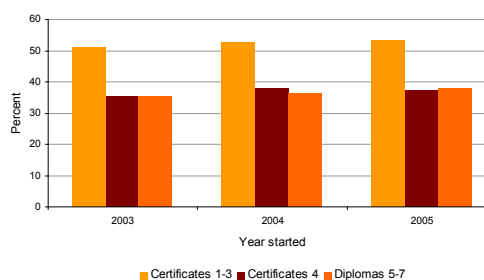
An increased proportion of 18- to 19-year-olds starting in level 1 to 3 certificates are moving on to higher level study.

An increased proportion 18- to 19-year-olds starting in level 4 certificates and level 5 to 7 diplomas are staying in study.

A decreased proportion of 18- to 19-year-olds at bachelors level are completing qualifications, as more enrol 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 increased slightly. Females are more likely to attain qualifications by age 25 than males.

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



Completing qualifications

Five-year completion rates for 18-to-19-year-olds in bachelors degrees decreased from 69 percent for 2003 starters to 66 percent for 2005 starters. While the number of 18- to 19-year-olds starting degrees increased by 7.6 percent from 2003 to 2005, the number completing within five years increased by only 2.9 percent.

Completion rates for level 4 certificates and level 5 to 7 diplomas have been lower, but more stable.

A key challenge for the tertiary education system is to ensure that young people stay in study and complete their qualifications, particularly at degree level.

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

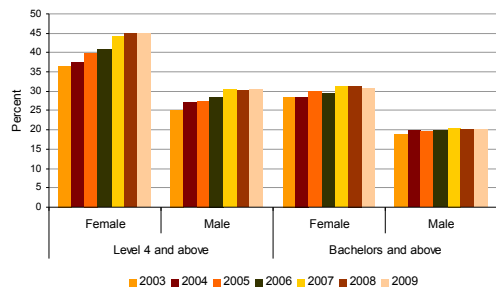


Tertiary achievement by age 25

The proportion of 25-year-olds completing a tertiary qualification at level 4 and above through a provider has been steadily increasing, particularly for women. In 2009, 38 percent of 25-year-olds had completed a tertiary qualification at level 4 and above through a New Zealand tertiary education provider, compared with 31 percent in 2003. Much of this growth comes from people entering level 4 certificates and level 5 to 7 diplomas aged 20 or older, rather than entering directly from school.

If industry training completions at level 4 and above are added to the 2009 figures, then the overall completion rate increases to 41 percent. The total completion rate for men is 38 percent and for women 44 percent.¹

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



Note: See technical notes for calculation method.

The proportion of 25-year-olds completing a bachelors degree or higher has only increased slightly. In 2009, 25 percent of 25-year-olds had attained a bachelors degree or higher. Women were more likely to have done so, at 31 percent, compared with 20 percent for men.

¹ Industry training completions are only available from 2003.

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.

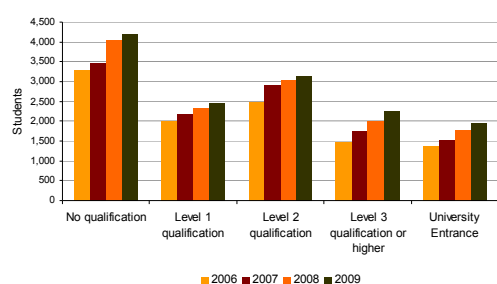
Māori school achievement

More Māori students are achieving higher-level qualifications at school. The number of Māori students achieving a level 3 qualification at school by age 19 increased from 1,480 in 2006 to 2,260 in 2009. The number achieving the university entrance standard increased from 1,350 to 1,970.

These increases reflect both population growth and an increase in the proportion of Māori students attaining higher level school qualifications. From 2006 to 2009, the proportion of Māori who attained university entrance increased from 14.6 percent to 16.3 percent. However, this was still around half the proportion for non-Māori (37 percent).

In 2009, 35 percent of Māori aged 19 had not achieved a school qualification, compared with only 18 percent of non-Māori. As the Māori youth population has increased, the number reaching 19 without qualifications has continued to increase.

