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# An overview of vocational education and training in Australia and its links to the labour market

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# About the research

## *An overview of vocational education and training in Australia and its links to the labour market*

Brian Knight and Peter Mlotkowski, NCVER

Understanding Australia's vocational education and training (VET) system can be daunting for observers. This paper, funded by the Department of Education, Employment and Workplace Relations, was therefore prepared for the research team undertaking the Organisation for Economic Co-operation and Development's (OECD) Learning for Jobs VET Policy Review that visited Australia in April 2008.

This report is intended to make the VET system and its inner workings more comprehensible to observers. The authors have also included some critical commentary on various aspects of the system—strengths, weaknesses and possible alternative approaches. This draws on the extensive body of research and statistical information on VET that the National Centre for Vocational Education Research (NCVER) has published, along with information from other agencies, particularly the Australian Bureau of Statistics (ABS).

Since this report was prepared in early 2008 there have been a number of significant developments, including:

- the deterioration in Australia's medium-term economic outlook in the wake of the world financial crisis. One would hazard that skills shortages will not feature so obviously among current issues over the next year or two
- the release of the Review of Australian Higher Education: Final Report. If its recommendations are implemented, then the structure of the tertiary education sector will change significantly
- the establishment of Skills Australia, a body to advise on Australia's current, emerging and future workforce skills needs and workforce development needs
- an increasing emphasis on competition and contestability. Notable here is the initiative in Victoria to build a VET system based on individual entitlements, which can be exercised at whatever provider the student chooses
- a move from an ostensibly input-focused federal system to one focused on results, meaning that states and territories now have greater certainty of funding and flexibility in how they achieve their agreed service delivery outcomes
- through the Productivity and Participation COAG (Council of Australian Governments) Working Group, the establishment of long-term training targets
- increased investment in the VET system, including expansion of training places through the Productivity Places Program, the introduction of trade training centres in schools and targeted infrastructure to improve the quality of teaching and learning in the sector.

While this report has not incorporated these developments, and more recent statistics have become available, the information and the key messages it contains are still relevant.

Tom Karmel
Managing Director, NCVER

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# Introduction

## Context[1]

The purpose of this paper is to describe Australia's vocational education and training (VET) system and how it relates to the broader set of education and learning options that are available to Australians. Only post-compulsory education and training will be considered here; that is, learning that applies from the age of 15 or 16 years upwards.

The initial part of the paper describes the 'concept' of vocational education and training, including the economic and social context in which it is placed.

The following section focuses on linkages between VET and the labour market and the economy, and in particular how these factors influence the supply and demand for skills.

The governance and architecture arrangements in place in the vocational education and training sector are discussed in the next section along with current policy and planning initiatives.

The paper concludes by providing some commentary on future developments.

### Major findings

A key strength of the Australian VET system is the existence of linkages between VET and the labour market that allow employers and individuals to meet their training and skill needs. These comprise institutional linkages (a variety of formal, legal and administrative structures); formal and informal processes that lead to skills development, underpinned by widespread acceptance of the human capital model; and the dynamics of the labour market (occupational mobility, valuing generic and specific skills, responding to changes in the labour market and how individuals choose their training).

The strong emphasis on competency-based training allows employers and individuals to focus on skills that meet specific needs while still providing portable, nationally recognised qualifications. Flexibility and diversity are also important features, with a very wide range of accredited and unaccredited VET programs, providers and modes of study available.

The mix of public and private VET provision, which extends to the funding of VET, promotes flexibility and diversity. Both individuals and employers make extensive use of Australia's VET system. There are few distinctions between initial and continuing VET programs; they are available to meet the needs of people of all ages, not just young people, and they support the skill needs of the great majority of employers and industries.

Much consultation and cooperation is needed for the successful operation of the national VET system. The role that employers have in developing competency standards and national training packages and the extensive consultative arrangements that inform policy development have positive benefits, although new policy developments can be protracted. The cooperative arrangements involving the Australian Government and state governments have largely been successful in

[1] This paper was prepared in early 2008 for the OECD Learning for Jobs VET Policy Review team.

overcoming the fact that constitutional authority for VET rests with the states. While these characteristics are all strengths of the Australian VET system, they are also potential weaknesses, because the institutional landscape is complex and there is a risk that the response to changes in the labour market will be tardy or inappropriate.

There are also weaknesses. Employer representatives have lobbied governments on issues such as the time that training package developers and public registered training organisations need to respond to new skill demands and variations in the standards and costs of regulation among states. The responsiveness and efficiency of the public VET system is a source of concern for some governments. There has been an increase in the hours of training in the public VET system, against a backdrop of steady or declining student numbers, with no plausible explanation for this divergence. Australian Government accountability arrangements mean that there is little pressure on states and providers receiving public funds to improve their efficiency or increase completions in strategically important areas.

Many policy advisers believe that the number of people undertaking VET, particularly apprenticeships in traditional trades and courses at higher Australian Qualifications Framework (AQF) levels, needs to increase. However, in the public VET system the number of students has declined slightly since reaching a peak in 2003 and the number undertaking training at diploma and advanced diploma levels and the number completing a full qualification has also declined. Furthermore, Australia's system of apprenticeship training for the traditional trades does not cope well with cyclical fluctuations in the economy. Although apprenticeships in trade occupations have increased in recent years, this has been slow to translate into successful completions.

User Choice—the policy that gives employers and their apprentices or trainees a free choice of registered training organisation for the formal government-funded part of the training program—has been circumscribed because of the need for states to protect the viability of their technical and further education (TAFE) institutes. The fact that the state training authorities have a conflict of interest because they both fund and own the major public providers—the TAFE institutes—also creates a barrier to implementing User Choice policy and to full market competition more generally. In fact, the purchaser–provider model promoted in the 1990s for managing public VET provision, under which state training authorities and TAFE institutes would operate as separate entities, was never fully implemented by most states.

A number of major initiatives have not developed as intended by federal and state ministers, including VET in Schools and school-based apprenticeships and traineeships. Most students in the public VET system are enrolled in programs covered by national training packages, but the great majority of qualifications have few or even no students, and many believe that there is excessive fragmentation of training content. Recognition of prior learning (RPL) has been promoted as a strategy for getting existing skills formally recognised, facilitating further skills acquisition and speedier qualification completion. Modest increases in recognition of prior learning have occurred, but the provision of these services by registered training organisations and the take-up among students have not met expectations. An ongoing area of concern has been the limited articulation arrangements between VET and higher education, although there are examples of good VET–higher education articulation arrangements, often where courses have been designed with articulated pathways as an option.

Finally, it must be noted that, although employers make extensive use of the VET system, both public and private, a number of large industries and employers have opted-out of the recognised VET system or have established their own registered training organisations and firm-specific training packages, constraining portability.

# Vocational education and training in Australia

## Overview

Australia has a very wide range of learning programs available, including vocational education and training. Programs may be accredited (that is, formal) or unaccredited (non-formal or informal):

- formal learning, involving a structured teaching program that leads to a recognised qualification
- non-formal learning, involving a structured teaching program that does not lead to a recognised qualification
- informal learning, usually unstructured and untaught, that relates to work, family, community or leisure.[2]

VET is a subset of these and is driven by a combination of personal development and economic needs.

The VET system aims to provide people with the knowledge and skills they require to:

- enter the workforce for the first time (this applies mainly but not exclusively to younger people)
- re-enter the workforce after absences (unemployment, parenting, imprisonment, severe injury etc.)
- train or re-train for a new job (with an existing employer, after retrenchment, for advancement etc.)
- upgrade their skills (to be more productive in a current job, for promotion, better pay, in preparation for self-employment etc.).

Learning in general can take place at any stage in a person's life. VET, on the other hand, principally relates to the working-age population, typically 15–64 years.[3]

VET programs can be recognised (that is, accredited) or unrecognised (unaccredited, such as proprietary certification). Recognised education and training is categorised using the Australian Qualifications Framework, which also provides broad descriptors for each category (box 1). There is close alignment between the AQF categories and the major education and training sectors. VET providers recognise and give credit for subjects completed as part of a senior secondary certificate, and in higher education via assessment for recognition of prior learning.

The organisations that provide learning in Australia can be in either the public or the private (profit or not-for-profit) sectors and comprise:

- schools, covering reception (kindergarten) to Year 12, in the government, Catholic Church and independent sectors
- universities and other higher education providers, in both the public and private sectors
- VET providers, which may be registered training organisations (registered training organisations, see next section), and can be public or private
- adult and community education (ACE) providers, which are usually community-based organisations
- cultural, religious or other bodies providing specific education in languages, religion, culture etc.

With VET programs particularly, there are significant overlaps between these sectors. For example, most secondary schools deliver recognised VET programs to students in the final years of schooling, including to school-based apprentices and trainees (Knight 2008), some universities are dual-sector institutions delivering both VET and higher education programs, while many other

[2] This classification of learning was originally developed by Eurostat and has been adopted by the Australian Bureau of Statistics (ABS 2007h, p.28 ff).

[3] Note, however, that in Australia most barriers to working past 64 years of age have now been removed.

universities are registered training organisations to facilitate their commercial operations. Many ACE providers deliver VET programs as well as general education and recreation, leisure and personal enrichment programs.

**Box 1 Australian Qualifications Framework categories by sector, and ISCED equivalents**

| Post compulsory secondary education accreditation | Vocational education and training accreditation | Higher education (HE) accreditation | International Standard Classification of Education (ISCED) equivalent [(a)] |
|---|---|---|---|
| | Certificate I | | 2C |
| Senior secondary certificate | Certificate II | | 2C |
| | Certificate III | | 3C |
| | Certificate IV | | 4B |
| | VET diploma | HE diploma | 5B |
| | VET advanced diploma | HE advanced diploma or | 5B |
| | | Associate degree | |
| | | Bachelor degree | 5A |
| | VET graduate certificate | HE graduate certificate | 5A |
| | VET graduate diploma | HE graduate diploma | 5A |
| | | Masters degree | 5A |
| | | Doctoral degree | 6 |

Note: (a) Sources – Australian Qualifications Framework Advisory Board (2007, p.1); NCVER (2007f, p.4); ABS (2001, p.1).

## Formal sectors

Under the Australian Quality Training Framework (AQTF) nationally recognised VET is delivered and assessed by registered training organisations, which must satisfy the quality standards set down in the AQTF as well as the more general laws and regulations that apply to all businesses. Each registered training organisation has an approved scope of registration that specifies the qualifications and units of competency that it can assess and certificate if the competency criteria are satisfied. The regulation of registered training organisations is undertaken by government registration and course accreditation bodies in each state and territory. In 2007 there were over 4000 registered training organisations in Australia, ranging from very small or specialised businesses with only a few qualifications and units of competency on their scope of registration, to very large public institutions that are registered to assess and certificate the majority of nationally recognised VET programs.

The public institutes of TAFE (including the VET arms of dual-sector institutions that cover both VET and higher education) comprise the largest single provider sector and obtain the majority of their funding from governments. They also receive the majority of government recurrent funding for VET and constitute the core of the public VET system. TAFE institutes were originally established to provide the off-the-job training to traditional apprentices but their role has since expanded significantly to cover VET programs of all types and learners of all ages. The other major public provider of VET is schools, including a small number of trade schools.

The non-TAFE providers of nationally recognised VET are very diverse and include both profit and not-for-profit organisations. Many are businesses established specifically to provide training services but a large number of employers have become registered training organisations in their own right, to provide recognised training, principally to their own employees. A further important category is made up of the registered training organisations established to provide recognised training for a specific industry (for example, health) or learner group (for example, police,

emergency service personnel), including learners who are disadvantaged or have a disability (for example, Indigenous Australians, prison inmates, sheltered workshop employees).

Statistics on the formal VET system mostly relate to publicly funded training, so it is not possible, at the present time, to quantify the relative contribution that the various sub-sectors make to the provision of nationally recognised training. In the public VET system, about 11% of the working-age population undertakes some training each year. The majority of this training activity is in recognised VET and is delivered by the public TAFE institutes (appendix table 18). Each year, about 40% of upper secondary school students undertake recognised VET as part of a senior secondary certificate (known as VET in Schools), including a school-based apprenticeship or traineeship (NCVER 2008b).

### Informal sectors

Australians, particularly older adults, participate extensively in non-formal or informal learning activities; for example, over 67% of those aged 25 to 64 years in 2007 (ABS 2007h, p.9). Of those who participated in non-formal learning, 78% indicated that it was work-related (ABS 2007h, p.17). The importance of non-formal (that is, unaccredited) training is also confirmed by employers, with 49% of the respondents to the 2007 Survey of Employers' Use and Views of the VET System indicating that they use unaccredited training. The positive economic return to experience that has been confirmed by research also attests to its importance. The main reasons for using this form of training are to provide skills required for the job or to maintain professional or industry standards (NCVER 2007b, p.4).

The providers in the informal VET sector are more diverse than in the formal sector, but with considerable overlap. Many registered training organisations, including TAFE institutes and dual-sector organisations, provide unaccredited training to meet the specific needs of employers and individuals. Private training providers, both registered training organisations and other, deliver unaccredited training, as do government departments and agencies, professional associations and industry associations. An important provider category is the manufacturers or suppliers of specific equipment or products. Others to note are ACE providers and the cultural, religious or other bodies providing specific education in languages, religion, culture and the like, some of which is vocational by intent (for example, for those employed in an industry that requires this knowledge or skills) or develops vocational skills even though this is not a primary objective of the program.

## The economic and social context

### Overview

Australia is an island–continent. It is rich in natural resources (iron ore and other minerals, coal, natural gas, precious metals, uranium, diamonds etc.) and has significant natural productive capacity (wool, wheat and other grains, meat, wine etc.). Currently, overall economic conditions in Australia are very favourable. Gross domestic product (GDP) trend growth was 4.0% in the year to September 2007, while unemployment at the end of 2007 was 4.4%, a 30-year low. Inflation remains toward the high end of the Australian Reserve Bank's preferred band, resulting in increases in interest rates; the official cash rate in Australia increased from 4.25% in December 2001 to 7.25% in March 2008. The sustained economic boom has also caused skill shortages in a number of economic sectors. The appreciation of the Australian dollar relative to major overseas currencies has put pressure on the tradeable goods sectors (for example, manufacturing, agriculture, tourism and education and training for overseas students) by reducing returns or by making Australian goods and services more expensive on international markets.

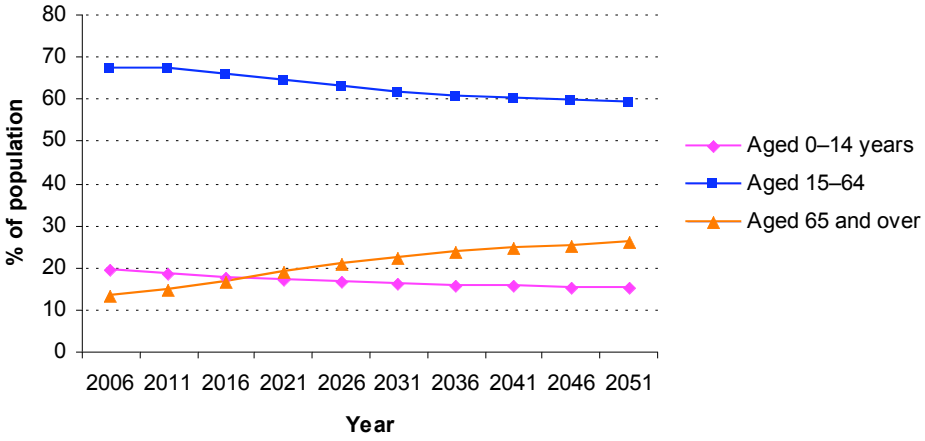
It is important to note that people do not benefit from strong economic conditions in the same way, and that wealth is not evenly distributed across households. The ABS Survey of Income and Housing (SIH) provides indicators of the level and distribution of disposable household cash income and wealth in Australia. Some of the key results from the 2005–06 Survey of Income and Housing are:

- Average incomes in state capital cities in Australia are 16% above those outside the capital cities.
- Incomes in Tasmania and South Australia are below the national average by 15% and 6%, respectively.
- The wealthiest 20% of households in Australia account for 61% of total household net worth, with an average net worth of $1.7 million per household.
- The poorest 20% of households account for 1% of total household net worth, with an average net worth of $27 000 per household.

An important socioeconomic trend occurring in Australia is population ageing, with older age groups comprising an increasing proportion of the population. Figure 1 shows this clearly, with the proportion of older people (65 years and over) projected to overtake young people (14 years and under) by 2021. The median age of the population, another good indicator of population ageing, increased from 33.7 years in 1995 to 37.0 years in 2006 and is projected to rise to 45.2 years by 2051. However, to date, population ageing has had a relatively limited economic impact, because the total population has continued to increase and the working-age population is at an all-time high, at around 62% of the total population. In addition, a decade of buoyant economic conditions has also kept workforce participation high, albeit with about 28% of those in employment in part-time, contract or casual work.

The 2007 *Intergenerational report* (IGR) by the Australian Government (Commonwealth of Australia 2007) forecasts that labour force participation in Australia will decrease, from 65.2% in December 2007 to around 57% by 2046–47 due to the ageing of the population. As a result, the growth rate of real GDP per person is projected to slow in the coming decades (appendix table 1).[4]

**Figure 1 Projection of population ageing, Australia, 2006–51**




Source: ABS (2006).

[4] Table 1 also shows that labour productivity is projected to remain stagnate in the coming decades. Buchanan (2006) argues that if labour productivity in Australia is to grow in the future, a better way of balancing the requirement for properly developing and deploying labour is needed. Increased quiet time for the coherent development and refinement of skills on the job is essential. This implies a change in philosophy of sorts, moving away from merely looking at what the VET system can do for industry, and focusing on how workers may be better developed and deployed through improved work arrangements within and between workplaces.

## The importance of skills in Australia

Australia is a developed country competing in increasingly globalised markets. Living standards depend on maintaining or improving productivity, and skills are an important contributor to this.

Skills appropriate to the demands of the economy are central to improving the standard of living of the population. Wages and other income, which increase with increasing skill level, are one of the key mechanisms for ensuring that returns to labour are maintained (in Australia, minimum wages are also set to provide a safety net for low-skilled or low-paid workers). This is reflected in the average earnings statistics presented in the following section.

The labour force skills that support the Australian economy can be considered in two broad categories:

- generic, sometimes called general and transferrable (for example, literacy, numeracy, communication, problem-solving, information technology, cultural awareness) that can be acquired through upbringing, life experience and general education
- vocational, including sets of specific skills (for example, driving, plumbing, nursing), usually requiring a formal or structured learning program in an environment or context in which the skill is required.

However, these categories are not independent, as many specific skills require underpinning generic skills. A long-standing issue for the recognised VET system in Australia is how generic skills can be incorporated adequately into the competency-based training framework, which emphasises the output standards that are required and places less emphasis on prerequisites or underpinning knowledge and skills. Also, it is clear from the extensive use that individuals and employers make of short, focused training programs that many specific skills can be developed without the need for an extended (and costly) education or training program.

## VET and Australia's workforce

VET makes a significant contribution to skilling Australia's workforce. VET-level qualifications (AQF certificates I to IV, diplomas, advanced diplomas, statements of attainment and non-accredited certificates) are held by 35% of the Australian labour force, with a further 24% having degree and higher-level qualifications. These proportions have been increasing (appendix table 2).

