



MINISTRY OF EDUCATION  
TE TĀHUHU O TE MĀTAURANGA

# Monitoring the Tertiary Education Strategy 2014-2019



Supporting the tertiary education system

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MINISTRY OF EDUCATION

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This report is available from the Ministry of Education's Education Counts website:  
[www.educationcounts.govt.nz](http://www.educationcounts.govt.nz)

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# MONITORING THE TERTIARY EDUCATION STRATEGY 2014-2019

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A well-performing tertiary education system prepares individuals for success, and contributes to wider economic growth. Qualifications earned through tertiary study allow individuals to gain the skills they need to be successful in modern life, and tertiary study provides businesses with the skilled workers they need to support economic growth through productivity and labour market participation.

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This report covers progress against the 2014-2019 Tertiary Education Strategy (TES) for the period to 2015.

The report is intended to provide information on progress towards measurement indicators, signal areas that may need increased focus and inform broader public debate about the direction of the tertiary education system.

The six priority areas of the TES form a framework for the report; each section details the indicators relating to the priority and includes a summary of key points. Appendix 1 provides a baseline for this monitoring report on the fourth TES by summarising changes in quantitative indicators between 2013 and 2015.

The report draws from a set of indicators that provides a measure of the overall health of the tertiary education system. These cross-strategy indicators can be downloaded from:

[www.educationcounts.govt.nz](http://www.educationcounts.govt.nz)

## The 2014-2019 Tertiary Education Strategy

Through the TES, the government articulates its long-term strategic direction and current and medium-term priorities for tertiary education.

The 2014-2019 TES focuses on building a more outward-facing and engaged tertiary education system, with strong links to industry, community and the global economy. The previous TES (2009-2014) set the framework for improvements within

the tertiary education system by driving the implementation of changes, such as setting performance incentives for providers and improving information for students.

Ultimately the tertiary education system must contribute to achieving the long-term strategic goals of:

- building international relationships that contribute to improved competitiveness
- supporting business and innovation through development of relevant skills and research
- improving outcomes for all.

With a long-term view in mind, the strategy sets out six priorities of strategic focus for the tertiary education system over the next three to five years, of:

- delivering skills for industry
- getting at-risk young people into a career
- boosting achievement of Māori and Pasifika
- improving adult literacy and numeracy
- strengthening research-based institutions
- growing international linkages.

The TES is one of the tools the government is using to focus the tertiary education sector. Along with the TES, the Business Growth Agenda (BGA), the Māori Education Strategy: Ka Hikitia, the Pasifika Education Plan, the Blueprint for Education System Stewardship, the Leadership Statement for International Education and the Better Public Services (BPS) targets all work together to make improvements in line with the six priorities and progress towards the long-term goals.

The TES priorities are in place to guide the delivery of improvements in the system. Achieving progress on the indicators in this report will not solve all the challenges we face in New Zealand, but it will position the tertiary education system to be better equipped to improve outcomes for all learners in the future.

## Further information

Further information on New Zealand's tertiary education system, including a wide range of analytical reports and statistics, is available from:

[http://www.educationcounts.govt.nz/publications/tertiary\\_education](http://www.educationcounts.govt.nz/publications/tertiary_education)

This includes:

- [\*Profile & Trends\*](#), which presents a summary of information on the performance and key characteristics of the New Zealand tertiary education system
- the [\*Employment Outcomes of Tertiary Education\*](#) series, which provides analyses of what happens to young graduates after study. Several reports have been published, providing annual updates, and specialist reports on the outcomes for Māori, Pasifika, international students and women
- [\*What we get for what we spend\*](#), a series of periodic reports describing the inputs, outputs and outcomes of government's spending on tertiary education.

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

The Ministry of Education maintains a suite of statistical tables on a wide range of themes related to tertiary education.

These are available at:

<http://www.educationcounts.govt.nz/statistics/tertiary-education>

The Tertiary Education Commission (TEC) monitors the performance of tertiary education organisations (TEOs), based on agreed education performance indicators (EPIs).

EPIs are updated annually and are available from:

<http://www.tec.govt.nz/funding/funding-and-performance/performance/teo/epi-reports/>

The TEC publishes financial reports covering all public tertiary education institutions (TEIs), including collated annual audited financial performance data for comparative purposes.

<http://www.tec.govt.nz/funding/funding-and-performance/performance/financial/>

## MAIN FINDINGS

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### The changing context of tertiary education

New Zealand's economy has recovered well from the Global Financial Crisis (GFC). To continue to support growth, the education system needs to continue to address challenges.

The number of young people (aged 18 to 22 years) in the population will peak in 2018 and is likely to decrease over the following few years. This will result in reduced demand for tertiary education in this key age group. At the same time, the population is becoming more ethnically diverse.

Demand for skilled labour is increasing and unemployment rates are decreasing. New Zealand has high rates of skill shortages compared to other OECD countries. Forecasts suggest that the economy will need more higher-skilled workers in the medium to long term.

### Priority 1: Delivering skills for industry

The key focus during 2013 to 2015 has been on improving the range of information on the outcomes of tertiary education available to students, tertiary education organisations (TEOs) and industry.

This includes providing information on the outcomes of qualifications offered by individual providers.

There have also been specific government initiatives in the areas of ICT and engineering, such as the Engineering Education to Employment (e2e) programme, to address long-term skill needs.

There has been a significant boost to apprenticeships through the development of the New Zealand Apprenticeships scheme.

### Priority 2: Getting at-risk young people into a career

The primary response to this priority is the Youth Guarantee programme. The programme includes diverse offerings such as Secondary-Tertiary Programmes (including trades academies), fees-free places, and Vocational Pathways. The new DualPathways Pilot will run in 2017 and 2018 as part of the programme.

Both fees-free places and Secondary-Tertiary Programmes have been effective in retaining young people in education who would not otherwise have participated. Secondary-Tertiary Programmes have also led to improved employment outcomes compared to similar young people who did not participate in the programmes. Youth Guarantee partnerships have played an effective collaborative response through secondary school, tertiary providers and employers detailing and supporting programme design to build education pathways to employment.

Challenges remain, but overall, young people are staying in school longer, and the number of 15 to 19 year olds not in employment, education or training has declined. More young people have achieved New Zealand Qualifications Framework Level 2 qualifications and increased numbers of 25 to 34 year olds hold a qualification at Level 4 and above.

### Priority 3: Boosting achievement of Māori and Pasifika

Government agencies have adopted a strategic focus on improving the outcomes for Māori and Pasifika. The government has expanded Māori and Pasifika Trades Training to support learners to enter and complete apprenticeships.

Māori and Pasifika young people (aged 18 to 24) continue to have lower rates of participation for bachelors degree level and above. In other levels or age groups their participation is the same as or higher than the total population.

Completion rates have been increasing for both Māori and Pasifika students at Level 4 and above. However, in both cases they continue to have lower completion rates in bachelors degrees than the total population.

Employment rates for young Māori graduates with Level 1 to 7 certificates and diplomas are lower than for non-Māori with the same level of qualification. Māori with bachelors degrees have similar employment rates to non-Māori. For those in employment, the differences in earnings are small.

Employment rates for young Pasifika graduates are lower than for non-Pasifika in the first few years after study, but then converge or exceed non-Pasifika graduates' employment rates in later years. For those in employment, the differences between Pasifika and non-Pasifika graduates' earnings at each level of qualification are small.

Both Māori and Pasifika gain higher relative earnings premiums from each level of study than non-Māori or non-Pasifika.

## Priority 4: Improving adult literacy and numeracy

There has been an increase in the proportion of the population holding upper-secondary-level qualifications or higher.

The literacy competency of the population appears to have stabilised since 2006, after increasing between 1996 and 2006. The numeracy levels of the population did not change significantly between 2006 and 2014.

There several strategies to provide literacy and numeracy support in tertiary education. These include:

- embedding literacy and numeracy in Levels 1 to 3
- providing intensive and workplace-based literacy and numeracy programmes
- ensuring greater use of the Literacy and Numeracy for Adults Assessment Tool
- promoting literacy and numeracy to employers through the Skills Highway and
- continuing to develop the online resource Pathways Awarua.

## Priority 5: Strengthening research-based institutions

The relative academic impact of research by New Zealand universities has been rising over time, as measured by the average number of citations per paper compared to the world average.

Inter-institutional collaboration has increased, as has collaboration with overseas institutions. There was a slight decline in the proportion of papers published by universities with industry collaboration.

Research expenditure by universities has slightly declined relative to GDP. Universities' external research income from the private sector has fluctuated.

Around 5 per cent of businesses report seeking innovative ideas from universities or polytechnics.

The Performance-Based Research Fund (PBRF) is government's principal mechanism to support research in TEOs. The PBRF aims to encourage and reward excellent research.

In 2014, changes were introduced to increase the efficiency and effectiveness of the PBRF. All changes will be in place by the next Quality Evaluation in 2018.

## Priority 6: Growing international linkages

We have seen an increase in the number of international students, and, alongside this, an increase in fee revenue. The increase in the number of students has been largely driven by fast-growing markets in India and China. Revenue from offshore provision also appears to have increased.

Government is developing a new International Education Strategy, led by Education New Zealand and the Ministry of Education. The new strategy focuses on ensuring international education grows sustainably, through supporting market diversity, and aims to ensure that students have positive experiences and providers are well regulated.