Highest school qualification achieved for Māori 19-year-olds



Students without NQF results are excluded, such as those who left school before attempting NQF standards and those who only took alternative examinations.

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

KEY POINTS:

More Māori students are achieving higher-level school qualifications. However, the proportion completing is about half of that of non-Māori.

Similarly, more young Māori are enrolling in bachelors degrees, but only at about 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.

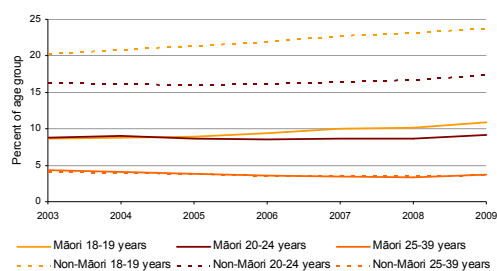
Enrolments in te reo Māori courses have remained steady over the last three years. There is a small but growing number of people who have completed at least one full year of study in te reo Māori.

significant educational gap between Māori and non-Māori remains at bachelors level.

More Māori are enrolling 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.

In 2009, 41 percent of Māori enrolling for bachelors degrees for the first time were aged over 25. This compares with 27 percent of non-Māori.

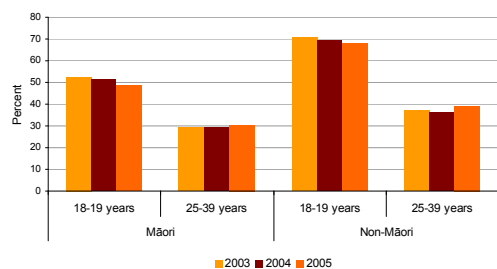
Proportion of Māori and non-Māori populations in bachelors degrees



Completing qualifications

Around 50 percent of Māori 18-to-19-year-olds who study for a bachelors degree complete their qualification within five years, compared with around 70 percent of non-Māori. Completion rates have decreased for both Māori and non-Māori as the numbers enrolled have increased.

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



Around 30 percent of Māori aged 25 to 39 complete a bachelors degree within five years, compared to almost 40 percent of non-Māori.

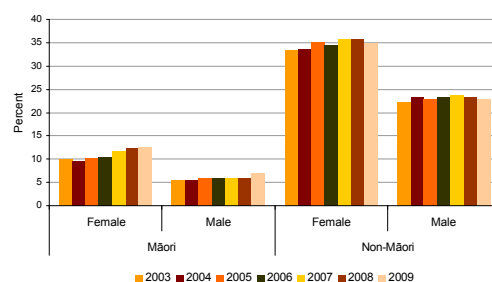
Māori who study in qualifications below degree-level also have lower completion rates than non-Māori studying at the same level.

Achievement by age 25

The proportion of Māori young people who achieve a bachelors degree by age 25 is about a third of that of the non-Māori population. In 2009, 12 percent of Māori females aged 25 had completed a bachelors degree or higher, compared with 37 percent of non-Māori. The proportion for males was 7 percent compared with 23 percent, respectively.

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

Proportion of Māori and non-Māori 25-year-olds who have completed a bachelors degree or above



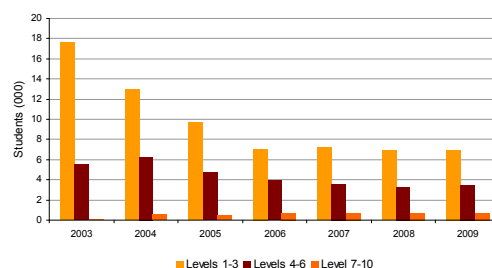
Note: See technical notes for calculation method.

A key challenge for the tertiary education system is to support more Māori students to achieve qualifications, particularly at degree level.

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 constraints, organisational change and reduced demand. Numbers of students at all levels have remained reasonably steady since then.