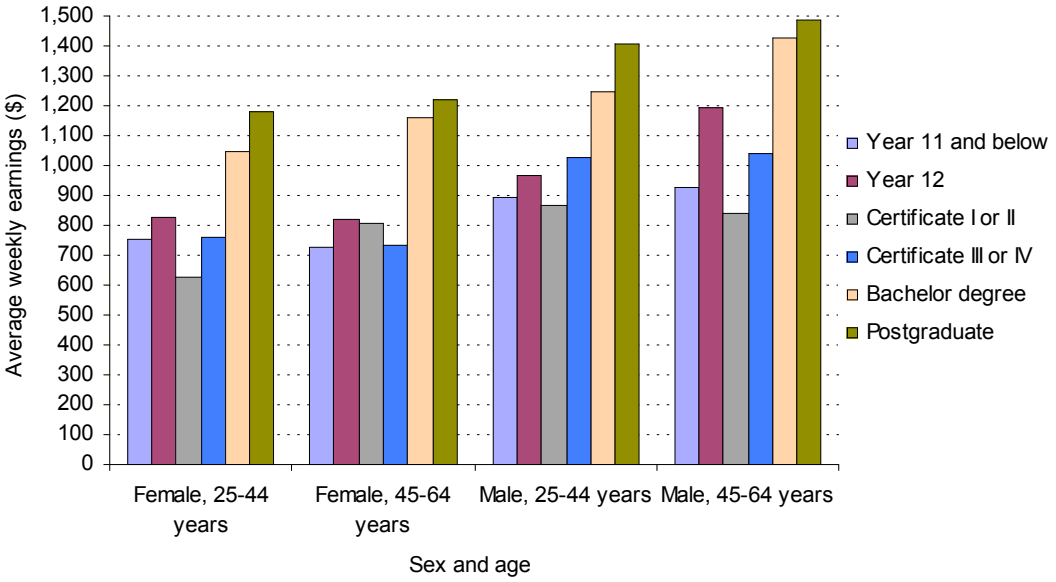
Incomes also increase with the level of qualifications and skills, particularly for older males (figure 2). However, VET qualifications at certificate I or II level give no income advantage over completing Year 12.

The importance of VET varies by occupation (appendix table 3). It is greatest for technicians and trades workers, where 61% of the labour force has a VET-level qualification, followed by 46% for community and personal service workers. Government regulation and qualification requirements are major factors in the trades and community and personal service occupations. VET-level qualifications are less important but significant in lower-level occupations, ranging from 25% for labourers, to 35% for clerical and administrative workers. VET is less relevant among professionals, where 19% have a VET-level qualification, in contrast to 68% with a higher education qualification. However, among managers the proportion with VET-level qualifications is about the same as higher education qualifications, 33% and 31%, respectively, perhaps because many of those who work in intermediate-level occupations early in their working lives eventually progress to management roles.

The views of individuals leaving the public VET system also reflect favourably the contribution of VET to skills. In the most recent Student Outcomes Survey, 78% of those who completed a qualification in the public VET system in 2006 reported that they undertook the training for an employment-related outcome; the figure was also high (67%) for those who completed one or more

subjects but not a whole qualification. The proportion who reported fully or partly achieving their main reason for doing the training was also high—87% for graduates and 80% for subject completers (NCVER 2007d, p.5).

**Figure 2 Average weekly earnings for full-time employed by sex, age and highest qualification, 2005**




Source: Derived from ABS Survey of Education and Training 2005 CURF (confidentialised unit record file).

VET is particularly relevant to occupations involving intermediate-level knowledge and skills, but the ways in which this occurs vary considerably. For many occupations, most notably traditional trades and technicians, there is a link to a specific VET qualification or apprenticeship. On the other hand, many of the popular areas for study, such as business, information technology, hospitality and personal services develop more generic skills that can apply in a wide range of occupations or industries. Many Australians who are established in the workforce undertake very short, focused VET programs that are relevant to their employment, in the occupational health and safety area, to nominate just one example.

The periodic Survey of Employers' Use and Views of the VET System (SEUV) indicates the extent to which employers make use of the VET system to meet their skill needs and how satisfied they are with the system. In 2007, 54% of employers reported that they had used the VET system in the previous 12 months, through having jobs that required a VET qualification, by employing an apprentice or trainee or by having staff undertaking other nationally recognised training. In addition, 49% of employers use unaccredited training and 71% informal training, while 14% of employers provide no training (NCVER 2007b, p.6). Medium and large employers make considerably more use of training of all types than small employers (NCVER 2007b, p.8).

# Contribution of VET to skilling Australia's workforce

The contribution of VET to skilling Australia's workforce is discussed here, while the major the ways in which this occurs are described in the penultimate chapter, 'Australian VET system'.

## Occupations that require VET qualifications

VET or related qualifications are a formal requirement for a number of industries or occupations, some of which also require a licence (examples include electricians, plumbers, refrigeration mechanics and many occupations in maritime industries), while others have licensing requirements

without the need for formal qualifications (for example, drivers of passenger, heavy freight and industrial vehicles). Other occupations that require VET qualifications include nurses, child care supervisors, aged care workers, police and emergency service workers. Employer and employee representatives are usually party to these arrangements.

However, many skilled occupations and major industries have no formal licensing or qualification requirements (banking and insurance, for example) and 'employers tend to recruit and retain workers based on their skills, attitudes and work experience, not their formal qualifications' (Coates 2008).

Noonan (2002b) noted that there are two parallel systems in operation for regulated occupations:

- the system of competency-based, nationally recognised qualifications established under the Australian Quality Training Framework
- diverse approaches by industry regulators—usually the states and territories ('states')—to meeting and assuring the skill and knowledge requirements.

One strategy, which has been applied with some success to address this parallel-systems issue and the problems it creates, is for training package developers to incorporate all the occupational and licensing requirements into the relevant nationally recognised qualifications (Eickenloff, Porter & Hartley 2002). However, this approach is not feasible in all cases.

For some occupations, qualification or licensing requirements vary among the states. In some instances these differences cause structural barriers in the training and labour markets; they can compromise the transferability of licences between states and may even have contributed to skills shortages, particularly in licensed trade occupations. In 2006 the Council of Australian Governments (COAG) agreed that such variations among the states would be eliminated wherever possible and this work is progressing at the present time.

## Entry-level training

An important function of the VET system is providing training for new entrants to the labour force, particularly young people and those who are disadvantaged, such as early school leavers (Teese 2004). VET provides an alternative pathway to the labour market for young people who do not have an interest in higher education qualifications or the necessary academic ability. Registered training organisations, particularly public TAFE institutes, offer training programs that are relevant to a very wide range of industries and occupations, including the formal or off-the-job training for apprentices and trainees.

It must be emphasised that none of these programs is restricted to young people. In 2006, over 25% of the students in the public VET system were 15–19 years of age and they accounted for 31% of the hours of training (appendix table 18). With students aged 20–24 years added in, young people still comprise fewer than half the students, although they do account for just over a half of the training activity.

## Apprenticeships and traineeships

The system of training involving a legal contract (an 'indenture') between an employer and employee has been in operation in Australia for over a century. Traditional apprenticeships typically run for three to four years and 80% of the apprentice's time is spent in training on the job, with the remaining 20% spent at TAFE undertaking off-the-job training, the cost of which is borne by government. Originally, apprenticeships were only available in traditional trade occupations, and an upper age limit (23 years in most states) restricted this mode of training to young people. Young people entering a traditional apprenticeship usually left school at the end of Year 10, or even earlier if they had passed the statutory minimum school-leaving age. The formal training provided by TAFE included any general education that was needed for the trade that was missed by leaving school early (for example, underpinning mathematics and science). As apprentices were frequently

minors, considerable government regulation was involved and their wages, which were specified in industrial awards, were low. Age restrictions on traditional apprenticeships were lifted in the final quarter of the twentieth century, although the take-up among older people has been low.

In the 1980s the traditional apprenticeship model was extended to non-trade occupations under the banner of 'traineeships'. As the skill requirements were usually much less than in traditional trades, the duration of the training contract for traineeships was much less—six months to two years but typically a year—and the level of training was lower, usually the equivalent of AQF certificate II (although certificate III has become dominant in recent years). In other respects traineeships operated in much the same way as traditional apprenticeships, including government funding for the off-the-job training and low wages, even for older adults undertaking this form of training. The number of traineeships was slow to grow until the Australian Government introduced incentive payments to employers of trainees in the 1990s.[5]

Key statistics on apprenticeships and traineeships in Australia in the years 1998 to 2006 inclusive are provided in the attachments (appendix tables 20–22). Males comprised 58.7% of the 266 200 commencements in 2006 and 58.4% were under 25 years of age. The great majority of commencements (82.9%) are at AQF certificate III or IV levels. Although the number of commencements in trades occupations increased from 49 000 in 1998 to 77 700 in 2006, they still account for a relatively small proportion of total commencements (29.2%). Recent reforms have increased the number of diploma-level apprenticeships and traineeships available, but take-up to date has been very low (1100 in 2006). Completion rates are discussed in an earlier section.

## Training and retraining the labour force

The Australian VET system plays an important role in training or retraining people who are already in the workforce, particularly those in the 25 to 64 years age range. In 2006, over 35% of students in the public VET system aged 25–44 years were employed full-time, and about 20% part-time and other employment (appendix table 24). For the 45 to 64 years age group the corresponding figures are about 28% and 25%.

The Australian Government and state governments also fund training for older people who are unemployed, entering the workforce for the first time or returning to the workforce after an absence. Many of these programs are administered by Australia's network of Job Centres, which provide a range of services to people who are unemployed or have special needs.

In addition to skills training and skills upgrading, governments also fund programs in areas such as literacy, numeracy, and English language skills for those from non-English speaking backgrounds, and information technology. The Australian Migrant Education Program (AMEP) is designed to provide education in English language and generic skills for immigrants to Australia, particularly those who have recently arrived.

## VET for learners with special needs

The VET system caters for learners with special needs in a number of ways. A range of VET programs designed for specific learner groups have been developed, including:

- culturally appropriate training programs for Indigenous Australians in rural and remote areas
- vocational and life-skills programs for people with a specific physical or intellectual disability
- English language courses for recently arrived immigrants and overseas students
- remedial literacy and numeracy courses for adults—often immigrants—with limited schooling.

[5] Although not officially acknowledged, the incentive payments for traineeships had much in common with the employment subsidies paid to employers in the 1970s and 1980s to encourage them to employ long-term unemployed youth.

The Australian Government and state governments also have a wide range of subsidies and support programs that allow learners with special needs to participate in mainstream VET programs, including apprenticeships and traineeships. Employers can also receive incentives or subsidies for learners with special needs who undertake training.

Only indicative statistics on VET learners with special needs are available because information about the severity of the disadvantage is difficult to obtain. Of the students in the public VET system in 2006, 4% identified as Indigenous Australians, about 6% had a disability that limited their ability to undertake their VET program, approximately 13% came from a language background other than English and about 25% had a highest education level of Year 10 or lower, with some students having multiple disabilities or belonging to more than one of these categories (appendix table 18).

# Challenges Australia faces

## Economic challenges

As a result of continued strong economic growth and the resources boom Australia has experienced skills shortages, particularly in traditional trades and other skilled occupations. This is reflected in the increase in the proportion of employers experiencing difficulty recruiting staff, from below 41% in 2005, to over 44% in 2007 (NCVER 2007b p.8).

A number of longer-term challenges exist, including:

- ongoing structural change in the economy associated with the changing age profile of the population and the likely reduction in the proportion of the population in the labour force
- the effects of climate change
- further globalisation of the world's economy
- strong growth in the world's two most populous countries, India and China
- continued technological change.

These economic challenges provide major challenges for VET.

## Challenges for VET

In the shorter term there has been a need for skilled workers, particularly tradespeople, to meet the demands of the growing economy. In recent years the numbers of commencements in traditional apprenticeships have increased but have been slow to produce corresponding increases in completions and additional qualified tradespeople. Governments have sought to ameliorate this by promoting competency-based rather than time-based completion of apprenticeships (see the next chapter).

Strategies are needed in other areas of the VET system to provide skills with the greatest pay-off for individuals and employers. Furthermore, the economic challenges will place increased importance on training for older and existing workers, creating a need to get the balance right between entry-level training and training later in life. The relative contribution that government, employers and individuals make to the cost of training is also an issue.

A concern for some governments is that much of the training in the VET system supported by government funding or incentives is at the lower AQF levels (that is, certificate I or II). Some states have sought to address this by withdrawing or capping funding for traineeships in some occupations (for example, certificate II in retailing).

Shah and Burke (2006) have projected in the longer term a greatly increased need for workers with qualifications at diploma and advanced diploma levels. This projection has been accepted by

governments and has resulted in a commitment to increased training at these levels. However, in the public VET system at least, the numbers training at these higher AQF levels have declined. Also, VET diploma and advanced diploma graduates have to compete in some cases with university graduates and people with considerable experience.

At present, the VET market is a combination of planned training activity, mostly funded by government, and free-market activity, mostly funded by employers and individuals. For the VET system, a major challenge is improving the balance between the planned and free markets and determining how government funding can best be used.

# Supply and demand for skills

## Trends in the labour market

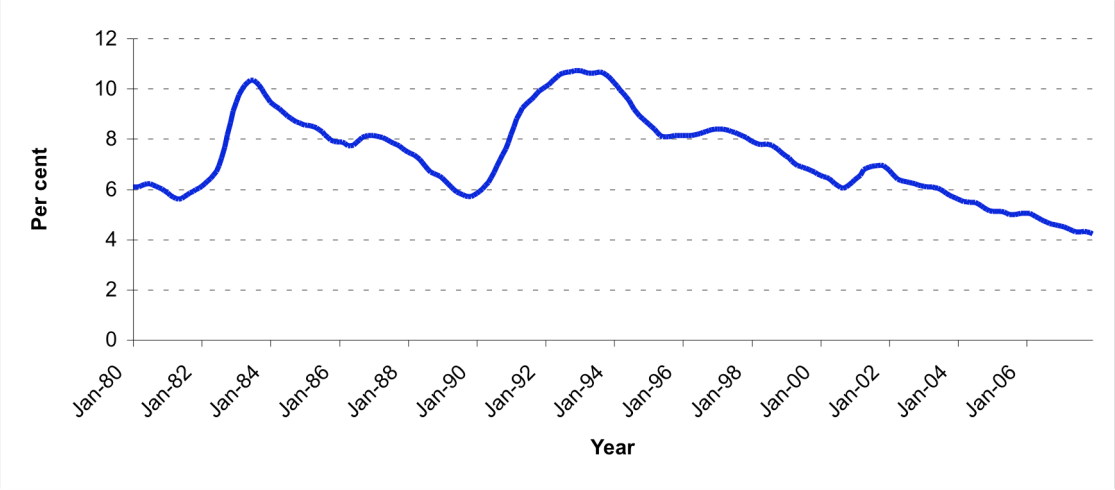
### Overview

The economic cycle in Australia is illustrated by the unemployment rate, which decreased from the peak of 10.7% in August 1993 to 4.4% in December 2007, a 30-year low (figure 3). The strength of the labour market in Australia is also evident in increases in labour force participation, which reached 65.2% in December 2007 (figure 4).

In 2005, Australia's labour force participation rate was above the OECD average, 64.4% compared with 60.2%, but was below that of nine other OECD countries: Iceland (75.7%), Norway (72.4%), Sweden (71.9%), New Zealand (67.8%), Canada (67.2%), Switzerland (67.0%), Finland (66.4%), the United States (66.0%), and Denmark (65.3%) (Abhayaratna & Lattimore 2007). The participation rate for young people (15 to 24-year-olds) in Australia was well above the OECD average (71.3% compared with 49.4%). For this age category, Australia ranked second after Iceland. This result may be explained by young people in Australia being more inclined to combine study with a part-time or casual job than young people in most other OECD countries.

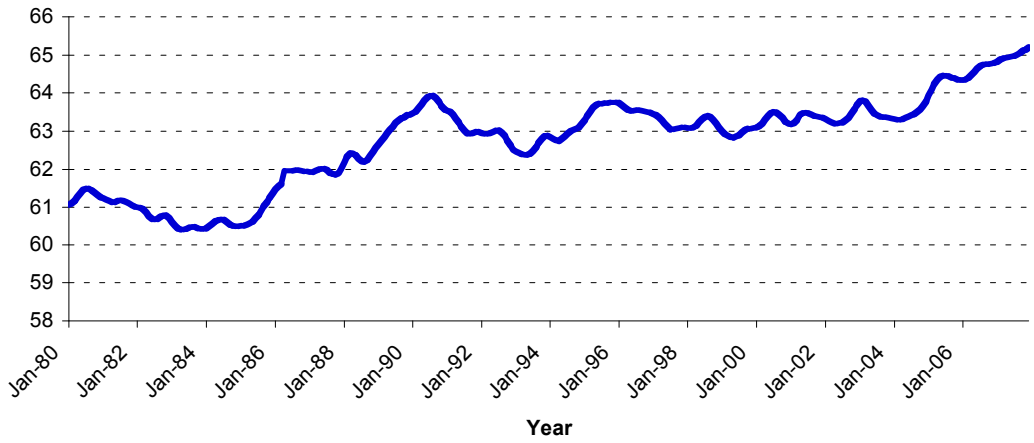
The proportion of workers with a post-school qualification is increasing. From 2003 to 2007, the employed labour force in Australia increased by 9.1% to 10.121 million, but the number of workers with a post-school qualification increased by 14.7% to 5.975 million (appendix table 2). The number of workers with a higher education qualification increased by 22.0% over the period, while the number of workers with a VET qualification increased by 10.9%.

**Figure 3 Unemployment rate, Australia, 1980–2007**




Source: ABS (2008).

**Figure 4 Labour force participation rate, Australia, 1980–2007**




Source: ABS (2008).

## Workforce occupational profile

In Australia, higher education mostly serves the professional end of the labour market, with VET covering the intermediate and lower occupational levels, including apprentices undertaking training in traditional trades and occupations covered by traineeships.

Not surprisingly, the proportion of workers with a post-school qualification increases with occupational level. Professionals account for approximately one-fifth of the Australian workforce, and have the highest percentage of workers with a post-school qualification of any occupation group (88.4%). A high percentage (68.3%) of technicians and trades workers, the occupation group traditionally associated with apprenticeship training, has a post-school qualification. By contrast, less than one-third of labourers have a post-school qualification (appendix table 3).

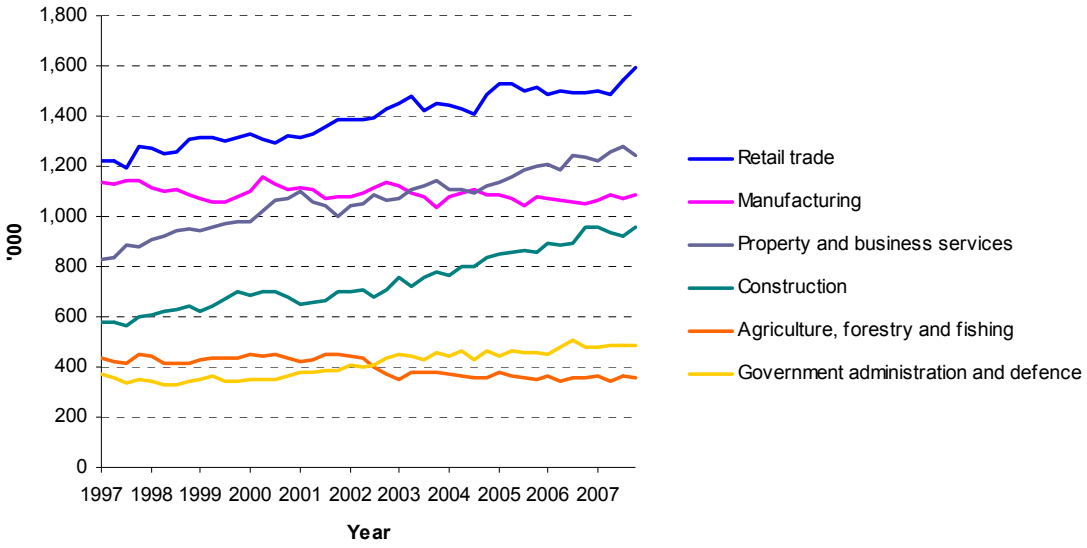
## Industry profile

The traditional apprentice-employing industries of manufacturing and construction together employ approximately one-fifth of the workforce, and a majority of workers in these industries have a post-school qualification; 84.9% of workers in education and training, quite appropriately, have a post-school qualification (59.7% higher education and 24.3% VET). By contrast, only 42.3% of workers in agriculture, forestry and fishing have a post-school qualification (9.0% higher education and 32.6% VET) (appendix table 4).

