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## ABSTRACT

The outcomes achieved by Australia's national vocational education and training (VET) system in 2001 were analyzed in terms of the following performance indicators: (1) recognized VET skill outputs; (2) stocks of skills versus desired levels; (3) employer satisfaction with VET; (4) student outcomes from VET; (5) participation, outputs, and outcomes for client groups; (6) efficiency performance; and (7) total expenditure on VET. Selected findings of the analysis were as follows: (1) although overall levels of participation in VET stabilized, both participation in New Apprenticeships and total training hours continued to grow; (2) one-third of workers held a VET qualification, with the proportion varying widely across different industries and VET qualifications are continuing to dominate in trade occupations; (3) overall employer satisfaction with VET remained high; (4) although many students sought VET qualifications, large numbers of students also met their skill development needs by completing specific modules and/or units of competency; (5) a majority of graduates who had participated in VET for vocational reasons believed that they had achieved their main objective; and (6) expenditure on VET by both government and enterprises appeared to be increasing. (Fifty-seven tables/figures are

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included. The appendixes detail specific outcomes by each performance measure in 52 additional tables/figures. A glossary is also included.) (MN)

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## Annual National Report of the Australian Vocational Education and Training System

# 2001

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### Volume 3 Report on the Key Performance Measures for the Australian Vocational Education and Training System





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## Annual National Report of the Australian Vocational Education and Training System

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**Enquiries regarding this report should be directed to:**

Australian National Training Authority  
GPO Box 3120 Brisbane Qld 4001 Australia  
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# Highlights in 2001

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## **RECOGNISED VOCATIONAL EDUCATION AND TRAINING SKILL OUTPUTS (KEY PERFORMANCE MEASURE 1)**

- Overall participation levels have stabilised while both New Apprentice numbers and total training hours continue to grow.
- The raw number of skill outputs has also grown.
- Training Package penetration has increased.
- Pass rates have remained stable.
- The number of completed qualifications is reported for the first time.

## **STOCKS OF SKILLS VERSUS DESIRED LEVELS (KEY PERFORMANCE MEASURE 2)**

- Australian workers are becoming better qualified largely due to the influx of qualified young people into the workforce.
- One-third of workers hold a vocational education and training qualification, though this proportion is variable across different industries.
- Vocational education and training qualifications continue to dominate trade occupations and the growth of vocational education and training qualifications in the labour force is outpacing the labour force's overall growth rate.
- Industry demand for skills is variable and is being effected by the general aging of the population.
- Opportunities for employment in trade positions rose substantially during 2001.
- The level of unmet demand by individuals for access to vocational education and training continues to decline.

## **EMPLOYER SATISFACTION WITH VOCATIONAL EDUCATION AND TRAINING (KEY PERFORMANCE MEASURE 3)**

- Overall employer satisfaction remains high.
- Employers remain positive about the skills of vocational education and training graduates.
- Employers were more satisfied with non-TAFE institute providers.
- Satisfaction with vocational education and training continues to differ across industries.
- Employers are engaging recent vocational education and training graduates in increasing numbers.

## **STUDENT OUTCOMES FROM VOCATIONAL EDUCATION AND TRAINING (KEY PERFORMANCE MEASURE 4)**

- While many students seek a vocational education and training qualification, large numbers of students also meet their skill development needs through completing specific modules and/or units of competency.
- The successful completion of training enhances the employment circumstances of individuals, particularly those who were unemployed.
- The majority of graduates who participated in vocational education and training for vocational reasons believed that they had achieved their main objective.
- Many students who were casually employed before their training moved into permanent employment after completing their training.
- Students already in permanent employment before their training tend not to change their employment but are largely satisfied with the outcomes from their training.
- Further training or study is a successful outcome for more than one-third of vocational education and training graduates.
- Three-quarters of vocational education and training graduates expected to gain a direct improvement in their employment circumstances after completing their training. However, significant numbers of vocational education and training graduates commenced training for other reasons.

## **PARTICIPATION, OUTPUTS AND OUTCOMES FOR CLIENT GROUPS (KEY PERFORMANCE MEASURE 5)**

- Women participate and achieve equally with men though their employment outcomes are lower.
- Indigenous people participate strongly but continue to experience lower pass rates and poorer employment outcomes.
- Vocational education and training participation by people with a disability remains relatively low. Those who do participate in vocational education and training experience diminished pass rates and lower (and declining) employment outcomes.
- More than 600,000 vocational education and training participants in 2001 lived in rural and remote parts of Australia. These students generally achieved pass rates and employment outcomes that were on a par with, or better than, those for all students.
- More than 10% of vocational education and training participants in 2001 were from non-English speaking backgrounds. Pass rates for these students were slightly lower and employment outcomes were also down.

## **EFFICIENCY PERFORMANCE (KEY PERFORMANCE MEASURES 6/7)**

- Efficiency performance continued to improve nationally in 2001.
- Efficiency improvement since 1997 has been substantial.
- Efficiency performance across States and Territories is variable.
- Continuing efficiency improvement appears not to be sustainable in some jurisdictions.

## **TOTAL EXPENDITURE ON VOCATIONAL EDUCATION AND TRAINING (KEY PERFORMANCE MEASURE 8)**

- A consolidated measure of total expenditure on training is not currently available.
- Individual participation in training is increasing, although these people are less likely to be self-funded.
- Expenditure on vocational education and training by both government and enterprises appears to be increasing.

*For more information, refer to the detailed analysis for each key performance measure contained in this volume.*

# Introduction

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This volume of the 2001 Annual National Report provides an analysis of the performance of Australia's vocational education and training system.

As with Volumes 1 and 2 of the 2001 Annual National Report, this volume is a key accountability document. It provides an overview of the performance of Australia's vocational education and training system with respect to a set of eight key performance measures. The measures include consideration of the outputs produced by the system, an assessment of the outcomes achieved for key groups (both students and industry/employers) as well as the efficiency of translating government funding for vocational education and training into skill outputs. Total expenditure on vocational education and training is also measured.

## AUSTRALIA'S VOCATIONAL EDUCATION AND TRAINING SYSTEM

The vocational education and training sector provides Australians with the skills needed to enter the workforce for the first time, to re-enter the workforce, to retrain for a new job, to upgrade skills for an existing job, and to learn throughout their lives.

The vocational education and training system includes both publicly and privately funded training that is delivered by a wide range of institutions and enterprises. One of the distinguishing features of vocational education and training is that training providers (known as registered training organisations) are spread throughout all capital cities, metropolitan centres and rural areas of Australia. While the vast majority of towns across Australia have at least one provider, training may take place in classrooms, in the workplace, off-the-job, online and through other flexible delivery methods. The vocational education and training sector provides training for Australians of all ages and backgrounds, for small and large enterprises, across all industries and in many communities.

Students also undertake many different types of training, with different types of providers, across various fields of study and subjects, and at differing levels of skill acquisition. The amount of time that individuals spend in training varies considerably with a large proportion undertaking training on a part-time basis while in employment. Many vocational education and training students enrol in short, intensive programs aimed at developing specific job skills. The vocational education and training system also attracts students from overseas and students who are still at school.

## THE KEY PERFORMANCE MEASURES

The current national strategy, *A Bridge to the Future: Australia's National Strategy for Vocational Education and Training 1998-2003*, with five key objectives, guides the vocational education and training system. Key performance measures were developed to monitor progress towards the realisation of the five objectives.

Key performance measures are a specific set of measures that focus on the aspects of performance that are critical to the current and future success of the system. Although each key performance measure only looks at one aspect of performance, when considered together, they provide a comprehensive picture of the efficiency and effectiveness of the entire vocational education and training system. At the national level, the measures are the highest order indicators that apply to vocational education and training in Australia.

