A shift to higher-level study by younger people has taken place in recent years. This is one of the first steps to achieving educational success for young New Zealanders. While some of the latest increases coincided with the ‘baby blip’ generation moving from school to tertiary education, there are now more young people with the required NCEA credits that allow them to study at higher qualification levels. The government plans to develop a programme for younger people so that all those under the age of 18 years will be in work, education or training. These plans for a universal educational entitlement for all 16 and 17 year-olds are discussed in the next section of this chapter.

In July 2008, the New Zealand skills strategy was launched and one of its aims is to increase the skills of workers and make sure that these skills are used by employers. Flowing on from this, the *Literacy, language and numeracy action plan 2008–2012* was released and this focuses on building the demand for, and supply of, literacy and numeracy learning opportunities. The plan aims to build the ability of providers to respond to the changing demands in the workplace and in the wider community. It also aims to increase demand from employers and employees for high-quality learning opportunities by increasing their understanding of how low-level literacy and numeracy skills impact on their outcomes. Simultaneously, the strategy aims to increase the supply of learning opportunities nationally. The *Literacy, language and numeracy action plan* focuses on people in low-skilled occupations and industries, and, in particular, on Maori and Pasifika peoples in the workforce with low literacy, numeracy and language levels.

Another important outcome of tertiary education is to identify, plan for and provide for future skill needs. Tertiary education organisations are increasingly focused on the achievement of advanced trade and technical qualifications and professional qualifications, in many cases linked to occupations with projected shortages (including the health, education and social services workforces). Increased enrolments in fields of study where shortages have been identified is a first step to achieving advanced qualifications that will ease shortages. The 2008 enrolments collection showed significant increases in the number of students in level 4 certificates in fields such as various engineering specialities, employment and social skills studies, food and hospitality, and forestry studies. Also, during the last five years, enrolments in these fields have been rising. This suggests that more students are likely to complete an advanced trade and technical qualification in the next few years in the fields of study identified as having shortages.

Improving research connections and linkages to create economic opportunities was another priority outcome for the sector in the area of creating and applying knowledge to drive innovation. The monitoring report *Expected contributions – tertiary education strategy monitoring 2009* notes that more universities now have objectives to develop the commercial utilisation of research.
In 2008, the University Commercialisation Offices of New Zealand published data from a survey of their members’ commercialisation activities. The survey covered the years 2003 to 2006 and showed that the income from the companies set up by the universities was $1.2 billion over four years, with income of $350 million in 2006. Over the four years from 2003 to 2006, 736 new invention disclosures were received by the University Commercialisation Offices, 303 new patents were applied for, 97 patents granted and 156 licences issued to commercialise discoveries. Revenues from technology licensing increased from just under $4 million in 2003 (with 97 active licences) to over $10 million in 2006 (with 210 active licences). For more information on the universities’ commercialisation activities see the report University research commercialisation – paying dividends for New Zealand at www.nzvcc.ac.nz. For more information on university research contract income see chapter 13.

In 2008, tertiary education organisations worked with the Tertiary Education Commission to include objectives related to the outcomes referred to in the skills strategy and in the tertiary education strategy into their investment plans that set out the funding to be allocated to them over the next three years. The plans for all public and private providers were completed in 2008 and took effect from 2009.

An article covering the main findings from a Ministry of Education report on the demand for tertiary education is included later in this chapter.
2009 YEAR

In 2009, the new National-led Government began to set its direction for the tertiary education system. A key concept underpinning the new government’s approach is to strengthen the interface between the secondary and tertiary education systems. This is aimed at easing the transition for students between the two systems. New models that allow flexibility and innovation and provide support to young people as they progress through education into employment are to be introduced.

Youth Guarantee programme

This programme aims to have young people study towards qualifications that are part of the National Qualifications Framework in subject areas that are not purely academic. It aims to give students the opportunity to obtain trade and technical qualifications while at school and have access to tertiary education without paying fees. The programme intends to broaden the options for 16 and 17 year-olds who are at risk of leaving school early, without worthwhile qualifications.