## Industry trends

Manufacturing and construction may account for a similar number of workers today, but manufacturing in Australia has been in a long-term decline, while construction has been trending upwards (figure 5). Service industries, particularly retail trade and property and business services, have boomed in the last decade. By contrast, employment in agriculture, forestry and fishing is in a long-term decline, with prolonged drought conditions exacerbating the trend.

**Figure 5 Employment by industry, Australia, 1997–2007**




Source: ABS (2008).

# Workforce qualifications profile

Shah and Burke (2006) observe what they call 'skills deepening' in occupations in Australia—the trend of percentage increases in the number of workers in an occupation with a post-school qualification after allowing for employment growth—and project that 71.2% of workers in 2016 will have some post-school qualification (29.6% higher education and 41.6% VET). We reconcile this projection with the qualification profile of the workforce in 2007, where 59.0% of workers had a post-school qualification (24.0% higher education and 34.3% VET) (appendix table 5).

The relationship between qualification levels and labour force status is striking. People without a post-school qualification have an unemployment rate more than double that of people with a post-school qualification, and more than triple that of people with a bachelor degree (appendix table 5). This result is consistent with the human capital model, which in Australia has become the dominant way of thinking about the links between education and training and the labour market. Under this model, education and training are seen as an investment in an individual's productive capacity, and are motivated by an expectation of a return on that investment. That is, an individual invests the cost of tuition and his or her time on the basis that he or she will end up with a better job (Karmel 2005).[6]

# Key drivers of skill demand

Longer-term structural change in the occupational profile of the workforce is the best indicator of changing skill demand. Table 6 of the attachments clearly shows that employment growth in the last decade in Australia has been driven by the managerial and professional occupation groups. Between 1997 and 2007, the number of employed associate professionals and professionals in Australia increased by 1018.6 thousand (or 43.2%), while the number of managers and administrators increased by 256.5 thousand (or 40.9%). By contrast, employment growth in the intermediate and

[6] Lathapipat (2006) argues that average post-schooling investment behaviours are different between males and females. Specifically, the way in which males and females view the trade-off between lower initial earnings from investing in post-school education and higher growth rates of wages with experience is different. This may account for the observed male–female wage gap, which in 2001 saw males on average earning 14% more than females in Australia.

lower occupation levels was: weaker but still strong (intermediate clerical, sales and service workers), very slight (labourers and related workers) and virtually non-existent (advanced clerical and service workers).

# Skills utilisation

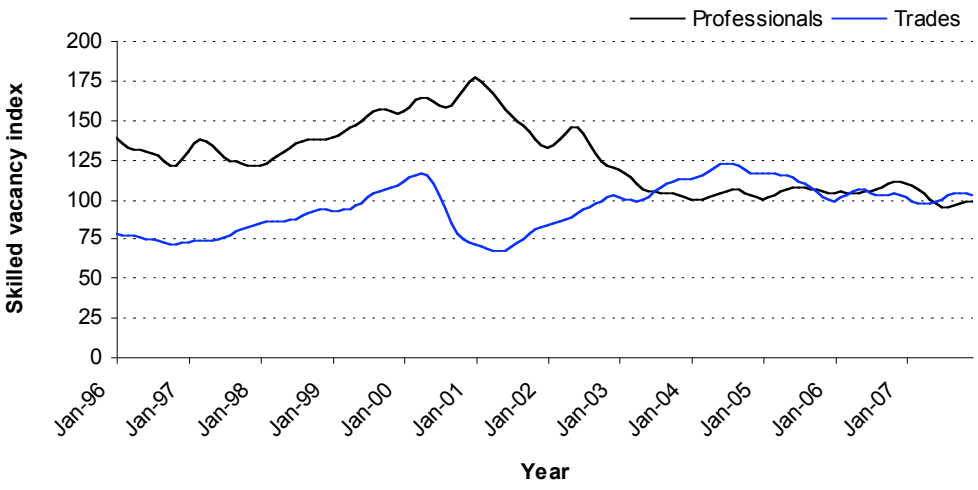
## Mismatch between supply and demand

Karmel and Mlotkowski (2008) provide a picture of VET skill utilisation in the labour market by looking at data from the Student Outcomes Survey, specifically the match between what people study and the jobs they get. While this match is high for the trades, it is much lower for other courses. However, most courses provide graduates with relevant employment skills and there are only a couple of courses—notably those for arts and media professionals, and sports and personal service workers—for which quite sizable proportions of graduates report that their training is of little or no importance to their destination occupation. Table 7 of the attachments presents these findings aggregated at the major occupational group level.

Another way in which the mismatch between skill supply and demand may be measured is through migration program outcomes, specifically the number of short-term migrants to Australia under the temporary 457 visa (an employer-demand driven business visa), and the number of permanent arrivals under the skilled migration program. Table 8 of the attachments (sourced from Cully 2006) shows that Australia is a clear net gainer in terms of the inflow and outflow of skilled people. The net gain of skilled people, both permanent and temporary, in 2004–05 was 45 900, more than double what it was in 1997–98.

Recent job vacancy data also provide an indication of the mismatch between labour supply and demand. Compiled by the Department of Education, Employment and Workplace Relations (DEEWR), the skilled vacancy index (SVI) increases as the count of skilled job vacancies in major metropolitan newspapers goes up. Looking at the longer-term trend, trade vacancies remain historically high, although well below the peak of July 2004. The skilled vacancy index for professionals has been trending downwards, indicating weakening demand for these occupations over the last decade.

**Figure 6 Skilled vacancy index, Australia, 1996–2007**




Source: Department of Education, Employment and Workplace Relations historical skilled vacancy index data, June 2008.

## Attrition

Martin (2007) takes the number of people in a five-year age cohort in an occupational group at one census and compares this with the number in the same cohort (now five years older) at the next census. This calculates the minimum number of people who must have entered or left an occupational group during the period between censuses (1996 and 2001). The exercise is useful because it allows comparison of flow patterns between occupations and across cohorts, effectively providing a picture of skill utilisation through the life course.

People enter occupational (skill) groups in varying ways (appendix table 9). Males and females enter managerial occupations up until their early 40s, and then there are net outflows from these occupations at subsequent ages. There are net inflows of women into professional occupations until the mid-40s, while net outflows of male professionals start earlier, at the mid-30s. Most trade entrants are male, and they enter trade occupations before their 20s, with net outflows thereafter. A similar pattern of early net attrition exists for men in the intermediate and lower skill occupations. By contrast, women are more likely to enter these occupations at older age groups.

## Over-skilling

Mavromaras, McGuinness and King Fok (2007) analyse qualitative data from the Household, Income and Labour Dynamics of Australia (HILDA) survey and measure the incidence of over-skilling by education level (appendix table 10).[7] They find that 57.8% of workers report their skills and abilities are well matched to their current job, while 30.6% report to being moderately over-skilled, and 11.5% report to being severely over-skilled. The incidence of moderate over-skilling varies little by level of education: the incidence of moderate over-skilling is approximately equal for the lowest educational attainment (below Year 10) and the highest educational attainment (university graduates). By contrast, the incidence of severe over-skilling differs by level of education, dropping from 18.3% for workers with the lowest educational attainment to 8.9% for university graduates.

[7] This measure of over-skilling is derived from responses to the statement: 'I use many of my skills and abilities in my current job', with scores on a 7-point scale available.

# Australia's VET system

Australia has developed a national VET system to replace the essentially state-based systems that previously existed. Arrangements to develop a system of nationally recognised training with inbuilt quality assurance provisions began in the 1990s and are now largely complete. Most of the new arrangements are embodied in the Australian Quality Training Framework. At various points the Australian Government has provided funding to the states to promote the development and implementation of new national arrangements.

## The national VET system

### A national quality assurance framework

Evolving from the original Australian Recognition Framework (ARF) during 2001, the Australian Quality Training Framework is the national set of standards and aims to assure nationally consistent, high-quality training and assessment services for the clients of Australia's vocational education and training system. It was last updated in 2007.

The AQTF has three components:

- the essential standards for registration of training organisations (registered training organisations)
- the standards for registering bodies
- the voluntary excellence framework (described in more detail below).

A training provider wishing to deliver and assess nationally recognised vocational training and issue nationally recognised qualifications in Australia must demonstrate its ability to comply with the Essential Standards for Registration. This includes a requirement for registered training organisations to gather information on their performance against three quality indicators: employer satisfaction, learner engagement and competency completion.

Registering bodies are responsible for registered training organisation compliance with the standards and for assuring the quality of the training and assessment services they provide, in accordance with the AQTF and relevant legislation within each jurisdiction. Currently, the National Accreditation and Recognition Agency (NARA) is being established to allow more efficient management of AQTF implementation for registered training organisations that deliver in more than one state or territory.

It should be noted that many registered training organisations design, deliver and assess unaccredited VET programs, but the AQTF standards do not apply to this activity. Also, additional standards apply to some registered training organisations, including those that deliver training to overseas students studying in Australia and those that deliver Australian VET programs in other countries and issue Australian qualifications.

### Nationally recognised qualifications

At the heart of the accredited VET system are nationally recognised units of competency and qualifications specified in national training packages, plus a small number of national courses

developed under the Australian Recognition Framework that have not been replaced by training package qualifications. Competency standards are set out in national training packages, which also specify the combinations of units of competency that are required for each recognised qualification.

Under the previous state-based arrangements students could be required to repeat studies they had already completed because some providers did not give credit. However, under the AQTF registered training organisations are required to give credit for any units of competency or qualifications completed with another registered training organisation. This process has been expedited by having nationally recognised units of competency and qualifications. These considerations become relevant when a student wants to undertake additional training to upgrade a part-qualification (that is, a statement of attainment) to a full qualification, or where qualifications are 'nested' so that a qualification at a lower AQF level forms part of the requirements for one at a higher level.

## Recognition arrangements for existing competencies

The AQTF provides a number of mechanisms for recognising existing competencies:

- ✧ recognition of qualifications or units of competency completed with another registered training organisation
- ✧ credit for subjects completed in other sectors, such as higher education or the upper secondary school system
- ✧ recognition of prior learning, an assessment-only pathway which allows knowledge and skills acquired through employment or other life experiences to be assessed and credit given. However, studies have shown that these arrangements are not necessarily cost-effective for registered training organisations or students (Hargreaves 2006 and supporting references).

## Excellence Criteria

The Excellence Criteria, which is part of the AQTF, builds upon many aspects of the AQTF Essential Standards for Registration explained in the section above. Implementation of the excellence framework will begin with a small trial, to be conducted over the first half of 2008.

The framework seeks evidence of coordinated and strategic approaches to quality and continuous improvement across all aspects of the registered training organisation, including high-quality learning and assessment, client focus, and engagement of industry and communities. It offers registered training organisations an opportunity to voluntarily evaluate and improve their performance through internally focused activities and to apply for formal recognition through an independent external evaluation. The framework consists of five inter-related criteria, which are based on internationally recognised business excellence models and principles that have been customised to reflect the unique characteristics and priorities of the VET sector in Australia. The five criteria of excellence are:

- ✧ leadership
- ✧ learning and assessment
- ✧ people development
- ✧ relationship development
- ✧ integrated information management.

# VET policy-making and planning

## Role of the VET ministerial council

The peak government body responsible for VET policy and planning is the Ministerial Council for Vocational and Technical Education (MCVTE), which complements the Ministerial Council for Employment, Education, Training and Youth Affairs (MCEETYA). These peak ministerial councils provide a mechanism for developing and implementing national policy in a constitutional environment in which the formal authority for education and training rests with the states. A practical effect of the peak ministerial councils is that national policy development and implementation planning proceed consultatively and there is generally in-principle agreement and commitment to new policy directions by the Australian Government and state governments by the time formal ministerial decisions are taken. A weakness of these arrangements is that states, on occasions, modify agreed national policies during the implementation phase, no doubt to accommodate local circumstances.

In the last 15 years the ministerial councils have had ultimate responsibility for a number of significant developments in VET in Australia. These include:

- employer involvement in the development of the formal VET system via industry representation
- adoption of an Australian Qualifications Framework covering all post-compulsory education and training
- implementation of a national training framework (now the AQTF), including provision for recognition of prior learning and mutual recognition of national qualifications and units of competency across states and providers
- national training packages that apply to a majority of occupations where VET is relevant
- a national apprenticeship and traineeship system, supported by Australian Government incentive payments to employers
- funding agreements for VET that have allowed Australian Government Specific Purpose Payments (SPPs) to be made to the states, with formal accountability arrangements
- the VET in Schools initiative (recognised VET undertaken as part of a senior secondary certificate)
- better regulation and quality assurance for VET delivery to overseas students in Australia and offshore
- support for a national training market; for example, through the policy of User Choice, which allows employers and their apprentices and trainees to choose the registered training organisation that will deliver the formal part of the training contract.

## Role of the Council of Australian Governments[8]

On occasions, VET issues arise where action is taken at the highest levels of government. The mechanism for this is the Council of Australian Governments (COAG), which comprises the Prime Minister of Australia, the premiers of the six states and the chief ministers of the two territories. Recent VET issues addressed by COAG (2006) include:

- elimination of interstate barriers to trade recognition in some occupations, where tradespeople qualified in one state could not work in their trade in another state without further assessment
- competency-based rather than time-based completion provisions for apprentices and trainees to allow them to be qualified and able to work in their field as soon as they are competent

[8] This information has changed since the report was completed. See 'About the research'.

- accelerated development of a national outcomes-based auditing model and stronger outcomes-based quality standards for registered training organisations
- the need to increase the number of people training at AQF diploma and advanced diploma levels to meet anticipated future skill demands
- improved processes and funding for recognising the existing skills of people entering training so that workers do not have to repeat or undertake training for skills they have already acquired on the job
- greater sharing of labour market information among governments and government agencies to allow regional skill shortages in strategically important areas to be identified and addressed.

## The National Quality Council

The National Quality Council (NQC) is a committee of the VET ministerial council. Established in 2005, this council comprises representatives from government, industry, equity groups, unions, and training provider and employee organisations. The National Quality Council aims to oversee and support the current and future quality of vocational education and training in Australia. It collaboratively developed the current version of the AQTF and will continue to monitor it on the behalf of all ministers.

## Role of the state training authorities

Each state has a government agency—a state training authority—responsible for implementing and managing the AQTF within its jurisdiction, for managing publicly funded VET provision and undertaking state-level policy development and planning for VET. The state training authorities also represent their jurisdiction at national level and are responsible for the funding that states receive from the Australian Government as specific-purpose payments for VET.

It should be noted that not all publicly funded VET activity is managed by the state training authority. VET in Schools, for example, is funded and managed by state education departments, the training of personnel in the emergency services and public health systems is generally planned and funded by the government department responsible, and training for prison inmates is usually funded and managed by state corrections departments.

Although the great majority of publicly funded VET provision is managed by state training authorities, the Australian Department of Education, Employment and Workplace Relations has some management responsibilities relating to VET delivery in addition to its national policy development role. These include management of a number of Australian Government programs where funding flows directly to:

- providers, in areas such as literacy, numeracy and Indigenous education and training
- individuals, such as an income-contingent loan scheme (fee-help) for diploma and advanced diploma qualifications, and income-support payments to students
- employers, particularly the incentive payments for apprentices and trainees.

## Role of industry and employers

Australia has a range of formal and informal arrangements that provide employers and employer representatives and unions (often referred to as 'industry') with the opportunity to participate in VET policy development. These arrangements exist at the national, state and local levels. Official statements often suggest that Australia has an industry- or business-led training system (Australian National Training Authority 2004; Department of Education, Science and Training 2007). However, closer scrutiny of the various arrangements and how they operate in practice suggests that industry engagement has led to a system that is a partnership between business and employers on the one hand, and the national and state governments and government agencies on the other.

Organisations representing non-government providers, employees and specific interest groups also have a key role in some areas.

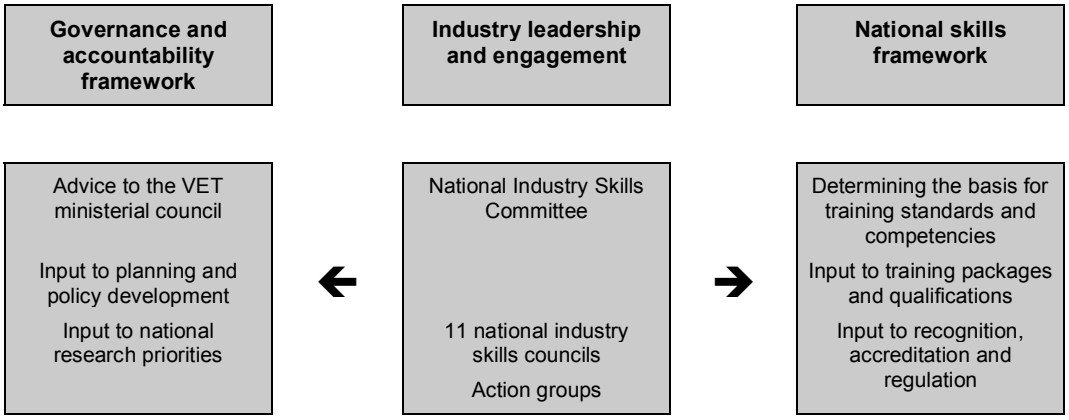
For practical reasons, governments usually deal with peak bodies that represent employers rather than individual employers. Various national and state industry bodies in Australia represent employers with common interests. They include:

- Australian Chamber of Commerce and Industry (ACCI), the peak council of Australian business associations with a member network of over 350 000 businesses represented through chambers of commerce in each state
- Australian Industry Group (AiG), which represents about 10 000 employers in manufacturing, construction, automotive, telecommunications, information technology including call centres, transport, labour hire and other industries
- Business Council of Australia (BCA), an association of the chief executive officers of 100 of Australia's leading corporations, with a combined workforce of over one million (about 10% of the labour force)
- National Farmers' Federation (NFF), the peak national body representing farmers and Australian agriculture more generally.

Employer representatives participate in the development of policy and strategic directions for the national training system through their involvement on a range of advisory bodies. At the national level the major formal arrangements where there is a statutory or administrative requirement for industry representation and advisory input include:

- the National Industry Skills Council (NISC), which provides advice directly to ministers—specifically, to the Ministerial Council for Vocational and Technical Education—about training needs, including workforce planning and future training priorities
- 11 industry skills councils (ISCs), which provide industry intelligence to the VET sector about current and future training requirements, including industry skill reports (NCVER 2007f, p.8). A specific responsibility of each industry skills council is development and maintenance of national training packages. This provides employers with a mechanism for identifying the competencies and qualifications they need and incorporating these in national training packages, promoting alignment between the knowledge and skills that VET students acquire and what employers need
- the National Quality Council, which is responsible for initiatives to enhance the national consistency and quality of training and advises the Ministerial Council for Vocational and Technical Education on changes to the Australian Quality Training Framework
- the national action groups and taskforces that provide advice on training requirements and strategies for Indigenous Australians, people with a disability and others who are disadvantaged or have special needs
- a variety of specialist bodies, such as the Australian Qualifications Framework Advisory Board, the National Training Statistics Committee, the Board of the National Centre for Vocational Education Research and various temporary advisory committees.

**Figure 7 Industry involvement in the national VET system**




Source: Department of Education, Science and Training (2007).

