Raise Foundation Skills so that all People can Participate in our Knowledge Society

Objectives

- Significantly improved adult foundation skill levels, achieved through increased access to foundation education in a range of learning contexts
- Clearer accountability for quality and outcomes within foundation education, including a greater focus on assessment
- A common understanding of the definition of foundation skills and of best practice teaching in this area
- Improved linkages between secondary and tertiary education, and improved staircasing for learners within tertiary education

What are foundation competencies and skills?

While this strategy refers to the need to Raise Foundation Skills so that all People can Participate in our Knowledge Society, it is not just skills that are important, but rather the knowledge, skills and dispositions that people require to be competent in a knowledge society. In this report, we use the term foundation learning in recognition of this wider understanding of what is needed to participate in a knowledge society.

The NZQA Foundation Learning Quality Assurance Project has defined foundation learning as follows:

"Foundation learning covers competencies in literacy, numeracy and language. In practice, foundation learning for adults may be defined as the application of a complex web of reading, writing, speaking, listening, critical thinking, problem solving, numeracy skills and communication technology so that people can achieve their own goals in meaningful social, cultural, vocational and/or learning contexts. Foundation learning may be in English or Te Reo Māori." 7

The change required to achieve this strategy

The overall goal of this strategy is to ensure that foundation learning results in real gains for learners and, over time, results in significantly improved literacy, numeracy and language levels in the population.

This requires moving foundation learning from a relatively marginal position within the tertiary education system to being a core activity, underpinned by informed professional practice and improved diagnostic and teaching tools. It also requires improving access for those who are not currently participating.

The greatest investment in foundation learning will continue to be in the compulsory education system. The responsibility of the tertiary education system is to facilitate access to learning foundation skills for those adults and young people who have not benefited from improvements in the compulsory system, or whose skills have become ‘out of date’.

At the same time, connections and clearer pathways for learners between foundation learning and other types of education need to improve, including from school to tertiary education. This change will require stronger connections between TEOs and schools, as well as between TEOs themselves.

Progress to 2005/06

The analysis of profiles shows that less than half of TEOs had a change-focus on this strategy in 2005/07 and 2006/08, with ITOs most likely to have a focus on it.

Figure 23: Percentage of TEOs with change-focused objectives relating to ‘Raise Foundation Skills’ in profiles 2005/07–2006/08

Significant progress has been made in understanding and developing professional practice in foundation learning. There is now a much sounder evidence base around ‘what works’ in teaching and learning in this area. This information is being used to inform professional development for those working in foundation learning, quality assurance and funding of foundation learning.

There has been a decline in foundation education funded through the Student Component fund. However, increased funding is being made available through the new Foundation Learning Pool, the Workplace Literacy Fund and direct to ITOs. This funding aims to open up learning opportunities to a wider range of learners, across various contexts and a range of providers.

More students are leaving school with qualifications. However, as the labour market improves, fewer are going directly into certificate- or diploma-level study. Most ITPs are now involved in curriculum alignment projects that seek to make stronger connections between what is taught at school and what is taught at ITPs and that aim to make the transition from school to vocational education easier. The government is investing over $100 million in youth transition projects over a four-year period. It is currently focusing on improving coordination across the initiatives.

Key challenges for moving forward

From the analysis of progress to date, the following key challenges for moving forward to achieve this strategy are evident:

- continuing the momentum of the Learning for Living Strategy to provide quality learning for learners who haven’t previously accessed foundation learning
- continued focus ensuring access to quality tertiary education and training for young people who leave school with few or no qualifications, including those entering low-skilled work.

Improving Quality in Foundation Education

Learning for Living Strategy

The Learning for Living Strategy provides the overview for a range of initiatives being undertaken by government agencies to enhance teaching and learning in literacy, numeracy and language for adults.

The first stage of the Strategy involved building the evidence base about what works in foundation learning in order to improve effectiveness. The second phase, starting in 2005, involves expanding the provision of foundation education to new learners, especially those who need it most.

Building the evidence base

A number of pieces of research have been completed to improve the evidence base for foundation learning.

- A clearer picture of adult literacy in New Zealand has been developed, with valuable insights for tertiary and adult education providers, as well as for employers, from research using the 1996 International Adult Literacy Survey and Census data.
- Information on what matters in teaching and learning in foundation education has been provided by a literature review of original research studies, where there was strong evidence that specific aspects of teaching and programmes led to improvements in literacy, numeracy and language skills of learners.
The Six Strategies — Raise foundation skills

**Engaged learners**
- Facilitate access
- Expand provision
- Industry training pilots
- Advisors in migrant centres
- Screening tool (MOE)
- Greater foundation learning focus in mainstream courses
- Increased funding
- New quality provision available for learners

**Effective teaching**
- Raise quality
- Engage a broader range of tertiary educators
- Research into effective adult teaching methods (MOE)
- Professional development exploratory projects (MOE)
- Professional development grants (TEC)
- Descriptive standards (MOE)
- Learning progressions (TEC)
- Assessment tool (MOE)
- Tertiary educators provide effective literacy, numeracy and language teaching in a range of contexts to match learners' needs

**Quality providers**
- Build a sustainable infrastructure
- Foundation Learning Quality Assurance arrangements (NZQA)
- Adult Literacy Educator qualification (NZQA)
- Tertiary providers better equipped to provide education that meets learners’ goals and aspirations for life

** raiser foundation skills so that all can participate in New Zealand’s knowledge society and contribute further to family and community**
• The nature and extent of literacy, numeracy and language provision in New Zealand has been mapped using reports and data from TEOs.