The Youth Guarantee programme might be delivered through an industry training organisation, in a workplace, or while the student attends a polytechnic. It focuses on a range of vocationally focused courses linked to levels 1 to 3 on the National Qualifications Framework. As literacy and numeracy are a priority for government, there will also be courses that focus on basic skills such as reading, writing and mathematics.

In 2010 and 2011, an estimated 2,000 young New Zealanders are expected to be able to access a Youth Guarantee student place. The cost of this provision will be $53 million and in the initial years it will target regions that have high youth unemployment rates and that also have access to suitable vocational training programmes. Ultimately, the aim is to make the scheme available to all 16 and 17 year-olds.

The decision to start the Youth Guarantee programme next year was one of the commitments to come out of the Jobs Summit held in February 2009.

Another initiative aimed at opening doors for New Zealand’s youth is Trades Academies. These will allow school-aged students to undertake trades and technology programmes.

Tertiary education provision in New Zealand

Tertiary education in New Zealand provides a wide range of learning, ranging from education in foundation skills to doctoral studies. The New Zealand system embraces technical and vocational education and training, higher education, workplace training, adult and community education, and tertiary education within the senior secondary school.

While the system has evolved to meet the needs of New Zealand’s society and economy, New Zealand also provides learning opportunities to a significant number of tertiary students from other countries who come to this country as international students.

The New Zealand Register of Quality Assured Qualifications provides a standard structure for naming and describing qualifications across levels and types of provision. It describes what learners can expect from a qualification and it provides for a measure of portability across the system.

In addition, the tertiary sector contributes to the national innovation system through its research activities; more than 60 percent of all New Zealand’s research papers come from the tertiary education sector.

Trades academies

Trades academies aim to get more young people actively engaged in their own education, and to offer students who prefer hands-on learning a high-quality option for gaining the skills required by the New Zealand economy. This initiative aims to provide students with more options for, and information about, learning that will contribute to future employment. The objectives of the academies are to:

- motivate students to stay at school by providing them with a greater range of courses
- give students a head start on training for vocational qualifications and easier access to employment, and
- make education institutions more responsive to local and national business and economic needs.

There is strong interest from the education sector in trades academies. The Ministry of Education received 115 proposals to establish academies and it has short-listed 11 for further consideration.

Government has committed to establish an initial five academies by 2011. They are to be based in a school or a tertiary institution and involve extensive liaison between schools, tertiary institutions, industry training organisations and employers.
Trades academies will deliver education programmes that are responsive to student needs, and that cover fields of study such as automotive skills, engineering, forestry and business courses.

The academies will provide: courses appropriate for a wide range of students; access to career advice and education planning; and a head start to help students gain the qualifications for their chosen career.

**Tertiary high schools**

Establishing tertiary high schools is an initiative right on the boundary of secondary and tertiary education.

In 2010, a tertiary high school programme will open at the Manukau Institute of Technology in South Auckland. The Manukau Institute is based in an area with a large Māori and Polynesian population, high unemployment rates, and lower than average rates of educational achievement.

The tertiary high school run from the Manukau Institute of Technology will be a partnership between the institute and contributing schools. It will enable students who are underperforming in school to move into a tertiary environment to study both school- and tertiary-level vocational qualifications.

By combining the strengths of both a school and a tertiary institution, the tertiary high school aims to provide an integrated and, therefore, smoother transition for students. It is a unique model – this is the first programme of its kind in New Zealand. The students will do most of their study in the tertiary environment, while retaining links with their home school for age-appropriate activities such as sports and cultural events.

Government intends to watch the development of this initiative closely to see how it benefits the students involved, and whether a model like this can be applied more broadly across the system.