At state level industry representation is also extensive, including:

- the state training boards, which provide advice to state governments and agencies on training needs and priorities and on state policy
- the industry training advisory boards (ITABs) that exist in some states; in some cases large or strategically important individual employers are also represented
- licensing authorities for occupations or industries where statutory requirements exist for specific VET qualifications or skills.
- state economic development and related boards, which provide advice to the state governments on broader economic issues, many of which relate to training and skills development
- upper secondary curriculum and assessment boards, whose responsibility includes VET programs developed to meet the needs of upper secondary school students.

Formalised local arrangements also exist in many states and frequently require industry or employer representation. Examples include:

- regional development advisory bodies
- the boards or governing councils of public TAFE institutes and not-for-profit training organisations
- the boards of Australian technical colleges
- school councils in the public, Catholic Church and independent school systems.

Because the Australian VET system functions as a market, albeit a constrained market in the case of recognised or publicly funded VET provision, there are numerous opportunities for employer associations and individual employers to engage with providers and other organisations. In some cases this leads to specific arrangements or purpose-designed training programs to meet specific needs. In the public sector, state training authorities generally promote and support these informal arrangements.

## Role of VET providers

A number of peak bodies represent providers, including TAFE Directors Australia (TDA) representing the publicly owned TAFE institutes, and a number of peak bodies representing non-TAFE providers, the largest of which is the Australian Council of Private Education and Training (ACPET). Through their representatives providers are involved in planning and policy development for the VET system, particularly in areas such as financial protection schemes and quality assurance arrangements for overseas students undertaking VET in Australia.

# Governance arrangements

Governance arrangements for the VET sector are complex because of Australia's federal system and the involvement of organisations in both the public and private sectors. It should be noted that, with few exceptions, businesses in the public and private sectors in Australia are subject to a range of statutory requirements that apply regardless of the industry.

## Role of governments[9]

Where VET funding flows from one agency to another, the management and accountability requirements attached to the funding form part of the governance arrangements. Examples of this include the reporting requirements relating to the funding that the Australian Government disburses directly to the states and to registered training organisations to deliver training, the funding that the state governments disburse to TAFE institutes and other registered training organisations and the incentive payments that the Australian Government makes to employers of apprentices and trainees (NCVER 2007c, pp.7–10).

Important governance and accountability arrangements apply to training activity funded under the triennial agreements between the Australian Government and the states. As a condition of receiving Australian Government funding, states are required to maintain their own financial commitment to VET and their total level of training activity, as measured by nominal hours. States are also required to meet specific targets in agreed areas, such as skills-shortage occupations. An annual performance report is produced for the VET system and is tabled in the Australian Parliament. Reflecting the fact that statistical systems were built to underpin this reporting, good information is available for activity that is funded under the Australian Government agreements with the states, but the information that is currently available for other VET activity is generally inadequate for policy-making and planning purposes.

For the TAFE sector, governance arrangements vary between the states. In some states the TAFE institutes are completely owned and managed by government and have relatively little autonomy, although these states have sought to separate their dual role as a purchaser and provider. Teaching and other staff are employees of the state government. In other states the TAFE institutes are autonomous or semi-autonomous organisations with a governing board or council. They enter into service delivery contracts with the state training authority, and these contracts also specify reporting and accountability requirements and provide for full or partial recovery of funding if contractual requirements are not met. Similar governance arrangements may apply to funding received from other sources. Where TAFE institutes are autonomous or semi-autonomous, teaching and other staff are generally employees of the institute, not the state government, although salary and other conditions may be linked in some way to those that apply to government employees.

## Role of employers

Australia's arrangements for developing accredited VET programs have been refined and increasingly formalised over an extended period. Throughout this time there has been extensive employer and business involvement and this is now embedded in the processes.

### *Competency standards*

Recognised VET in Australia is competency-based; that is, '… it focuses on what is expected of an employee in the workplace rather than on the learning process; and embodies the ability to transfer and apply skills and knowledge to new situations and environments' (National Training Board 1992, p.29). Before the introduction of national training packages in the late 1990s a number of peak employer bodies had developed national competency standards for the skills that were required in

[9] This information has changed since the report was completed. See 'About the research'.

their industries, metals and engineering being a prominent example. The National Office of Overseas Skills Recognition (NOOSR) also developed competency standards for professional and skilled occupations, with advisory input from industry.

The process of development and maintenance of industry competency standards has been progressively refined and formalised and is now part of the national training package processes (see below). Under the present arrangements, employer representatives are extensively involved in developing Australian competency standards through the industry skills councils, whose responsibilities include national training package development.

### *National training packages*

Training package development and endorsement has a high level of employer involvement through their representatives on the industry skills councils. In the early years of their establishment national training packages were often described as being 'developed by industry for industry', indicating the central role that industry would play in their development and maintenance. In 2007 the National Quality Council adopted new principles and processes for training packages. The role of industry is to 'drive continuous improvement through setting the scope and timing of work' and 'providing Australia wide expert advice throughout the development, validation and sign off stages'. A key objective, adopted because earlier training packages processes could not respond quickly to new or changing industry needs, is a 'highly responsive process capable of meeting industry's needs and priorities for new skills' (Department of Education, Science and Training 2007, p.2).

The process for training package review also requires considerable employer involvement. It includes an environmental scan or 'stocktake', with input from enterprises and employer representatives, as does the subsequent continuous improvement plan (Department of Education, Science and Training 2007, pp.7–8). The national consultations that inform the development or redevelopment process should also involve key enterprises and employer representatives, and industry validation is required 'to ensure that the content and structure of new or revised units of competency, skill sets, qualifications or Training Packages meet industry's specified needs' (Department of Education, Science and Training 2007, p.16). The final stages, leading to agreement and endorsement, also involve key industry stakeholders, enterprises and employer representatives.

It should be noted that a small number of large Australian enterprises have been permitted to develop their own training package, with the scope limited to the enterprise. The need to ensure the confidentiality of sensitive information has been one of the reasons for these exceptions.

# Funding and financing VET

## Funding sources for VET activity

VET activity in Australia is funded from three main sources, governments, employers and individuals. Government expenditure on training is about 0.5% of GDP (this does not include expenditure in schools and higher education). Expenditure by individuals is largely unknown, except for their contribution to operating revenues in the public VET system. The expenditure of employers on training is not known with any certainty, but the limited information available suggests that it is roughly the same as government expenditure.

In the public VET system the funding sources for activity (delivery hours) are split between the Australian Government, state governments, fee-for-service domestic students and full-fee-paying overseas students. In 2006 in the public VET system (appendix table 18):

- 81.3% of activity was funded by Australian Government and state government recurrent funding.
- Fee-for-service domestic students made up 24.1% of all students, but funded 12.1% of activity.
- Full-fee-paying overseas students, who mainly study full-time, funded 3.8% of VET activity.

## Incentive programs

Both Australian and state governments have encouraged participation in VET through numerous incentive programs. The most prominent example is the incentives programs that accompany the apprenticeship and traineeship system (rebadged as Australian Apprenticeships in 2006). The incentives programs include, or have included:

- commencement and completion incentives for employers
- incentives for employers to encourage existing workers to take up apprenticeships and traineeships
- Commonwealth Trade Learning Scholarships for successful completion of the first and second years of training in the traditional trades
- the living away from home allowance
- funding for registered training organisations developing fast-tracked apprenticeships
- work skills vouchers, aiming to encourage mature-aged Australians (25 years or older) to complete Year 12 or enrol in a vocational certificate II course
- the Tools For Your Trade initiative, providing work equipment worth up to $800 for approximately 40 000 apprentices and trainees undertaking training in skill shortage areas
- higher technical skills incentives, including a payment of $4000 for diploma and advanced diploma qualifications, particularly in engineering fields (Woyzbun forthcoming).

In addition, apprentices and trainees may now be eligible to claim social security payments, through the Youth Allowance, Austudy or Abstudy income support schemes.

## Financing the VET system

The public VET system as a whole is financed through revenues received from the Australian Government and state governments, fee-for-service initiatives, student fees and charges, and ancillary trading and other services. In 2006, operating revenues reached $5324.7 million. The Australian Government and state governments were the primary sources of operating revenues. State governments contributed $2840.9 million (53.4% of total revenue), while the Australian Government contributed $1231.9 million (23.1%). Fee-for-service initiatives contributed $728.6 million (13.7%). Ancillary trading and other services brought in $279.7 million (5.3% of total revenue), while student fees and charges contributed $243.6 million (4.6%) (appendix table 11). Operating expenditures were $5490.6 million in 2006. This figure was made up of: employee costs ($3286.1 million or 59.8%), supplies and services ($1325.4 million or 24.1%), payments to non-TAFE providers for VET delivery ($366.9 million or 6.7%), depreciation and amortisation ($265.4 million or 4.8%), and grants and subsidies ($246.9 million or 4.5%) (appendix table 12).

# Delivery of VET

Delivery arrangements for VET vary depending on whether the program is accredited or unaccredited. The principal role of VET providers—registered training organisations and others—is the delivery, assessment and certification of accredited VET programs and, in the case of unaccredited VET programs, their development. Many providers have close relationships with employers or employer bodies and many deliver training to niche industries, subject areas and groups of students on a full-cost recovery basis.

The implementation of the AQTF and the associated development of national training packages added considerably to the flexibility available to registered training organisations, learners and employers because these developments shifted the focus of VET more towards the final outcome and placed less emphasis on the learning pathway followed to achieve competence. Under the

AQTF, assessment and certification of nationally accredited VET programs must be undertaken by a registered training organisation. Auspicing possibilities also exist, whereby delivery is done by a provider that is not a registered training organisation, but with the assessment and certification conducted by a registered training organisation. This arrangement is widely used for VET in Schools programs. Developments such as these have also attracted criticism and have led to a number of high-profile inquiries, such as the 1999 Inquiry into the Quality of Vocational Education and Training undertaken by the Australian Senate, and to philosophical differences between the approach to learning taken in schools and higher education (Harris et al. 1995, p.14ff).

The delivery of recognised VET programs has changed over time. Before the 1990s the great majority of recognised VET was delivered and assessed in classrooms and teaching workshops in public TAFE institutes. There were some exceptions to this, for example:

- the on-the-job component of the training programs undertaken by apprentices and trainees (although the off-the-job component was still done at TAFE)
- programs that were made available by correspondence, an option established to make access easier for students in Australia's extensive rural and remote areas
- programs that needed to be delivered in closed or protected environments, such as youth or community detention centres, prisons and sheltered workshops.

However, pressure was building from a number of sources for more flexible delivery arrangements as an alternative to classroom or campus provision. Many employers of apprentices and trainees wanted them to spend less time in formal off-the-job training, arguing that much delivery and assessment could occur in the workplace without compromising the quality of the training provided. Employers also wanted recognised VET programs to meet their specific needs, leading to TAFE and other VET teachers spending more time at workplaces and some industries and individual employers setting up their own registered training organisation to facilitate this. Computer-based options for delivery were becoming more readily available and affordable, supported by the high level of internet access and take-up among Australians, and many VET providers saw online provision as an opportunity to expand their business.

In the public VET system in 2006, 6.8% of recognised VET delivery occurred in the workplace, 75.2% was campus- or classroom-based, 5.3% was in online or other off-campus modes, with 12.7% in other or non-applicable modes (appendix table 18). Computer-based modes of off-campus delivery have not grown as expected. Research has shown that most VET students prefer to have some face-to-face contact with their teachers and fellow students, and for providers it is not necessarily an efficient option because subject completion rates tend to be low unless there is regular contact with the students and the economies of scale that flow from larger classes are not available.

A number of options allow young people to undertake recognised VET while still at school (Knight 2008):

- *VET in Schools*: nationally recognised VET undertaken as part of a senior secondary certificate, an option introduced in 1996 that has grown steadily. Delivery and assessment can be done by the school if it is a registered training organisation, a TAFE institute or a non-TAFE registered training organisation. In 2006 close to 40% of upper secondary school students participated in a VET in Schools program.
- *Vocational subjects developed by the state education authorities and delivered by schools*: many of these subjects were introduced in the 1980s when retention rates to Year 12 increased as a result of high youth unemployment and fewer opportunities for young people who left school early.
- *Enrolment in a recognised VET program outside school hours*: including the formal part of a school-based or part-time apprenticeship or traineeship: the latter option became available at the beginning of 1998, although take-up until recently was low (about 6000 in 2000, 14 000 in 2005 and 17 000 in 2006 [NCVER 2001, p.6; NCVER 2007e]).

Studies show that school students who intend to go to university are half as likely to do VET at school (20%) than those intending to go to TAFE (40%) or obtain an apprenticeship or traineeship (40%). Future job opportunities and the intention to do an apprenticeship or traineeship are strong factors in students electing to do VET while still at school. Regional variation is also evident, with one in three students in remote areas undertaking VET at school, in contrast to one in four students in regional areas and one in five in the major cities (Department of Education, Science and Training 2005a, p.i).

Unaccredited VET programs can be delivered by registered training organisations or other training providers, but government funding does not usually apply. In some cases the programs are part of a standard suite of courses offered periodically by providers, such as adult and community education and continuing education organisations, or they may be specific, one-off programs developed to meet the needs of a group of learners, an industry or an employer. Delivery arrangements can be very flexible, with employers often arranging for workplace provision because it results in less downtime.

# How well does the VET system operate?

## Cost and output measures

There is no one comprehensive barometer of the efficiency and effectiveness of the VET system. Four separate measures are presented here, covering different aspects: load pass rates of VET activity, graduate findings from the Student Outcomes Survey, apprentice and trainee completion rates and government expenditure per hour of VET activity.

Load pass rates represent the ratio of successful hours of VET activity to all assessable hours of VET activity. Based on this measure, the efficiency of the VET system is improving, with the overall load pass rate increasing from 76.4% in 2002 to 78.5% in 2006. By age, load pass rates are highest for older persons (40–64 years of age) and lowest for young people 15–19 years of age (appendix table 13). The pass rate for VET in Schools activity (55.4%) is considerably less than for the public VET system (NCVER 2008b).

Another way to measure the efficiency of the VET system is to look at the outcomes experienced by those who graduate with a VET qualification. One outcome we should be interested in is the difference a VET qualification makes to a person's chance of being employed, accepting the view that VET is predominantly about acquiring skills to be used at work. The Student Outcomes Survey finds that the overall difference in the proportion of VET graduates employed before and after training was 7.0% in 2007. This difference was greater for training undertaken as part of an apprenticeship or traineeship (12.4% against 4.9% for non-apprentice or trainee training) (appendix table 14). However, we must also be mindful of the match between what people study and the jobs they get. Table 7 of the attachments shows that the match between intended and destination occupations of VET activity is poor in the majority of occupations, technicians and trades workers being the obvious exception. This result is less worrying than it first appears, as research by NCVER suggests that rather than providing specific training, in many cases VET is seen as providing a generic preparation for employment (Karmel & Mlotkowski 2008).

Of more concern than the low level of matching between what people study and the jobs they get are the low completion rates observed for apprentices and trainees. Overall, around half of apprentices and trainees in Australia do not complete their training (appendix table 15). Individual completion rates are 50.8% overall and highest for advanced clerical, sales and service workers, one of the occupational groups opened to traineeships in the 1990s. Individual completion rates for tradespersons and related workers, the occupational group most associated with the traditional four-year apprenticeship, are 49.5% overall, but vary considerably, from 64.3% for the mechanical and fabrication engineering trades and 59.6% for the electrical and electronics trades, to 41.2% for hairdressers and 34.3% for food tradespersons.

Finally, government expenditure per hour of VET activity, a measure of how efficiently VET is delivered, has been declining in recent years, although significant differences between states exist (appendix table 16). While this indicates increasing efficiency, the phenomenon known as 'hours creep'—the tendency for the nominal hours of training for VET programs to gradually increase over time—needs to be kept in mind.

## Measures of employer engagement with VET

The periodic Survey of Employer Use and Views of VET is a key source of information about the extent to which employers engage with the VET system, as well as their views about how important and successful VET is. Some key findings from the most recent survey are presented here.

In 2007, 54.0% of all employers used the VET system (down from 57.1% in 2005). This was the result of:

- 33.3% of employers having jobs requiring vocational qualifications
- 29.1% of employers having at least one apprentice or trainee
- 22.1% of employers having staff undertaking nationally recognised training not as part of an apprenticeship or traineeship.

A high percentage (71.0%) of employers used informal training, while only 13.9% of employers provided no training for their employees (appendix table 17).

The Survey of Employer Use and Views of VET also provides information about employer views on the importance of the VET system, as well as their level of satisfaction with it. In 2007, of those employers who required a vocational qualification as part of a job requirement, 90.1% considered the VET system important to meeting their skill needs, although a slightly smaller percentage (80.8%) were satisfied that the VET system was meeting those needs. Of those employers with apprentices or trainees, a similar discrepancy between importance and satisfaction was found, with 91.1% of employers considering the VET system important to meeting their skill needs, while 83.3% were satisfied that the VET system was meeting those needs (appendix table 17). The survey also found that more employers believe their usage of apprentices and trainees, nationally recognised training and unaccredited training will increase in the next three years than those who believe it will decrease, and the margin is quite substantial (38.8% against 8.3% for employers providing nationally recognised training).

# Recent and future developments

## Key recent developments

### The situation before the 1990s

The 1990s mark a turning point in the development of the Australian VET system. Before that, the design and accreditation of recognised VET programs was done almost entirely at state and territory (state) level, albeit with some cooperation and cross-recognition among the states, and delivery was almost entirely undertaken by public TAFE institutes owned, funded and managed by the states. Non-TAFE providers, both profit-making and not-for-profit, existed, but were not generally eligible to receive public recurrent funding for VET, although many did receive specific-purpose allocations. Input from employer representatives into the development of the VET system was mostly ad hoc and at state or local level rather than through systematic, national arrangements. Many features of the TAFE-led VET system in the decades before the 1990s existed because of TAFE's traditional role as the provider of the off-the-job training to apprentices and of other VET courses undertaken by young people, many of whom left school before completing Year 12.

It is important to recognise that the development of competency-based education and training in Australia has been evolutionary rather than abrupt (Harris et al. 1995, p.74ff) and many of the features of the system of nationally recognised VET that have been developed did exist in some contexts before the 1990s. A number of industries had developed national competency standards and these formed the basis for many of the courses and modules that were developed and delivered at state level. In the school system, state education authorities developed a range of vocational subjects to meet the needs of upper secondary students. The VET in Schools program, based on nationally recognised qualifications and units of competency, has to some extent superseded these earlier programs, which generally used a traditional curriculum framework rather than a competency-based model.

### Developing a national VET system

For more than a decade, the Australian Government and state governments have worked with employer, employee and provider representatives to develop a national training system which aims to provide nationally recognised VET to working-age Australians. The primary instrument developed to assure the quality and consistency of training throughout the national network of public and private registered training organisations is the Australian Quality Training Framework, described in detail in the previous section.

Another important development is the introduction of some limited competition into the training market. Released in 1994, the *National competition policy for Australia* report (known as the Hilmer Report) argued, among other things, for greater competition among government-owned entities, the removal of interstate barriers and the abolition of monopoly practices in certain areas; for example, state TAFE training. As a result of the Hilmer recommendations, the VET ministerial council agreed that a proportion of Australian Government and state recurrent funding would be disbursed competitively and that private providers could compete for these funds. A 'training market' which included the public sector was becoming a reality. As result of these reforms, an increased proportion of publicly funded activity was delivered by non-TAFE providers and an increase in interstate training activity also occurred.

A largely national approach operates in the apprenticeship and traineeship system, starting with the New Apprenticeships program in 1998. These arrangements introduced much greater flexibility, including User Choice, which allows employers and their apprentices or trainees to choose the registered training organisation that will provide the formal (usually off-the-job) component of the training program.