Developed in partnership with industry, the key performance measures for the vocational education and training sector were designed to:

- focus on the core business of vocational education and training
- be durable and long-term
- be relevant to all levels of the vocational education and training system
- be capable of measurement on a robust basis
- relate to the key objectives of vocational education and training, as defined in *A Bridge to the Future* and assess progress towards the national strategy objectives
- prompt improvements in vocational education and training products and services
- demonstrate the value of vocational education and training to individuals, employers and the nation
- hold the system publicly accountable.

The eight key performance measures for the vocational education and training system are:

1. Skill outputs produced annually within the domain of formally recognised vocational education and training
2. Stocks of vocational education and training skills against desired levels
3. Employers' views on the relevance of skills acquired through vocational education and training
4. Student employment outcomes and prospects before and after participation in vocational education and training
5. Vocational education and training participation, outputs and outcomes achieved by client groups
6. (Actual) public expenditure per publicly funded output
7. (Actual) public expenditure per total recognised output
8. Total expenditure on vocational education and training.

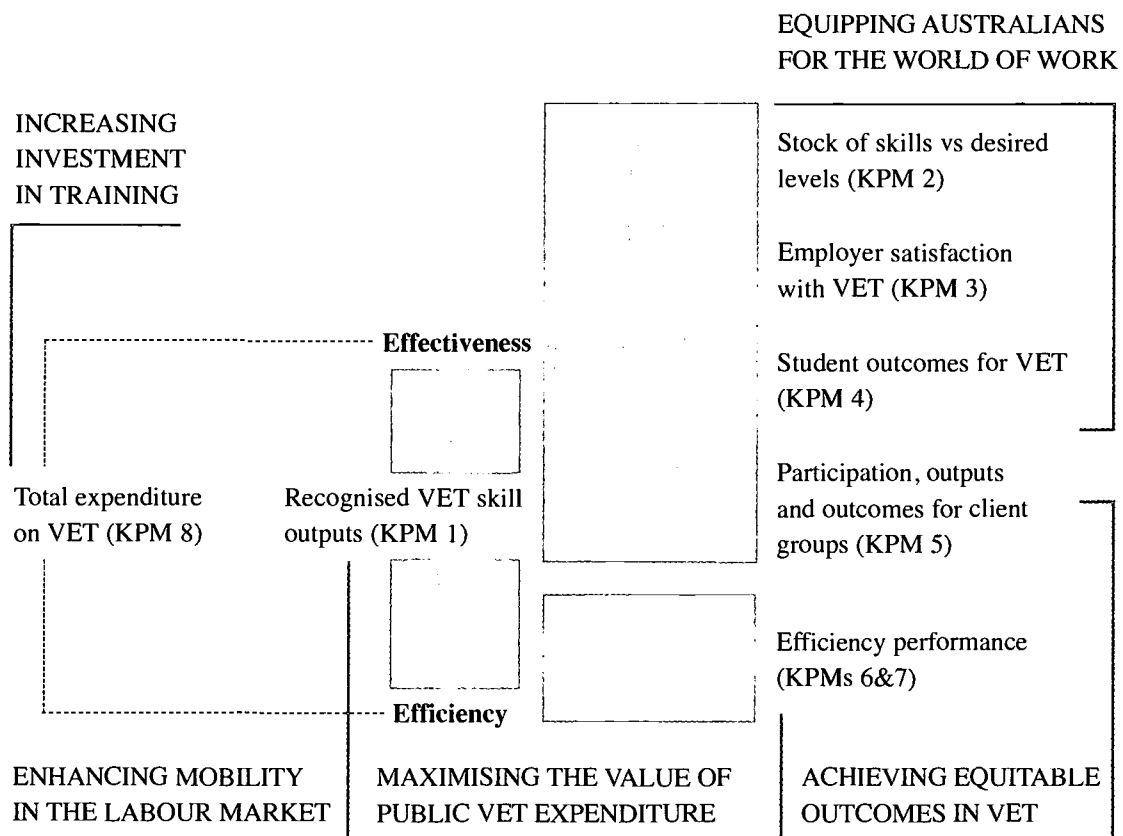
Nationally recognised skill outputs are a measure of how well the vocational education and training system is enhancing mobility in the labour market and adding annually to the stock of skills. The stock of vocational education and training skills against desired levels, the relevance of training to employers, and student employment outcomes are all means for monitoring progress towards the achievement of the objective of equipping Australians for the world of work.

There are also the five identified equity groups for which close monitoring of participation, outputs and outcomes occurs. These are women, Indigenous people, people of non-English speaking background, people with a disability, and people from rural or remote areas.

The total level of expenditure on vocational education and training monitors whether there is increasing investment in training. Finally, the efficiency of public spending on vocational education and training is monitored to ensure that maximum value is derived from public expenditure on the system.

Figure 1 maps the eight key performance measures to the established objectives for the vocational education and training system.

**FIGURE 1: A MAP OF THE KEY PERFORMANCE MEASURES FOR VOCATIONAL EDUCATION AND TRAINING**



## **IMPLEMENTING THE KEY PERFORMANCE MEASURES**

There has been a concerted effort to improve the performance measures themselves as well as improve the usefulness and accuracy of the data used for the measures. In recent years, projects have been undertaken to improve the data sources and collections, and reporting and monitoring of progress against the key performance measures (KPMs) is refined. For example, during 2001 the following projects and initiatives were implemented, or commenced, to improve reporting.

- The number of qualifications completed is reported for the first time in 2001. A register of qualifications to track students eligible to graduate has been developed. Although this tool requires further refinement and it is not yet fully implemented across all providers in all jurisdictions, it will progressively be enhanced and expanded.
- Work progressed to establish nationally consistent nominal hour values within Training Packages. It is hoped that the achievement of nationally consistent nominal hours will potentially assist with the implementation of the standardised output measure required for reporting against KPMs 1, 6 and 7.
- During 2001, the Australian Bureau of Statistics was commissioned to develop a new Training Expenditure and Practices Survey. The survey will be undertaken in 2002 and will assist with reporting against KPM 8 in terms of the contribution that enterprises make to total expenditure on training.
- Ongoing initiatives were undertaken to reduce the non-response rate for students in targeted equity groups. The definition for people with a disability was also modified to improve the data collection for this equity group, although this will only impact on the data collection from 2002.

Work to further improve the key performance measures and to address the remaining gaps in implementation is ongoing.

## **REPORTING ON PERFORMANCE**

The primary objectives of this volume of the Annual National Report are to measure progress over time and to identify continuous improvement opportunities for the vocational education and training sector. The focus of this report therefore is to consider longer-term trends and improvement, rather than to solely focus on achievements and outcomes in 2001.

Progress against the key performance measures is generally based only on publicly funded delivery and excludes overseas students, vocational education and training in schools, and those who participate on a fee-for-service basis.

## **STRUCTURE OF THE REPORT**

The report is structured around the eight key performance measures for vocational education and training.

The first section of the report includes individual chapters that relate to each particular key performance measure. Each chapter contains a detailed analysis of performance as well as a summary of findings that consolidates the major performance aspects that have emerged from the analysis.

A highlights section, at the beginning of the report, consolidates the findings from each chapter.

Finally, an appendix containing further data and technical explanations is included to support the reader's understanding of performance. This section also includes a breakdown of relevant information for each State and Territory to provide stakeholders in jurisdictions with a starting point from which they can begin to assess State and Territory performance within the national context.

# Key Performance Measure 1

## Recognised Vocational Education and Training Skill Outputs

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## SUMMARY OF FINDINGS

**Overall participation levels have stabilised while both New Apprentice numbers and total training hours continue to grow.**

In 2001, a total of 1.76 million people participated in the publicly funded vocational education and training system, up slightly from 2000. Roughly, one in eight Australians of working age were engaged in training. Of those participating in vocational education and training, more than 320,000 people did so under New Apprenticeship arrangements, an increase of 12% over the corresponding 2000 figure. The publicly funded vocational education and training system recorded 377.6 million training hours in 2001 representing growth of 13.5% over 2000 levels.