• Insights into what teachers actually do with their learners in typical programme situations have been provided by an observational study which looked at a cross-section of 15 literacy, numeracy and language teachers.

Exploratory projects
A first round of 10 exploratory projects is underway to build up evidence of the best ways for teaching literacy, numeracy and language to adults by looking at the operations of a diverse range of tertiary education providers.

The second round of six clusters (involving 27 projects) was launched at the end of 2005 with a more tightly focused objective. The projects are looking at either reading or numeracy and will work with researchers and developers to develop sustainable professional learning communities exploring effective teaching practice and learning for adults.

A third round of projects that will extend the reading and numeracy clusters to a wider range of providers will be underway in the second half of 2006.

Articulating a clearer understanding of effective teaching and learning
In 2005, the Ministry of Education developed Draft Descriptive Standards of adult foundation learning in reading, writing, listening, speaking and mathematics. The descriptive standards represent an attempt to define the essence of the literacy, language and numeracy that adults need in everyday life. They will help educators to consider learning needs, and employers and employees to understand the demands that adults face in their everyday lives, in terms of literacy, numeracy and language competencies. The next stage will be to provide examples of how they can be used in different settings and in combination with other competencies.

The TEC is developing Learning Progressions, which follow on from the Draft Descriptive Standards. The Learning Progressions will identify the common progression of knowledge and skills that an adult will follow to reach foundation-level competency and preparation for lifelong learning. They will be used to establish common understanding about skills and knowledge and build teaching capability. They will be accompanied by supporting handbooks for tutors containing both theoretical and practical advice.

The NZQA's Foundation Learning Quality Assurance project seeks to provide a clear quality measurement for foundation learning. Draft quality provider practices and requirements to help build an infrastructure supporting good quality literacy, numeracy and language teaching are currently being consulted on with the tertiary education sector. The final set of requirements will be integrated into NZQA's quality management and audit systems.

NZQA has also developed a foundation learning educator qualification. Study grants are available to assist tertiary tutors to undertake the qualification.

Adult Literacy and Lifeskills Survey to provide new and updated information on literacy in the adult population
The Ministry of Education will be running the OECD's Adult Literacy and Lifeskills Survey during 2006. This international survey will provide information on literacy in the adult population, comparable with that collected in the International Adult Literacy Survey in 1996. It will enable comparison of literacy in New Zealand with other literacy in other participation countries and also measure the changes in literacy in New Zealand over the last decade.

The survey will also provide new information about problem-solving skills and health literacy. It is designed to provide robust information on Māori and Pasifika. Information from this survey will be available in 2007.
Improving Access to Foundation Education

**English language-based provision through the Student Component fund declining**

TEIs, and some PTEs, are able to develop their own foundation education programmes using Student Component funding. These programmes are wide ranging and cover general life-skills through to specific areas of literacy and numeracy. The following indicator looks at English-language based foundation education courses, which have been identified as formal courses classified as mixed field (with a focus on literacy, numeracy, life-skills, employment skills etc), English language and English for speakers of other languages at levels 1 to 3.

Research on effective teaching in foundation education has highlighted the importance of adequate teaching time to move learners’ skills to a new level. The research indicates a minimum of 100 hours of teaching being required in a year to achieve this.

The indicators for Student Component-funded provision focus on learners engaging in more than 0.30 EFTS learning during the year in foundation education courses. This equates to 400 notional learning hours, typically made up of around 100 teaching hours and 300 study hours.

In Student component-funded English language-based foundation education 32 percent of learners were engaged for more than 0.3 EFTS during 2005. The number of learners with this level of engagement grew from 2001 to 2003 and has since decreased, most notably in level 1 and 2 courses.

**Figure 25: Formal domestic students in Student Component-funded English language-based foundation courses undertaking more than 0.3 EFTS by course level 2001-2005**

In 2005, 66 percent of these learners were studying in wānanga and 28 percent in ITPs. The proportion in wānanga has declined, while the proportion in ITPs has grown. Seventy percent were women and 47 percent were Māori, 13 percent Asian and 5 percent Pasifika.