However, the development of a competitive market and the availability of User Choice for apprenticeships and traineeships have both been constrained by the desire of most states to maintain the viability of their TAFE institutes, the high capital costs that registered training organisations seeking to enter new training markets can face and the 'thin markets' that exist in many of Australia's less populated areas. Some states have capped or even reduced the funding disbursed competitively and not allowed User Choice for some apprenticeship and traineeship occupations, particularly in the traditional trades.

Other recent developments have included the use of vouchers or their equivalent for disbursing Australian Government funding and student loans and fee-help arrangements for students undertaking VET diploma and advanced diploma courses. These new funding arrangements fall outside the scope of the VET funding agreements between the Australian Government and the states and allow students to choose their registered training organisation from an approved list.

# Strengths of Australia's VET system

A key strength of the Australian VET system is the existence of linkages between VET and the labour market that allow employers and individuals to meet their training and skill needs. These have been summarised by Karmel (2005). The first comprises institutional linkages, including the variety of formal, legal and administrative structures described previously. The second is the formal and informal processes that lead to skills development, underpinned by widespread acceptance of the human capital model, which proposes that education and training lead to improved productivity, incomes and employment outcomes. Finally, there is the 'dynamics of the labour market', encompassing such factors as occupational mobility, the relative importance of generic and specific skills, how the VET system responds to changes in the labour market and how the individuals choose their training.

The strong emphasis on competency-based training in Australia, particularly in recognised VET programs, allows employers and individuals to focus on skills that meet specific needs while still providing a portable, nationally recognised qualification or statement of attainment. Flexibility and diversity are further important features, with a very wide range of accredited and unaccredited VET programs, providers and modes of study available to and used by students and employers. The mix of available public and private VET provision, which extends to the funding of VET, promotes flexibility and diversity. Both individuals and employers make extensive use of Australia's VET system.

Much consultation and cooperation is needed for the successful working of the national VET system. The role that employers have in developing competency standards and national training packages and the extensive consultative arrangements that inform policy development have positive benefits. This does mean that new policy developments can be protracted, but it usually also means that the agreement of interested parties has been obtained before implementation. The cooperative arrangements involving the Australian Government and state governments have largely been successful in overcoming the fact that constitutional authority for VET rests with the states. While these characteristics are all strengths of the Australian VET system, they are also potential weaknesses because of the risk that the response to change, a ubiquitous feature of the contemporary labour market, will be tardy or inappropriate.

Comparing VET in Australia with other countries is a difficult task. A key difference is that VET is defined much more broadly in Australia than elsewhere, encompassing a much wider range of accredited and unaccredited training programs. Part of the difference with other countries arises because VET in Australia includes some programs that in other countries are located in the secondary school or higher education systems. The VET system in Australia also endeavours to meet the needs of people of all ages, not just young people, and supports the skill needs of the great majority of employers and industries.

# Limitations of the existing arrangements

The responsiveness and efficiency of the public VET system is a source of concern for some governments, with variation among the states in the average cost of delivery and the amount of revenue that TAFE institutes generate through their fee-for-service operations. Employer representatives have lobbied governments on issues such as the time that training package developers and public registered training organisations need to respond to new skill demands and the variations in the standards and costs of regulation among states.

A further concern is an increase in the hours of training in the public VET system—6.6% from 2003 to 2006—against a backdrop of steady or declining student numbers, with no evidence that training has shifted to higher AQF levels to explain this. Australian Government accountability arrangements, which measure state performance using inputs, mean that there is little pressure on states and providers receiving public funds to improve their efficiency or increase completions in strategically important areas.

Many policy advisers believe that the number of people undertaking VET, particularly apprenticeships in traditional trades and courses at AQF diploma and advanced diploma level, needs to increase. However, in the public VET system the number of students has declined slightly since reaching a peak of 1.72 million in 2003, while the number undertaking training at diploma and advanced diploma levels and the number completing a full qualification has also declined (appendix table 19).

Australia's system of apprenticeship training for the traditional trades does not cope well with cyclical fluctuations in the economy. Employers are best able to take on additional apprentices when economic conditions are buoyant, but these conditions may have changed before the apprentice becomes qualified and fully productive several years later. Typically, apprentices are the first to suffer in a downturn. Apprenticeships in trade occupations have increased in recent years but have been slow to translate into successful completions. From 1998 to 2006 apprenticeship commencements in trades and related occupations increased by 58.6%, but the increase in successful completions was much less, at 26.9% (appendix tables 20 and 21).

The availability of User Choice—the policy that gives employers and their apprentices or trainees a free choice of registered training organisation for the formal, government-funded part of the training program—has been circumscribed because of the need for states to protect the viability of their TAFE institutes (the major public providers of training). The fact that the state training authorities have a conflict of interest because they are both major purchasers of training and own the major public providers (TAFE institutes) also creates a barrier to implementing User Choice policy and to full market competition more generally.

The purchaser–provider model promoted in the 1990s for managing public VET provision, under which state training authorities and TAFE institutes would operate as separate entities, was never fully implemented by most states. However, the Boston Consulting Group (2007) has argued that further market reform has the potential to improve the efficiency and responsiveness of the public VET system.

Although most students in the public VET system are enrolled in programs covered by national training packages, the great majority of training package qualifications have few or even no students. This under-utilisation suggests that the training package development processes may have resulted in an undesirable level of redundancy, and that too much effort has gone into too many qualifications.

The various national strategies for VET and government policies have promoted recognition of prior learning as a means for getting existing skills formally recognised, facilitating further skills acquisition and speedier qualification completion. Modest increases in recognition of prior learning have occurred, but the provision of these services by registered training organisations and the take-up among students have not met the expectations of ministers.

An ongoing area of concern has been the limited articulation arrangements between VET and higher education. Higher education institutions have been reluctant to give credit for subjects successfully completed in the VET sector, usually because of concerns with the level of knowledge underpinning VET units of competency and the fact that most VET units are assessed as 'competent' or 'not competent' without any firm grading level. However, there are many examples of very good VET–higher education articulation arrangements, often where courses have been designed with articulated pathways as an option.

Finally, it should be noted that although employers make extensive use of the VET system, both public and private, a number of large industries and employers have opted out of the recognised VET system or have established their own registered training organisation and firm-specific training packages, constraining portability.

# A new government and new directions after 2007[10]

The policies of the recently elected national Labor Government (November 2007) give high priority to education and skills development. However, this recent change of government means that future arrangements for the national VET system are still being worked out, although some specific directions have been indicated.

The VET funding agreements that allow Australian Government specific-purpose payments to flow to the states will continue. However, they are expected to have fewer accountability measures but greater emphasis on strategically important indicators, such as outputs and outcomes. Many of the specific programs that are currently managed separately by the Australian Government are expected to be brought under the umbrella of the funding agreements to promote better management and coordination with similar state-funded programs.

A new development is the allocation of funding that will allow industry skills councils to identify training needs and organise training for existing workers. This development may lead to a significant broadening of the role of the skills councils.

A review of credit and articulation arrangements between VET and higher education, to be undertaken in 2008 as part of a broader review of higher education, has been announced.

Further developments in the regulatory area are expected. In 2007 the National Audit and Registration Agency (NARA) was established in response to ongoing concerns about a lack of national consistency in regulation in the VET sector. The National Audit and Registration Agency is a national registration, audit and approval body for registered training organisations which operate in more than one state. It aims to reduce the regulatory burden on these registered training organisations. At the present time it is not known what proportion of registered training organisations will elect to register through this agency rather than through state recognition authorities.

[10] This information has changed since the report was completed. See 'About the research'.

# Concluding comments

The VET system in Australia has a well-developed although complex set of institutional arrangements. As in higher education, the development of a national system has overcome many of the limitations inherent to the Australian Constitution, which places formal authority for education and training with the states.

However, the economy does not stand still and the system will always be under pressure to be flexible and meet the changing expectations of employers and individuals. This means that many of the formal arrangements that underpin the system, particularly the public VET system, will continue to be tested. Areas that may need further attention include:

- dealing with the regulatory structures and accountability arrangements
- providing skills with the greatest pay-off
- ensuring the appropriate balance between lower-level and higher-level training provision
- achieving an appropriate balance between entry-level training (initial VET) and training for older and existing workers (continuing VET)
- achieving an appropriate balance between the planned and free-market training sectors
- achieving an appropriate balance in the funding of VET—between governments, employers and individuals.

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# Appendix: Statistical tables and attachments

**Table 1 Growth in economic aggregates, Australia, 1960s–2040s**

| | Population | Labour productivity | Employment | Real GDP | Real GDP per person |
|---|---|---|---|---|---|
| | | | Average annual growth rate (%) | | |
| 1960s | 2.2 | 2.9 | 2.6 | 5.1 | 2.8 |
| 1970s | 1.3 | 2.0 | 1.7 | 3.0 | 2.2 |
| 1980s | 1.5 | 1.2 | 2.4 | 3.4 | 1.8 |
| 1990s | 1.2 | 2.1 | 1.2 | 3.3 | 2.1 |
| 2000s | 1.2 | 1.5 | 1.9 | 3.0 | 1.8 |
| 2010s | 1.0 | 1.75 | 0.8 | 2.6 | 1.6 |
| 2020s | 0.8 | 1.75 | 0.5 | 2.3 | 1.4 |
| 2030s | 0.6 | 1.75 | 0.4 | 2.2 | 1.5 |
| 2040s | 0.5 | 1.75 | 0.3 | 2.0 | 1.6 |

Source: Commonwealth of Australia (2007).

**Table 2 Employment by level of highest post-school qualification, Australia, 2003–07**

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 |
| Higher education | 1 989.9 | 2 102.6 | 2 229.8 | 2 353.7 | 2 428.5 |
| VET[(a)] | 3 129.4 | 3 276.0 | 3 267.7 | 3 354.3 | 3 471.3 |
| Advanced diploma/diploma | 763.5 | 821.4 | 848.9 | 874.2 | 946.4 |
| Certificate III/IV | 1 667.9 | 1 698.3 | 1 651.7 | 1 745.5 | 1 845.6 |
| Certificate I/II | 541.2 | 579.9 | 577.9 | 552.7 | 509.0 |
| Total with post-school qualification[(b)] | 5 208.4 | 5 452.5 | 5 625.7 | 5 827.6 | 5 975.1 |
| Total without post-school qualification | 4 072.8 | 3 939.2 | 4 081.0 | 4 019.2 | 4 145.9 |
| **Total** | **9 281.2** | **9 391.7** | **9 706.7** | **9 846.8** | **10 121.0** |

Notes: (a) Includes certificates not further defined.
(b) Includes persons with qualification levels not determined, which have not been distributed across higher education and VET.

Source: ABS (2003–07).

**Table 3 Employment by occupation and level of highest post-school qualification, Australia, 2007**

| | Higher education | VET[a] | Total with post-school qualification[b] | Total without post-school qualification | Total |
|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 |
| Managers | 378.6 | 412.6 | 802.0 | 431.3 | 1 233.3 |
| Professionals | 1 405.8 | 392.5 | 1 818.3 | 239.1 | 2 057.4 |
| Technicians and trades workers | 108.4 | 957.8 | 1 073.7 | 497.9 | 1 571.6 |
| Community and personal service workers | 116.5 | 423.0 | 550.1 | 368.5 | 918.6 |
| Clerical and administrative workers | 250.1 | 569.7 | 830.2 | 785.9 | 1 616.1 |
| Sales workers | 92.5 | 241.4 | 339.9 | 609.3 | 949.2 |
| Machinery operators and drivers | 26.3 | 206.2 | 237.3 | 451.3 | 688.6 |
| Labourers | 50.3 | 268.0 | 323.6 | 762.6 | 1 086.2 |
| **Total** | **2 428.5** | **3 471.3** | **5 975.1** | **4 145.9** | **10 121.0** |

Notes: (a) Includes certificates not further defined.
(b) Includes persons with qualification levels not determined, which have not been distributed across higher education and VET.

Source: ABS (2007g).

**Table 4 Employment by selected industries and level of highest post-school qualification, Australia, 2007**

| | Higher education | VET[a] | Total with post-school qualification[b] | Total without post-school qualification | Total |
|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 |
| Agriculture, forestry and fishing | 25.6 | 92.9 | 120.7 | 164.7 | 285.4 |
| Mining | 24.7 | 51.7 | 77.5 | 51.4 | 128.9 |
| Manufacturing | 131.6 | 412.9 | 550.2 | 471.7 | 1 021.9 |
| Construction | 66.5 | 454.3 | 529.6 | 366.0 | 895.6 |
| Retail trade | 122.2 | 316.3 | 444.9 | 701.2 | 1 146.1 |
| Accommodation and food services | 58.4 | 188.0 | 249.0 | 431.1 | 680.1 |
| Professional, scientific and technical services | 369.1 | 179.7 | 554.0 | 150.5 | 704.5 |
| Administrative and support services | 55.6 | 112.4 | 170.2 | 175.4 | 345.6 |
| Public administration and safety | 213.2 | 205.3 | 425.2 | 196.6 | 621.8 |
| Education and training | 450.9 | 183.8 | 641.2 | 113.9 | 755.1 |
| Health care and social assistance | 386.9 | 391.4 | 790.3 | 259.8 | 1 050.1 |
| **Total** | **2 428.5** | **3 471.3** | **5 975.1** | **4 145.9** | **10 121.0** |

Notes: (a) Includes certificates not further defined.
(b) Includes persons with qualification levels not determined, which have not been distributed across higher education and VET.

Source: ABS (2007g).

**Table 5 Labour force status by level of highest post-school qualification, Australia, 2007**

| | Employed | | Unemployed | | Labour force |
|---|---|---|---|---|---|
| | ’000 | Column % | ’000 | Row % | |
| Postgraduate degree | 404.3 | 4.0 | 10.4 | 2.5 | 414.7 |
| Graduate diploma/graduate certificate | 286.1 | 2.8 | 6.4 | 2.2 | 292.5 |
| Bachelor degree | 1 738.1 | 17.2 | 35.6 | 2.0 | 1 773.7 |
| Advanced diploma/diploma | 946.4 | 9.4 | 29.8 | 3.1 | 976.2 |
| Certificate III/IV | 1 845.6 | 18.2 | 46.1 | 2.4 | 1 891.7 |
| Certificate I/II | 509.0 | 5.0 | 28.6 | 5.3 | 537.6 |
| Total with post-school qualification[(a)] | 5 975.1 | 59.0 | 173.0 | 2.8 | 6 148.1 |
| Total without post-school qualification | 4 145.9 | 41.0 | 286.1 | 6.5 | 4 432.0 |
| **Total** | **10 121.0** | **100.0** | **459.1** | **4.3** | **10 580.1** |

Notes: (a) Includes certificates not further defined and level not determined.
Source: ABS (2007g).

**Table 6 Employment by occupation, Australia, 1997–2007**

| | 1997 | 2002 | 2007 | 1997–2007 % change |
|---|---|---|---|---|
| | ’000 | ’000 | ’000 | % |
| Managers and administrators | 627.9 | 690.9 | 884.4 | 40.9 |
| Professionals | 1 466.8 | 1 759.7 | 2 050.8 | 39.8 |
| Associate professionals | 888.6 | 1 071.7 | 1 323.2 | 48.9 |
| Tradespersons and related workers | 1 122.9 | 1 154.3 | 1 327.3 | 18.2 |
| Advanced clerical and service workers | 383.3 | 386.8 | 383.7 | 0.1 |
| Intermediate clerical, sales and service workers | 1 363.6 | 1 571.6 | 1 711.4 | 25.5 |
| Intermediate production and transport workers | 763.6 | 779.6 | 909.5 | 19.1 |
| Elementary clerical, sales and service workers | 832.8 | 920.6 | 959.1 | 15.2 |
| Labourers and related workers | 857.2 | 888.0 | 886.3 | 3.4 |
| **Total** | **8 306.6** | **9 223.1** | **10 435.8** | **25.6** |

Notes: August quarter figures used.
Source: ABS (2008).

**Table 7 Training relevance by intended occupation: Graduates for whom intended and destination occupations do not match at the sub-major group level, by ANZSCO, 2007**

| Intended occupation (2 -digit ANZSCO within these major groups) | Employed in intended occupation | Not employed in intended occupation | | | Occupation after training unknown |
|---|---|---|---|---|---|
| | | Training is highly or somewhat relevant | Training has very little or no relevance | Training relevance unknown | |
| | % | % | % | % | % |
| Managers | 14.1 | 65.9 | 19.1 | 0.1* | 0.8 |
| Professionals | 21.5 | 52.6 | 24.4 | 0.3** | 1.2* |
| Technicians and trades workers | 60.6 | 24.2 | 14.2 | 0.1* | 0.9 |
| Community and personal service workers | 43.8 | 29.4 | 25.6 | 0.2* | 1.0 |
| Clerical and administrative workers | 23.0 | 53.7 | 22.3 | 0.1* | 0.9 |
| Sales workers | 45.2 | 37.3 | 17.1 | 0.1** | 0.3* |
| Machinery operators and drivers | 26.6 | 47.7 | 24.7 | 0.2* | 0.7 |
| Labourers | 25.5 | 49.9 | 22.5 | 0.3* | 1.9 |
| **Total** | **36.6** | **41.2** | **21.1** | **0.2** | **1.0** |

Notes: Base is all graduates who were employed as at May 2007, excluding those from the ACE sector and unknown intended ANZSCO; matching between intended and destination occupation occurs at the sub-major group level.
* Relative standard error greater than 25%, estimate should be used with caution.
** Fewer than 5 respondents in cell.
ANZSCO = Australian and New Zealand Standard Classification of Occupations

Source: Karmel and Mlotkowski (2008).

**Table 8 Net inflow of skilled migrants by occupation, Australia, 1997–98 to 2004–05**

| | 1997–98 | 1998–99 | 1999–00 | 2000–01 | 2001–02 | 2002–03 | 2003–04 | 2004–05 |
|---|---|---|---|---|---|---|---|---|
| Managers | 7 217 | 8 623 | 8 580 | 8 551 | 7 793 | 7 822 | 6 900 | 6 612 |
| Professionals | 9 363 | 9 073 | 14 192 | 17 653 | 15 866 | 20 852 | 27 338 | 29 054 |
| Associate professionals | 2 171 | 2 110 | 2 123 | 3 019 | 2 669 | 2 658 | 3 169 | 4 093 |
| Tradespersons | 3 755 | 4 325 | 4 033 | 3 816 | 3 047 | 4 930 | 6 205 | 6 098 |
| **Total** | **22 506** | **24 131** | **28 928** | **33 039** | **29 375** | **36 262** | **43 612** | **45 857** |

Source: Cully (2006).