Students in te reo Māori courses by level

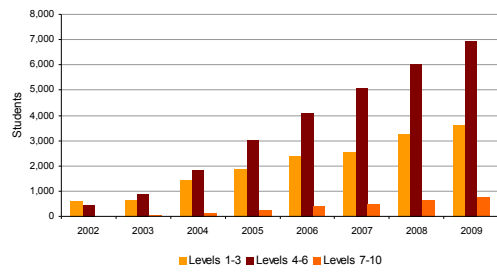


Note: Level refers to the course level, not the qualification level. Only includes enrolments of more than 0.2 EFTS. Includes non-formal and formal courses.

The total number of people who have participated in te reo Māori courses is increasing. From 2002 to 2009, 11,000 people had successfully studied the equivalent of one or more years in te reo Māori. This is the minimum level of learning required to establish some basic competency in the language. However, 92 percent of learners have not reached this point.

Eleven thousand people represents about 10 percent of the total number of people aged 15 and over who reported in the 2006 census that they could hold a conversation in te reo Māori.

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 full-time study.

A key challenge for the tertiary education system is to continue to increase the number of learners undertaking substantial amounts of te reo Māori study.

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.

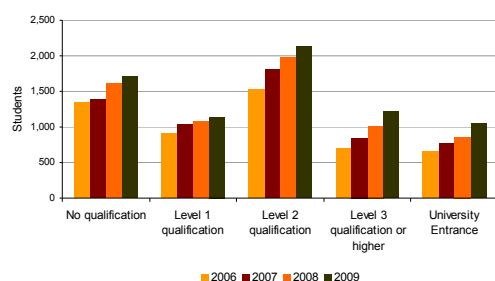
Pasifika school achievement

More Pasifika students are achieving higher-level qualifications at school. There has been a substantial increase in the number achieving level 2 NCEA by age 19, from 1,520 in 2006 to 2,130 in 2009. The numbers achieving level 3 NCEA and university entrance have also increased, but not by the same amount.

The increase at NCEA level 2 reflects population growth, with the proportion remaining steady at 35 percent. The increases at higher levels reflect a small proportional increase in achievement in addition to population growth. However, the proportions of Pasifika students achieving at these levels are still only around half the proportion of non-Pasifika students.

In 2009, 28 percent of Pasifika people aged 19 had not achieved a school qualification, compared with only 19 percent of non-Pasifika. The proportion of Pasifika students not achieving school qualifications is decreasing. However, the number is increasing as the population increases.

Highest school qualification achieved for Pasifika 19-year-olds



Students without NQF results are excluded, such as those who left school before attempting NQF standards and those who only took alternative examinations.

Pasifika in higher qualifications

The participation rates of Pasifika people in qualifications below degree-level are similar to,

KEY POINTS:

More Pasifika students are achieving higher-level school qualifications. However, the proportions completing NCEA level 3 and university entrance are about half that of non-Pasifika.

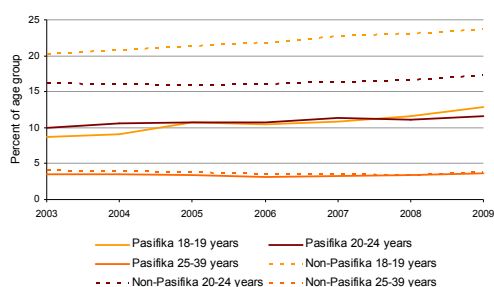
Similarly, more young Pasifika are enrolling in bachelors degrees, but only at about half the rate of non-Pasifika. Pasifika are less likely to complete bachelors degrees by age 25.

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.

or even higher than, those of other ethnic groups. The significant educational gap between Pasifika and non-Pasifika remains at bachelors level.

More Pasifika people are enrolling in bachelors degrees, particularly 18- to 19-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

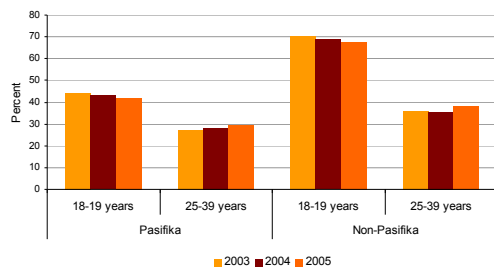


In 2009, 42 percent of Pasifika students enrolling in bachelors degrees for the first time were aged over 25. This compares with 33 percent on non-Pasifika students.