**Te reo Māori-based provision through the Student Component fund declining**

In Student Component-funded, te reo Māori-based foundation education, 57 percent of formal learners in 2005 were engaged for more than 0.3 EFTS during the year. The number of learners with this level of engagement grew rapidly from 2001 to 2003 and has since decreased. The numbers in level 1 and 2 courses peaked in 2003, and the numbers in level 3 course peaked in 2004.

**Figure 26: Formal domestic students in Student Component-funded te reo Māori-based foundation courses undertaking more than 0.3 EFTS by course level 2001-2005**

In 2005, 89 percent of these learners were studying in wānanga and 8 percent in other tertiary education providers (OTEPs). Seventy-one percent were Māori.

**Range of provision within the workplace**

Foundation education is also provided within industry training. Different ITOs have different approaches in this area. Some ITOs include it as a specific part of industry qualifications, some are developing and implementing specific foundation education qualifications and others promote its delivery within the context of industry-related standards.

In 2005, 29 percent of credits achieved through industry training were at levels 1 and 2. Many of these would have had some component of foundation education.
The Workplace Literacy Fund supports literacy, English language and numeracy skills training integrated with vocational/workplace training to help workers meet their employment and training needs. In 2003/04, 17 projects were funded, involving over 800 learners.

Work-related foundation skills are also provided pre-employment through Training Opportunities and Youth Training.

**TEO approaches to supporting foundation learning**

The analysis of TEO profiles found that foundation education was not a consistent area of change-focus across TEOs. ITOs were most likely to have a focus on this area, while only half of ITPs had a change-focus in this area.

ITO profiles generally contained objectives relating to targeting assistance and services to those needing additional help with foundation skills. A number were also looking at the content and relevance of qualifications to ensure that foundation skills are adequately addressed.

ITPs had a focus on maintaining or increasing the volume of provision, mostly with a focus on providing pathways to further study. In the 2006/08 profiles there was increased attention to programmes with a specific focus on foundation skills, rather than just bridging and study preparation.

**Adult literacy funding refocused**

The Foundation Learning Pool is a fund that supports projects in literacy, numeracy and language and replaces the Adult Literacy Learning Pool from 2006.

The purpose of the Foundation Learning Pool is to provide funding for the delivery of high-quality and intensive foundation learning opportunities that build learners’ skills in literacy, numeracy and language.

Two types of projects will be funded:

- intensive projects that engage learners in intensive foundation learning in a variety of contexts
- enhanced projects that provide complementary intensive foundation learning to learners who are already engaged in other funded programmes.

**Increased funding for those not accessing current provision**

From 2006, additional funding is available to expand provision of current programmes, particularly to those in low-skilled occupations. This new provision has a focus on community and intergenerational family literacy and is administered through the Foundation Learning Pool and Workplace Literacy Fund.

A further $7 million over four years is also being provided to deliver foundation learning through industry training. This initiative aims to develop an approach, initially working with two or three ITOs, that will see foundation learning embedded within the industry training system, using existing tools for quality assurance and capability building.

**Improving basic skills in the workforce**

The government has allocated a further $33.5 million over the next four years to improving literacy, numeracy and language skills of the workforce. The new funding will continue work already underway with ITOs to improve foundation skills of people employed at the low-skill end of the workforce.

In 2006/07, the focus will be on developing ways of motivating and assisting workers to take up and continue training in literacy, numeracy and language. By 2009/10 it is intended that about 20 ITOs could be participating in the programme, with nearly 9,000 trainees funded as part of their training.

The funding will be available from 1 July 2006 to:

- improve workplace practices so more employers and workers can access suitable training
- expand the number of professional development clusters for training providers and tutors in the Learning for Living exploratory projects
- fund 200 additional study grants to increase the number of fully qualified adult literacy tutors
- further integrate literacy, numeracy and language training with industry training
- increase the quality of training by supporting some 220 providers to meet the Foundation Learning Quality Assurance requirements.
Moving from School to Tertiary Education

More students leaving school with qualifications

The proportion of students leaving school with the equivalent of the National Certificate in Educational Achievement (NCEA) level 2 or higher has continued to increase. While the proportions of Māori and Pasifika students achieving this level of qualification are lower (compared with other ethnic groups), there were increases in both groups from 2003 to 2004.

The proportion of students leaving school with no qualifications continued to decrease. While greater proportions of Māori and Pasifika students continue to leave school with no qualifications, in both groups the proportion continues to decline.

Figure 27: Proportion of school leavers by highest leaving qualification 1998–2004

Fewer students going from school directly to tertiary study

The proportion of school leavers undertaking degree-level study in the year after school has declined since 2003. Māori and Pasifika students are more likely to study at this level following school. The proportion of Māori and Pasifika students going into this level of study following school has also declined since 2003.

There was a small decrease in students going directly to diploma-level study as well. The only level where there was an increase was level 4 certificates.