**Table 9 Occupational inflows and outflows by sex, 1996–2001**

| | Age cohort at beginning of period | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 15–19 | 20–24 | 25–29 | 30–34 | 35–39 | 40–44 | 45–49 | 50–54 |
| **Males 1996–2001** | | | | | | | | |
| Managers and administrators | 9 200 | 16 900 | 20 300 | 15 400 | 7 200 | -5 600 | -19 600 | -21 600 |
| Professionals | 46 700 | 31 300 | 6 600 | 2 500 | -1 100 | -7 700 | -1 800 | -5 300 |
| Associate professionals | 30 900 | 19 900 | 5 700 | 4 900 | -4 600 | 5 200 | -8 500 | -10 500 |
| Tradespersons and related workers | 56 000 | -18 200 | -10 600 | -14 800 | -11 000 | -6 300 | -3 200 | -13 400 |
| Advanced clerical and service workers | 2 400 | -1 800 | -1 600 | -1 600 | -300 | -1 200 | -500 | -800 |
| Intermediate clerical, sales and service workers | 33 100 | -6 600 | -1 300 | -7 000 | -6 400 | -1 200 | -2 100 | -6 900 |
| Intermediate production and transport workers | 14 500 | 4 700 | -1 400 | -8 800 | 8 500 | -2 700 | -9 000 | -8 700 |
| Elementary clerical, sales and service workers | -3 700 | -14 200 | -5 300 | -3 500 | -1 700 | 1 700 | -600 | -2 700 |
| Labourers and related workers | -8 700 | -13 900 | -10 000 | -8 200 | -8 700 | -5 300 | -5 400 | -1 100 |
| **Females 1996–2001** | | | | | | | | |
| Managers and administrators | 5 400 | 11 900 | 7 600 | 3 600 | 3 400 | -1 500 | -700 | -6 800 |
| Professionals | 60 500 | 44 500 | -3 200 | 8 300 | 8 300 | 3 300 | -7 600 | -15 500 |
| Associate professionals | 30 600 | 17 600 | 5 900 | 4 300 | 6 200 | 5 400 | -3 100 | -5 900 |
| Tradespersons and related workers | 5 800 | -4 600 | -2 500 | 500 | 400 | 1 000 | -2 800 | -1 300 |
| Advanced clerical and service workers | 13 100 | -4 400 | -10 900 | -5 800 | 0 | -3 900 | -6 300 | -7 800 |
| Intermediate clerical, sales and service workers | 74 200 | -28 800 | -13 100 | 10 200 | 17 700 | 5 700 | -5 000 | -9 800 |
| Intermediate production and transport workers | -100 | -2 800 | -2 600 | -4 300 | -1 300 | -2 700 | -2 500 | -4 900 |
| Elementary clerical, sales and service workers | -49 300 | -35 200 | -700 | 1 900 | 2 300 | 10 000 | -5 000 | -7 300 |
| Labourers and related workers | -1 800 | -6 700 | -3 300 | -2 200 | 1 400 | -3 300 | -7 500 | -7 200 |

Note: The table shows the net increase or decrease in the number of people in each age cohort in each occupation across the period specified. For example, amongst the cohort of men aged 15–19 in 1986, there were 16 500 more managers in 1991 (when they were aged 20–24) than in 1986. Negative figures indicate a decrease in the numbers in a cohort in an occupation across the period specified.

Source: Calculated from household sample files for 1986–2001 censuses; excludes those who migrated to Australia during each period. See Martin (2007).

**Table 10 Over-skilling of employed persons by highest educational level, Australia, 2004–05**

| | Well matched | Moderately over-skilled | Severely over-skilled |
|---|---|---|---|
| | % | % | % |
| Below Year 10 | 55.0 | 26.7 | 18.3 |
| Year 10–12 | 52.4 | 33.4 | 14.2 |
| Certificates and diplomas | 58.8 | 30.9 | 10.3 |
| University level | 63.6 | 27.5 | 8.9 |
| **Total** | **57.8** | **30.6** | **11.5** |

Note: Sample consists of 7815 working-age employees in full-time employment in HILDA waves 4 and 5 (years 2004 and 2005).

Source: Mavromaras, McGuinness and King Fok (2007).

**Table 11 Operating revenues by category, for government training departments, Australia, 2005 and 2006**

| Revenue classification | NSW | Vic. | Qld | WA | SA | Tas. | NT | ACT | DEST[a] | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $ million | | | | | |
| **State/territory government [b]** | | | | | | | | | | |
| 2006 | 977.8 | 681.0 | 438.1 | 336.8 | 207.5 | 65.1 | 75.3 | 59.5 | 0.0 | **2 840.9** |
| % of column total | 57.2 | 48.2 | 57.3 | 61.8 | 55.0 | 57.5 | 65.1 | 55.6 | 0.0 | **53.4** |
| 2005 | 934.9 | 638.7 | 445.7 | 339.9 | 193.5 | 60.1 | 66.4 | 57.8 | 0.0 | **2 737.0** |
| % of column total | 58.1 | 49.1 | 58.5 | 63.5 | 55.1 | 56.7 | 68.1 | 57.1 | 0.0 | **54.5** |
| **Australian Government[c]** | | | | | | | | | | |
| 2006 | 341.9 | 249.7 | 202.8 | 101.4 | 82.9 | 27.5 | 27.9 | 19.5 | 178.2 | **1 231.9** |
| % of column total | 20.0 | 17.7 | 26.5 | 18.6 | 22.0 | 24.3 | 24.1 | 18.2 | 99.7 | **23.1** |
| 2005 | 328.0 | 240.7 | 198.1 | 95.7 | 79.9 | 26.5 | 22.9 | 18.9 | 161.6 | **1 172.4** |
| % of column total | 20.4 | 18.5 | 26.0 | 17.9 | 22.8 | 25.0 | 23.5 | 18.7 | 100.0 | **23.3** |
| **Fee-for-service** | | | | | | | | | | |
| 2006 | 225.1 | 334.5 | 53.1 | 42.4 | 42.9 | 10.1 | 2.3 | 18.2 | 0.0 | **728.6** |
| % of column total | 13.2 | 23.7 | 6.9 | 7.8 | 11.4 | 9.0 | 2.0 | 17.0 | 0.0 | **13.7** |
| 2005 | 197.7 | 279.5 | 54.1 | 42.1 | 37.3 | 9.7 | 3.0 | 14.0 | 0.0 | **637.3** |
| % of column total | 12.3 | 21.5 | 7.1 | 7.9 | 10.6 | 9.2 | 3.0 | 13.8 | 0.0 | **12.7** |
| **Student fees and charges** | | | | | | | | | | |
| 2006 | 71.4 | 59.6 | 49.0 | 33.8 | 18.2 | 4.9 | 1.0 | 5.7 | 0.0 | **243.6** |
| % of column total | 4.2 | 4.2 | 6.4 | 6.2 | 4.8 | 4.3 | 0.9 | 5.3 | 0.0 | **4.6** |
| 2005 | 69.0 | 59.7 | 43.3 | 31.0 | 21.5 | 4.6 | 0.7 | 5.6 | 0.0 | **235.4** |
| % of column total | 4.3 | 4.6 | 5.7 | 5.8 | 6.1 | 4.4 | 0.7 | 5.5 | 0.0 | **4.7** |
| **Ancillary trading and other** | | | | | | | | | | |
| 2006 | 92.9 | 88.9 | 21.8 | 30.8 | 25.9 | 5.6 | 9.1 | 4.2 | 0.5 | **279.7** |
| % of column total | 5.4 | 6.3 | 2.9 | 5.6 | 6.9 | 4.9 | 7.9 | 3.9 | 0.3 | **5.3** |
| 2005 | 80.2 | 82.9 | 21.3 | 26.7 | 18.8 | 4.9 | 4.5 | 4.9 | 0.0 | **244.2** |
| % of column total | 5.0 | 6.4 | 2.8 | 5.0 | 5.4 | 4.6 | 4.6 | 4.8 | 0.0 | **4.9** |
| **Total** | | | | | | | | | | |
| 2006 | 1 709.2 | 1 413.7 | 764.8 | 545.1 | 377.5 | 113.2 | 115.6 | 107.0 | 178.7 | **5 324.7** |
| 2005 | 1 609.7 | 1 301.5 | 762.5 | 535.3 | 350.9 | 105.9 | 97.5 | 101.2 | 161.6 | **5 026.2** |
| % change 2005–06 | 6.2 | 8.6 | 0.3 | 1.8 | 7.6 | 6.8 | 18.5 | 5.7 | 10.6 | **5.9** |

Notes: (a) Department of Education, Science and Training.
(b) State and territory government includes state recurrent, assumption of liabilities and resources received free of charge.
(c) Australian Government includes Commonwealth general purpose recurrent, Commonwealth specific purpose programs—DEST-funded national programs and Commonwealth specific purpose programs—other.

Source: NCVER (2007c).

**Table 12 Operating expenditures by category, for government training departments, Australia, 2005 and 2006**

| Expenditure category | NSW | Vic. | Qld | WA | SA | Tas. | NT | ACT | DEST[a] | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $ million | | | | | |
| **Employee costs** | | | | | | | | | | |
| 2006 | 1 215.9 | 806.3 | 476.3 | 318.9 | 242.6 | 79.6 | 54.0 | 67.9 | 24.6 | **3 286.1** |
| % of column total | 68.0 | 57.5 | 57.8 | 60.4 | 59.1 | 64.6 | 48.9 | 60.8 | 12.7 | **59.8** |
| 2005 | 1 187.3 | 774.6 | 451.9 | 300.3 | 222.8 | 72.2 | 50.7 | 65.3 | 17.3 | **3 142.4** |
| % of column total | 68.1 | 59.0 | 56.5 | 58.0 | 57.4 | 62.1 | 46.3 | 59.8 | 10.2 | **59.7** |
| **Supplies and services [b]** | | | | | | | | | | |
| 2006 | 349.7 | 333.0 | 219.0 | 118.5 | 111.4 | 25.5 | 36.3 | 26.6 | 105.4 | **1 325.4** |
| % of column total | 19.6 | 23.7 | 26.6 | 22.4 | 27.2 | 20.7 | 32.9 | 23.9 | 54.6 | **24.1** |
| 2005 | 350.6 | 295.0 | 204.5 | 130.4 | 109.6 | 26.2 | 33.4 | 28.3 | 94.3 | **1 272.2** |
| % of column total | 20.1 | 22.5 | 25.6 | 25.2 | 28.3 | 22.5 | 30.5 | 25.9 | 55.2 | **24.1** |
| **Grants and subsidies [c]** | | | | | | | | | | |
| 2006 | 34.8 | 57.2 | 37.7 | 12.5 | 23.5 | 3.3 | 10.7 | 5.1 | 62.0 | **246.9** |
| % of column total | 1.9 | 4.1 | 4.6 | 2.4 | 5.7 | 2.7 | 9.7 | 4.5 | 32.1 | **4.5** |
| 2005 | 36.9 | 53.8 | 32.3 | 19.9 | 21.7 | 2.8 | 12.6 | 2.6 | 57.0 | **239.7** |
| % of column total | 2.1 | 4.1 | 4.0 | 3.8 | 5.6 | 2.4 | 11.5 | 2.4 | 33.4 | **4.5** |
| **Payments to non-TAFE providers for VET delivery [c]** | | | | | | | | | | |
| 2006 | 92.4 | 131.6 | 51.7 | 53.3 | 19.0 | 6.8 | 3.6 | 8.4 | 0.0 | **366.9** |
| % of column total | 5.2 | 9.4 | 6.3 | 10.1 | 4.6 | 5.5 | 3.3 | 7.5 | 0.0 | **6.7** |
| 2005 | 77.7 | 114.1 | 67.4 | 44.4 | 20.4 | 6.2 | 6.7 | 9.5 | 0.0 | **346.4** |
| % of column total | 4.5 | 8.7 | 8.4 | 8.6 | 5.3 | 5.3 | 6.1 | 8.7 | 0.0 | **6.6** |
| **Depreciation and amortisation** | | | | | | | | | | |
| 2006 | 95.0 | 74.0 | 39.5 | 24.6 | 13.7 | 8.0 | 5.8 | 3.7 | 1.2 | **265.4** |
| % of column total | 5.3 | 5.3 | 4.8 | 4.7 | 3.3 | 6.5 | 5.3 | 3.3 | 0.6 | **4.8** |
| 2005 | 91.4 | 74.7 | 44.3 | 22.9 | 13.4 | 8.9 | 6.1 | 3.5 | 2.1 | **267.2** |
| % of column total | 5.2 | 5.7 | 5.5 | 4.4 | 3.4 | 7.7 | 5.6 | 3.2 | 1.2 | **5.1** |
| **Total** | | | | | | | | | | |
| 2006 | 1 787.8 | 1 402.0 | 824.4 | 527.7 | 410.1 | 123.2 | 110.4 | 111.7 | 193.3 | **5 490.6** |
| 2005 | 1 743.8 | 1 312.2 | 800.4 | 517.9 | 387.9 | 116.3 | 109.4 | 109.1 | 170.8 | **5 267.9** |
| % change 2005–06 | 2.5 | 6.8 | 3.0 | 1.9 | 5.7 | 5.9 | 0.9 | 2.3 | 13.2 | **4.2** |

Notes: (a) Department of Education, Science and Training.
(b) Includes impairment losses, losses on sales of property, plant and equipment, borrowing costs and other operating expenses.
(c) Table 12 reports expenditures as classified when expended by the jurisdictions. Items annotated with (c) are subsequently expended by grantees or non-TAFE providers as employee and supplies and services costs.

Source: NCVER (2007c).

**Table 13 The quantum of successfully completed VET student activity undertaken by government-funded students, by age and course level, Australia, 2002–06**

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| | Load pass rate[(a)] (%) | | | | |
| Load pass rate | 76.4 | 77.1 | 77.5 | 78.2 | 78.5 |
| Age group | | | | | |
| Age 15–19 | 74.7 | 75.6 | 76.6 | 77.3 | 77.4 |
| Age 20–24 | 76.2 | 77.1 | 77.8 | 78.7 | 79.1 |
| Age 25–39 | 76.9 | 77.3 | 77.4 | 78.0 | 78.5 |
| Age 40–64 | 79.1 | 79.7 | 79.1 | 80.0 | 80.2 |
| Course level | | | | | |
| Diploma and above | 77.1 | 78.0 | 77.9 | 77.9 | 77.8 |
| Certificate III or IV | 79.1 | 79.3 | 79.8 | 80.8 | 80.9 |
| Certificate I or II or lower[(b)] | 69.9 | 71.1 | 71.4 | 72.3 | 73.3 |
| Other[(c)] | 74.2 | 74.8 | 75.4 | 77.0 | 76.6 |

Notes: (a) Load pass rate is the ratio of hours attributed to students who gained competencies/passed assessment in an assessable module or unit of competency to all students who were assessed and either passed, failed or withdrew. The calculation is based on the annual hours for each assessable module or unit of competency and includes competencies achieved/units passed through recognition of prior learning.
(b) Includes certificate I/II and secondary education.
(c) Includes training programs that do not directly lead to a qualification. That is, non-award courses, subject-only enrolments and miscellaneous education.

Source: NCVER National VET Provider Collection (2002–06). See also Annual National Report of the Australian Vocational Education and Training System, DEST 2006.

**Table 14 VET graduate findings by selected characteristics, Australia, 2007**

| | Employed after training | Difference in proportion employed from before training to after | Employed or in further study | Fully or partly achieved their main reason for doing the training | Satisfied with the overall quality of training |
|---|---|---|---|---|---|
| | % | % | % | % | % |
| As part of an apprenticeship or traineeship | | | | | |
| Yes | 90.6 | 12.4 | 94.0 | 93.5 | 87.0 |
| No | 78.4 | 4.9 | 87.6 | 84.7 | 89.2 |
| Field of education | | | | | |
| Natural and physical sciences | 75.8 | 9.2 | 85.1 | 83.0 | 87.9 |
| Information technology | 64.3 | 7.7 | 80.4 | 75.3 | 84.0 |
| Engineering and related technologies | 89.4 | 6.6 | 92.8 | 90.1 | 88.3 |
| Architecture and building | 90.6 | 14.4 | 94.0 | 90.9 | 89.8 |
| Agriculture, environmental and related studies | 86.3 | 4.9 | 91.6 | 91.1 | 89.7 |
| Health | 88.1 | 3.3 | 93.7 | 91.2 | 86.7 |
| Education | 91.1 | 4.3 | 94.4 | 89.5 | 85.6 |
| Management and commerce | 80.6 | 5.1 | 89.1 | 83.7 | 89.0 |
| Society and culture | 79.7 | 9.8 | 88.8 | 88.8 | 89.3 |
| Creative arts | 69.1 | 2.2 | 87.5 | 80.3 | 85.8 |
| Food, hospitality and personal services | 79.5 | 9.3 | 86.4 | 85.4 | 90.7 |
| Mixed field programs | 49.4 | 8.0 | 74.1 | 82.9 | 90.2 |
| Qualification | | | | | |
| Diploma and above | 84.7 | 5.3 | 92.3 | 83.1 | 87.6 |
| Certificate IV | 85.1 | 2.7 | 92.8 | 85.4 | 87.3 |
| Certificate III | 85.6 | 8.6 | 91.5 | 89.6 | 88.9 |
| Certificate II | 75.0 | 7.8 | 85.0 | 85.8 | 89.7 |
| Certificate I | 61.5 | 8.2 | 74.8 | 83.4 | 91.0 |
| Reasons for undertaking the training | | | | | |
| Employment-related outcome | 85.8 | 7.6 | 91.6 | 85.1 | 88.4 |
| Further study outcome | 61.5 | 2.3 | 88.4 | 86.0 | 88.4 |
| Personal development outcome | 66.0 | 5.7 | 78.4 | 92.8 | 89.4 |
| **Total** | **81.1** | **7.0** | **89.2** | **86.7** | **88.8** |

Source: NCVER Student Outcomes Survey (2007).

**Table 15 Apprentice and trainee completion rates by occupation (sub-major groups) for contracts and individuals[(a)], Australia, 2001 commencements**

| | Contract completion rates | Number of contracts | Individual completion rates | Number of individuals |
|---|---|---|---|---|
| | % | '000 | % | '000 |
| **Managers and administrators** | **56.0** | **1.1** | **56.8** | **1.0** |
| 11 Generalist managers | 45.8 | 0.1 | 46.3 | 0.1 |
| 12 Specialist managers | 57.5 | 0.3 | 58.9 | 0.3 |
| 13 Farmers and farm managers | 56.8 | 0.7 | 57.4 | 0.7 |
| **Professionals** | **55.6** | **2.0** | **57.3** | **2.0** |
| 21 Science, building and engineering professionals | 69.5 | 0.2 | 70.9 | 0.2 |
| 22 Business and information professionals | 61.4 | 0.2 | 61.8 | 0.2 |
| 23 Health professionals | 50.5 | 1.1 | 52.7 | 1.0 |
| 24 Education professionals | 66.8 | 0.2 | 68.4 | 0.2 |
| 25 Social, arts and miscellaneous professionals | 51.8 | 0.3 | 52.4 | 0.3 |
| **Associate professionals** | **54.5** | **10.7** | **55.6** | **10.5** |
| 31 Science, engineering and related associate professionals | 51.8 | 1.1 | 53.5 | 1.1 |
| 32 Business and administration associate professionals | 54.6 | 4.2 | 55.9 | 4.1 |
| 33 Managing supervisors (sales and service) | 54.2 | 4.1 | 54.8 | 4.0 |
| 34 Health and welfare associate professionals | 63.4 | 0.5 | 64.6 | 0.5 |
| 39 Other associate professionals | 53.6 | 0.7 | 55.2 | 0.7 |
| **Tradespersons and related workers[(b)]** | **47.4** | **60.3** | **49.5** | **57.6** |
| 41 Mechanical and fabrication engineering tradespersons | 62.6 | 5.9 | 64.3 | 5.7 |
| 42 Automotive tradespersons | 51.1 | 9.4 | 53.0 | 9.1 |
| 43 Electrical and electronics tradespersons | 57.8 | 6.2 | 59.6 | 6.0 |
| 44 Construction tradespersons | 48.8 | 12.1 | 50.6 | 11.6 |
| 45 Food tradespersons | 32.2 | 12.7 | 34.3 | 11.9 |
| 46 Skilled agricultural and horticultural workers | 52.5 | 3.5 | 54.4 | 3.4 |
| 49 Other tradespersons and related workers | 44.2 | 10.3 | 46.8 | 9.7 |
| 491 Printing tradespersons | 55.4 | 0.6 | 56.4 | 0.6 |
| 492 Wood tradespersons | 48.4 | 2.0 | 50.3 | 2.0 |
| 493 Hairdressers | 37.8 | 5.7 | 41.2 | 5.2 |
| 494 Textile, clothing and related tradespersons | 50.8 | 0.5 | 51.5 | 0.5 |
| 498 Miscellaneous tradespersons and related workers | 56.0 | 1.2 | 57.4 | 1.2 |
| **Advanced clerical, sales and service workers[(b)]** | **60.3** | **8.2** | **61.0** | **8.1** |
| 51 Secretaries and personal assistants | 62.8 | 4.1 | 63.9 | 4.0 |
| 59 Other advanced clerical and service workers | 56.7 | 3.8 | 57.0 | 3.8 |
| **Intermediate clerical, sales and service workers** | **49.5** | **84.8** | **50.5** | **83.1** |
| 61 Intermediate clerical workers | 58.3 | 23.3 | 59.6 | 22.8 |
| 62 Intermediate sales and related workers | 41.3 | 33.3 | 42.2 | 32.7 |
| 63 Intermediate service workers | 51.7 | 28.2 | 52.8 | 27.6 |

| | Contract completion rates | Number of contracts | Individual completion rates | Number of individuals |
|---|---|---|---|---|
| | % | '000 | % | '000 |
| **Intermediate production and transport workers** | **52.0** | **26.5** | **52.5** | **26.3** |
| 71 Intermediate plant operators | 59.8 | 3.2 | 60.9 | 3.1 |
| 72 Intermediate machine operators | 42.3 | 2.0 | 43.2 | 1.9 |
| 73 Road and rail transport drivers | 50.9 | 8.7 | 51.2 | 8.7 |
| 79 Other intermediate production and transport workers | 52.3 | 12.7 | 52.8 | 12.6 |
| **Elementary clerical, sales and service workers** | **47.3** | **19.2** | **48.3** | **18.8** |
| 81 Elementary clerks | 56.8 | 2.6 | 58.0 | 2.6 |
| 82 Elementary sales workers | 46.0 | 11.6 | 46.9 | 11.3 |
| 83 Elementary service workers | 45.5 | 5.0 | 46.5 | 4.9 |
| **Labourers and related workers** | **48.0** | **27.0** | **49.0** | **26.4** |
| 91 Cleaners | 49.8 | 7.3 | 50.4 | 7.2 |
| 92 Factory labourers | 43.0 | 10.8 | 44.1 | 10.5 |
| 99 Other labourers and related workers | 52.7 | 8.9 | 53.9 | 8.7 |
| **All occupations** | **49.6** | **239.7** | **50.8** | **233.7** |

Notes: (a) Completion rates are derived for both contracts of training and individual apprentices and trainees who may have commenced more than one contract in the course of their training.
(b) Aggregate completion rates may include some apprentices and trainees where disaggregation by specific occupation (i.e. to the 2-digit level) is not available.