There has been excellent uptake of the existing Prime Minister's Scholarships for Asia, and great sector support for the new Prime Minister's Scholarships for Latin America and the Centres of Asia-Pacific Excellence. These initiatives will help support New Zealand students to have international education experience and to develop valuable intercultural and international knowledge and competencies and person-to-person international links.

# 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.

## Economic recovery

The New Zealand economy is in recovery following the recession triggered by the 2008 GFC.

The demand for skilled labour closely follows the economic cycle. This demand is increasing as the economy recovers and is close to pre-recession levels.

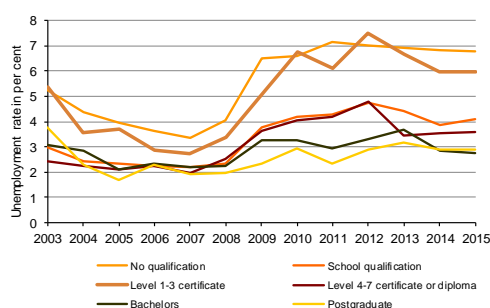
ECONOMIC GROWTH AND LABOUR DEMAND



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

The June 2016 Household Labour Force Survey shows that the seasonally adjusted unemployment rate has decreased to 5.1 per cent and the overall trend suggests this will continue decreasing, albeit at a slower rate than previous years.

UNEMPLOYMENT RATE FOR 25 TO 64 YEAR OLDS BY HIGHEST QUALIFICATION



Source: Statistics New Zealand, Household Labour Force Survey, annual averages

During the recession, the largest increases across the unemployment rates were for those with no qualifications and those with

Level 1 to 3 certificates. These groups are also taking the longest to benefit from the recovery. The recession was also particularly severe for younger workers and recovery has been slow for youth.

In contrast, unemployment rates for people with bachelors degrees or postgraduate qualifications increased only moderately during the recession and are now trending downwards, although they have not yet reached pre-recession levels.

The recession also had a significant impact on government finances. It resulted in falling revenue and increased pressure on social spending. Government spending went into deficit in 2009. The Christchurch earthquakes also imposed a major pressure on government finances. However, the Canterbury rebuild has driven growth through commercial and infrastructure investment. In 2014/15, the government reached a surplus for the first time since the GFC.

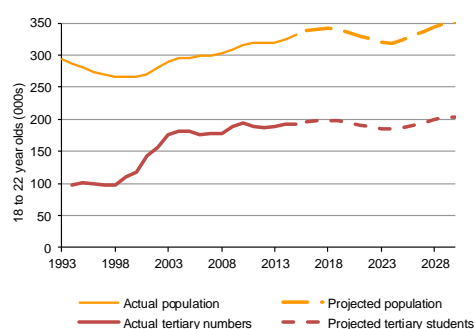
## Changing population

The population aged 18 to 22 years increased significantly from 2001 to 2013, and is expected to peak in 2018. This is expected to be followed by a period of decrease in the proportion of the population aged 18 to 22 years, and for there to be renewed growth from 2025.

As a result, the number of young people in tertiary education is expected to peak in 2018, and is forecast to decline until 2025 and then increase again until 2030.



## 18 TO 22 YEAR OLDS IN THE POPULATION AND IN TERTIARY EDUCATION



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

The New Zealand population is also becoming more ethnically diverse. This is more noticeable in the younger population. In 2015, 66 per cent of 18 to 22 year olds identified as European, 20 per cent as Māori, 17 per cent in an Asian ethnic group and 11 per cent in a Pasifika ethnic group.<sup>1</sup>

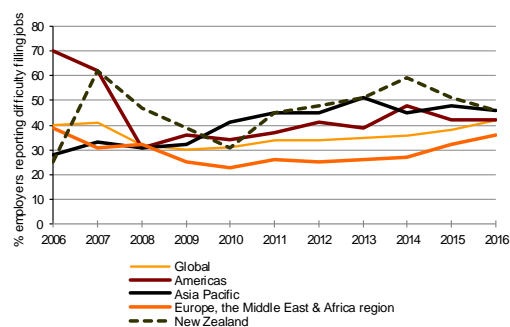
Over the period to 2031, the proportion of the population identifying as European is expected to decline to 64 per cent, while the proportions identifying as Māori, Asian and Pasifika are expected to increase to 26 per cent, 21 per cent and 15 per cent respectively.

## Skills shortages increasing

There is evidence that New Zealand has comparatively high levels of skill shortages. Compared to the global average, the proportion of employers reporting difficulty in filling jobs is high.

In 2016, 46 per cent of employers surveyed in the Manpower Talent Shortage Survey reported difficulty filling jobs, compared to 42 per cent globally.

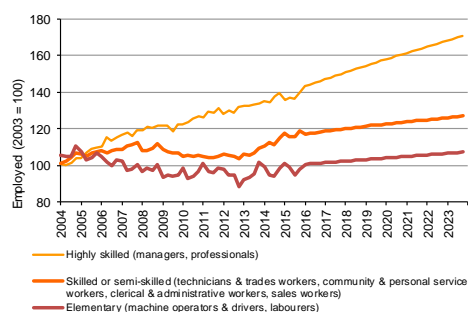
## EMPLOYERS REPORTING DIFFICULTY FILLING JOBS



Source: Manpower Talent Shortage Survey 2016

The Ministry of Business, Innovation and Employment (MBIE) forecasts that, to service changes in the New Zealand economy, highly skilled workers will be required in much higher numbers in the medium to long term, while moderate growth in numbers of skilled or semi-skilled workers will be required. Demand for elementary-skilled workers will be relatively slow to grow in the next eight years.

## ACTUAL AND FORECAST EMPLOYMENT BY OCCUPATION SKILL CLASSIFICATION



Sources: Historical data: Statistics New Zealand, Household Labour Force Survey 2016. Forecast: Ministry of Business, Innovation and Employment, Medium-Long Term Employment Outlook December 2015

Some skill needs are met by short- and long-term migration, as well as through tertiary education. Net arrival numbers of professional occupation workers and trades and technical workers have been high.

<sup>1</sup> 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 per cent.

## PRIORITY 1: DELIVERING SKILLS FOR INDUSTRY

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### What this priority seeks to deliver

*The challenge for the tertiary education system is to retain the recent increased focus on student achievement while doing more to help students and their families, and those in need of up-skilling or re-skilling, to make informed study choices. This will ensure that the training learners undertake, and the qualifications they complete, provide them with good career opportunities. (TES 2014-2019)*

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### Progress towards this priority

The government has increased the range of information it provides to help industry, TEOs and students make informed choices. It is continuing to expand the number of information options available to prospective tertiary students.

From 2017, TEOs will be required to publish sets of information called *Key Information for Students* (KIS) on their websites. The aim is to give learners easier access to information about qualifications across providers when deciding on what and where to study, and to facilitate informed enrolment choices that align with learners' desired tertiary education outcomes.

All universities, wānanga, polytechnics and funded private training establishments (meeting certain thresholds) are required to publish this data for all qualifications at Level 5 and above.

The *Rate My Qualification* project was launched in December 2016 under the brand name MyQ to help improve learners' decision making in tertiary study. MyQ will enable graduates and employers to provide feedback on how well a qualification prepared them for the world of work.

The government has also intervened directly to ensure certain skill needs are met. The new ICT Graduate Schools are working to strengthen the work-readiness of graduates by ensuring industry involvement in tertiary education delivery. The *Engineering Education to Employment* (e2e) programme

aims to boost participation in engineering education. Engineering e2e facilitates partnerships between industry, government and TEOs to develop clear pathways from education to employment.

The New Zealand Apprenticeships programme started in 2014 and provides support to all apprentices, regardless of age. Related to this, the Apprenticeship Reboot programme encouraged participation in apprenticeships. It operated for 22 months from March 2013 to December 2014, with 20,327 apprentices (and their respective employers) claiming the subsidy, which totalled \$69.99 million.

In addition, government has recently announced a funding package to support a target to increase the number of people in apprenticeships to 50,000 by 2020, from around 42,000 in 2015.

Government has been working to increase employer and industry engagement to develop labour market solutions in targeted industries and regions, and to offer better options for students to progress from secondary school into vocational training and employment.

## Performance against the indicators of success

**Indicator: Industry and TEOs invest time, money and expertise in skills development to ensure that graduates gain both transferable skills and specific qualifications that are matched to labour market demand**

The TEC requires TEOs to provide information about their responses to regional skill needs in their investment plan submissions. The TEC considers these responses as part of its investment plan assessment process. TEOs must submit investment plans in order to receive funding from the TEC.

The TEC has been working to produce information tools that will allow TEOs to

understand learner and industry needs, the destination of their graduates and the TEO's place in the tertiary education sector more generally.

TEOs will use this information to plan provision and the TEC will increasingly use such tools to guide its investment in tertiary education to meet industry demand for skills

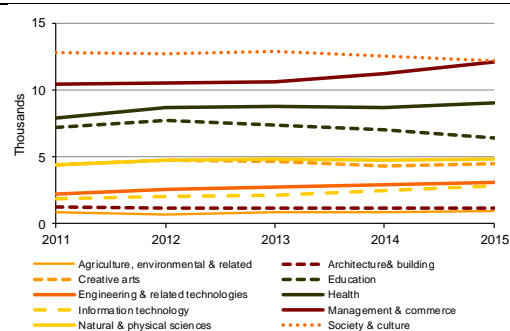
### Qualification completions by field of study

The numbers of people completing qualifications at bachelors level and above increased to over 52,200 students in 2015, up from 48,600 in 2011.