Completing qualifications

Just over 40 percent of Pasifika 18-to-19-year-olds who started a bachelors degree completed their qualification within five years, compared with nearly 70 percent of non-Pasifika. Completion rates have decreased for both Pasifika and non-Pasifika students as the numbers enrolled have increased.

Five-year completion rates for Pasifika and non-Pasifika students in bachelors degrees



Nearly 30 percent of Pasifika 25- to 39-year-olds complete a bachelors degree within five years, compared with almost 40 percent of non-Pasifika.

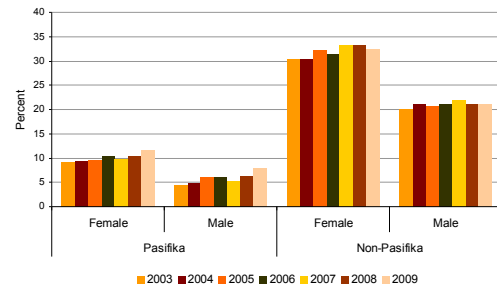
Pasifika people who study in qualifications below degree-level also have lower completion rates than non-Pasifika studying at the same level.

Achievement by age 25

The proportion of Pasifika young people who achieve a bachelors degree by age 25 is about a third of that of the non-Pasifika population. In 2009, 12 percent of Pasifika females aged 25 had completed a bachelors degree or higher, compared with 32 percent of non-Pasifika. The proportion for males was 8 percent compared with 21 percent, respectively.

While there has been 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-year-olds who have completed a bachelors degree or above



Note: See technical notes for calculation method.

A key challenge for the tertiary education system is to support more Pasifika students to achieve qualifications, particularly at degree level.

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)

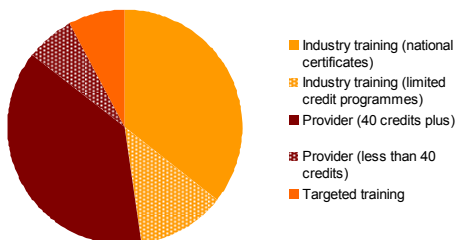
This priority focuses on improving the literacy, language and numeracy skills of people as they engage in level 1 to 3 tertiary study. This includes both provider-based and work-based study. The priority aims to improve the skills of learners, in order to go on to higher level study and skilled employment.

Current range of level 1 to 3

Level 1 to 3 certificates in tertiary education are equivalent to senior secondary school qualifications. Most of them require less than one year’s full-time study. They are targeted at people with low or no school qualifications and provide a range of entry-level vocational and general skills.

In 2009, 48 percent of learners at level 1 to 3 were learning through industry training. A quarter of these were in limited credit programmes.² Provider-based qualifications accounted for 44 percent of learners, with an eighth of these learners being in qualifications of less than 40 credits. Targeted training programmes made up 8 percent of learners.

Distribution of learners in level 1 to 3 by type of learning and qualification.



What is being provided

A number of programmes have been put in place to support literacy, language and numeracy at levels 1 to 3.

The Intensive Literacy and Numeracy fund provides support for the provision of literacy and numeracy learning within a community context. The Workplace Literacy fund provides support for employees to increase their literacy, language and numeracy skills linked to workplace requirements.

² Limited credit programmes are short programmes of study that do not lead directly to a national qualification.

KEY POINTS:

Level 1 to 3 tertiary study is spread across provider-based enrolments, industry training and targeted training.

The focus in 2010 has been on embedding literacy, language and numeracy within existing provision through providers and industry training organisations, as well as funding intensive literacy and numeracy in the community and the workplace.

The implementation of a national assessment tool will provide new information on learner progress and the effect of different approaches for different learners.