Figure 28: Proportion of school leavers in tertiary study of more than 0.3 EFTS in the following year by level of tertiary qualification 1998/99–2004/05

Improving Links Between School and Tertiary Education

National Secondary Tertiary Curriculum Alignment Project

The Manukau Institute of Technology (MIT) has been funded, through the Innovation Development Fund, to run a national project on secondary tertiary curriculum alignment.

The curriculum alignment project has been in operation at MIT since 2002. The national project involves close collaboration between secondary schools and their neighbouring ITPs to establish clear pathways based in curriculum for students moving from secondary to tertiary education. The Innovation Development Fund grant enables MIT to assist all other ITPs to establish similar programmes.
**TEO approaches to improving the transition from school**

The analysis of TEO profiles found that around 40 percent of ITPs and universities had a change-focus on school to tertiary transitions in 2005/07 and 2006/08. There was also increased focus on this area in the 2006/08 ITO profiles (also around 40 percent).

In both years, the most consistent focus for ITPs was on curriculum alignment projects. Some were also developing broader relationships with secondary schools and a few offered scholarships for school leavers.

The universities largely focused on study advice, open days and mentoring. The ITOs, in 2006/08, were working with schools to improve school-to-work transitions, including developing joint programmes and aligning school and industry qualifications.

The analysis, however, found that no TEO had objectives focusing on young people who leave school with few qualifications and few or no prospects of sustainable employment.

**Improving coordination of youth transition services**

In 2003 and 2004, the government invested over $110 million over a five-year period on a variety of initiatives to assist young people to make successful transitions from school to tertiary education and employment. Initially the priorities focused on raising skills and qualifications and employment outcomes. In 2004, the focus was also on improving career information, advice and guidance, improving post-school support structures, and enhancing vocational education available at and post school. By the end of 2004 the government was satisfied that the broad components of a good youth transition system were in place.

In 2005, the emphasis has been on improving the coordination between agencies and on raising awareness about the programmes that are available to assist youth transitions. Programmes are delivered by a range of agencies, and information about them is provided on different websites. To bring this information together through one access point, a website called ‘in-transit’ was launched in 2005. It is a youth-orientated site that provides an easy guide to decision-making and available services.
Develop the Skills New Zealanders need for our Knowledge Society

Objectives

- Accurate and timely skills forecasting capability
- Industries are supported in meeting their self-identified skill needs
- Equity of access and opportunity for all learners
- Learners are equipped to make informed choices about career and learning options
- Broader development of skills for active citizenship and the maintenance of New Zealand’s cultural identity
- Improved provision of, and better systems of recognition for, high-level generic skills
- Promotion of specialist skills that contribute to New Zealand’s development

The change required to achieve this strategy

New Zealand’s continued prosperity and social well-being will rely on the skills and knowledge of its people, and how successfully their skills and knowledge are applied to generate economic growth and improve social outcomes.

Achieving this strategy requires greater engagement between the tertiary education system and employers, regional development organisations and communities to identify the current and future skills and knowledge that graduates will require in employment and wider society. It also requires a tertiary education system that is more effectively connected with global knowledge developments.

ITOs have been asked to take a much stronger leadership role in this area, connecting their industries with the tertiary education system, to meet current and future skill needs and promote training for employers and employees.

There needs to be greater ownership by employers, communities and individuals of the need to foster and develop skills. It cannot be seen solely as the responsibility of the education system.

This strategy recognises the importance of specialist skills, particularly through postgraduate education. Specialist skills include technical, research, entrepreneurial and managerial skills. The 2005 STEP also had a strong emphasis on trade and technical skills required to support and maintain New Zealand’s infrastructure.

Another key part of this strategy is the development of generic skills, which complement the development of specialist skills. As with foundation skills, there has been a shift in thinking about generic skills within a broader framework of ‘key competencies’. Competencies cover the knowledge, skills and dispositions that are needed by people to participate in a knowledge society. Key competencies are those that are important across a range of areas of life and contribute to overall success in life and a well-functioning society. Key competencies are acquired and further developed at all levels of learning. The strategy emphasises greater, explicit recognition of key competencies in programmes and qualifications throughout the tertiary education system.

This strategy addresses equality of access and opportunity to participate and succeed in education at all levels. There is a particular focus on Māori, Pasifika, women (within industry training), learners from low socio-economic backgrounds, learners with disabilities and those living in remote areas.
Accompanying this is improving the information and support for learners to make well-informed decisions about education and career options.

**Progress to 2005/06**

Analysis of profiles shows that most TEOs had some change-focus on this strategy in 2005/07 and 2006/08 profiles. However, there was slightly less change-focus in 2006/08. In many cases, TEOs developed new or improved approaches in this area over the 2004 and 2005 period, which are now referenced as ‘business as usual’ in the 2006/08 profiles. The two areas within the strategy that had consistent focus across TEOs were meeting the skill needs of industry and focusing on access for under-represented groups.