**The raw number of skill outputs has also grown.**

A definitive measure of vocational education and training outputs that weights and aggregates the individual value of each skill output remains elusive. However, in raw terms, the success of vocational education and training students during 2001 has meant that almost eight million new, assessed skills were achieved during the year - an increase of 8% over 2000 levels. These new skills add to the stock of recognised vocational education and training skills held by Australians.

**Training Package penetration has increased.**

Significantly, and for the first time in 2001, the number of units of competency acquired as part of a Training Package exceeded the number of assessed modules completed from within some other recognised training product.

In this respect, over four million units of competency were achieved in 2001 - an increase of 50% over 2000 levels. Over the same period, the number of successfully completed assessed modules reduced, as expected, to just under four million, a decline of 16%. Skill outputs achieved under Training Packages are increasingly displacing assessed modules completed from within other recognised training products.

**Pass rates have remained stable.**

The national load pass rate has remained stable since 1999 at roughly 75%. At the national level, it would appear that growth in the number of vocational education and training outputs has been largely driven by growth in training inputs rather than through any increase in pass rates. More than two-thirds of students successfully completed all or nearly all of their training during the year.

**The number of completed qualifications is reported for the first time.**

Vocational education and training students completed almost 250,000 qualifications from within the Australian Qualifications Framework during 2001. One-third of students (32%) completed at the Certificate III level, while the remaining qualifications were roughly equally dispersed both above (31%) and below (37%) this level. Half of all completed qualifications in 2001 were achieved using Training Packages.

## INTRODUCTION

Key performance measure (KPM) 1 measures the number of skill outputs produced annually within the domain of formally recognised vocational education and training.

Skill output is one of the most fundamental of all key performance measures. The amount of skills acquired each year is an indication of the productivity of the vocational education and training system. As well as measuring the annual contribution of vocational education and training to Australia's skills pool, output measures are also the starting point for understanding other measures, namely vocational education and training outcomes for individuals, the community and the economy as well as the efficiency of the vocational education and training system.

In 1997, Ministers responsible for vocational education and training agreed that skill outputs of formally recognised vocational education and training should include the numbers of assessed and successfully completed units of competency, qualifications, and modules that remain outside of Training Packages.

A single standardised measure of skills output was also endorsed. Although agreed in principle to be the aggregate of the two 'building block' measures, units of competency and assessed modules, implementation of the measure has not occurred. Agreement remains to be reached as to the appropriate basis for measuring the level of skill or intensity of training associated with the different units of competency and assessed modules. The work being undertaken to establish nationally consistent nominal hour values within Training Packages has the potential to assist with the implementation of the standardised output measure.

The rollout of Training Packages in recent years has had a marked impact on the composition of the measures underpinning KPM 1. Since 1998, Training Packages have provided new foundations for vocational education and training programs, bringing together, through one industry-managed process, what have previously been disconnected approaches to competency standards, qualifications and learning resources. This has created a comprehensive package of tools for learning and assessment leading to nationally recognised skill outputs.

The number of completed qualifications is reported for the first time. The data reported here does not capture the full extent of qualifications attained by students in 2001. Work is ongoing to improve the quality and completeness of data reported in future years.

The output measures presented in this report have been contextualised using additional information on participation, pass rates and the success rate for individual students.

## TOTAL SKILL OUTPUTS

Students participating in vocational education and training during 2001 achieved the following assessed skill outputs:

- 4,039,687 units of competency, an increase of 1,329,692, or nearly 50% over 2000 levels
- 3,913,532 assessed modules, a decrease of 735,375, or 16% from 2000.

A further 667,136 modules were completed that did not have an associated formal assessment. In addition, the skills associated with the equivalent of 331,973 modules/competencies were added to the national stock of recognised skills through recognition of prior learning processes, an increase of 10% from 2000. [Table 1.1]



In the absence of an agreed standardised output measure, and given the different levels of skill and intensity of training amongst units of competency and modules, caution should be exercised when considering the total quantum of recognised vocational education and training skills. Care should also be taken when comparing the relative contribution that both units of competency and assessed modules make to the total output.

However, in raw terms, almost eight million new assessed skills were added during 2001 to the stock of recognised vocational education and training skills held by Australians, an increase of 8% over 2000 levels.

**TABLE 1.1: VOCATIONAL EDUCATION AND TRAINING UNIT-LEVEL SKILL OUTPUTS <sup>(a)</sup>, 1999-2001**

	1999	2000	2001
Units of competency achieved	938 691	2 709 995	4 039 687
Assessed modules completed	5 931 947	4 648 907	3 913 532
Sub-total	6 870 638	7 358 902	7 953 219
Non-assessed modules completed	655 258	805 421	667 136
Recognition of prior learning	294 853	301 829	331 973

(a) These numbers are a raw count and do not account for the different levels of skill or intensity of training associated with each unit of competency and module.

Source: NCVET 2001 national vocational education and training collection.

## UNITS OF COMPETENCY ACHIEVED

The number of units of competency achieved as part of a Training Package has increased significantly each year since 1999 when Training Packages were first reported within the national data collection. This reflects the increased and growing proportion of assessed, recognised training that is now occurring within Training Packages since their initial rollout in 1998. In this respect, the number of endorsed Training Packages implemented by the States and Territories has increased from 50 at the end of 1999 to 71 in December 2001.

Across the range of implemented Training Packages, students within the Hospitality Training Package achieved the most units of competency (553,400) during 2001. The number of units of competency achieved within the Administration (454,900), Information Technology (393,000) and Community Services (391,700) Training Packages was also substantial.

Between 2000 and 2001, the largest increase in competencies achieved occurred in the Information Technology Training Package, with an increase of nearly 188,000.

Further information on the types of Training Packages in use, and the number of units of competency achieved within each year since 1999, is provided in the appendix.

## MODULES COMPLETED

Skill outputs within vocational education and training also includes the number of assessed modules completed outside of Training Packages as well as those modules that are completed outside the competency based training framework. That is, successful module completions can be of two types - those that include a formal assessment at the completion of training, and those that are not assessed.<sup>1</sup>

The number of assessed modules completed has declined each year since 1999. In 2001, for the first time, the number of assessed modules completed was less than the number of units of competency achieved. This result was expected given the introduction and increasing emphasis on the use of Training Package products since 1998. It should be noted, however, that assessed modules continue to represent a significant proportion of vocational education and training skill outputs and hence make an important contribution to the total quantum of skill outputs.

The largest proportion of completed modules in 2001 was associated with training undertaken in the 'administration' area of learning (18%) which includes training in administration, business, economics, and law. Modules completed in 'engineering, processing' was next largest at 14%. More detailed information on areas of learning for both competencies achieved and assessed modules attained appears in the appendix.

Competencies and assessed modules can also be achieved through recognition of prior learning processes. The number of units achieved through this process has been increasing since 1999. Outputs achieved through recognition of prior learning made up 4% of all assessed vocational education and training outputs in 2001.

## QUALIFICATIONS COMPLETED<sup>2</sup>

The possession of a recognised qualification is a key currency of the vocational education and training system that assists the movement of individuals within the labour market. Accordingly, the number of qualifications completed each year is a critical output measure for vocational education and training.

It is recognised that the number of completed qualifications, as a standalone measure, does not provide a comprehensive picture of vocational education and training skill outputs. While some students actively seek a qualification at the successful completion of their training, many others achieve their skills development needs through completing units of competency and/or modules that do not directly amount to a recognised qualification.

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1 Modules completed that do not involve formal assessment, but require students to spend time undertaking a particular activity, include: work experience and field placement, tutorial or learning support, job-seeking (where the objective is to assist the student obtain employment) and situations where the student, at the time of enrolment, elects to attend classes but not be formally assessed (i.e. 'observer' or 'auditor' enrolments). If the student undertakes a particular activity for the required time, an outcome that acknowledges successful completion is reported. Some variation among the States and Territories occurs as a result of differences in delivery and support arrangements and business practices.