Industry training organisations can apply for Embedded Literacy and Numeracy funding to build capability to embed literacy and numeracy into their industry's businesses, and to improve industry trainees' literacy and numeracy skills. Funding is also available to polytechnics and wānanga to support embedding of literacy, language and numeracy skills development within their level 1 to 3 provision. As at August 2010, 24 percent of level 1 to 3 polytechnic students were in courses that included embedded literacy, language and numeracy. The proportion for wānanga was 3 percent.

Improving provision

The Tertiary Education Commission funds a range of professional development for teachers of literacy, language and numeracy. This programme is coordinated through the University of Waikato.

The Literacy and Numeracy for Adults Assessment Tool was made available to all providers from March 2010. The tool assesses

the skills of learners, with reference to the literacy and numeracy learning progressions. It will allow learners to track their progress over time, tutors to tailor their courses to learner needs, and educators and organisations to track the progress made by groups of learners.

The Tertiary Education Commission and the Ministry of Education will start exploring results at a national level from 2011. A key purpose of this analysis will be to ensure that the programmes which are being funded by Government are effective in raising the literacy and numeracy skills of learners.

A key challenge for the tertiary education system is to use the new sources of information to better understand what works for which groups of learners in developing their literacy, language and numeracy skills.

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.

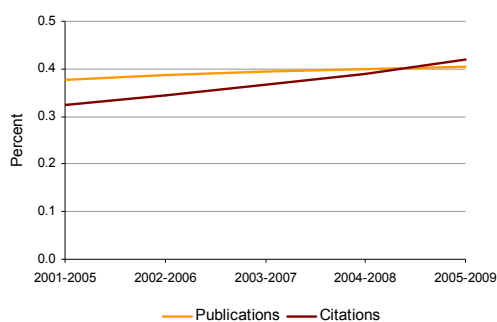
Research impact

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 impact and use 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 are slowly increasing their share of publications, and at the same time gaining 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.³ An impact of 1.0 is equal to the world average for that subject area.

³ Only subjects with 50 or more publications have been included in this analysis.

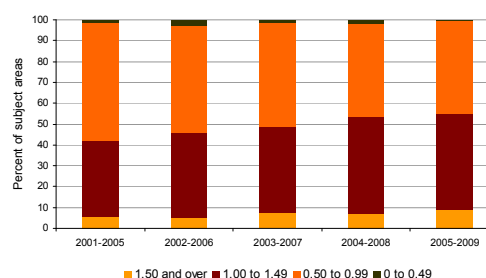
KEY POINTS:

New Zealand tertiary education research is improving in terms of 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 and by employing graduates.

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 is increasing. By the 2005-2009 period, more than half of subject areas had an academic impact above the world average and ten percent had an academic impact of more than 1.5 times the world average.

Distribution of academic impact of university research across subject areas



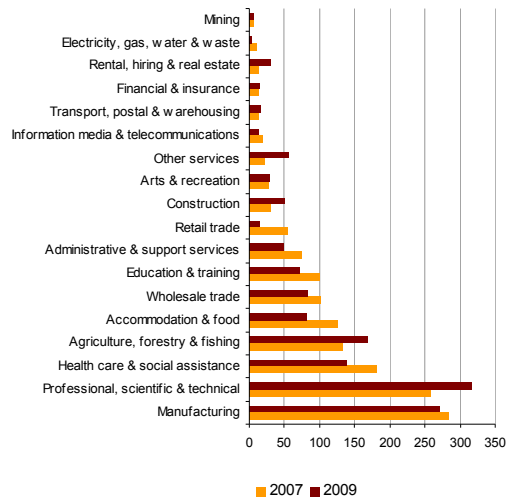
Source: Thomson Reuters

Innovation and commercialisation

Around 10 percent of businesses seek innovation ideas from universities and polytechnics. The largest number is in manufacturing and professional, scientific and technical services.

Direct provision of information to businesses is one of several ways that the tertiary education system contributes to business innovation. Other ways include published research and the knowledge and skills of graduates employed by businesses.