The fastest-growing fields across 2011 to 2015 were information technology, which grew by 51 per cent, and engineering and related technologies, which grew by 38 per cent.

Students completing qualifications at bachelors level and above in science, technology, engineering and mathematics (STEM) subjects totalled 21,900 in 2015, up 18 per cent from 2011. The numbers of people completing qualifications at bachelors level and above increased to over 52,200 students in 2015, up from 48,600 in 2011.

PEOPLE COMPLETING BACHELORS OR ABOVE-LEVEL QUALIFICATIONS



Source: Ministry of Education

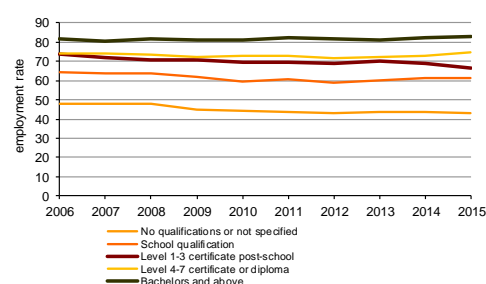
Note: Domestic students only

**Indicator: There are better employment outcomes for graduates**

Employment rates have increased since 2013 for people with bachelors degrees and above, and for people with Level 5 to 7 certificates and diplomas.

The rates for people with school qualifications or Level 1-3 tertiary certificates have only increased as the economy has recovered. The rates for those with no qualifications are the lowest and have continued to decrease.

EMPLOYMENT RATES BY HIGHEST QUALIFICATION



Source: Statistics New Zealand, Household Labour Force Survey 2016

**Indicator: Investments in education (by students, employers and government) make good use of information about employment outcomes**

**Information for students**

The Ministry of Education publishes the outcomes of tertiary education to help students make informed decisions about what to study. It provides information on how their choice may affect their labour market outcomes, enabling them to have realistic expectations.

From 2017, certain TEOs will be required (as a condition of funding) to publish *Key Information for Students* (KIS) in a standard format on fees, completion rates and employment outcomes.

MBIE combines earnings data and employment outcomes data with occupation forecasts to produce a set of *Occupational Outlook* reports. These provide occupation-level information for students and parents about where the best opportunities are and what study options present the best prospects for young people, given their career aspirations.

MBIE's occupation-level information is available via a user-friendly app. MBIE reports the app was downloaded 27,500 times between February 2014 and June 2016, and total screen views for the year to 30 June 2016 numbered approximately 209,100.

The occupations are tied into Vocational Pathways (see Youth Guarantee initiatives under Priority 2) to enable school students to adjust their NCEA pathway to suit their career aspirations.

Careers New Zealand also provides information services to students through web tools and apps. The Compare Study Options tool allows users to compare median earnings for different fields and levels of study.

Careers New Zealand reports that its website receives over 4 million New Zealand-based visits annually, while the Compare Study Options tool received more than 15,800 New Zealand-based page views between 2015 and 2016.

**Information for government**

Investment in industry training is growing in response to skills demands from employers. The government has announced a funding package to increase the number of people in apprenticeships to 50,000 by 2020, from around 42,000 in 2015.

Periodic measures on the number of job vacancies are used as a proxy measure of skills shortages in the economy. MBIE monitors job vacancies by occupation. This information is used to determine the supply of skills compared to demand, and can help form a view of how to meet future demand.

Some skill needs are met by short- and long-term migration, and secondary and tertiary education. Government lists long-term skills shortages to actively encourage skilled workers in those occupations to work in New Zealand.

MBIE uses this data, in conjunction with tertiary graduate counts, to determine the supply of skills to the labour market.

It produces forecasts of the employment outlook in certain occupation groups, based on models that predict economic growth.

The TEC uses many of these data sources when assessing TEOs' investment plans. The TEC has also developed information tools that allow it and the sector to gain a better understanding of learner and industry needs.

**Indicator: Employers in Canterbury access and retain skilled and qualified workers to support the rebuild**

MBIE has monitored the demand for and supply of skills required for the Christchurch earthquake damage rebuild. Its monitoring is published in the *Quarterly Canterbury Job-matching Report*.

MBIE's monitoring informs government agencies and others of potential constraints to the rebuild so that appropriate planning can be done and contingencies made.

MBIE reports that the rebuilding activity has peaked. By December 2015, the amount of residential repair and rebuilding in Canterbury was falling, as most of the Earthquake Commission-related repair work had been completed. More complex residential repair and rebuild work is projected to continue for the next three years.

At June 2016, MBIE reported that around 74 per cent of residential rebuild and 64 per cent of infrastructure rebuild was estimated to have been completed. Just 43 per cent of the projected commercial work had been completed.

## PRIORITY 2: GETTING AT-RISK YOUNG PEOPLE INTO A CAREER

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### What this priority seeks to deliver

*The global financial crisis has had a strong impact on young people's career prospects. Reduced employment opportunities and lower wages could have a lifelong impact on outcomes for some young New Zealanders. This risk is particularly severe for those without qualifications or work experience. Tertiary education plays a central role in equipping young people with the key employability skills and qualifications they need to begin a career.*

*The government has supported increased participation in tertiary education through providing better information to support young people's career choices, and through interventions like the Youth Guarantee. This priority recognises the importance of effective transitions for all young people that extend beyond those supported by the Youth Guarantee. The government, TEOs, and schools need to work together to support at-risk young people into tertiary education, higher levels of study and on to employment. (TES 2014-2019)*

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### Progress towards this priority

The Youth Guarantee programme is the primary response to this priority. The initiatives support young people to achieve education success and to progress into further education, training and employment.

They do this by providing a wider range of learning opportunities, making better use of the education network, and creating clear pathways from school to work and study. They support schools, TEOs and employers to work together in new ways.

The initiatives include:

- Vocational Pathways
- Achievement, Retention and Transition (ART 2013-2017)
- Secondary-Tertiary Programmes (STP) including trades academies
- the Secondary Tertiary Alignment Resource (STAR) and Gateway programmes
- the Youth Guarantee fees-free initiative
- the new DualPathways Pilot, set to run in 2017 and 2018.

Tools such as Vocational Pathways, FindMyPath, the *Occupational Outlook* reports and the *Employment Outcomes of Tertiary Education* reports (which were discussed under Priority 1) help facilitate career planning for at-risk young people. These tools provide the information people need about what to study to realise their career aspirations.

There have been improvements for young people against the TEC measures that are associated with success in education and the labour market.

Young people appear to be staying in school longer, and the number of 15 to 19 year olds not in employment, education or training (NEET) has declined. More young people have achieved Level 2 qualifications, and increased numbers of 25 to 34 year olds hold a qualification at Level 4 or above.

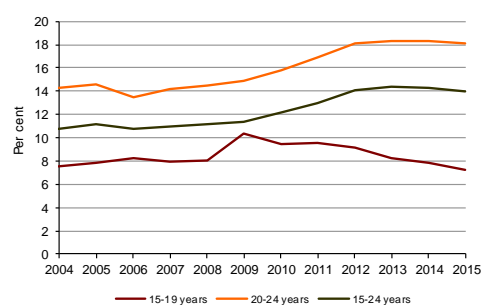
## Performance against the indicators of success

**Indicator: The number of young people not in employment, education or training (NEET) reduces**

The proportion of young people aged 15 to 24 who are NEET remained stable in 2014 and 2015 at 14 per cent.

The NEET rate of 15 to 19 year olds continued to decline to 7 per cent in 2015, while the rate for 20 to 24 year olds remained stable at 18 per cent.

NOT IN EMPLOYMENT, EDUCATION OR TRAINING



Source: Statistics New Zealand, Household Labour Force Survey 2016

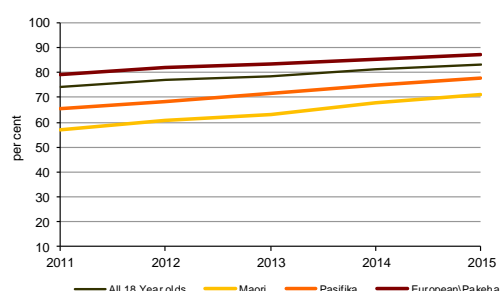
**Indicator: The Better Public Services targets are attained by 2017 and there is continued improvement beyond 2017**

BPS Result 5 has a target of increasing the proportion of 18 year olds with NCEA Level 2 or an equivalent qualification to 85 per cent by 2017. The target recognises that NCEA Level 2 is a stepping stone for moving into further education, and on to better careers.

In 2015, 83.3 per cent of 18 year olds achieved NCEA Level 2 or equivalent. This is an increase of 9 percentage points since 2011, and 4.7 percentage points since 2013.

Māori and Pasifika have seen the largest improvements of all groups. The proportion for Māori increased from 57.1 per cent in 2011 to 63 per cent in 2013 and 71.1 per cent in 2015. For Pasifika, the increase was from 65.5 per cent in 2011 to 71.4 per cent in 2013 and 77.6 per cent in 2015.