2 Includes all courses where eligibility requirements have been met, regardless of whether or not the qualification has been formally issued.

The number of qualifications completed within the vocational education and training sector is reported for the first time in this report. This data was not previously reported because a number of technical issues had limited its accuracy and its comparability across States and Territories. Since 1998, when it was first decided that qualifications would be reported as an output measure, a number of initiatives have been undertaken to address this problem. A register of qualifications, introduced in 2001, has facilitated the reporting of qualifications completed for the first time.

## Qualifications completed in 2001

Vocational education and training students completed almost 250,000 qualifications from within the Australian Qualifications Framework during 2001.

One-third of students (32%) completed at the Certificate III level, while the remaining qualifications were roughly equally dispersed both above (31%) and below (37%) the Certificate III level. Half of all completed qualifications in 2001 were achieved using Training Package qualifications. [Table 1.2]

**TABLE 1.2: QUALIFICATIONS COMPLETED BY TYPE AND AUSTRALIAN QUALIFICATIONS FRAMEWORK (AQF) CATEGORY, AUSTRALIA 2001**

Type of Qualification	Training Package Qualification	Nationally Recognised Course	Other State/Territory <sup>(a)</sup>	Total
Diploma and above	7 911	21 550	1 270	30 731
AQF Certificate IV and equivalent	23 888	20 962	788	45 638
AQF Certificate III and equivalent	44 609	32 293	4 025	80 927
AQF Certificate II	44 152	29 415	1 651	75 218
AQF Certificate I	5 517	11 124	232	16 873
Senior Secondary <sup>(a)</sup>	0	20	0	20
<b>Total AQF Qualifications</b>	<b>126 077</b>	<b>115 364</b>	<b>7 966</b>	<b>249 407</b>

Notes: Within the Australian Qualifications Framework, vocational education and training provides Diploma or higher, Certificate IV or equivalent, Certificate III or equivalent, other certificates, Certificate II, Certificate I, senior secondary, and other certificates not part of an Australian Qualifications Framework qualification - refer to the appendix for more detailed information.

(a) Includes courses accredited or approved by a local State/Territory authority.

Source: NCVER 2001 national vocational education and training collection.

In addition to Australian Qualifications Framework qualifications, a further 147,600 'other certificates' were completed during 2001. These include courses developed for specific local needs and statements of attainment (where partial completion of a qualification is recognised).

The total number of 'other certificates' completed is greater than the number of qualifications awarded at any one Australian Qualifications Framework level and represents a significant area of activity.

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## LOAD PASS RATES

The load pass rate provides a broad indication of the overall level of success of all students undertaking vocational education and training.<sup>3</sup> This measure indicates the rate at which the inputs to the vocational education and training system are transformed into successful outputs. In this sense, it is valuable contextual information to assist in understanding the factors that influence the achievement of skill outputs.

The national load pass rate was 75.4% in 2001 and has fluctuated by less than one percentage point over the last three years. [Table 1.3]

Therefore, at the national level, it would appear that growth in the number of vocational education and training outputs has been largely driven by growth in training inputs rather than through any increase in pass rates.

The load pass rate is more variable below the national level for differing student cohorts and for different types of training. For example, the load pass rate within Training Packages was significantly higher during 2001 (79.2%). Differences in teaching and administrative policy/practice in each jurisdiction also influence the observed pass rates. The load pass rate determined for each State/Territory during 2001 is provided in the appendix.

**TABLE 1.3: LOAD PASS RATES, AUSTRALIA 1999-2001 (PER CENT)**

	1999	2000	2001
Load pass rate	74.7	75.5	75.4

Source: NCVER 1999-2001 national vocational education and training collection.

Another perspective on the rate at which students succeed can be gained by examining the proportion of students who successfully complete the majority of their units of competency or modules (in both assessed and non-assessed training).

In 2001, 68% of students successfully completed nearly all (more than 95%) of their training. Only a relatively small percentage of students (11%) completed less than 5% of their training. As with load pass rates, there has been little variation in these statistics at the national level in recent years. [Table 1.4]

**TABLE 1.4: RATE OF INDIVIDUAL STUDENT SUCCESS, AUSTRALIA 1999-2001 (PER CENT)**

	2000	2001
Nearly all (> 95%)	69.0	68.0
Some (5-95%)	19.7	20.9
Almost none (< 5%)	11.3	11.1
Total	100.0	100.0

Note: Includes both units of competency and assessed/non-assessed modules.

Source: NCVER 2000-2001 national vocational education and training collection.

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<sup>3</sup> Broadly, load pass rates show the ratio of students who passed an assessed module or unit of competency to all students who were assessed and either passed, failed or withdrew. Full details of the technical aspects of the calculation are provided in the appendix.

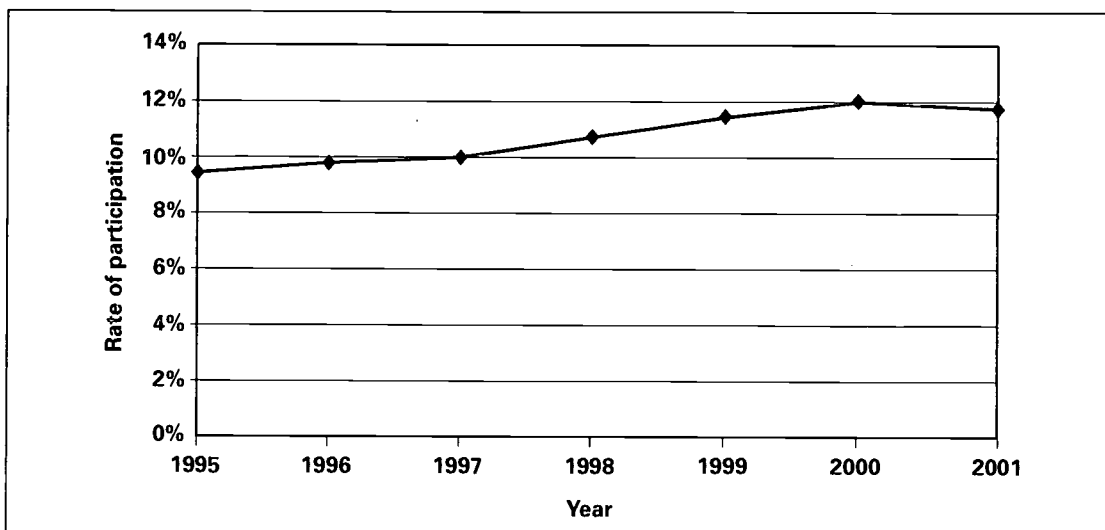
## PARTICIPATION IN VOCATIONAL EDUCATION AND TRAINING

In 2001, almost 1.76 million people participated in publicly funded vocational education and training, based on data submitted to the National Centre for Vocational Education and Research as part of the national vocational education and training data collection.

The national participation rate in vocational education and training was 11.8%<sup>4</sup> during 2001. This level of participation remains relatively unchanged over 2000 levels. Absolute numbers of participants increased slightly from 1,749,400 to 1,756,800 with roughly one in eight Australians of working age undertaking training in the publicly funded vocational education and training system during 2001. Nevertheless, the publicly funded vocational education and training system recorded 377.6 million training hours in 2001 representing growth of 13.5% over 2000 levels.

The stabilisation of vocational education and training participation rates contrasts with the substantial increase in national participation that occurred over the latter part of the previous decade. [Figure 1.1]

**FIGURE 1.1: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION RATES (PERSONS AGED 15-64 YEARS), AUSTRALIA 1995-2001 (PER CENT)**



Note: Participation rates of vocational education and training students are reported as a proportion of the working age population. Details on breaks in time series are provided in the appendix. Participation data have been adjusted for student enrolment no participation (refer to the appendix for more detail). This figure should not be compared to non-adjusted participation rate data as reported in NCVER statistical publications.