Figure 29: Percentage of TEOs with change-focused objectives relating to ‘Develop the Skills New Zealanders Need’ in profiles 2005/07-2006/08

Skill shortages continue, although they are easing somewhat as the economy slows down. A recent OECD report concludes that raising productivity is the first challenge for New Zealand in order to improve standards of living. The challenge remains to raise the overall skill levels of the New Zealand workforce to remain economically competitive, to improve productivity and to facilitate the rapid introduction of new technologies and processes.

ITOs have continued working with their industries to develop skill plans and better understand workplace needs. Several ITOs are starting to implement their plans. ITPs are also focusing on industry requirements in their qualifications development. However, in research on stakeholder engagement, industries reported wide-ranging levels of engagement and expressed frustration at the relative slowness of tertiary education providers to respond to immediate market needs. The disparate goals of industry and education also made engagement problematic, along with scarce resources on both sides. The government is providing funding through several schemes to build better linkages between industry and tertiary education.

In the area of specialist skills, the number of postgraduate degree completions continues to increase, especially in health. In the government’s Growth and Innovation Framework priority areas, enrolments at postgraduate level are static or declining, with the exception of creative arts. There is little growth also in completions in trade and technical subjects at levels 4 to 7, with declining completions in information technology.

In the area of equality of access and opportunities, there has been little change in participation, retention and progression for Māori, with the exceptions of declining participation at certificate level (following historically high levels) and increased progression to doctorates (most probably in response to additional funding through the PBRF). There has been an overall improvement in participation, retention and progression for Pasifika students across most levels. The number of students with disabilities has levelled off and the number recorded as accessing disability support services has decreased. There has been a continued increase in the number of first-time students aged over 25 in tertiary education.

Improvements to the availability of study-related information for prospective and current students continue and Career Services is expanding its service, particularly to assist young people to make good choices about tertiary education options. However, organisational commitment to study and career advice by TEOs is low.

**Key challenges for moving forward**

From the analysis of progress to date, the following key challenges for moving forward to achieve this strategy are evident:

- Meeting the skill needs of industry remains an important, but challenging, task for the tertiary education sector.
- There is much more to be done to improve the engagement between tertiary education and industry and build common understanding of the outcomes to be achieved.
- As government policy shifts focus to the quality of tertiary education, it will be important that recent gains in participation, retention and progression for under-represented groups are not lost and indeed are built on.
- Greater engagement and commitment are needed from TEOs to ensure current and prospective students can access quality study and career advice.
Skills in the Labour Market — the Current Context

This section provides an updated summary of the current labour market context for skills demand. The latest Department of Labour report on skills in the labour market\(^9\) concludes:

"Labour market conditions have improved considerably in recent years. The unemployment rate was an equal 20-year low of 3.6% and the labour force participation rate was the second highest on record in the December 2005 quarter. Wage growth has increased in response to this tightening of labour market conditions. Net migration inflows are much lower than in 2003, but they have stabilised at around 7,000 per annum over the past year.

"Skill shortages have eased over the past year, mainly as a result of slowing economic growth. Higher labour force participation, net migration inflows, training, and wage growth also had a role in reducing shortages.

"Lower economic growth will continue to dampen employment growth and skill shortages. The February 2006 National Bank Business Outlook shows a net 9% of firms expect a fall in staff numbers in the year ahead, the worst result since October 2000. Despite a small reversal of recent labour market improvement, there will be continued pressure in the short to medium term as unemployment remains at or below a relatively low rate of 4.5%".

The implication for tertiary education is that while employers will be experiencing some easing of skill shortages as the economy slows, there will still be an ongoing need to meet skill demands. So long as unemployment remains low, much of this demand will be for education and training within the workplace.

A recent OECD review of New Zealand’s economy\(^10\) concluded that:

"while the country is now reaping the benefits of earlier reforms and real GDP growth has been very strong, it cannot afford to rest on its laurels if it wishes to catch up to the living standards of the top half of the OECD. The first challenge is to realise more rapid productivity growth, which provides the basis for real income gains. The second challenge is to improve labour utilisation among under-represented groups, not only to lift GDP per person but also to reduce the invidious social effects of benefit dependency".

The report notes that lifting productivity growth is a multidimensional problem and "there is no 'smoking gun' to explain New Zealand’s sub-par productivity performance". Improving human capital through education is just one dimension. The report notes that while New Zealanders are relatively well educated at tertiary level, there may be factors impeding this translating into higher economic productivity, including variable quality and relevance of the tertiary education being provided. The report also emphasises the need to raise the skills of those with low qualifications and poor foundation skills, both to improve productivity and to reduce social inequalities and intergenerational disadvantage.

Meeting Skill Needs in Industry

TEO approaches to meeting the skill needs of industry

The analysis of 2005/07 and 2006/08 profiles found that meeting the skill needs of industry was a strong area of change-focus for ITOs and ITPs. The decline from 2005/07 to 2006/08, in a number of cases, represents TEOs moving new initiatives into business as usual and focusing on operationalising and consolidating these initiatives.