18 YEAR OLDS' NCEA LEVEL 2 AND ABOVE ATTAINMENT



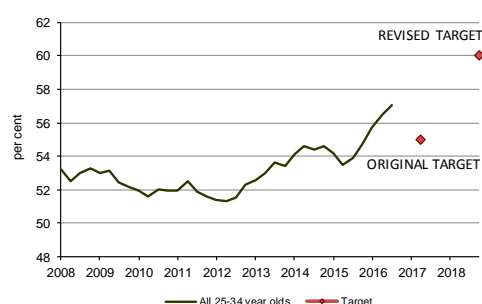
Source: Ministry of Education

## 25 TO 34 YEAR OLDS WITH QUALIFICATIONS AT LEVEL 4 OR ABOVE

BPS Result 6 has a target to increase the proportion of 25 to 34 year olds with advanced trade qualifications, diplomas and degrees (at Level 4 and above) to 60 per cent by 2018.<sup>2</sup>

As of September 2016, 57.1 per cent of 25 to 34 year olds had a Level 4 qualification or above, up from 53.6 per cent in September 2013. The annual average to September 2016 is the highest result reported to date, and this was the third quarter that the result exceeded 55 per cent.

This indicator is only partly influenced by success in tertiary education. The skill mix of those migrating to and those people migrating from New Zealand also have an important impact.



Source: Statistics New Zealand, Household Labour Force Survey 2016

Note: The figure for 2016 is the average to the September quarter

### Indicator: There are better pathways from unemployment and inactivity to tertiary education that result in improved employment outcomes

The [monitoring report](#) on Youth Guarantee to 2014 presented a number of findings on the effectiveness of the initiatives. The report compared students in them to matched comparison groups of youth with similar background characteristics.

#### Youth Guarantee fees-free places

The Youth Guarantee (fees-free) initiative was found to be effective in improving retention in education during the year of starting the programme. However, the effect did not continue beyond the starting year.

Young people in fees-free places had higher levels of achievement of NCEA Level 2 after starting the programme than a matched comparison group.

Young people who started fees-free places in 2010 and 2011 were more likely than the comparison group to enrol at Level 4 or above within the one or two years following participation in the programme.

In 2012, Youth Guarantee fees-free places were expanded by transferring the funding

from Youth Training (as that programme was phased out). Students starting in 2012 were less likely than the comparison group to enrol at Level 4 or above within two years.

Young people who started Youth Guarantee fees-free places in 2010 and 2011 were more likely than the comparison group to be in full employment following the programme. However, for the 2012 starters, employment rates were no different from the comparison group. Results for 2010 starters suggest there may be some earnings advantages for participation after four years of employment.

The report found that Youth Guarantee fees-free places engaged a group of young people who would otherwise be NEET. However, participants were more likely than the comparison group to be NEET one or two years following the programme.

These results may reflect a selection bias – there are likely to be unobserved variables, possibly relating to attitude and motivation, which predispose the Youth Guarantee fees-

<sup>2</sup> This target was revised upward from 55 per cent by 2017 when this original target was almost met.



free participants to perform less well than the matched comparison group.

#### **Secondary-Tertiary Programmes (STPs)**

STPs or trades academies were found to be effective in maintaining education retention during the year of starting the programme. This effect did not continue beyond the starting year.

A larger proportion of STP participants achieved NCEA Level 2 or equivalent than the matched comparison group.

Young people who participated in STPs had rates of progression to NZQA Level 4 and above within one or two years similar to those of the comparison group. Participants were also more likely to be in full employment following the programme. The programmes appear to have the effect of raising initial earnings for participants, as well as increasing earnings over a two-year period.

Further, the report found that STPs were effective in engaging young people in education who would otherwise have been NEET during the period of the programme. Participants in the programmes were less likely than the comparison group to be NEET following the programme.

## PRIORITY 3: BOOSTING ACHIEVEMENT OF MĀORI AND PASIFIKA

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### What this priority seeks to deliver

*Tertiary education provides learners with the skills to find work and more effectively participate in society and the community. This results in benefits for them, their families and New Zealand. To grow these benefits, we need to ensure that all individuals from all backgrounds have the opportunity to realise their talents through tertiary education. This requires TEOs to recognise the diverse needs of their communities and have appropriate mechanisms for meeting these needs. (TES 2014-2019).*

This priority is focused on ensuring that Māori and Pasifika students participate and achieve in tertiary education on a par with all other students and attain the qualifications that enable them to participate and achieve at all levels of the workforce.

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### Progress towards this priority

#### Strategic responses

There are specific strategies in tertiary education to support Māori and Pasifika learners. This includes the Ministry of Education's Māori Education Strategy: Ka Hikitia, and the Pasifika Education Plan.

In addition, the TEC's implementation strategy Tū Māia e te Ākonga seeks to equip Māori learners with the skills they need to succeed. Its focus areas include:

- improving pathways into tertiary education
- conducting the Kura to Career Pilot, which links local tertiary providers, schools and community to work together to deliver greater success for Māori learners
- implementing a Quality Educators action plan to improve education delivery to Māori learners
- strengthening the focus on Māori learners by using data and supporting TEOs to use their investment plans to support better outcomes for Māori
- continuing to invest in the Māori and Pasifika Trades Training programme (MPTT).

#### EER reports

Since 2014, the New Zealand Qualifications Authority (NZQA) has expected TEOs to report, through their *External Evaluation and*

*Review (EER)* process, on the educational achievement of Māori and Pasifika learners and the support they receive. This means that every EER will report on:

- the number of Māori and Pasifika students enrolled at a TEO
- the courses they are enrolled in
- how their achievement compares to other students'
- the overall quality of Māori and Pasifika outcomes
- the effectiveness of the support offered.

#### Māori and Pasifika Trades Training

There has been greater uptake in some of the programmes targeted towards Māori and Pasifika. MPTT supports Māori and Pasifika learners aged 16 to 40 to get the skills they need to prepare for New Zealand Apprenticeships and other workplace-based training. There were 1,800 learners enrolled in 2015, up from 1,200 in 2014. This training is fees-free for learners and includes assistance for those seeking employment.

#### Participation and outcomes

Māori and Pasifika young people (aged 18 to 24) continue to have lower rates of participation at bachelors degree level and above. In other levels or age groups their participation is the same as or higher than that of the total population.

Completion rates have been increasing for both Māori and Pasifika students. However, in both cases they continue to have lower completion rates in bachelors degrees than the total population.

Employment rates for young Māori graduates with Level 1 to 7 certificates and diplomas are lower than for non-Māori with the same level of qualifications. Māori with bachelors degrees have similar employment rates to non-Māori. For those in employment, the differences in earnings are small.

Employment rates for young Pasifika graduates are lower than for non-Pasifika in the first few years after study, but then converge or exceed non-Pasifika in later years. For those in employment, the differences in earnings at each level are small.

Both Māori and Pasifika gain higher relative earnings premiums than non-Māori or non-Pasifika.

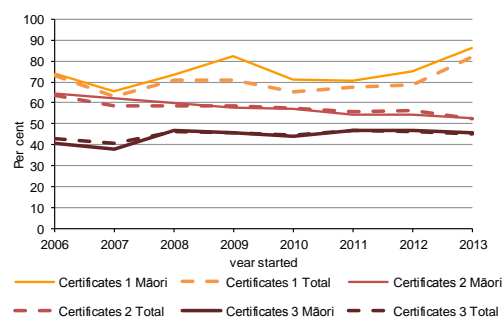
## Performance against the indicators of success

**Indicator: There is an increase in the rates of progression for Māori from study at Levels 1 to 3 to higher levels**

Māori progression rates from Level 1, 2 and 3 certificates are very similar to those of the total population.

Progression rates from Level 1 certificates have been increasing, while rates from Level 2 have declined in recent years.

THREE-YEAR PROGRESSION RATES IN  
LEVEL 1 TO 3 CERTIFICATES

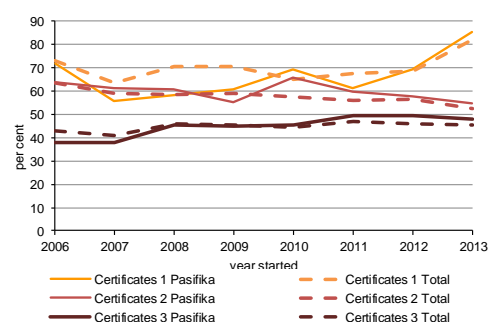


Source: Ministry of Education

**Indicator: There is an increase in the rates of progression for Pasifika from study at Levels 1 to 3 to higher levels**

Pasifika progression rates from Level 1, 2 and 3 certificates are very similar to those of the total population.

THREE-YEAR PROGRESSION RATES IN  
LEVEL 1 TO 3 CERTIFICATES



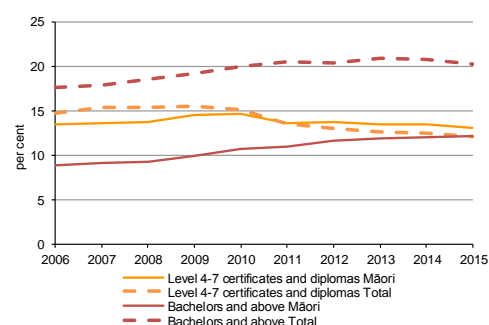
Source: Ministry of Education

**Indicator: There are increased rates of Māori enrolling in and completing qualifications at Levels 4 and above**

Participation rates for Māori aged 18 to 24 in Level 4 to 7 certificates and diplomas are similar to those of the total population. Participation at these levels has been fairly stable since 2013.