Source: NCVER 1995-2001 national vocational education and training collections.

Approximately 19% of vocational education and training participants were participating as New Apprentices.<sup>5</sup> In contrast to the marginal growth in the overall vocational education and training population between 2000 and 2001, the number of New Apprentices increased by 12% during 2001 from 294,900 at 31 December 2000 to 329,600 at 31 December 2001.<sup>6</sup>

4 There were variations to this rate at the State and Territory level, due mainly to differing demographic and economic profiles (see appendix). Participation rates are typically derived for the working age segment of the population only (15-64 years).

5 New Apprenticeships combine on-the-job training and work experience (while in paid employment) with formal off-the-job training to produce a nationally recognised qualification. Apprentices and trainees enter into a contract of training with their employer that requires both parties to comply with mutual obligations.

6 This information is sourced from data collected under the AVETMIS Standard for New Apprenticeships.

# Key Performance Measure 2

## Stocks of Skills Versus Desired Levels

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## SUMMARY OF FINDINGS

**Australian workers are becoming better qualified largely due to the influx of qualified young people into the workforce.**

In May 2001, 46% of the Australian workforce held a non-school qualification. The proportion of young adults (aged 25-34) in the workforce with a non-school qualification (58%) was substantially higher than the proportion of older workers with a non-school qualification (41%).

**One-third of workers hold a vocational education and training qualification, though this proportion is variable across different industries.**

In May 2001, approximately 32% of all persons in the workforce aged 25-64 had completed a vocational education and training qualification as their highest level of educational attainment. This proportion varies from 24% in the education industry to over 57% in the construction industry.

**Vocational education and training qualifications continue to dominate trade occupations and the growth of vocational education and training qualifications in the labour force is outpacing the labour force's overall growth rate.**

More than 70% of people aged 25-64, who were employed as tradespersons and related workers, held a vocational education and training qualification as at May 2001. Over the three years to May 2001, the proportion of the labour force aged 25-64 increased at an average of 1.6% per annum. Over the same period, the number of people in the labour force reporting a vocational education and training qualification as their highest level of educational attainment had increased by 2.5% per annum.

**Industry demand for skills is variable and is being effected by the general aging of the population.**

In 2001, a strong demand for skills was identified in the retail trade, health and community services, and personal and other services while a decline in the level of demand for skills was associated with manufacturing, communication services, transport and storage, and construction. More than one-third of people employed in a wide range of industries (including agriculture, manufacturing and education) are older than 45 years of age.

**Opportunities for employment in trade positions rose substantially during 2001.**

While vacancies for professionals and associated professionals declined during 2001, trade vacancies rose by 27% with strongest increases recorded by construction trades (9%), building and engineering associates (3%), and automotive trades (3%).

**The level of unmet demand by individuals for access to vocational education and training continues to decline.**

In 2001, 79,200 people were unable to gain a place in post-school education and training. Two-thirds of these people (46,700) had sought access to vocational education and training in 2001 compared to 54,300 in the previous year.

## INTRODUCTION

Key performance measure (KPM) 2 aims to monitor the stock of vocational education and training skills held by Australians relative to the desired level of these skills that are required by Australian industries.

This measure is directly related to the mission of vocational education and training in Australia which includes the aspiration to create and maintain a national pool of skilled Australian workers that is sufficient to support internationally competitive commerce and industry. The measure is an analytical tool that provides benchmark data about the desired level of vocational education and training skills in Australia.

However, there is no single definitive measure that provides a simple picture of the stocks of vocational education and training skills relative to the needs for such skills. A range of indicators is therefore used in this chapter, which collectively provide some insight into the relative levels of supply and demand for vocational education and training skills. In considering the data reported for these indicators, it is important to recognise that the vocational education and training system does not meet, and is not expected to meet, all skills development needs for Australia.

The indicators used to examine performance for this measure are categorised into three broad types. They include:

- stock of skills (comprising the qualifications skill profile of the workforce and international comparisons)
- demand for skills (such as differential growth in output, job opportunities, unemployment, employment and job vacancies in industry sectors and occupations as well as skill requirements due to technological and workplace change)
- skills gaps (such as job vacancies, changing skills needs and the level of unmet student demand for entry to vocational courses).

## STOCK OF SKILLS

### Qualifications held by individuals

A measure of the number and type of qualifications held by individuals is commonly used as a proxy for assessing the stock of skills. However, the number of qualifications, as a standalone measure, underestimates the stock of skills available because those skills developed through partial completion of vocational education and training (at the module or unit of competency level) are not captured within this measure, nor are many of the skills acquired through workplace training.

In this respect, large numbers of Australians successfully complete and acquire the specific skills they require through both recognised and non-recognised training and do not complete, nor intend to complete, a full course or qualification.

Nevertheless, the Australian workforce is becoming better qualified with 46% of Australians of working age holding a non-school qualification in May 2001. [Table 2.1]



The number of people in the labour force without a post school qualification has declined at an average rate of 1.4% per annum between May 1998 and May 2001 (see Table A2.1 in the appendix).

The stock of skills will increase steadily over time as younger and more highly educated cohorts enter the workforce. In May 2001, 52% of all people aged 25-64 had attained a non-school qualification. However, people aged 25-34 were more likely to have attained a non-school qualification (58%), compared to people aged 45-54 (51%) and people aged 55-64 (41%).

**TABLE 2.1: HIGHEST NON-SCHOOL EDUCATIONAL ATTAINMENT BY AGE, AUSTRALIA MAY 2001 (PER CENT)**

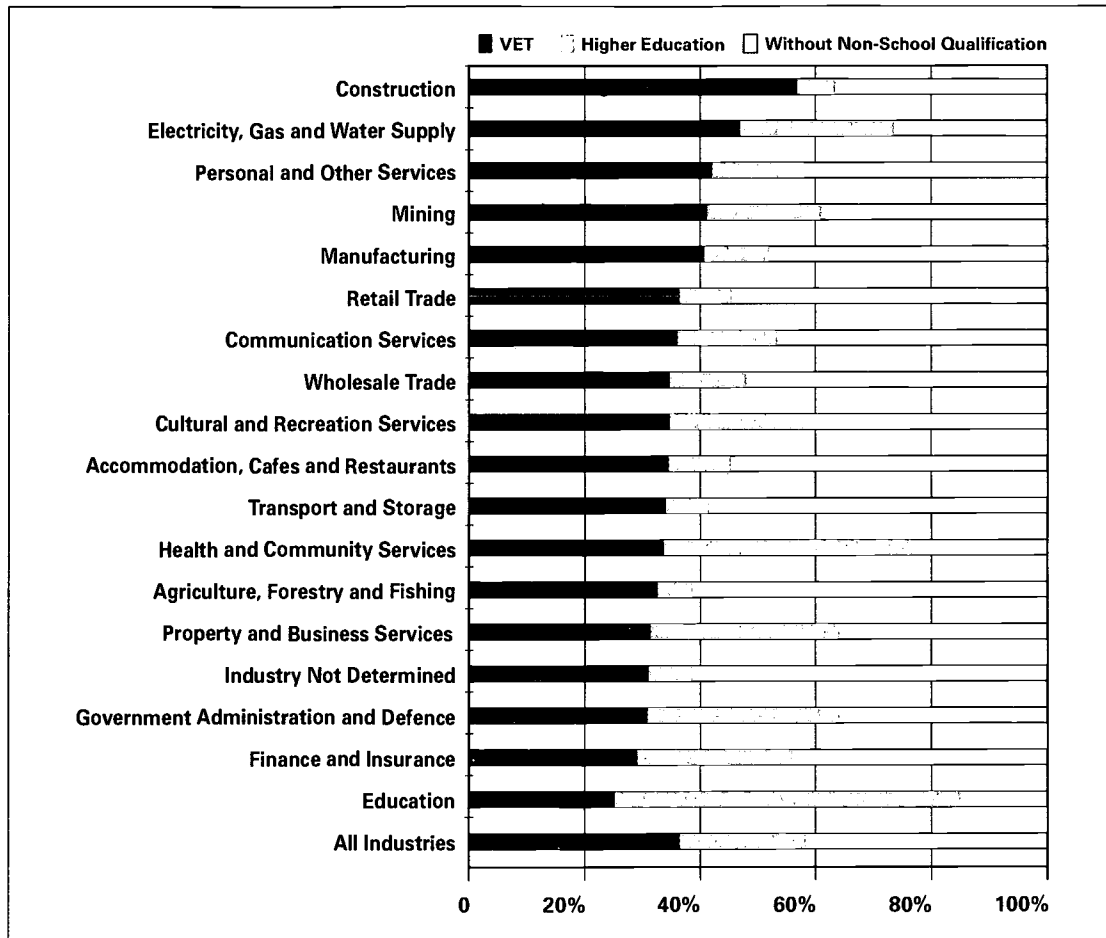
	Age group							Total 25-64	Total 15-64
	15-19	20-24	25-34	35-44	45-54	55-64			
<b>With non-school qualification</b>	<b>6</b>	<b>38</b>	<b>58</b>	<b>54</b>	<b>51</b>	<b>41</b>	<b>52</b>	<b>46</b>	
Higher education qualification	0	11	24	20	19	13	20	17	
With VET qualification	6	27	33	34	32	28	32	29	
<i>Advanced diploma and diploma</i>	0	6	8	8	8	7	8	7	
<i>Certificate III and IV</i>	2	12	16	17	15	14	16	14	
<i>Certificate I and II</i>	2	5	8	8	8	7	8	7	
<i>Certificate not further defined</i>	2	4	2	1	1	0	1	2	
<b>Without non-school qualification</b>	<b>94</b>	<b>62</b>	<b>42</b>	<b>46</b>	<b>49</b>	<b>59</b>	<b>48</b>	<b>54</b>	
Total	100	100	100	100	100	100	100	100	
Number of persons ('000)	1 351	1 083	3 125	2 897	2 592	1 741	10 355	12 788	