Source: NCVER National Apprentice and Trainee Collection (March 2007 estimates). See NCVER (2007a).

**Table 16 Government recurrent expenditure per publicly funded nominal hour for the VET system, Australia, 2002–06**

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| | | | $/hour (2006 prices) | | |
| Expenditure per hour | 14.94 | 15.19 | 15.24 | 14.88 | 14.24 |
| State | | | | | |
| New South Wales | 15.40 | 16.02 | 15.06 | 14.82 | 14.27 |
| Victoria | 12.97 | 13.04 | 13.07 | 12.94 | 12.38 |
| Queensland | 15.65 | 15.39 | 16.93 | 15.51 | 14.88 |
| South Australia | 16.14 | 17.61 | 18.39 | 17.80 | 17.84 |
| Western Australia | 15.16 | 14.54 | 15.41 | 14.89 | 14.06 |
| Tasmania | 16.45 | 16.05 | 15.71 | 16.31 | 15.85 |
| Northern Territory | 26.02 | 27.15 | 25.77 | 28.53 | 22.51 |
| Australian Capital Territory | 15.32 | 16.00 | 16.67 | 17.91 | 16.10 |

Source: NCVER, National VET Provider Collection (2002–06). See also Annual National Report of the Australian Vocational Education and Training System, DEST 2006.

**Table 17 Employer views of training choices, importance and satisfaction, and skill needs, Australia, 2005–07[a]**

| | 2005 | 2007 |
|---|---|---|
| | % | % |
| **Training choices** | | |
| *% of all employers:* | | |
| Employers using the VET system: | 57.1 | 54.0 |
| Employers having jobs that require vocational qualifications | 35.0 | 33.3 |
| Employers with apprentices and trainees | 28.2 | 29.1 |
| Employers using nationally recognised training[b] | 24.1 | 22.1 |
| Employers using unaccredited training | 53.0 | 49.0 |
| Employers using informal training | 72.1 | 71.0 |
| Employers providing no training | 12.6 | 13.9 |
| **Training importance and satisfaction** | | |
| *% of employers with vocational qualifications as a job requirement:* | | |
| who consider it important[c] | 93.4 | 90.1 |
| who are satisfied[d] | 76.8 | 80.8 |
| *% of employers with apprentices/trainees:* | | |
| who consider it important[c] | 88.4 | 91.1 |
| who are satisfied[d] | 79.1 | 83.3 |
| *% of employers providing nationally recognised training[b]:* | | |
| who consider it important[c] | 85.1 | 76.7 |
| who are satisfied[d] | 80.3 | 80.5 |
| *% of employers providing unaccredited training:* | | |
| who consider it important[c] | 92.8 | 93.8 |
| who are satisfied[d] | 92.1 | 92.5 |
| **Skill needs** | | |
| *Current skill level of employees relative to needs of the organisation (% of all employers):* | | |
| Above what is required | 37.4 | 40.3 |
| Adequate | 57.5 | 54.5 |
| Below what is required | 5.1 | 5.1 |
| *Level of difficulty in recruiting staff (% of all employers):* | | |
| A lot of difficulty | 20.7 | 24.1 |
| Some difficulty | 19.9 | 20.3 |
| No difficulty | 44.6 | 42.3 |
| Have not looked for staff | 14.9 | 13.2 |

Notes: (a) Employers were asked about their use of VET and other forms of training in the 12 months preceding their interview.
(b) Nationally recognised training is defined as nationally recognised training other than as part of an apprenticeship or traineeship. For the purposes of this survey, apprenticeships and traineeships are reported separately.
(c) Importance in meeting skills needs: 'Important' was rated as either important or very important.
(d) Satisfied as a way of meeting skills needs: 'Satisfied' was rated as either satisfied or very satisfied.

Source: NCVER Employers' Use and Views of the VET System (2007).

**Table 18 Activity in the public VET system by selected characteristics, Australia, 2006**

| | Students | Delivery hours |
|---|---|---|
| | % of total | % of total |
| Sex of student | | |
| Female | 47.5 | 48.9 |
| Male | 52.4 | 51.0 |
| Age of student at 30 June | | |
| 15–19 years | 25.5 | 31.2 |
| 20–24 years | 16.5 | 21.3 |
| 25–44 years | 35.2 | 32.3 |
| 45–64 years | 18.0 | 13.5 |
| Other, including age not reported | 4.7 | 1.7 |
| Indigenous status of student | | |
| Indigenous | 4.0 | 3.8 |
| Non-indigenous | 80.5 | 85.7 |
| Unknown | 15.4 | 10.5 |
| Disability status of student | | |
| People with a disability | 6.1 | 7.2 |
| People without a disability | 75.2 | 79.8 |
| Unknown disability status | 18.7 | 13.0 |
| Language background of student | | |
| People with an English-speaking language background | 69.7 | 71.3 |
| People with a language background other than English | 13.1 | 18.1 |
| Language background unknown | 17.2 | 10.6 |
| Occupation | | |
| Managers and administrators | 1.4 | 1.2 |
| Professionals | 7.6 | 10.0 |
| Associate professionals | 13.2 | 20.5 |
| Tradespersons and related workers | 16.2 | 19.6 |
| Advanced clerical and service workers | 2.2 | 2.5 |
| Intermediate clerical, sales and service workers | 22.3 | 19.3 |
| Intermediate production and transport workers | 4.5 | 2.9 |
| Elementary clerical, sales and service workers | 1.5 | 1.1 |
| Labourers and related workers | 8.3 | 6.0 |
| Highest prior education level of student | | |
| Year 10 or lower[(a)] | 24.8 | 22.4 |
| Year 11 | 9.5 | 8.8 |
| Year 12 | 21.5 | 28.2 |
| Certificate I/II | 1.7 | 2.2 |
| Certificate III/IV | 10.3 | 12.0 |
| Diploma or advanced diploma | 4.2 | 4.6 |
| Degree or higher | 5.6 | 5.3 |
| Unknown | 22.4 | 16.4 |
| Funding source | | |
| Commonwealth and state recurrent funding | 71.5 | 81.4 |
| Commonwealth and state specific funding | 3.0 | 2.7 |
| Fee-for-service | 24.1 | 12.1 |
| Overseas full fee-paying | 1.5 | 3.8 |
| Provider type | | |
| TAFE and other government | 79.1 | 85.6 |
| Community | 9.9 | 4.0 |
| Other | 10.7 | 10.4 |
| Mixed | 0.4 | 0.0 |

| | Students | Delivery hours |
|---|---|---|
| | % of total | % of total |
| Delivery mode | | |
| Campus-based | n/a | 75.2 |
| Remote access | n/a | 5.3 |
| Employment-based | n/a | 6.8 |
| Other | n/a | 9.4 |
| Not applicable | n/a | 3.3 |
| Employment status of student | | |
| Employed full-time | 30.5 | n/a |
| Employed part-time, self-employed or in unpaid employment | 21.3 | n/a |
| Unemployed seeking full-time or part-time employment | 12.3 | n/a |
| Not in the labour force | 9.9 | n/a |
| Unknown | 25.9 | n/a |
| Region of residence of student | | |
| Major cities | 54.1 | 57.9 |
| Inner regional | 22.9 | 21.1 |
| Outer regional | 15.1 | 12.1 |
| Remote or very remote | 4.8 | 3.5 |
| Outside Australia | 1.9 | 4.3 |
| Not known | 1.3 | 1.1 |
| **Total (%)** | **100.0** | **100.0** |
| **Number ('000)** | **1 676.0** | **372 100.2** |

Notes: (a) Includes miscellaneous education and did not go to school.
Source: NCVER National VET Provider Collection (2006).

**Table 19 Number of VET qualifications completed by selected course characteristics, Australia, 2002–06**

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| | % of total | % of total | % of total | % of total | % of total |
| Qualification level | | | | | |
| Diploma or higher | 14.0 | 14.2 | 13.8 | 14.1 | 14.9 |
| Certificate IV | 18.7 | 19.8 | 19.3 | 19.5 | 17.3 |
| Certificate III | 32.7 | 35.2 | 37.3 | 37.5 | 38.1 |
| Certificate II | 27.0 | 24.3 | 23.3 | 21.6 | 22.0 |
| Certificate I | 7.5 | 6.5 | 6.1 | 6.7 | 7.3 |
| Secondary education | 0.1 | 0.1 | 0.1 | 0.5 | 0.4 |
| Field of education | | | | | |
| Natural and physical sciences | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Information technology | 6.5 | 5.4 | 4.7 | 4.1 | 3.4 |
| Engineering and related technologies | 13.6 | 14.2 | 13.7 | 14.1 | 15.4 |
| Architecture and building | 3.2 | 3.2 | 3.3 | 4.0 | 4.5 |
| Agriculture, environmental and related studies | 4.7 | 4.3 | 4.4 | 4.0 | 4.0 |
| Health | 4.8 | 3.1 | 3.0 | 3.4 | 3.6 |
| Education | 5.9 | 6.7 | 6.0 | 5.7 | 3.7 |
| Management and commerce | 27.9 | 28.9 | 30.7 | 29.7 | 28.6 |
| Society and culture | 16.1 | 16.6 | 16.4 | 16.7 | 18.9 |
| Creative arts | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 |
| Food, hospitality and personal services | 9.3 | 9.3 | 9.6 | 9.3 | 8.8 |
| Mixed field programs | 4.4 | 4.3 | 4.4 | 5.2 | 5.3 |
| **Total (%)** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
| **Total ('000)** | **289.9** | **285.2** | **274.8** | **299.7** | **294.6** |

Source: NCVER National VET Provider Collection (2002–06).

**Table 20 Apprentice and trainee commencements 12 months to 30 December by selected characteristics, Australia, 1998–2006**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| Sex | | | | | | | | | |
| Female | 63.8 | 79.5 | 87.0 | 96.2 | 114.9 | 122.0 | 104.9 | 107.5 | 109.9 |
| Male | 91.2 | 119.2 | 123.2 | 127.7 | 149.6 | 156.2 | 152.2 | 154.4 | 156.3 |
| Age | | | | | | | | | |
| Age 19 and under | 69.5 | 83.6 | 85.9 | 89.5 | 99.4 | 104.4 | 106.4 | 108.2 | 109.4 |
| Age 20–24 | 32.0 | 39.5 | 39.7 | 41.0 | 49.2 | 48.5 | 45.0 | 45.7 | 46.3 |
| Age 25–44 | 41.7 | 57.2 | 64.2 | 70.0 | 85.4 | 90.4 | 76.3 | 77.1 | 78.1 |
| Age 45 or over | 11.8 | 18.5 | 20.5 | 23.5 | 30.6 | 35.0 | 29.5 | 31.0 | 32.4 |
| Indigenous status | | | | | | | | | |
| Indigenous | 4.6 | 5.0 | 5.0 | 5.9 | 6.3 | 8.1 | 8.6 | 8.9 | 9.5 |
| Non-Indigenous | 135.0 | 179.4 | 193.9 | 206.8 | 246.1 | 261.3 | 242.9 | 247.7 | 252.0 |
| Not known | 15.4 | 14.4 | 11.3 | 11.2 | 12.1 | 8.9 | 5.7 | 5.3 | 4.7 |
| Existing worker status | | | | | | | | | |
| Existing worker | 14.8 | 35.0 | 39.4 | 51.2 | 70.7 | 79.6 | 65.8 | 67.1 | 69.1 |
| Not existing worker | 109.2 | 136.1 | 146.6 | 156.5 | 193.6 | 198.5 | 191.2 | 194.8 | 197.1 |
| Not known | 31.0 | 27.6 | 24.2 | 16.3 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 |
| Full-time status | | | | | | | | | |
| Full-time | 135.8 | 162.5 | 164.8 | 164.3 | 190.8 | 201.5 | 191.9 | 194.4 | 196.7 |
| Part-time | 19.2 | 36.2 | 45.3 | 59.5 | 73.5 | 76.5 | 65.0 | 67.3 | 69.3 |
| Qualification level | | | | | | | | | |
| Certificate I/II | 61.8 | 65.0 | 64.9 | 67.3 | 73.5 | 64.5 | 51.3 | 48.1 | 44.2 |
| Certificate III/IV | 93.1 | 133.6 | 145.0 | 156.4 | 190.5 | 212.9 | 205.1 | 213.0 | 220.8 |
| Diploma or higher | 0.1 | 0.2 | 0.4 | 0.3 | 0.6 | 0.8 | 0.7 | 0.9 | 1.1 |
| Occupation group | | | | | | | | | |
| Managers & administrators | 1.5 | 1.8 | 1.3 | 1.1 | 1.4 | 3.2 | 3.6 | 1.8 | 2.2 |
| Professionals | 1.4 | 1.6 | 1.7 | 1.9 | 2.0 | 2.0 | 2.2 | 2.3 | 4.0 |
| Associate professionals | 7.2 | 6.8 | 9.0 | 10.4 | 20.1 | 22.1 | 20.3 | 21.3 | 23.3 |
| Tradespersons & related workers | 49.0 | 55.7 | 51.6 | 49.5 | 55.1 | 61.9 | 72.0 | 74.9 | 77.7 |
| Advanced clerical & service workers | 0.4 | 0.3 | 2.6 | 8.1 | 6.2 | 5.0 | 4.3 | 5.7 | 5.5 |
| Intermediate clerical, sales & service workers | 50.6 | 66.3 | 73.6 | 82.2 | 96.9 | 102.0 | 79.4 | 82.7 | 83.7 |
| Intermediate production & transport workers | 4.9 | 16.5 | 24.0 | 26.1 | 32.9 | 32.7 | 32.6 | 30.4 | 27.4 |
| Elementary clerical, sales & service workers | 20.7 | 26.3 | 22.3 | 18.8 | 21.9 | 21.1 | 19.0 | 17.5 | 17.7 |
| Labourers & related workers | 19.3 | 23.3 | 24.1 | 26.0 | 28.2 | 28.2 | 23.6 | 25.3 | 24.7 |
| State | | | | | | | | | |
| New South Wales | 28.9 | 52.1 | 59.0 | 65.3 | 74.1 | 79.0 | 70.0 | 72.7 | 76.5 |
| Victoria | 39.6 | 57.6 | 65.2 | 74.3 | 92.3 | 95.5 | 79.3 | 79.9 | 75.0 |
| Queensland | 45.8 | 39.4 | 36.2 | 41.5 | 47.2 | 51.0 | 51.3 | 52.7 | 57.4 |
| South Australia | 18.7 | 21.1 | 24.3 | 18.0 | 20.1 | 20.9 | 21.5 | 21.2 | 20.2 |
| Western Australia | 11.4 | 12.3 | 12.1 | 11.2 | 16.4 | 16.2 | 19.2 | 20.5 | 22.0 |
| Tasmania | 6.8 | 9.1 | 8.0 | 8.7 | 8.9 | 8.6 | 8.7 | 7.7 | 7.6 |
| Northern Territory | 1.6 | 1.8 | 2.0 | 1.8 | 2.0 | 1.9 | 2.3 | 2.4 | 2.3 |
| Australian Capital Territory | 2.1 | 5.3 | 3.4 | 3.3 | 3.5 | 5.1 | 4.8 | 4.8 | 5.2 |
| **Total** | **155.0** | **198.7** | **210.2** | **224.0** | **264.6** | **278.2** | **257.1** | **262.0** | **266.2** |

Source: NCVER National Apprentice and Trainee Collection no. 53.