IOTs are working in collaboration with industry to assess skill needs as part of their leadership role. In their profiles, most ITOs have objectives to ensure that their qualifications and training programmes reflect the needs of industry. Several also have objectives relating to good practice and quality provision of industry training, in a way that is responsive to industry needs. Many ITOs are also expanding and marketing their provision and coverage across their industries.

\(^9\) Department of Labour, Skills in the Labour Market, March 2006.
The most common approaches in ITPs are to develop partnerships, relationships and joint ventures with industry, and involving industry in the development of qualifications and programmes, with the latter often being achieved through advisory groups.

The research on stakeholder engagement found a similar pattern from the analysis of profiles. ITPs had the most frequent references to active engagement with industry of all tertiary education providers. This was followed by universities, whose engagement with industry is spread across education and research. The providers surveyed in that research were satisfied with their level of engagement with industry and believed they contributed substantially to the economic and moderately to the social goals of business and industry.

Industry views on provider engagement

The research on stakeholder engagement found that people within industry reported wide-ranging amounts of engagement from tertiary education providers, from none at all through to very frequent. The nature of the engagement varied from providers just promoting courses to more considered engagement. In general, engagement from universities was patchy and driven by faculty staff, while engagement from ITPs was somewhat more coordinated and driven by the organisation. Industry representatives were generally critical of the quality of engagement, often seeing it as narrowly based and lacking mutual respect; they tended overall to be dissatisfied with the engagement. Where successful engagement did occur, it was dependent on the people and providers involved and a willingness from both sides to identify and work on areas of mutual interest.

Across industry groups, three key barriers to engagement were identified. Firstly, more often than not, it was the stakeholders who had to initiate engagement, while providers were not proactive. Secondly, they found providers to be bureaucratic, inflexible and unable to respond to rapidly changing industry needs. Thirdly, there were the disparate goals of industry and education providers and the difficulty of establishing common goals. These were exacerbated by lack of time and resources, both on the side of industry and from tertiary education providers.

Labour market and employment strategy coordinating a focus on a high-performing labour market

The government’s new labour market and employment strategy, ‘Better Work, Working Better’ aims to achieve a high-performing labour market in New Zealand. The strategy has four interrelated goals:

1. high levels of participation in high-quality, well-paid and diversified employment
2. a diverse, adaptable and highly skilled workforce
3. high-quality and productive workplaces, within an effective regulatory environment
4. high-performing sector and regional labour markets.

Meeting skill needs through tertiary education is critical to the achievement of the second goal. However, tertiary education also has an influence on the other goals.

Partnerships for Excellence increasing the private sector investment in tertiary education

The Partnerships for Excellence framework aims to increase private sector investment in tertiary education and foster better links between tertiary education institutions, industry and business. Partnerships for Excellence enables tertiary institutions to seek matching funding from government for large-scale investment projects (generally those valued at $10 million or more).

In the 2005 funding round, six new proposals were approved with total funding committed of $40.6 million. This adds to the four projects approved from 2002 to 2004. The new projects cover such areas as:

- building capability in agriculture and life sciences, and the equine industry
- plastics, information and communications technology, and health innovation
- a real world learning centre for the trades.
The Six Strategies — Skills for our knowledge society

**ITP Business Links Fund supporting closer collaboration**

The ITP Business Links Fund provides a resource to build the capability of ITPs to establish and maintain effective working relationships with the business sector. Longer term, it is envisaged that ITPs will be able to adapt their provision to reflect more closely the skill requirements of business and industry.

The second allocation round of $5 million was held at the end of 2005. Funding was allocated to a range of projects including:

- research to support business engagement plans, particularly on skill needs analysis
- building human capability to develop staff skills to work with industry more effectively, including staff secondments to industry
- increasing the relevance of provision, including student placements and secondments from industry, also known as ‘experts in residence’
- establishing centres, incubators or clusters for cooperative curriculum development, increasing staff knowledge, provision of work experience for students and opportunities for graduates
- improving advice received through programme advisory committees through improved structures, increased resources and additional activities, such as regular forums with business stakeholders and community representatives.

The focus for investment in 2006 has shifted from activities designed to improve relationships with business stakeholders, to the adaptation of provision to meet the needs of local business/industry.

**Growth and Innovation Pilot Initiatives (Growth Pilots) testing new ideas**

The Growth Pilots were designed to promote a culture of entrepreneurship and sharing of knowledge and expertise between TEOs and businesses in three target sectors — namely biotechnology, information and communications technology, and design. The pilots are also aimed at improving the quantity and fitness for purpose of graduates in relevant areas of study.

In the three funding rounds from 2004 to 2006, the TEC has approved just over $17 million for 31 projects, ranging from one to four years’ duration. The projects are led by 10 TEOs and involve partners in over 25 TEOs and across a wide range of industries, including: game development, plastics, fashion, textiles, sports apparel, furniture, engineering, biopharmaceutical, biotechnology, agri-biotechnology, healthcare, health informatics, tourism, software systems, whiteware manufacturing, timber and animal health industries.