Source: Australian Bureau of Statistics, Survey of Education and Work, unpublished data, May 2001. Refer to the technical note in the appendix.

Approximately 32% of all persons in the labour force aged 25-64 are reported to have completed a vocational education and training qualification. A further 20% reported that they had completed a higher education qualification. Some of those with higher education qualifications also hold vocational education and training qualifications.

There is considerable variation in the qualification profiles within each industry. The percentage of those employed holding a vocational education and training qualification as their highest non-school educational qualification ranges from 24% in the education industry to over 57% in the construction industry. [Figure 2.1]

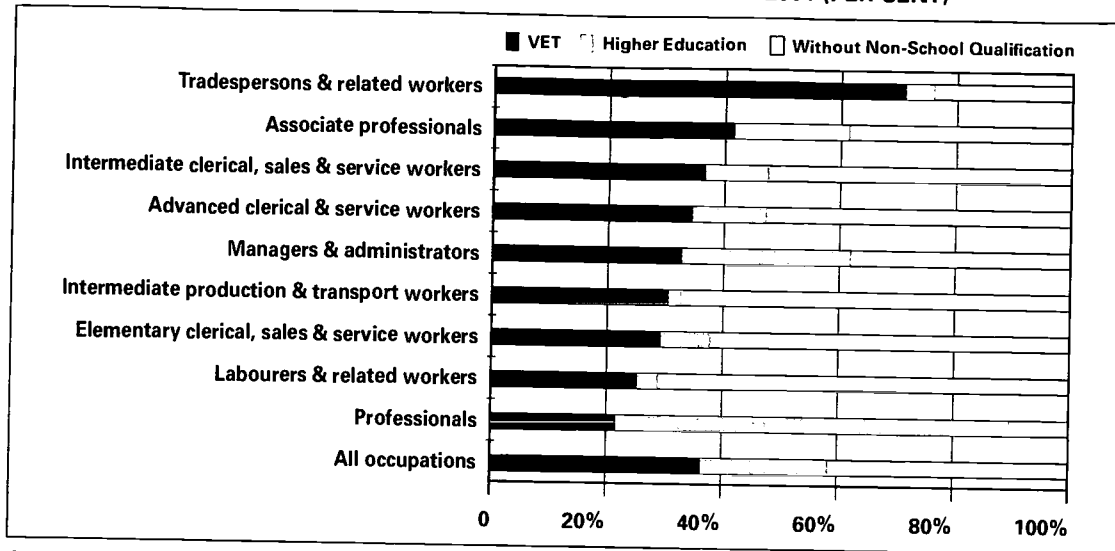
**FIGURE 2.1: HIGHEST NON-SCHOOL EDUCATIONAL ATTAINMENT OF THE AUSTRALIAN LABOUR FORCE BY INDUSTRY (PERSONS AGED 25-64), MAY 2001 (PER CENT)**



Source: Australian Bureau of Statistics, Survey of Education and Work, unpublished data, May 2001. Also refer to the technical note in the appendix.

In terms of occupations, over 70% of people aged 25-64, who were employed as tradespersons and related workers, hold a vocational education and training qualification. About 41% of associate professionals and 36% of people in intermediate clerical, sales and service worker occupations aged 25-64 hold a vocational education and training qualification. [Figure 2.2]

**FIGURE 2.2: HIGHEST NON-SCHOOL EDUCATIONAL ATTAINMENT OF THE AUSTRALIAN LABOUR FORCE BY OCCUPATION (PERSONS AGED 25-64), AUSTRALIA MAY 2001 (PER CENT)**

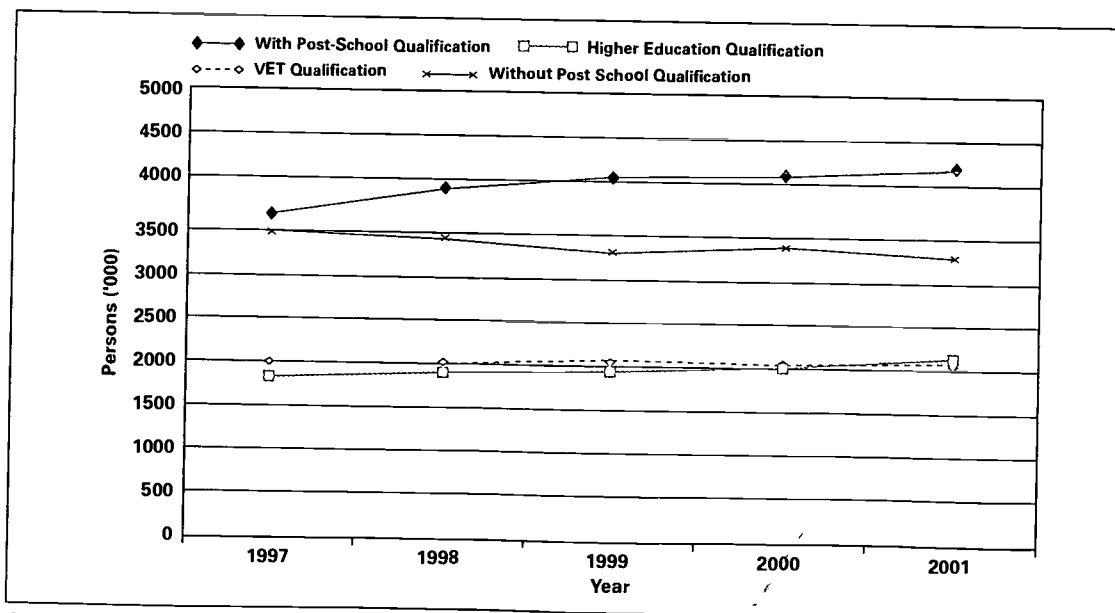


Source: Australian Bureau of Statistics, Survey of Education and Work, unpublished data, May 2001. Also refer to the technical note in the appendix.