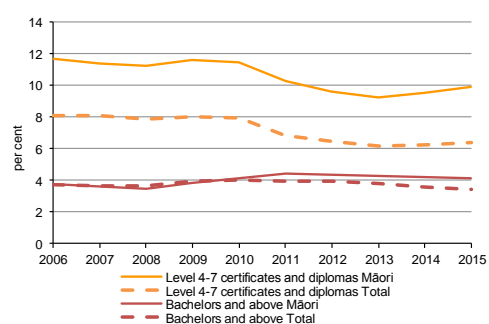
Māori in this age group have much lower participation rates in bachelors degrees and above. While their participation rate continues to increase, it remains much lower than that of the total population.

**18 TO 24 YEAR OLDS' PARTICIPATION RATES IN LEVEL 4 AND ABOVE**



Source: Ministry of Education

**25 TO 39 YEAR OLDS' PARTICIPATION RATES IN LEVEL 4 AND ABOVE**

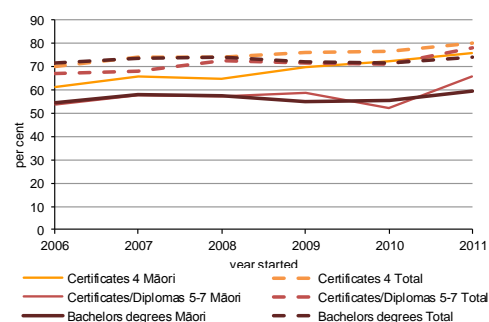


Source: Ministry of Education

Māori aged 25 to 39 have higher participation rates in Level 4 to 7 certificates and diplomas than the total population. Their participation has increased since 2013, while that of the total population has remained steady.

Māori in this age group have the same rates of participation in bachelors degrees and above as the total population. The participation rate for Māori has remained steady, while the total has decreased since 2013.

**FIVE-YEAR COMPLETION RATES OF FULL-TIME STUDENTS IN LEVEL 4 AND ABOVE**



Source: Ministry of Education

Five-year completion rates at Level 4 and above have been increasing for Māori at each qualification level.

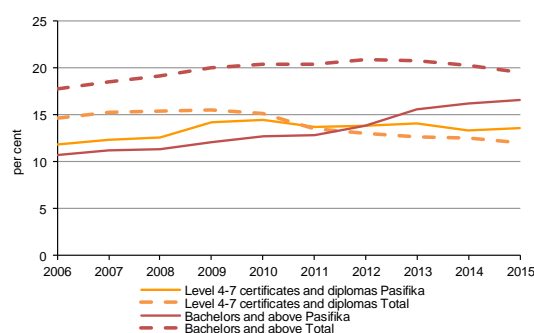
Māori and total completion rates are very close for Level 4 certificates. Māori completion rates in Level 5 to 7 diplomas and bachelors degrees remain lower than those of the total population.

**Indicator: There are increased rates of Pasifika enrolling in and completing qualifications at Level 4 and above**

Pasifika aged 18 to 24 have similar participation rates in Level 4 to 7 certificates and diplomas to the total population. Participation at these levels has been fairly stable since 2013.

Participation rates in bachelors degrees and above are lower for Pasifika in this age group, but are increasing and getting closer to those of the total population.

**18 TO 24 YEAR OLDS' PARTICIPATION RATES IN LEVEL 4 AND ABOVE**

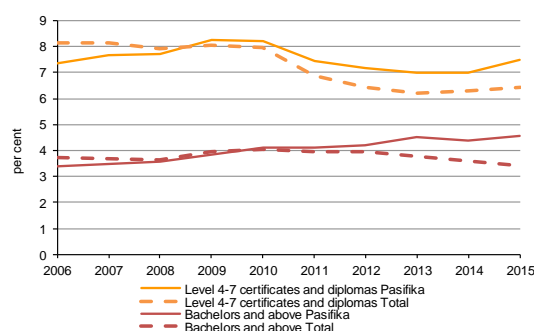


Source: Ministry of Education

Pasifika aged 25 to 39 have higher participation rates in Level 4 to 7 certificates and diplomas than the total population. Their participation has increased slightly since 2013, while that of the total population has remained steady.

Pasifika in this age group have higher rates of participation in bachelors degrees and above. Their participation rate has increased, while the total has decreased since 2013.

**25 TO 39 YEAR OLDS' PARTICIPATION RATES IN LEVEL 4 AND ABOVE**

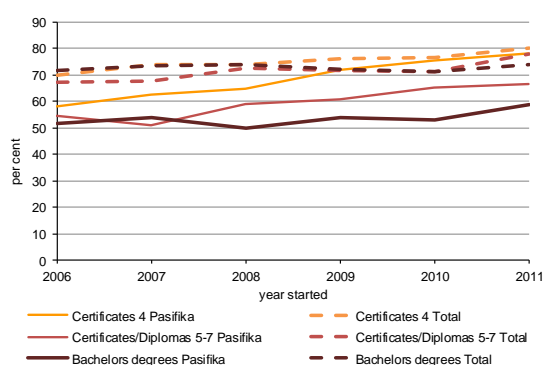


Source: Ministry of Education

Five-year completion rates at Level 4 and above have been increasing for Pasifika at each qualification level.

Pasifika and total completion rates are very close for Level 4 certificates. Pasifika completion rates in Level 5 to 7 diplomas and bachelors degrees remain lower than those of the total population.

**FIVE-YEAR COMPLETION RATES OF FULL-TIME STUDENTS IN LEVEL 4 AND ABOVE**



Source: Ministry of Education

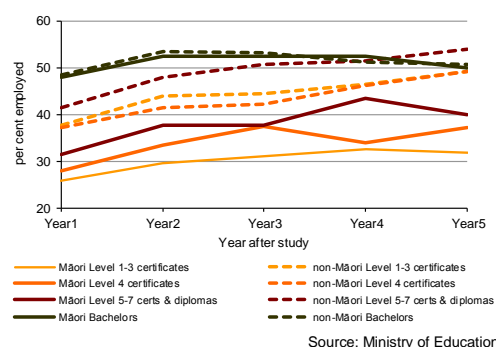
## Indicator: Māori graduates have better employment outcomes

A benchmark report on the employment outcomes of tertiary education for Māori learners was published in 2013.

The analysis showed that the proportion of Māori in employment after completing their qualification is lower than that of non-Māori.

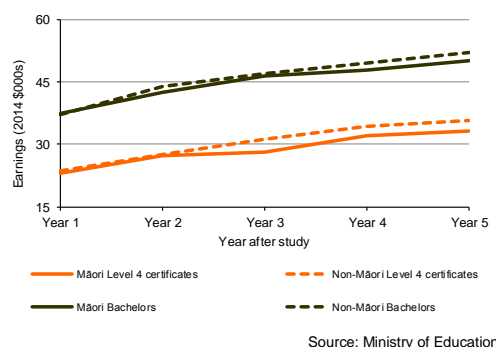
There is quite a wide gap between employment rates for Māori and non-Māori Level 1 to 7 certificate and diploma graduates, but almost no gap between Māori and non-Māori bachelors degree graduates.

### EMPLOYMENT OUTCOMES FOR MĀORI AND NON-MĀORI GRADUATES



Employment earnings for Māori graduates are generally slightly lower than for non-Māori graduates. The gap is proportionally wider at the sub-degree level. At bachelors degree level the difference is negligible.

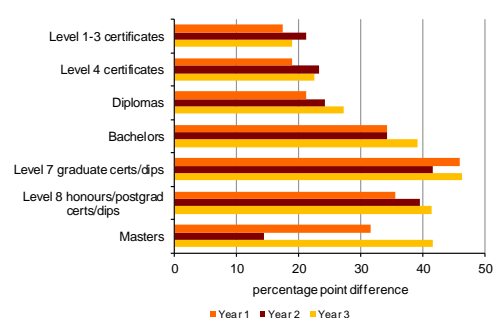
### EARNINGS OUTCOMES FOR MĀORI AND NON-MĀORI GRADUATES



The earnings of Māori after study compared to the national median earnings for all Māori earning wages are higher than the earnings of non-Māori graduates compared to the national median earnings of all non-Māori.

For bachelors degree graduates, the premium over national median earnings of Māori earners is more than 180 per cent in the third year, compared to non-Māori graduates' 140 per cent premium over the national median earnings for non-Māori.

### DIFFERENCE IN EARNINGS PREMIUM FOR MĀORI COMPARED TO NON-MĀORI OVER NATIONAL MEDIAN



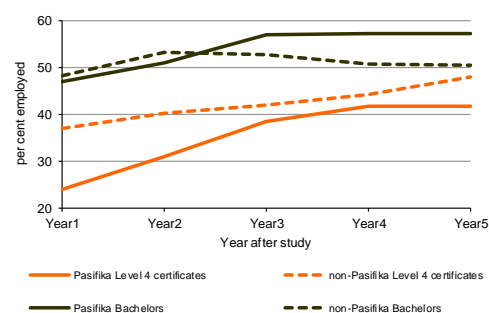
## Indicator: Pasifika graduates have better employment outcomes

The proportion of Pasifika graduates in employment is generally lower than that of non-Pasifika graduates in the first few years after study, particularly for those with lower-level qualifications.