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**Weblink to more information on New Zealand’s tertiary education provision**

A full description of the tertiary education provision in New Zealand can be found on the webpage of Profile & Trends: New Zealand’s tertiary education sector. Use the link [www.educationcounts.govt.nz/publications/series/2531](http://www.educationcounts.govt.nz/publications/series/2531) for information on:

- government funding for New Zealand students undertaking formal learning
- formal and informal learning
- international students in New Zealand
- industry training
- learning environments
- adult and community education (ACE)
- adult literacy, language and numeracy education
- tertiary education within senior secondary schools
- the New Zealand Register of Quality Assured Qualifications, and
- research and knowledge creation and transfer.
Trends in the demand for tertiary education

People’s demand for tertiary education varies with their age, what they are studying, where and how they are studying and also with their ethnic affiliation. In the prevailing economic conditions, the level of unemployment is another factor influencing a person’s decision to start study or to remain in study. Additionally, New Zealand’s changing long-term population trends, in terms of its size, age structure and ethnic composition, also play a role in the demand for tertiary education.

This article considers three key drivers of the demand for tertiary education: the unemployment rate, demographic changes (population size, age structure and ethnic composition) and initiatives aimed at increasing the population’s skill levels.

Unemployment and tertiary education demand

The economy, and more specifically the business cycle, influences the level of demand for tertiary education.

Historically, the economic cycle has been associated with changes in people’s participation in tertiary education and the progression of students to higher levels of study (Smart, 2009). For example, during the recession of the early 1990s the number of young people who went on to participate at senior secondary school increased significantly. In turn, this led to more students undertaking tertiary education. The interesting thing to note is that as that recession ended, degree participation held up at recession levels and found a new equilibrium at that level (Figure 3.1).

Conversely, participation in industry training decreased during the recession in the early 1990s, with higher unemployment reducing the opportunity for on-the-job training.

In contrast, the period of consistent economic growth and low unemployment from 2001 to 2007 was associated with a flattening off of demand for bachelors-level study overall and decreasing participation among those in the older age groups. In addition, the progression of students from non-degree qualifications to higher-level qualifications decreased over that period. Both of these findings are likely to reflect the greater opportunities that existed in the labour market at that time.

In late 2008, New Zealand’s economic conditions weakened, and, at the time of writing, this was still in effect. The Treasury (2009) expects the unemployment rate to increase to 6 or 7 percent in 2010 before falling to 4 to 5 percent in 2013. Unemployment was 4 percent in 2008.

The weaker economic conditions are again expected to increase demand for tertiary education, particularly for certificate- and diploma-level study. This is because those most likely to lose their jobs are the young and less educated, who do not have the prerequisites...
to study higher-level qualifications. There are signs that older people are also using this time to update their skills for advancement or a change in career when economic conditions improve, so there is some increase in demand at higher levels of study.

If the recession is protracted, increasing retention at school will see more school leavers with results that will enable them to enter bachelors-level study. This effect, if it occurs, should be visible from 2010 and 2011.

New Zealand’s population trends

Increases in the number of people in the population are a fundamental driver of demand for tertiary education. The New Zealand population is growing. So if we assume that the rate at which people undertake tertiary study remains at the same level as in 2008, there will be more demand for tertiary education in the future.

New Zealand’s population is projected to fluctuate by age group over the next 15 years (see Figure 3.3). This will result in changes in demand for the types of study usually undertaken by the different age groups.

Figure 3.3: Changes in the size of New Zealand’s population by age group relative to 2008

Population growth in the 20 to 24 years age group will increase the short-term demand for bachelors-level study as the ‘baby blip’ generation (those born between 1989 and 1993) continues to move from school into tertiary education. On the other hand, growth in the number of people aged 40 to 64 years will increase the underlying long-term demand for certificate-level study. This may be the result of, for example, initiatives to increase productivity, such as raising workplace literacy and numeracy.

Population-driven tertiary education demand from young people – those aged 15 to 17 years – is expected to decline in the foreseeable future and not pick up again until 2018. Similarly, the demand from people aged 18 to 19 years is also expected to decline and not increase until later but, initially, demand from this age group is expected to increase as the population size in this age group rises.

Should the rate at which New Zealanders participate in tertiary education vary in the future from the level in 2008, this could alter the demand driven by fluctuations in the population size.