The proportion of the labour force aged 25-64 with a vocational education and training qualification is increasing at a faster rate than the labour force in general (Figure 2.3 and Table A2.1 in the appendix).

The proportion of the labour force aged 25-64 increased at an annual average rate of 1.6% between May 1998 and May 2001, while the number of people in the labour force reporting a vocational education and training qualification as their highest level of qualification increased by 2.5% per annum. Over the same period, the number of people in the labour force with a higher education qualification increased by 5.6% per annum.

**FIGURE 2.3: AUSTRALIAN LABOUR FORCE BY HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT (PERSONS AGED 25-64), 1997-2001 ('000)**



Source: Australian Bureau of Statistics, Survey of Education and Work, May 2001 and Survey of Transition from Education to Work, May 1997-2000, unpublished data. Refer to the technical note in the appendix.

## International comparisons

The Australian Bureau of Statistics reports that 46% of the 15-64 age group in Australia have non-school qualifications (and 52% of the 25-64 year age group). [Table 2.1]

The international Organisation for Economic Co-operation and Development (OECD) reports that 27% of Australians in the 25-64 age bracket hold non-university tertiary qualifications, at a minimum, in comparison to the OECD country average of 22%. [Table 2.2]

It should be noted that the OECD classifies some Australian vocational education and training qualifications at a secondary level rather than tertiary. The OECD definition of a tertiary qualification requires a minimum of two years of full-time equivalent study at tertiary level.<sup>7</sup>

**TABLE 2.2: EDUCATIONAL ATTAINMENT FOR SELECTED OECD COUNTRIES (PERSONS AGED 25-64), 1999 (PER CENT)**

	At least upper secondary education	At least non-university tertiary education
Canada	79	39
United States	87	35
Japan	81	31
Sweden	77	29
New Zealand	74	27
Australia	57	27
Netherlands	m*	22
United Kingdom	62	25
Germany	81	23
Korea	66	23
Ireland	51	21
France	62	21
OECD 29 country mean	62	22

\*m — data not available.

The category 'non-university tertiary' is classified as 'tertiary-type B' by the OECD.

Source: OECD 2001, Education at a Glance OECD Indicators, tables A2.2a and A2.2b (pp 45-46).

While the proportion of the Australian labour force with a qualification is growing, Australia is still behind other countries in terms of the proportion of the population with at least upper secondary education.

In this respect, the OECD reports that a lower proportion of Australians aged 25-64 had attained at least upper secondary education (57%) compared to the OECD country average (62%).

7 OECD 2001. Note: In the OECD data, tertiary refers to Australian Qualifications Framework diploma or higher and their equivalent. Secondary education includes up to Australian Qualifications Framework Certificate level III qualifications and their equivalent.

## TRENDS IN DEMAND FOR VOCATIONAL EDUCATION AND TRAINING SKILLS

There are a number of indicators of future changes in demand for skills. In this section, consideration is given to employment growth by occupation (including variations in labour turnover across occupations), data on changes occurring in the economy affecting the demand for skills, and the skill mix.

### Employment growth

Demand for vocational education and training services is influenced, among other things, by the relative size of an industry, the proportion of the labour force that holds a vocational qualification, the growth of employment in the industry and the occupational attrition rate.

### Employment by industry

There was divergent growth in employment across sectors in the economy and within sectors over the 12 months to May 2001. Over this period, employment expanded in the services sector, but declined by 4.8% and 2.1% respectively in the manufacturing and agriculture sectors. [Table 2.3]

**TABLE 2.3: EMPLOYMENT BY INDUSTRY, MAY 2001**

	May 2001 ('000)	Growth 2000-2001 (%)
Agriculture, forestry and fishing	429.4	-2.1
Mining	78.3	3.3
Manufacturing	1 119.4	-4.8
Electricity, gas & water supply	67.5	-0.1
Construction	667.6	-5.9
Wholesale trade	431.1	-1.5
Retail trade	1 347.9	1.8
Accommodation, cafes & restaurants	465.1	3.2
Transport and storage	424.2	1.3
Communication services	188.5	4.5
Finance and insurance	353.9	5.1
Property and business services	1 066.0	3.9
Government administration & defence	372.7	7.4
Education	629.2	2.1
Health & community services	909.9	6.0
Cultural & recreational services	224.6	2.6
Personal & other services	358.5	2.7
<b>All industries</b>	<b>9 133.8</b>	<b>1.1</b>

Source: Australian Bureau of Statistics, Australia Labour Force, May 2001, catalogue number 6203.0.

An indication as to which industries are likely to increase their demand for vocational education and training can be obtained by comparing an industry's job vacancies (as reported by the Australian Bureau of Statistics) with its share of employment (as detailed in Figure A2.1 in the appendix).

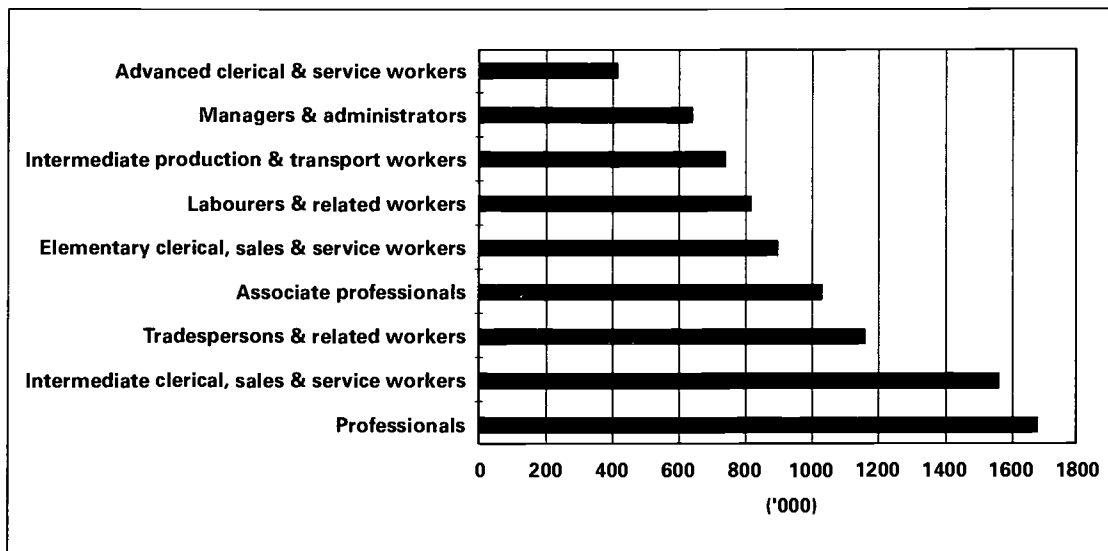
This comparison indicates strong demand for skills related to the retail trade, health and community services, and personal and other services and a decline in the demand for skills related to manufacturing, communication services, transport and storage, and construction. Part-time employment grew strongly, particularly in the service sectors. This has implications for the provision of training, as more people are required to be trained per full-time equivalent worker.<sup>8</sup>

A number of industries have an aging workforce, meaning there is likely to be a demand for skills and training in these industries as people retire from the workforce and are replaced by new entrants to the industry. More than one-third of the people employed in a wide range of industries are older than 45 years of age. These industries include agriculture, forestry and fishing; manufacturing; electricity, gas and water supply; transport and storage; wholesale trade; government administration and defence; education; and health and community services.

## Employment by occupation

As at May 2001, the largest occupational groups in Australia, in descending order of magnitude, are professionals, intermediate clerical, sales and service workers, and tradespersons and related workers. [Figure 2.4]

**FIGURE 2.4: EMPLOYMENT BY OCCUPATIONAL GROUP (PERSONS AGED 15-64), AUSTRALIA MAY 2001 ('000)**



Source: Australian Bureau of Statistics, Education and Work Australia, May 2001, catalogue number 6227.0.