For below-degree-level graduates, Pasifika students do gain the same rates of employment as non-Pasifika graduates in the third or fourth year after study.

Pasifika bachelors degree graduates had considerably higher rates of employment than non-Pasifika from the third year after study.

### EMPLOYMENT OUTCOMES FOR PASIFIKA AND NON-PASIFIKA GRADUATES

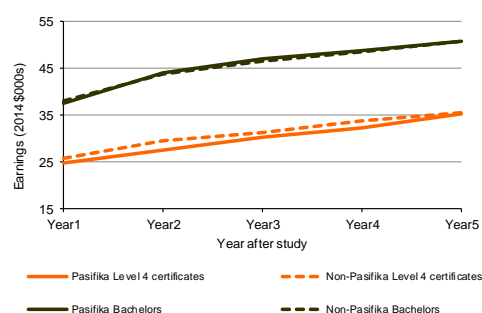


Source: Ministry of Education

### EARNINGS OUTCOMES FOR PASIFIKA AND NON-PASIFIKA GRADUATES

Employment earnings for Level 1 to 3 Pasifika graduates are generally lower than for equivalent non-Pasifika.

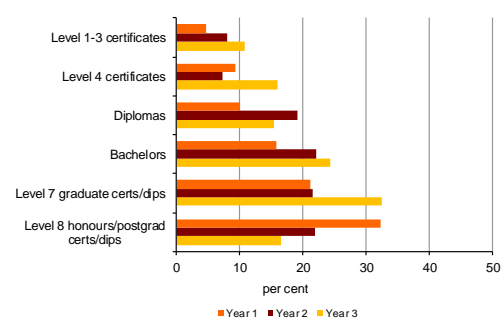
For higher qualification levels, there is little or no difference between Pasifika and non-Pasifika graduates' earnings.



Source: Ministry of Education

### DIFFERENCE IN EARNINGS PREMIUM FOR PASIFIKA COMPARED TO NON-PASIFIKA OVER NATIONAL MEDIAN

For bachelors graduates, the premium over national median earnings of Pasifika earners is 170 per cent in the third year, compared to non-Pasifika graduates' 147 per cent premium over the national median earnings for non-Pasifika.



Source: Ministry of Education



**Indicator: TEOs set and achieve appropriate performance targets for Māori and Pasifika learners**

The TEC gathers qualitative measures and indicators to determine whether TEOs are setting and achieving appropriate performance targets for Māori and Pasifika learners. The TEC also assesses TEOs' delivery against performance targets.

The TEC uses its findings to work with TEOs to set and achieve more challenging performance targets for Māori and Pasifika for future investment rounds.

Some of this information is captured with the four Educational Performance Indicators (EPIs), which are:

- successful course completion
- student retention
- qualification completion
- student progression.

**Indicator: TEOs set appropriate targets for increasing the numbers of Māori teaching staff in their organisations**

An evaluation of 2016 investment plans through the Māori and Pasifika Investment Plan Assessment Framework shows that a number of TEOs are increasing their Pasifika teaching staff numbers.

There are currently no specific quantitative measures to test whether TEOs are setting

appropriate targets for increasing the numbers of Māori or Pasifika teaching staff in their organisations.

The TEC is currently working to develop better measures and indicators to test how TEOs are creating these opportunities.

**Indicator: There are opportunities within TEOs for Māori and Pasifika to participate in study and research that will engage them as Māori and as Pasifika within tertiary education**

There are currently no specific quantitative measures to test whether TEOs are providing opportunities for Māori and Pasifika to participate in study and research that will engage them as Māori and as

Pasifika in tertiary education. However, the TEC reports that it is currently working with TEOs and the sector to develop better qualitative measures and indicators to test how TEOs are creating these opportunities.

#### **Indicator: TEOs engage Pasifika communities in mentoring and pastoral care**

The evaluation of investment plans through the Māori and Pasifika Investment Plan Assessment Framework shows that more TEOs are providing outreach programmes designed to get Pasifika community involvement and input into providing pastoral care.

There are no specific quantitative indicators of success to measure how well TEOs engage Pasifika communities in the mentoring and pastoral care of Pasifika learners. The TEC intends to measure performance qualitatively through investment plans, delivery on performance targets, and investment manager engagements.

The TEC's *Guidance to achieve TES Priority 3: Boosting Achievement of Māori and Pasifika* includes a measure of TEOs supporting Pasifika to engage in tertiary education, and sees contributions from key stakeholders in the success of Pasifika learners.

Examples include ITPs working with Pasifika community groups to deliver mentoring and pastoral care through their Māori and Pasifika Trades Training consortia.

## PRIORITY 4: IMPROVING ADULT LITERACY AND NUMERACY

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### What this priority seeks to deliver

*Basic skills in literacy, language and numeracy are essential to participate fully in the modern world, and they are a priority across the education system. Without these skills, adults are limited in all aspects of their lives – including finding and keeping a job, raising their children, and following instructions (e.g. for the safe use of medicines, the preparation of food, or workplace health and safety).*

*An improvement in literacy and numeracy skills helps not only those seeking employment, but also those already in the workforce. These skills also help people to gain further qualifications and improve their career prospects which can lead to more productive, better paid and sustainable employment. In particular, the increasingly technology-based nature of jobs and the workforce will require individuals to have stronger basic skills, especially in literacy and numeracy. (TES 2014-2019)*

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### Progress towards this priority

There has been an increase in the proportion of the population holding upper-secondary-level qualifications or higher.

The literacy competency of the population appears to have stabilised, after increasing between 1996 and 2006. The numeracy levels of the population did not change significantly between 2006 and 2014.

There are a number of strategies to provide literacy and numeracy support in tertiary education.

#### **Ensuring TEOs focus on literacy and numeracy skills**

The TEC has developed the Literacy and Numeracy Implementation Strategy 2015-2019, which sets out how it will work with and across the tertiary sector, employers and government to lift the literacy and numeracy skills of adults.

Until now, the TEC has focused on lifting the quality of teaching in foundation-level tertiary education, while providing support through resource development.

The strategy emphasises increasing the number of:

- foundation learners completing qualifications
- learners with measurable gains in literacy and numeracy
- employers participating in workplace-based literacy and numeracy provision, for example, through the Workplace Literacy and Numeracy Fund.

#### **Embedded literacy and numeracy**

It is a funding requirement that all education funded through the Student Achievement Component (SAC) fund at Levels 1 to 3, and through Youth Guarantee funding, have embedded literacy and numeracy practices for learners. Providers are required to assess learners' skills using the Literacy and Numeracy for Adults Assessment Tool (LNAAT).

#### **Literacy and numeracy funds**

Government provides funds to raise adults' literacy and numeracy skills and increase opportunities for adults to engage in literacy and numeracy learning, particularly for those in low-skilled employment.

The Intensive Literacy and Numeracy Fund supports the provision of high-quality literacy and numeracy learning opportunities. In 2015, the fund assisted 4,980 people, compared to 4,920 in 2014 and 5,190 in 2013.

The Intensive Literacy and Numeracy – English for Speakers of Other Languages (ILN – ESOL) fund supports the provision of fees-free ESOL programmes to adult refugees and migrants. In 2015, this fund assisted 2,880 people, compared to 3,130 in 2014 and 900 in 2013.

The Workplace Literacy and Numeracy Fund provides support for employers and employees to improve literacy and numeracy competence (see below for details).

### The Literacy and Numeracy for Adults Assessment Tool

The LNAAT is an online, adaptive diagnostic tool that determines the literacy and numeracy competence of adults in New Zealand, and allows tailored teaching which targets a user's specific need.

More than 103,600 students were assessed in 2015, including 61,400 enrolled in Level 1 to 3 tertiary qualifications, such as industry training, SAC-funded and Youth Guarantee qualifications. Over 66,300 students were assessed in 2014 and 66,500 in 2013.

The TEC reports that, of Level 1 to 2 and Youth Guarantee learners, 67 per cent in 2014 and 73 per cent in 2015 received an initial assessment and 55 per cent in 2014 and 2015 received a progress assessment.

### Pathways Awarua

Pathways Awarua is an online, self-directed literacy and numeracy learning resource. It is available for educators to use to help strengthen the reading, numeracy and writing skills of learners. It is also available to adults who are not enrolled in TEOs.

The tool has grown in use, with more than 16,600 registered users in 2015, compared to 12,600 in 2014 and over 8,880 users in 2013.

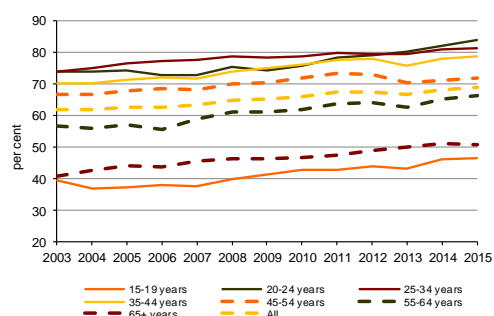
## Performance against the indicators of success

### Indicator: More individuals across all age groups attain qualifications at Level 2 or above

The number of people holding qualifications at upper-secondary level (equivalent to Level 2) or above has continued to rise. The proportion of the working age population holding Level 2 or higher qualifications rose to 69 per cent in 2015, compared to 67 per cent in 2013.