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



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

A key challenge for the tertiary education system is to better understand how tertiary education research can contribute to increased productivity and improved economic performance.

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.

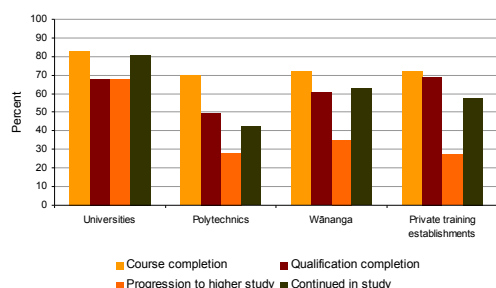
Educational performance

The Tertiary Education Commission has started to publish information on the performance of individual tertiary education organisations. The initial set of indicators covers: students successfully completing courses and qualifications; students progressing to higher level study from levels 1 to 4; and students continuing in study.

This information provides one part of the information students and their whānau can use to make decisions about tertiary study. It is a snap shot of how well specific tertiary providers are performing in helping their students to complete courses and qualifications.

The results by subsector are shown in the figure below. The subsector differences are influenced by level of study, age of students and extent of extramural and part-time study. The value of this information for system monitoring will be in tracking how it changes over time.

Performance indicators by subsector



Source: Tertiary Education Commission

Note: definitions used differ from those used by the Ministry of Education. See www.tec.govt.nz for details.

The New Zealand Qualifications Authority has implemented periodic external evaluation and reviews of tertiary education organisations

KEY POINTS:

The TEC has started publishing information on the performance of individual tertiary education organisations.

The NZQA is implementing a new process of periodic external evaluation and reviews, looking at educational performance and self assessment capacity.

After a period of instability, the financial performance of tertiary education institutions has improved in 2009. However, the phase out of short-term revenue streams in 2011 is likely to have an adverse effect on polytechnics and wānanga.

The TEC has implemented a new financial monitoring system, using historic and forecast data to assess the risk for each tertiary education institution.

International student numbers are increasing after a period of decline. International research collaborations are also growing, and involving a larger number of countries.

(other than the universities). Each review provides an independent judgement of the educational performance and capability in self-assessment 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 review are expressed as statements of confidence, ranging from “highly confident” to “not confident”.

At the time of compiling this report, 208 external evaluation and review visits to private training establishments had been undertaken, with 165 reports completed. The results are shown in the table below.

Of the 165, 122 providers were judged as confident to highly confident on both dimensions. Of the remainder, most were not yet confident in their capability for self assessment, while being highly confident or confident in their educational performance.

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

Results from external evaluation and reviews for private training establishments (Sept 2009 – Oct 2010)

		Educational performance			
		Highly confident	Confident	Not yet confident	Not confident
Self-assessment capability	Highly confident	41 25%	4 2.4%		
	Confident	31 19%	46 28%	1 0.6%	
	Not yet confident	3 1.8%	33 20%	1 0.6%	
	Not confident		1 0.6%	2 1.2%	2 1.2%

Source: New Zealand Qualifications Authority

Reviews are also being undertaken of polytechnics, wānanga and industry training organisations. Only a few of these results are available so far.

Quality assurance for universities rests with the New Zealand Universities Academic Audit Unit. The Unit was reviewed in 2009. The review found that the Unit was carrying out its functions adequately, but recommended a stronger emphasis on ongoing monitoring and a

stronger accountability role. The Director and Board are currently developing strategies to respond to the recommendations of the review.

The Unit is now conducting its fourth cycle of university audits, which focus on the whole of the institution. Audits for three of the eight universities have been completed to date.

A key challenge for the tertiary education system is to make use of educational performance information in ways that lead to ongoing improvements in teaching and learning.