Trends in ethnic composition

Another trend occurring in the New Zealand population is increasing ethnic diversity. In 2005, Europeans (including those calling themselves New Zealanders) made up 79 percent of the population and by 2025 this is expected to have fallen to 71 percent. The proportion of Māori will increase from 12 percent in 2005 to 14 percent in 2025. Pasifika will increase as a proportion from 6 percent to 8 percent, and, showing the largest increase, Asians will increase from 9 percent to 15 percent of the total New Zealand population.

As the number of people in a particular ethnic group increases, the underlying demand for tertiary education from that group will also increase. In addition, there are different age structures and school achievement profiles in different ethnic groups. Populations that show the largest increases in the core age for tertiary education participation, such as the younger Māori and Pasifika populations, are likely to increase their share of participation. More details on the likely impact on tertiary education demand of ethnicity-based compositional change in the population can be found in a recent Ministry of Education report on future demand (Engler, 2009).

Increasing skill levels

For New Zealand to increase its productivity, more people need to have higher-level qualifications. Higher-level qualifications have been linked to increased productivity in several studies (summarised in The Treasury 2008a, 2008b). Recently there have been initiatives to raise skill levels in the population. Further initiatives of that kind will necessarily lead to increased demand for diploma- and bachelors-level study. The planned additional funding aimed at increasing the literacy and numeracy skills of New Zealand workers is also expected to push up demand for certificate-level study.

Figure 3.4 shows projected changes in demand by level of study. The figures show demand trajectories for the three drivers of demand: increasing skill levels (improving productivity), the economic downturn (recession), and population trends (demographic change). The length of the recession is assumed to be four years and this is also the length of the ‘forecast’ period. Over this period, unemployment is expected to increase during the first two years and then decline over the last two years. Measures aimed at gradually increasing participation in bachelors- and diploma-level study are also assumed to operate for these four years. After this period, the rates at which people participate in tertiary education are held constant at the level reached in 2012, and only the changes in the population are modelled to drive demand (see the projected trajectories). Before 2008, the student enrolments are charted by level of study (indexed to 2008 levels).
Demand for tertiary education in New Zealand is generally likely to increase. The effects of higher unemployment during the current recession (2008 to 2012) are likely to increase demand, repeating a pattern seen in previous economic downturns. Initiatives designed to increase skill levels will also drive up demand. Superimposed on these trends are fluctuations caused by changes in population size and in ethnic diversity.

Whether or not the increasing demand is able to be met depends primarily on the availability of funding, but also on the abilities of tertiary education organisations to cater for this level of demand and prioritise delivery. The 2009 enrolment data suggests that the current recession is increasing demand in institutions, with a trend towards more full-time study.

The implications of a rise in tertiary education demand

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Improving New Zealand’s productivity

If New Zealand’s productivity is to improve, it needs more people with higher-level qualifications. This will require more participation at higher levels, but the long-term returns on this investment are clear. Even without this, changes in population levels will push up demand, particularly for people aged 25 years and over.
The increasing proportion of Māori, Pasifika and Asian peoples may result in a change in the way tertiary education is provided. If the demand from these groups is met, the level of support for students whose first language is not English will be greater, and non-academic services (counselling, career guidance, medical services) may need to be adapted.

**Longer-term projections**

Projecting the demand for tertiary education beyond 2025 involves using population projections based on people not yet born. This makes the projections less reliable. There is also the potential for unexpected events such as epidemics to impact on demand. The exact effect of such occurrences cannot be modelled with any certainty.

**Inter-generational effects**

Over the longer term, there are also inter-generational effects that may become important. Tomorrow’s parents will be more educated than today’s, so the likelihood of children born after 2025 undertaking tertiary-level study will be higher, making demand higher than might otherwise have been expected. On the other hand, while many of today’s 40 to 64 year-olds are continuing to build on their qualifications, the increasing level of educational attainment in the population today may mean that the next generation of 40 to 64 year-olds will not need to study as much to progress their careers. What they might do, however, is seek to study for recreational purposes.

**References:**