Between 2010 and 2015 there was an increase in the proportion holding Level 2 or higher qualifications for most age groups, except for 45 to 55 year olds, for whom the proportion was 72 per cent in both 2010 and 2015.

PROPORTION OF THE WORKING AGE POPULATION HOLDING A LEVEL 2 OR HIGHER QUALIFICATION (BY AGE GROUP)



Source: Statistics New Zealand, Household Labour Force Survey 2016

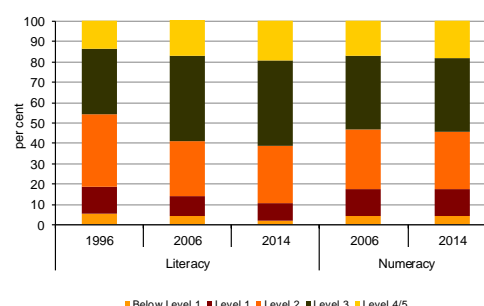
## Indicator: Literacy, language and numeracy skills improve across all age groups

The literacy and numeracy levels of the population have remained relatively consistent from 2006 to 2014.

The 2014 Survey of Adult Skills showed a similar distribution of adult literacy and numeracy skills to the 2006 Adult Literacy and Life Skills survey.

However, between 1996 and 2014 the gap in average literacy scores between Māori and Pasifika, and the total population decreased slightly.

DISTRIBUTION OF 25 TO 34 YEAR OLDS BY LITERACY AND NUMERACY 1996, 2006 AND 2014



Sources: International Adult Literacy Survey 1996 and Adult Literacy and Life Skills Survey 2006, 2014

## Indicator: There is more industry involvement with tertiary education to support the upskilling of the existing labour force

### Workplace Literacy and Numeracy Fund

This fund provides literacy and numeracy programmes of study or training to employees and supports workplaces to establish workplace literacy and numeracy provision. Eligibility to access the fund was extended to Level 1 and 2 industry training learners in 2016.

In 2015, 5,125 people were assisted through Workplace Literacy and Numeracy funding.

### Skills Highway

The government funds the Skills Highway programme to promote the benefits of workplace literacy and numeracy training to businesses nationwide, and connect employers to training providers who will help them realise those benefits. The Skills Highway programme promotes the

Workplace Literacy and Numeracy Fund to employers to encourage uptake, and provides resources to support employers.

The programme includes information for employers on developing good practice in literacy and numeracy programmes in the workplace. It also acknowledges employers who have successfully introduced workplace literacy and numeracy training through an award. The award winners are showcased online.

### Industry training

All lower-level industry training now includes embedded literacy and numeracy components. An indicator of how well industry training trainees are progressing is the proportion of Level 2 industry training trainees with no previous tertiary qualification who gain a tertiary qualification. This has increased since 2010, from 28 per cent to 38 per cent.

## PRIORITY 5: STRENGTHENING RESEARCH-BASED INSTITUTIONS

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### What this priority seeks to deliver

*Building tertiary education's contribution to economic growth requires us to have strong, internationally respected and competitive universities and other research-based institutions. Our TEOs need to deliver high-quality qualifications for students and attract and develop skilled staff to teach and contribute to growing a strong research base. Our research institutions need to collaborate more with each other to build expertise and skill as well as developing increasingly strong links with international research organisations. (TES 2014-2019)*

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### Progress towards this priority

New Zealand TEOs are increasing their share of indexed<sup>3</sup> publications, and at the same time gaining greater recognition for their work within the scientific community. The academic impact of the research publications produced by New Zealand universities is higher than the world average.

Inter-institutional collaboration has increased: the proportion of published journal articles and reviews with collaboration with another New Zealand-based institution has increased, as has collaboration with overseas institutions.

There was a slight decline in the proportion of papers written with industry collaborations published by universities.

Research expenditure by universities has declined slightly relative to GDP.

Universities' external research income from the private sector has fluctuated. As a proportion of research income, it declined from around 13 per cent in 2004 to around 7 per cent in 2012, and increased to 8 per cent in 2014.

Around 5 per cent of businesses report seeking innovative ideas from universities or polytechnics.

The PBRF is the principal mechanism the government uses to support research in TEOs. It is a performance-based funding system that aims to encourage and reward excellent research.

In 2014, changes were introduced to increase the efficiency and effectiveness of the PBRF. All changes will be in place by 2018.

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<sup>3</sup> Indexed publications are those included in the authoritative international research databases, such as the Thomson Reuters Web of Science and Elsevier's Scopus database.

## Performance against the indicators of success

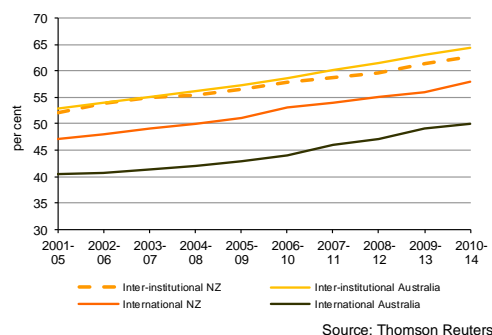
**Indicator: TEOs, industry, and research organisations collaborate more to share expertise, transfer knowledge, and progress joint research programmes to deliver greater impact**

The proportion of published journal articles and reviews prepared in collaboration with another New Zealand-based institution has increased from 57 per cent in the 2005 to 2009 period to 63 per cent in the 2010 to 2014 period.

With the introduction of four more Centres of Research Excellence (CoREs) in 2015, it's expected these numbers will continue to rise.

Collaboration with an overseas institution was a feature of 58 per cent of published articles and reviews produced by New Zealand-based universities in the 2010 to 2014 period, compared to 51 per cent in the 2005 to 2009 period.

UNIVERSITY COLLABORATION (IN FIVE-YEAR TIME PERIODS)

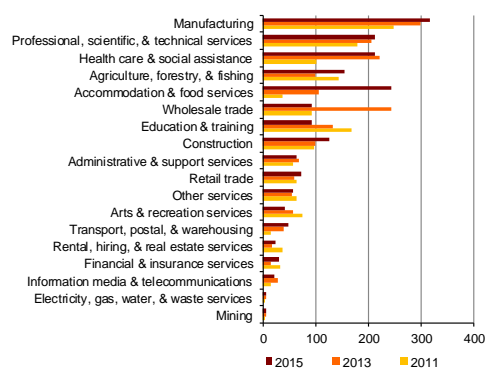


Direct provision of information to businesses is one of several ways the tertiary education system contributes to business innovation. Other ways include through published research, and through the knowledge and skills of graduates.

The number of businesses reported to have sought innovation ideas from universities and polytechnics increased to 1,820 in 2015 from 1,760 in 2014, both representing 5 per cent of businesses.

The largest number of businesses seeking innovation ideas from universities and polytechnics were in the manufacturing, professional, scientific and technical services, healthcare and social assistance, accommodation and food services, and agriculture, forestry and fishing industries.

NUMBER OF BUSINESSES SEEKING INNOVATION IDEAS



Source: Statistics New Zealand, Business Operations Survey 2007, 2009, 2011, 2013 & 2015

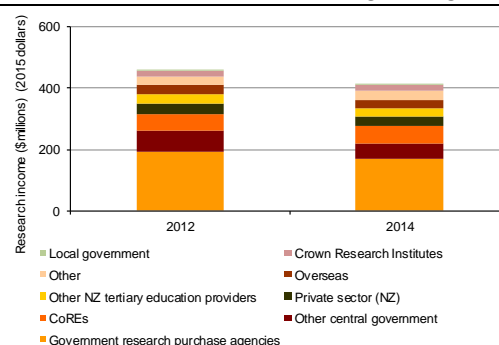
### Indicator: There is increased private funding for tertiary education research

The sources of external research income (ERI) provide an indicator of the value placed on university research by various sectors.

Income from the private sector has fluctuated across survey periods. As a proportion of research income, it declined from around 13 per cent in 2004 to around 7 per cent in 2012 and increased to 8 per cent in 2014.

Income from government research purchase agencies and other central government declined between 2012 and 2014. Income generated by government funding for CoREs has remained steady, while income from overseas and from other New Zealand tertiary education providers has declined.

SOURCES OF EXTERNAL RESEARCH INCOME FOR UNIVERSITIES



Source: Statistics New Zealand and Ministry Business, Innovation and Employment, Research and Development Surveys Note: Excludes Performance-Based Research Fund

### Indicator: Research-based TEOs will make major contributions to achievement of the National Science Challenges, with measurable shifts in resources towards these priorities

MBIE reports that there is evidence of alignment of university research expenditure with some of the more established National Science Challenges (NSCs) – for instance, Sustainable Seas, High Value Nutrition, and New Zealand's Biological Heritage.

However, there is no evidence of universities aligning with some of the recently established NSCs at this stage. Issues with the way the data has been collected mean there is likely to be under-reporting of alignment. MBIE reports that these issues will be rectified in next year's data collection processes.

### Indicator: TEOs develop strategies and monitoring systems to measure their progress in contributing to innovative activity

The TEC reports that TEOs mostly contribute to innovative activity through degree-level and above provision, including teaching informed by academic research and international research connections, through postgraduate research, and through graduates moving into industry.

For industry, technology licensing and new spin-off and start-up companies also contribute to the innovation capabilities that underpin productivity growth. Benefits from these activities tend to have a wider impact than the direct labour market returns to graduates.