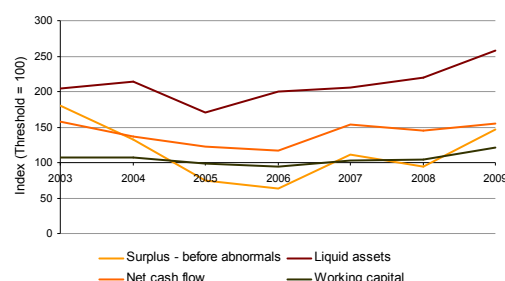
Financial performance

From 2003 to 2006, financial surpluses across public providers decreased as funding policies tightened and numbers of international students decreased. Since then, there has been an overall increase, with the total surplus being above the recommended benchmark in 2009.

On average, public providers retain good levels of liquid assets and have reasonable cash flows. Their working capital remains steady, at just about the recommended minimum.

The volatility in financial surpluses has been mainly influenced by the wānanga and polytechnic sub-sectors. These sub-sectors had strong financial performance up to 2003 and then significantly weakened by 2006. By 2008, all three wānanga were reporting surpluses. However, polytechnics remain in a mixed position, with 7 out of 20 reporting a deficit in 2008. All polytechnics and wānanga reported a surplus in 2009. However, these results are influenced by a number of short-term revenue streams that are scheduled to be phased out in 2011.

Key financial performance indicators for TEIs



Source: Ministry of Education and Tertiary Education 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 university sub-sector has maintained a steady level of surplus over this same period. Only one or two universities have been in deficit each year.

The Tertiary Education Commission introduced a new financial monitoring system for tertiary education institutions in 2010. This system develops a risk assessment based on past and forecast financial performance.

A key challenge for the tertiary education system is to manage the financial stability of institutions as significant changes in the funding mix take place over the next two years.

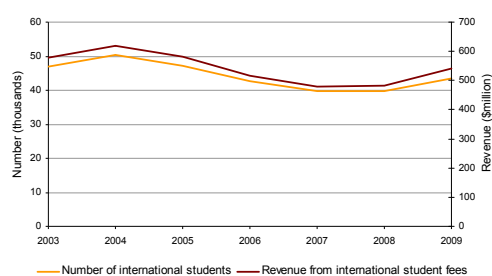
The proportion of tertiary education research involving international collaboration is slowly increasing. In 2007, nearly half of all research publications had international co-authors. The number of countries in which international co-authors are located increased from 90 in 2003 to 115 in 2007⁴.

International linkages

It is difficult to collate meaningful information on the extent and strength of international linkages in the New Zealand tertiary education system. Two main indicators of international linkages are the number of international students in New Zealand and research publications with international co-authors.

From 2004 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. Since 2008, there has been a recovery in the number of international students, along with an increase in revenue through fees.

Number of international students and total revenue from international student fees



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

The recent increases have mostly been in the number of students studying at diploma level and in postgraduate qualifications. 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 30 percent of all doctoral enrolments in New Zealand.

⁴ Ministry of Research, Science and Technology (2010) *National Bibliometric Report 2002-2007*.

Notes

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, series 5 of the 2009 base projections was used.

The Business Operations Survey is conducted annually. Questions about innovation were included in the 2007 and 2009 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.

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 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 Student Achievement Component funded places and does not include international students or students funded through other funds.

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.

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 an estimate of the 25-year-old population who were resident in New Zealand at age 18. This is calculated by taking the 18-year-old population for the relevant birth year and decreasing it by the mortality rate to age 25. This estimate includes people who were resident at 18 and have left New Zealand by age 25, but excludes people who arrived in New Zealand after the age of 25. It is effectively excludes migration flows.

The mortality rate for the total population was calculated using the death rates for each birth cohort. The mortality rates for the Māori and Pasifika populations were estimated from Māori period life tables.

Year-of-age estimates for the Pasifika population are only available from 2001. For 2003 to 2007, the New Zealand resident Pasifika population for each birth cohort in 2001 was used.

Glossary

National Qualifications Framework (NQF)

The National Qualifications Framework contained both the National Certificate in Educational Achievement (NCEA) and national certificates approved by the New Zealand Qualifications Framework.

From July 2010, the NQF 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 [Profile and Trends](#) 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.