**Development of Specialist Skills**

**Small increase in postgraduate completions**

The number of postgraduate qualifications completions increased by 2.5 percent from 2002 to 2004. The largest proportional growth was in doctorates (16 percent from 2002 to 2004).

**Figure 31: Postgraduate qualifications completed by domestic students 1997–2004**

The fields of study with the largest increases in postgraduate qualification completions from 2002 to 2004 were health (mostly at level 8 — honours and postgraduate diplomas and certificates), society and culture and management and commerce. The fields where there were notable decreases were education, engineering and related technologies, and creative arts.
The following indicator looks at postgraduate enrolments in EFTS terms in the three focus sectors identified in the government’s Growth and Innovation Framework — biotechnology, creative industries, and information and technology. These were selected by government as sectors that could contribute directly to economic transformation in their own right, and as key technologies that can enhance the growth prospects of New Zealand’s wider economic base.

Postgraduate enrolments in biotechnology-related courses have remained reasonably stable from 2001 to 2005. Enrolments in creative industries have been steadily increasing, while enrolments in information technology have declined from 2001.

**Figure 33: EFTS consumed by domestic students in postgraduate courses in the Growth and Innovation Framework priority areas 2001-2005**

Little growth in trade and technical qualification completions

Another area of critical specialist skills is in the trade and technical areas. These are acquired through qualifications from levels 4 to 7, covering higher-level certificates, diplomas and degrees.

The following indicators use broad field of study categories with a trade and/or technical focus and look at qualification completions from level 4 certificates to bachelors degrees.

Four of the five fields show limited growth in completions from 2001 to 2004. Completions in information technology have declined since peaking in 2002.

**Figure 34: Level 4 to 7 qualifications in trade- and technical-related fields completed by domestic students 2001-2004**

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11 Within creative industries, the priority focus has been on design and screen production. The indicator here covers all courses relating to architecture, design and creative arts, and, as such, represents a proxy for the specialist ‘talent pool’ available to the creative industries.
Looking at the change from 2002 to 2004 by level of study, there has been an increase in level 4 certificate completions in all fields. Diploma completions have increased in architecture and building, engineering, and agriculture and environmental studies, and decreased notably in information technology and slightly in food, hospitality and personal services. There has been a decrease in bachelors completions across information technology, architecture and building, and engineering, while there has been a small increase in agriculture and environmental studies, food, hospitality and personal services.

Development of Key Competencies

In 2005, the Ministry of Education released a discussion document on a framework for key competencies in the tertiary education sector. Some feedback on the document was received. The framework was utilised in the 2005 STEP in the context of a ‘stronger focus on skills for work and life’. The framework is being, and will continue to be, used to guide thinking in a number of key policy projects, including upskilling the workforce, Learning for Living and the development of new quality arrangements. It is also being used to think about advanced skills in the context of economic transformation and further work on growth and innovation.

In response to the framework, and its inclusion in the 2005 STEP, some TEOs have included objectives relating to key competencies in their 2006/08 profiles. These objectives include developing adaptive learning, lifelong learning skills, fostering intellectual independence of students and developing students’ skills, attributes and knowledge to make a positive contribution to society and their employment prospects. These objectives are to be achieved through improvements to qualifications, assessment and curriculum.
Equality of Access and Opportunity

The first part of this section looks at access and opportunity for Māori and Pasifika learners in level 1 to 3 certificates, bachelors and masters degrees in 2002 and 2004 in terms of:

- age-standardised participation rates (participation)
- the proportion of students at these levels who either completed a qualification or remained in study from 2001 to 2002 and 2003 to 2004 (first-year retention)
- the proportion of students completing a qualification in 2001 or 2003 who moved on to further study at a higher level the following year (progression).

Little relative movement for Māori students

From 2002 to 2004 there has been little change overall in participation, retention and progression for Māori students relative to all students. The notable changes have been:

- reducing participation rates at levels 1 to 3, from the historically large participation in 2002
- some improvement in retention rates at bachelors level
- significantly increased progression from masters to doctorate, possibly in response to the additional funding for Māori doctorate completions available under the PBRF.

Figure 36: Comparison of participation, first-year retention and direct higher-level progression rates for Māori and all domestic students 2002 and 2004

Note: Rates are represented on an index for comparison, where the rate for all students in each year is set to 100.

Improving participation and retention for Pasifika students relative to all students

From 2002 there have been noticeable increases in participation, retention and progression of Pasifika students. In level 1 to 3 certificates, participation and progression rates of Pasifika students exceeded that of all students and their retention level approached that of all students. At bachelors level there was an increase in participation, although at a lower rate than for all students, and retention rates are now close to those of all students. However, progression rates have slipped relative to all students. Participation at masters level continues to be much lower than for all students, and retention rates somewhat lower. However, there has been a jump in progression rates to doctorate studies, again probably in response to additional PBRF funding for Pasifika doctoral completions.