All universities have a research strategy to promote and encourage innovative activity leading to commercial and intellectual success. These strategies include metrics for external research income, which is a marker of the commercial success of intellectual property developed by the institution.

External research income is reported for the PBRF and this reporting is monitored by government. The PBRF rewards TEOs for seeking out external research income. In 2015, the weighting of ERI was changed from 15 per cent to 20 per cent. This may have an impact on TEO behaviour in the future.



## PRIORITY 6: GROWING INTERNATIONAL LINKAGES

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### What this priority seeks to deliver

*International education provides an important opportunity to improve the value delivered by tertiary education. International education not only provides additional sources of income for New Zealand TEOs, but also stimulates international linkages with overseas counterparts. International education helps enhance teaching and research, share knowledge, build human capital, and realise other wider benefits to New Zealand's international relationships and trade. (Tertiary Education Strategy 2014-2019)*

International education helps develop stronger international relationships by providing international students with high-quality education, and creating lifelong ambassadors. It also provides New Zealand students with global networks and enhanced cultural competence.

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### Progress towards this priority

We have seen an increase in the number of international students, and, alongside this, an increase in fee revenue. This increase has been largely driven by fast-growing markets in India and China.

Infometrics estimates that the total value of expenditure by international students was \$4.28 billion in 2015. Offshore enrolments are estimated to have increased by 20 per cent between 2012 and 2015.

The fastest-growing area for international students has been doctoral studies – from 704 students in 2005 to 4,066 in 2015, as a result of government's policy of domestic fees for international PhD students. This has helped make New Zealand's universities more attractive as study and research destinations. It has also raised the research productivity and academic impact of New Zealand universities.

The movement of people and ideas between New Zealand universities and key markets has been enhanced through the Centres of Asia-Pacific Excellence (CAPEs), the Prime Minister's Scholarships, and increased support for New Zealand students studying offshore.

#### **Tertiary Education Commission Investment Plan Guidance**

The TEC now requires TEOs to specify in their investment plans how they will give effect to this priority.

Where it is relevant, TEOs are encouraged to increase international education activities that support their core business. The TEC encourages TEOs to work individually and in collaboration with other TEOs, to:

- increase networks, collaboration and joint ventures with international companies and institutions focused on research and innovation, particularly in areas of importance to New Zealand
- integrate international students and international topics into programmes and curricula to generate benefits for students and produce graduates capable of thriving in a global context
- work with other education providers, especially secondary schools (in New Zealand and offshore), to create pathways for international students into and through the tertiary system

- encourage international students to remain in New Zealand for further education or skilled employment.
- legislative powers to enable schools to manage international students' misconduct outside school hours.

### **International Education Strategy**

In August 2016, the Minister for Tertiary Education, Skills and Employment announced that the Leadership Statement for International Education would be refreshed and a new International Education Strategy developed. The International Education Strategy aims to broaden the scope of growth targets to incorporate sustainability and the wider economic, social, educational and cultural benefits to New Zealand from international education. It will develop objectives for international education through to 2025.

The Ministry of Education is implementing a new data collection system for unfunded international providers in order to enhance monitoring and provide more cross-sector data and information.

### **International Student Wellbeing Strategy**

In August 2016, the Minister for Tertiary Education, Skills and Employment also announced the development of a Wellbeing Strategy for International Students that aims to ensure all students feel welcome, and are safe and well while studying in New Zealand.

### **International education risk and regulatory response**

Within the international education sector, work is underway to enhance agency capabilities to respond to provider risk. The new Code of Practice introduced on 1 July 2016 has additional:

- requirements on Code signatories relating to the pastoral care of international students; it has also given more powers to NZQA (as Code Administrator) to respond to breaches of the new Code
- legislative powers to strengthen offence provisions relating to false qualifications and credits

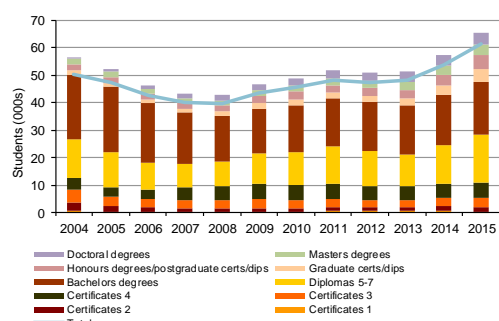
## Performance against the indicators of success

### Indicator: TEOs increase the economic value of onshore enrolments at both undergraduate and postgraduate level

Since 2013, international student numbers have increased. Much of the growth from 2013 to 2015 stems from increases in the number of Indian students coming to New Zealand, particularly for Level 5 to 7 diplomas. The private training establishment sector had the highest number of international students, but the universities sector made the largest contribution to total economic value.

Bachelors degree students are the single largest group of international students in New Zealand by qualification. Over two-thirds of international students study certificates or diplomas.

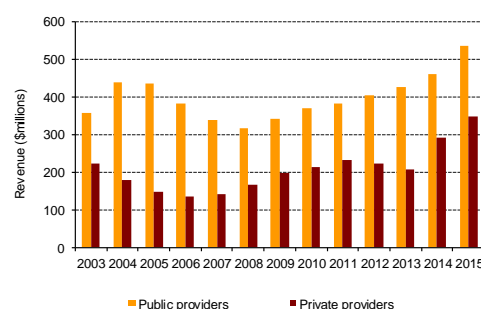
INTERNATIONAL STUDENTS ENROLLED WITH TERTIARY EDUCATION PROVIDERS



Note: Students can study at more than one level during a year and are counted in each level in which they study. Therefore, the total number of students can be less than the sum of the levels

Fee revenue from international students has also increased since 2013 for both public and private providers. This followed a dip in fees revenue for private providers from 2011 to 2013.

TOTAL FEES REVENUE FROM INTERNATIONAL STUDENTS



Source: Ministry of Education, Export Education Levy returns

### Indicator: TEOs increase the economic value derived from the provision of education products and services delivered offshore

It is estimated that revenues from the offshore education industry were approximately \$171 million in 2015.<sup>4</sup> The estimated revenue in 2012 was \$104 million.<sup>5</sup> However, the 2012 survey was not as comprehensive as the 2015. This means the two cannot be used as accurate comparisons.

NZQA delivers technical advice and services under commercial arrangements to counterpart agencies overseas. These

arrangements help to build relationships with our partner countries and maintain New Zealand's positive reputation internationally in the areas of qualifications and quality assurance systems.

<sup>4</sup> On the basis of a Covec/Infometrics survey of firms considered to be part of the international education industry.

<sup>5</sup> Some of the apparent increase is due to widening the sample of firms in the survey.

**Indicator: TEOs develop and maintain research and education delivery partnerships with overseas institutions that create enduring economic, social and cultural benefits, with a focus on identifying and developing opportunities for growing existing key markets and emerging markets**

The CWTS Leiden Ranking offers key insights into the scientific performance of over 800 major universities worldwide, including five New Zealand universities (Auckland, Canterbury, Otago, Victoria and Massey).

The rankings for the period 2011 to 2014 show that, in these five New Zealand universities, around 58 per cent of publications involved international collaboration. This is a small increase on the 2009 to 2012 ranking period (55 per cent), and is higher than the average for the Australian G8 universities of 50 per cent.

## APPENDIX 1 – MOVEMENT ACROSS PRIORITY NUMERICAL INDICATORS

2013 is the baseline for monitoring of the Tertiary Education Strategy 2014-2019.

Priority/Indicator	2013	2015	Direction of travel (arrow up = improvement, arrow down = decline)
<b>Priority 1</b>			
There are better employment outcomes for graduates (Levels 1-3)	70%	66%	↓
There are better employment outcomes for graduates (Levels 4-7)	72%	75%	↑
There are better employment outcomes for graduates (Bachelors and above)	81%	83%	↑
<b>Priority 2</b>			
15 to 19 year olds' NEET rate	8%	7%	↑
BPS Result 5 – 18 year olds with NCEA Level 2 or equivalent	79%	83%	↑
BPS Result 6 – 25 to 34 year olds with Level 4 plus qualifications	54% (Q3 2013)	57% (q3 2016)	↑
<b>Priority 3</b>			↑
Progression from Level 2 – Māori	54%	53%	↔
Progression from Level 2 – Pasifika	60%	55%	↓
Māori participation in Level 4 plus (18-24 years, Levels 4-7)	13%	13%	↔
Māori participation in Level 4 plus (18-24 years, Bachelors)	12%	12%	↔
Pasifika participation in Level 4 plus (18-24 years, Levels 4-7)	14%	14%	↔
Pasifika participation in Level 4 plus (18-24 years, Bachelors)	16%	17%	↑
Māori Level 4 plus 5-year completion rates (Level 4)	70%	76%	↑
Māori Level 4 plus 5-year completion rates (Levels 5-7)	59%	66%	↑
Māori Level 4 plus 5-year completion rates (Bachelors)	55%	59%	↑
Pasifika Level 4 plus 5-year completion rates (Level 4)	72%	78%	↑
Pasifika Level 4 plus 5-year completion rates (Levels 5-7)	61%	67%	↑
Pasifika Level 4 plus 5-year completion rates (Bachelors)	54%	59%	↑
<b>Priority 4</b>			
Proportion of those aged 15 years and over with a Level 2 plus qualification	67%	69%	↑
<b>Priority 6</b>			
International students in tertiary education	48,005	61,430	↑