**Table 21 Apprentice and trainee completions 12 months to 30 December by selected characteristics, Australia, 1998–2006**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| Sex | | | | | | | | | |
| Female | 21.0 | 31.0 | 36.1 | 40.7 | 49.6 | 56.0 | 60.7 | 60.7 | 61.5 |
| Male | 39.5 | 44.3 | 49.7 | 54.2 | 65.5 | 71.9 | 76.7 | 75.8 | 79.4 |
| Age | | | | | | | | | |
| Age 19 and under | 12.4 | 14.8 | 18.1 | 20.8 | 23.3 | 25.1 | 25.0 | 25.1 | 26.7 |
| Age 20–24 | 31.8 | 33.0 | 34.9 | 36.2 | 39.8 | 43.0 | 42.6 | 41.3 | 44.1 |
| Age 25–44 | 13.1 | 20.5 | 24.6 | 28.1 | 36.9 | 42.1 | 47.1 | 46.4 | 46.1 |
| Age 45 or over | 3.3 | 7.0 | 8.2 | 9.8 | 15.1 | 17.8 | 22.7 | 23.7 | 24.1 |
| Indigenous status | | | | | | | | | |
| Indigenous | 1.6 | 1.5 | 1.6 | 2.1 | 2.5 | 2.8 | 3.3 | 3.5 | 3.5 |
| Non-Indigenous | 37.5 | 60.0 | 71.8 | 82.6 | 105.2 | 118.3 | 128.0 | 128.1 | 133.2 |
| Not known | 21.5 | 13.8 | 12.3 | 10.1 | 7.3 | 6.8 | 6.1 | 4.9 | 4.3 |
| Existing worker status | | | | | | | | | |
| Existing worker | 0.1 | 5.5 | 12.1 | 12.6 | 22.4 | 30.6 | 42.7 | 43.3 | 42.9 |
| Not existing worker | 47.2 | 51.9 | 57.3 | 66.7 | 76.9 | 89.8 | 92.5 | 91.8 | 98.0 |
| Not known | 13.3 | 17.8 | 16.4 | 15.6 | 15.8 | 7.5 | 2.2 | 1.5 | 0.1 |
| Full-time status | | | | | | | | | |
| Full-time | 57.7 | 67.6 | 74.2 | 78.4 | 91.4 | 98.0 | 104.7 | 103.7 | 106.6 |
| Part-time | 2.9 | 7.7 | 11.5 | 16.4 | 23.6 | 29.8 | 32.6 | 32.8 | 34.2 |
| Qualification level | | | | | | | | | |
| Certificate I/II | 24.0 | 26.6 | 27.8 | 31.0 | 32.1 | 33.6 | 28.8 | 25.2 | 22.6 |
| Certificate III/IV | 36.3 | 48.5 | 57.8 | 63.7 | 82.8 | 94.0 | 108.1 | 110.9 | 117.8 |
| Diploma or higher | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 0.4 | 0.5 |
| Occupation group | | | | | | | | | |
| Managers & administrators | 1.0 | 0.8 | 1.0 | 0.8 | 0.5 | 0.6 | 1.4 | 1.7 | 1.3 |
| Professionals | 0.6 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.3 | 1.3 | 1.4 |
| Associate professionals | 2.9 | 3.3 | 2.7 | 3.4 | 6.0 | 6.5 | 9.0 | 10.1 | 12.3 |
| Tradespersons & related workers | 28.3 | 27.8 | 26.5 | 26.9 | 28.8 | 30.8 | 29.9 | 30.1 | 35.9 |
| Advanced clerical & service workers | 0.1 | 0.2 | 0.3 | 1.1 | 3.9 | 3.5 | 2.5 | 2.6 | 3.1 |
| Intermediate clerical, sales & service workers | 15.4 | 23.5 | 30.7 | 33.2 | 39.7 | 47.3 | 49.3 | 47.7 | 45.6 |
| Intermediate production & transport workers | 1.2 | 2.2 | 3.9 | 7.5 | 13.5 | 14.7 | 19.9 | 19.7 | 19.1 |
| Elementary clerical, sales & service workers | 5.4 | 9.7 | 11.6 | 9.4 | 9.7 | 9.7 | 9.7 | 9.8 | 9.6 |
| Labourers & related workers | 5.6 | 7.1 | 8.2 | 11.7 | 11.9 | 13.8 | 14.4 | 13.6 | 12.6 |
| State | | | | | | | | | |
| New South Wales | 17.3 | 16.1 | 21.3 | 25.5 | 31.5 | 35.8 | 37.2 | 37.2 | 39.2 |
| Victoria | 11.9 | 16.0 | 22.5 | 25.1 | 33.8 | 39.6 | 44.4 | 43.5 | 43.1 |
| Queensland | 17.0 | 20.1 | 17.3 | 19.8 | 22.8 | 26.2 | 27.6 | 27.5 | 29.3 |
| South Australia | 4.2 | 9.4 | 9.1 | 9.9 | 11.6 | 10.2 | 9.3 | 9.9 | 9.9 |
| Western Australia | 5.8 | 6.7 | 6.5 | 6.8 | 7.0 | 7.5 | 9.8 | 9.8 | 11.1 |
| Tasmania | 2.4 | 4.3 | 5.5 | 4.9 | 5.4 | 5.9 | 5.8 | 5.1 | 4.7 |
| Northern Territory | 0.8 | 0.8 | 1.0 | 0.9 | 1.1 | 1.0 | 0.9 | 1.0 | 1.1 |
| Australian Capital Territory | 1.2 | 1.7 | 2.6 | 2.0 | 1.8 | 1.9 | 2.4 | 2.5 | 2.5 |
| **Total** | **60.6** | **75.2** | **85.8** | **94.9** | **115.1** | **127.9** | **137.4** | **136.6** | **141.0** |

Source: NCVER National Apprentice and Trainee Collection no.53.

**Table 22 Apprentices and trainees in-training at 30 December by selected characteristics, Australia, 1998–2006**

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| Sex | | | | | | | | | |
| Female | 64.2 | 77.1 | 91.1 | 108.1 | 129.2 | 141.8 | 134.7 | 132.2 | 131.9 |
| Male | 152.6 | 175.2 | 193.6 | 211.2 | 234.1 | 248.8 | 253.5 | 261.3 | 267.9 |
| Age | | | | | | | | | |
| Age 19 and under | 81.1 | 90.7 | 96.0 | 100.0 | 108.0 | 114.0 | 119.0 | 124.4 | 127.3 |
| Age 20–24 | 76.9 | 81.4 | 85.0 | 90.4 | 99.3 | 102.9 | 104.4 | 109.2 | 112.0 |
| Age 25–44 | 46.7 | 61.5 | 77.4 | 93.9 | 112.1 | 122.8 | 116.0 | 112.8 | 113.2 |
| Age 45 or over | 12.0 | 18.8 | 26.3 | 35.0 | 43.9 | 50.9 | 48.9 | 47.1 | 47.4 |
| Indigenous status | | | | | | | | | |
| Indigenous | 4.1 | 4.6 | 5.3 | 6.3 | 7.0 | 8.6 | 9.4 | 9.8 | 10.7 |
| Non-Indigenous | 172.0 | 215.4 | 255.8 | 294.1 | 337.5 | 365.3 | 365.9 | 373.2 | 380.7 |
| Not known | 40.7 | 32.3 | 23.7 | 18.9 | 18.8 | 16.8 | 13.0 | 10.5 | 8.5 |
| Existing worker status | | | | | | | | | |
| Existing worker | 13.4 | 33.2 | 47.9 | 71.4 | 98.6 | 115.1 | 107.4 | 101.9 | 101.5 |
| Not existing worker | 141.0 | 164.4 | 188.5 | 210.5 | 250.0 | 270.7 | 279.0 | 291.3 | 298.3 |
| Not known | 62.4 | 54.8 | 48.3 | 37.5 | 14.6 | 4.8 | 1.9 | 0.2 | 0.1 |
| Full-time status | | | | | | | | | |
| Full-time | 198.1 | 218.9 | 237.2 | 254.8 | 282.1 | 303.1 | 306.2 | 313.7 | 320.8 |
| Part-time | 18.6 | 33.4 | 47.4 | 64.5 | 81.1 | 87.4 | 82.0 | 79.6 | 78.9 |
| Qualification level | | | | | | | | | |
| Certificate I/II | 56.1 | 54.5 | 55.4 | 58.0 | 63.7 | 58.6 | 49.7 | 44.6 | 41.3 |
| Certificate III/IV | 160.1 | 197.4 | 228.7 | 260.8 | 298.7 | 330.9 | 337.5 | 347.4 | 356.9 |
| Diploma or higher | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 | 1.1 | 1.2 | 1.4 | 1.6 |
| Occupation group | | | | | | | | | |
| Managers & administrators | 1.5 | 1.9 | 1.5 | 1.2 | 1.5 | 3.3 | 4.1 | 3.0 | 2.6 |
| Professionals | 1.6 | 1.6 | 1.8 | 2.0 | 2.3 | 2.5 | 2.7 | 2.8 | 4.5 |
| Associate professionals | 6.5 | 6.6 | 9.4 | 12.6 | 20.7 | 24.2 | 26.9 | 28.7 | 30.0 |
| Tradespersons & related workers | 124.8 | 128.7 | 129.4 | 129.1 | 134.3 | 142.8 | 158.8 | 175.5 | 185.5 |
| Advanced clerical & service workers | 0.2 | 0.2 | 2.3 | 7.6 | 7.3 | 6.4 | 5.7 | 6.5 | 6.8 |
| Intermediate clerical, sales & service workers | 42.8 | 55.3 | 66.6 | 82.0 | 99.6 | 109.5 | 95.2 | 89.6 | 88.2 |
| Intermediate production & transport workers | 4.4 | 15.0 | 28.5 | 38.7 | 46.4 | 49.8 | 48.3 | 43.6 | 39.0 |
| Elementary clerical, sales & service workers | 17.3 | 21.8 | 20.0 | 18.7 | 21.2 | 21.8 | 21.0 | 19.8 | 19.7 |
| Labourers & related workers | 17.6 | 21.3 | 25.2 | 27.3 | 29.9 | 30.2 | 25.5 | 24.0 | 23.6 |
| State | | | | | | | | | |
| New South Wales | 51.5 | 69.3 | 82.8 | 95.5 | 110.1 | 120.6 | 118.9 | 120.8 | 124.1 |
| Victoria | 56.4 | 71.2 | 84.9 | 102.3 | 120.4 | 126.9 | 118.6 | 112.8 | 105.8 |
| Queensland | 52.8 | 48.6 | 49.1 | 54.4 | 61.9 | 67.2 | 70.3 | 75.3 | 82.0 |
| South Australia | 24.5 | 26.9 | 32.4 | 31.1 | 29.7 | 30.9 | 32.9 | 33.8 | 34.7 |
| Western Australia | 18.5 | 18.8 | 18.7 | 18.2 | 22.0 | 24.4 | 26.2 | 29.5 | 31.7 |
| Tasmania | 8.4 | 10.7 | 10.5 | 12.0 | 12.8 | 12.8 | 12.8 | 12.5 | 12.4 |
| Northern Territory | 1.9 | 2.0 | 2.1 | 2.2 | 2.4 | 2.5 | 2.8 | 3.0 | 3.0 |
| Australian Capital Territory | 2.8 | 4.8 | 4.0 | 3.7 | 4.0 | 5.4 | 5.8 | 5.8 | 6.2 |
| **Total** | **216.7** | **252.3** | **284.7** | **319.4** | **363.3** | **390.6** | **388.3** | **393.5** | **399.9** |

Source: NCVER National Apprentice and Trainee Collection no.53.

**Table 23 Training rates of trades apprentices and trainees[(a)], by selected occupation[(b)], Australia, 1996–2006**

| | Metal trades[(c)] | Automotive trades | Electrical & electronics trades | Construction trades | Food trades | Printing trades | Wood & textile trades[(d)] | Hairdressers | Total trades[(e)] |
|---|---|---|---|---|---|---|---|---|---|
| *Apprentices and trainees in-training[(f)] ('000)* | | | | | | | | | |
| 1996 | 20.9 | 23.8 | 15.4 | 24.8 | 16.2 | 3.2 | 5.2 | 9.6 | 125.4 |
| 1997 | 20.9 | 24.2 | 15.4 | 24.0 | 16.3 | 3.0 | 5.2 | 9.3 | 124.3 |
| 1998 | 20.3 | 23.7 | 15.6 | 24.4 | 18.3 | 2.5 | 5.2 | 9.3 | 124.8 |
| 1999 | 18.8 | 23.6 | 16.4 | 27.4 | 17.9 | 2.2 | 5.8 | 9.8 | 128.6 |
| 2000 | 16.6 | 23.1 | 16.6 | 29.0 | 18.4 | 2.2 | 5.7 | 10.0 | 129.3 |
| 2001 | 15.6 | 22.8 | 16.7 | 29.0 | 19.0 | 2.0 | 5.3 | 10.1 | 129.1 |
| 2002 | 15.8 | 23.1 | 17.5 | 31.4 | 19.4 | 1.9 | 5.5 | 10.5 | 134.2 |
| 2003 | 17.1 | 24.9 | 18.9 | 35.0 | 19.5 | 1.9 | 5.4 | 11.0 | 142.6 |
| 2004 | 19.1 | 26.8 | 22.3 | 40.4 | 21.3 | 1.8 | 5.4 | 12.0 | 158.6 |
| 2005 | 22.2 | 28.1 | 26.4 | 45.4 | 22.7 | 1.8 | 5.6 | 12.6 | 174.9 |
| 2006 | 23.8 | 27.9 | 29.6 | 47.9 | 22.8 | 1.6 | 5.4 | 12.6 | 181.2 |
| *Employed persons ('000)* | | | | | | | | | |
| 1996 | 202.0 | 140.0 | 176.0 | 264.8 | 84.6 | 37.3 | 64.8 | 43.4 | 1 138.0 |
| 1997 | 199.1 | 134.2 | 177.0 | 255.9 | 84.2 | 41.2 | 58.1 | 40.6 | 1 127.4 |
| 1998 | 201.2 | 135.7 | 179.1 | 281.1 | 86.3 | 32.1 | 62.6 | 43.9 | 1 156.5 |
| 1999 | 191.1 | 132.4 | 184.5 | 290.3 | 94.6 | 33.9 | 61.4 | 52.9 | 1 190.2 |
| 2000 | 206.1 | 125.8 | 169.7 | 289.7 | 96.1 | 38.1 | 62.0 | 44.0 | 1 171.0 |
| 2001 | 202.5 | 141.1 | 159.0 | 288.6 | 90.2 | 24.4 | 59.4 | 47.4 | 1 153.7 |
| 2002 | 193.9 | 134.5 | 186.6 | 290.0 | 80.2 | 32.8 | 60.2 | 47.9 | 1 170.0 |
| 2003 | 211.3 | 140.6 | 183.3 | 300.6 | 88.2 | 31.1 | 53.2 | 45.9 | 1 214.6 |
| 2004 | 203.0 | 130.8 | 191.2 | 330.6 | 89.1 | 25.5 | 54.6 | 50.6 | 1 244.2 |
| 2005 | 210.8 | 131.2 | 191.2 | 347.0 | 84.0 | 23.6 | 58.6 | 53.6 | 1 275.5 |
| 2006 | 210.5 | 133.0 | 207.0 | 354.0 | 88.3 | 25.4 | 51.1 | 56.2 | 1 309.7 |
| *Training rates (%)* | | | | | | | | | |
| 1996 | 10.3 | 17.0 | 8.8 | 9.4 | 19.1 | 8.6 | 8.0 | 22.1 | 11.0 |
| 1997 | 10.5 | 18.0 | 8.7 | 9.4 | 19.4 | 7.3 | 9.0 | 22.9 | 11.0 |
| 1998 | 10.1 | 17.5 | 8.7 | 8.7 | 21.2 | 7.8 | 8.3 | 21.2 | 10.8 |
| 1999 | 9.8 | 17.8 | 8.9 | 9.4 | 18.9 | 6.5 | 9.4 | 18.5 | 10.8 |
| 2000 | 8.1 | 18.4 | 9.8 | 10.0 | 19.1 | 5.8 | 9.2 | 22.7 | 11.0 |
| 2001 | 7.7 | 16.2 | 10.5 | 10.0 | 21.1 | 8.2 | 8.9 | 21.3 | 11.2 |
| 2002 | 8.1 | 17.2 | 9.4 | 10.8 | 24.2 | 5.8 | 9.1 | 21.9 | 11.5 |
| 2003 | 8.1 | 17.7 | 10.3 | 11.6 | 22.1 | 6.1 | 10.2 | 24.0 | 11.7 |
| 2004 | 9.4 | 20.5 | 11.7 | 12.2 | 23.9 | 7.1 | 9.9 | 23.7 | 12.7 |
| 2005 | 10.5 | 21.4 | 13.8 | 13.1 | 27.0 | 7.6 | 9.6 | 23.5 | 13.7 |
| 2006 | 11.3 | 21.0 | 14.3 | 13.5 | 25.8 | 6.3 | 10.6 | 22.4 | 13.8 |

Notes:
(a) Training rates are derived by calculating the number of apprentices and trainees (15 years and over) in-training as at 31 December 2006 (NCVER) as a percentage of employed persons (15 years and over) as at November 2006 (ABS). The ABS does not produce monthly estimates of employment by occupation, with data available on a quarterly basis only (i.e. February, May, August and November).
(b) Occupations selected to correspond to the Department of Employment and Workplace Relations skilled vacancy index trades occupation categories.
(c) Metal trades classified as '41 mechanical and fabrication engineering tradespersons' (Australian Standard Classification of Occupations 2 [ASCO2]).
(d) Wood and textile trades classified as '492 wood tradespersons' and '494 textile, clothing and related tradespersons' (ASCO2).
(e) Total includes apprentices and trainees in-training in all trades listed under '4 trades and related workers' (ASCO2).
(f) The number of apprentices and trainees in-training are those with a working age of 15 years and over.

Source: NCVER National Apprentice and Trainee Collection (March 2007 estimates); ABS (2007b). See NCVER (2007a).

**Table 24 Students and nominal hours in the public VET system by age group and selected student characteristics, 2006**

| Age group | 15–19 years | 20–24 years | 25–44 years | 45–64 years | Other ages or unknown | Total | 15–19 years | 20–24 years | 25–44 years | 45–64 years | Other ages or unknown | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Proportion of total students (%) | | | | | | Proportion of total nominal hours (%) | | | | | |
| Sex | | | | | | | | | | | | |
| Male | 55.7 | 58.9 | 51.3 | 45.9 | 45.0 | 52.4 | 56.1 | 58.0 | 46.3 | 39.9 | 46.6 | 51.0 |
| Female | 44.3 | 41.0 | 48.6 | 54.0 | 53.9 | 47.5 | 43.9 | 42.0 | 53.6 | 60.0 | 52.6 | 48.9 |
| Unknown | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.9 | 0.1 |
| Qualification level | | | | | | | | | | | | |
| Diploma or above | 7.9 | 16.0 | 11.2 | 7.4 | 1.4 | 10.0 | 17.1 | 26.5 | 19.4 | 15.0 | 5.7 | 19.4 |
| Certificate III/IV | 38.4 | 51.7 | 38.9 | 31.6 | 10.7 | 38.3 | 45.4 | 53.8 | 50.0 | 45.6 | 22.2 | 48.3 |
| Certificate I/II | 39.0 | 14.9 | 18.6 | 18.9 | 19.9 | 23.3 | 25.5 | 11.0 | 17.2 | 19.6 | 31.2 | 19.0 |
| Other[(a)] | 14.6 | 17.4 | 31.3 | 42.1 | 68.0 | 28.4 | 12.0 | 8.7 | 13.5 | 19.8 | 41.0 | 13.3 |
| Language background | | | | | | | | | | | | |
| ESB countries | 76.5 | 75.3 | 66.6 | 66.0 | 50.0 | 69.7 | 82.2 | 71.9 | 64.0 | 64.0 | 58.0 | 71.3 |
| NESB countries | 5.1 | 13.3 | 17.7 | 16.3 | 8.7 | 13.1 | 7.7 | 19.1 | 25.0 | 23.7 | 18.4 | 18.1 |
| Unknown | 18.3 | 11.4 | 15.7 | 17.7 | 41.3 | 17.2 | 10.0 | 9.0 | 11.0 | 12.3 | 23.6 | 10.6 |
| Apprentice/trainee flag | | | | | | | | | | | | |
| Apprentice/trainee | 31.7 | 33.7 | 11.6 | 6.9 | 2.3 | 19.1 | 28.6 | 30.2 | 14.1 | 9.7 | 5.4 | 21.3 |
| Not app./trainee | 68.3 | 66.3 | 88.4 | 93.1 | 97.7 | 80.9 | 71.4 | 69.8 | 85.9 | 90.3 | 94.6 | 78.7 |
| Employment status | | | | | | | | | | | | |
| Employed full-time | 22.9 | 41.9 | 35.2 | 28.1 | 6.3 | 30.5 | n/a | n/a | n/a | n/a | n/a | n/a |
| Employed other | 24.0 | 19.2 | 20.3 | 24.7 | 9.7 | 21.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| Unemployed | 13.1 | 11.9 | 12.8 | 12.5 | 5.2 | 12.3 | n/a | n/a | n/a | n/a | n/a | n/a |
| Not in labour force | 10.3 | 7.3 | 8.9 | 10.1 | 22.3 | 9.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| Unknown | 29.6 | 19.8 | 22.8 | 24.5 | 56.5 | 25.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| **Total** | | | | | | | | | | | | |
| **%** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
| **Number ('000)** | **427.9** | **277.1** | **589.2** | **302.5** | **79.3** | **1 676.0** | **116 239.7** | **79 325.3** | **120 253.7** | **50 121.0** | **6 160.7** | **372 100.2** |

Notes: (a) Includes Non-AQF programs.

Source: NCVER National VET Provider Collection (2006).

NCVER

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