Figure 37: Comparison of participation, first-year retention and direct higher-level progression rates for Pasifika and all domestic students 2002 and 2004

Note: Rates are represented on an index for comparison, where the rate for all students in each year is set to 100.

Greater proportion of women in industry training

In most parts of the tertiary education system, participation of women is greater than that of men. The one exception is industry training.

The proportion of women in industry training increased from 24 percent in 2002 to 28 percent in 2005. The proportion in Modern Apprenticeships was 8.5 percent in 2005, up from 7.0 percent in 2002.
The Six Strategies — Skills for our knowledge society

Slight decline in number of students with disabilities

The number and proportion of students with a reported disability\(^\text{12}\) has decreased slightly in 2005 compared with 2004, following a period of sustained growth. The growth in students in disabilities from 1998 to 2004 may, in part, be due to greater participation of students in older age groups in tertiary education over this time period. In 2005, there were 26,000 students with disability, making up 5.7 percent of all students.

Figure 38: Number and percentage of domestic students with a disability 1998–2005

In 2004, information on students accessing disability services was collected for the first time. This information showed that 4,500 students accessed disability services in 2004, representing 1.0 percent of all students. This number fell to 3,750 in 2005, representing 0.8 percent of all students. This change may be more a reflection of improving data quality as this new piece of information is implemented.

Continuing increase in number of first-time students 25 and over

The number of first-time students aged 25 and over continued to increase in 2005, but at a lower rate than in previous years. In 2005, an estimated 56,400 students aged 25 years and over started tertiary education for the first time. The majority (43,200) enrolled in level 1 to 3 certificates. The largest number were in ITPs (31,500), followed by wānanga (10,400).

Figure 39: Domestic students aged 25 and over in tertiary education for the first time by qualification level 1997–2005

TEO approaches to improving equity of access and opportunity for under-represented groups

The analysis of 2005/07 and 2006/08 profiles found that around 70 percent of TEOs had change-focused objectives relating to equality of access and opportunity in their 2005/07 profiles, decreasing to just over 60 percent in 2006/08 profiles.

In ITO profiles, the focus has been on equality of access for all workers. A number have specific focus on increasing participation and achievement of women. Several have a specific focus on Māori and Pasifika. Actions to achieve these objectives include removing barriers to participation, improving appropriateness of training materials and flexible learning provision.

The main focus in TEI profiles is on improving representation of Māori, Pasifika and students with disabilities. Some TEIs are also addressing access for students in remote areas. The most common way of improving access is through student support services, particularly in the first year of study. Quite a few TEIs are looking at how to improve their programme structure to prepare students for study and encourage progression to higher levels. Some also see flexible learning as a means to improving access for some students.

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12 These numbers are based on students who self-reported having a disability to their provider as part of the enrolment process. The recommended question for providers is “Do you live with the effects of significant injury, long-term illness, or disability?” However, the actual question used may vary across providers.
Support for Learning and Career Decisions

TEO support for learning and career decisions

The analysis of TEO profiles shows that support for learning and careers decisions was not a strategic focus for most TEOs. While many do provide services in this area, few TEOs mentioned it as an area for development in their profiles objectives.

Of those that did have objectives in this area, they were fairly evenly split between study advice and career planning in 2005/07 profiles. In 2006/08 profiles, the focus was more towards career planning.

Initiatives to support learning and career decisions

Expanding advice offered through Career Services

Career Services enhanced and expanded its delivery of career information, advice and guidance via website, free phone, and face-to-face consultations. In particular, Career Services continued to develop and deliver Take-Off To Tertiary, an initiative aimed at prospective tertiary students to provide them with impartial and user-friendly tertiary information through a range of different media and help them make informed decisions relating to their tertiary study. Another initiative introduced in 2005 was Designing Careers, targeted at Year 10 students and at Year 11 to 13 students deemed to be “at risk” of not making a successful transition from school. Its desired outcome is that all targeted students will have completed an individual learning and career plan with assistance from parents, the careers advisor and their teachers, leading to more successful transitions between school and further education, training or work.

Services delivered are continuously monitored and evaluated. Results show a high degree of engagement and satisfaction with the services offered.

New web resources available

The Ministry of Education has developed a new web-based resource on the Tertiary Education Portal for prospective and current tertiary students and their families. The website draws on information about student enrolments and qualification completions from Ministry and TEC data sources. Impetus for the new website came from concerns about the lack of objective and neutral information available about TEOs, qualifications and courses.

The Ministry’s Team-Up project provides parents, caregivers and families/whānau with information and resources to help them get involved in and support their children’s education – from the early years to when they leave school and beyond. The Team-Up website includes a significant section of resources on making decisions on tertiary education options.