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8 NCVER, 2002, Issues affecting skill demand and supply in Australia's education and training sector.

## Job opportunities due to growth and replacement

Job opportunities arise because of growth in the employment base and also from labour turnover. Growth in the employment base averaged 1.8% per annum over the five years to 2000-2001 while net replacement (that is, the replacement jobs filled by new entrants) was estimated to average about 2.1% per annum.

If the replacement rate for vocational education and training graduates is the same as the rest of the workforce, close to 90,000 vocational education and training graduates (85,900) are required each year to sustain the current level of qualifications in the labour force. [Table 2.4 and Figure 2.5]

The ongoing supply of persons into the workforce who hold vocational education and training qualifications has exceeded the levels necessary to maintain their proportion in the workforce. This finding is indicated by the growth in the stock of persons with these qualifications in the labour force and by NCVER data on new graduates in its Student Outcomes Surveys.

**TABLE 2.4: JOB OPENINGS FOR NEW ENTRANTS BY MAJOR OCCUPATION GROUP (PER CENT)**

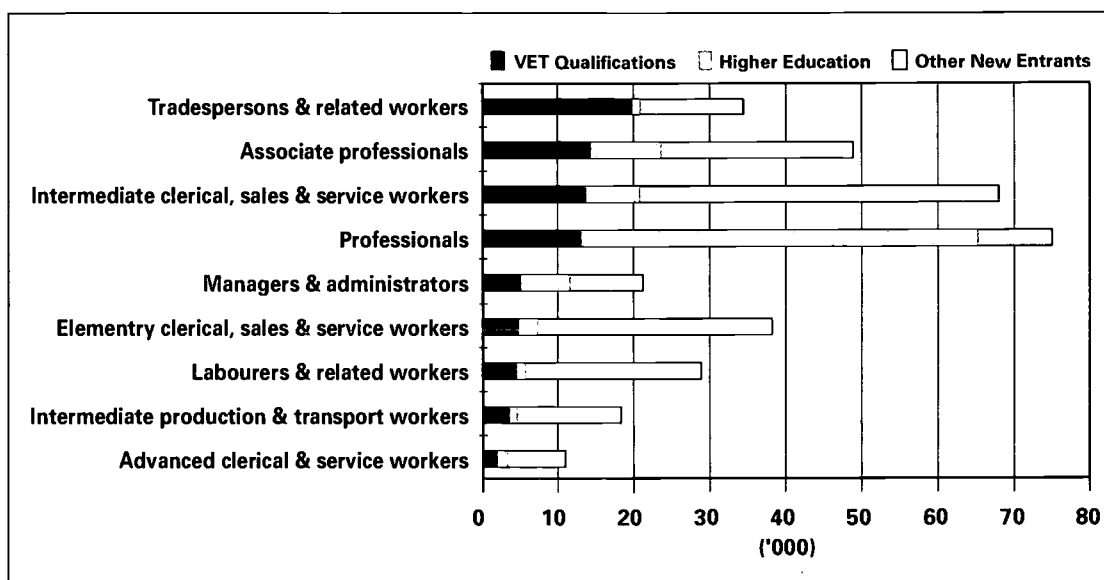
Occupation group	Average annual rate for five years to 2000-2001 Per cent		
	Net replacement demand	Growth in employment	Job openings
Tradespersons and Related Workers	2.0	0.9	2.9
Associate Professionals	1.7	3.4	5.1
Managers and Administrators	2.2	1.1	3.3
Intermediate Production & Transport Workers	1.9	0.3	2.2
Intermediate Clerical, Sales and Service Workers	1.9	2.6	4.5
Advanced Clerical and Service Workers	1.9	0.9	2.8
Professionals	1.5	3.3	4.8
Labourers and Related Workers	2.7	0.7	3.4
Elementary Clerical, Sales and Service Workers	3.4	0.9	4.3
<b>All occupations</b>	<b>2.1</b>	<b>1.8</b>	<b>3.9</b>

Source: Analysis of Australian Bureau of Statistics labour force data by the Centre for the Economics of Education and Training. Also refer to the technical note in the appendix.

Compared to other occupational groups, persons with a vocational education and training qualification are afforded greater opportunity for employment within the tradespersons and related workers occupational group. [Figure 2.5] On average, 20,100 job openings become available each year in these occupations for people holding vocational education and training qualifications. The growth in employment of tradespersons and related workers is relatively low (at around 0.9% per annum) but replacement due to turnover lifts the annual rate of demand to about 3%.

There is also strong demand for vocational education and training skills in associate professional and intermediate clerical, sales and service occupations with around 14,500 job openings, on average, arising each year in these occupations for people who hold vocational education and training qualifications. Job openings arise at an average rate of 5.1% and 4.5% per annum in associate professional and intermediate clerical, sales and service occupations, respectively.

**FIGURE 2.5: AVERAGE ANNUAL JOB OPENINGS FOR NEW ENTRANTS TO MAJOR OCCUPATION GROUPS, AUSTRALIA FIVE YEARS TO 2000-2001 ('000)**



Source: Estimates provided by the Centre for the Economics of Education and Training. Also refer to the technical note in the appendix.

## Skill gaps

An indication of the quantum and nature of skill gaps in the Australian economy is available through data prepared by the Commonwealth Department of Employment and Workplace Relations. In this respect, the department compiles a monthly skilled vacancy index based on a count of skilled vacancies in the major metropolitan newspapers of each State and the Northern Territory.

Over the year to January 2002, skilled vacancies were almost 5% lower than the previous year. Of the major occupational groupings, professionals and associate professionals recorded decreases of 23% and 16%, respectively. Trade vacancies rose by 27%, with the strongest increases recorded for construction trades (9%), printing trades (4%), building and engineering associates (3%), and automotive trades (3%).

National skill shortages were recorded for a range of metal trades, vehicle trades, food trades (chefs, cooks and pastry cooks), refrigeration and air-conditioning mechanics, cabinetmakers, hairdressers and furniture upholsterers. The vocational education and training system provides many of the skills for these occupations and so can expect industry demand for training in these areas to increase.



According to the ICT Vacancy Index, demand for professional information technology and telecommunications (IT&T) skills over the year to January 2002 has declined steadily during 2001. The ICT Vacancy Index is a broad indicator of trends in the demand for professional IT&T skills. In January 2002, the index was 83% down on the index peak recorded in September 2000. The vocational education and training sector meets the skills development needs for many who are employed in information technology and telecommunications.

Research suggests that employers now seek a broader set of skills in new and existing employees.<sup>9</sup>

## UNMET STUDENT DEMAND FOR VOCATIONAL EDUCATION AND TRAINING

The level of individual, rather than industry, demand for access to vocational education and training can be assessed with reference to the Australian Bureau of Statistics' Survey of Education and Work. It should be noted that this data also includes a small number of people who sought access to vocational education and training but did not meet the minimum entry requirements of the institution to which they applied.

The Australian Bureau of Statistics data indicates that of the 79,200 people unable to gain a place in post-school education and training in 2001, two-thirds (46,700) had sought access to vocational education and training. This figure amounts to 2.7% of all those who did participate in vocational education and training in 2001.

Almost half of the people who were unable to gain a place in post-school education and training in 2001 (34,600) had applied for a place within a TAFE institute.

There has been a steady decline in the level of unmet demand for vocational education and training since 1999. [Table 2.5]

**TABLE 2.5: UNMET DEMAND FOR POST-SCHOOL EDUCATION AND TRAINING BY PROVIDER SECTOR, 1998-2001<sup>(a)</sup>**

	1998	1999	2000	2001
<i>TAFE</i>	35 200	45 800	40 500	34 600
<i>Other vocational education and training*</i>	12 900	13 100	13 800	12 000
Total vocational education and training	48 100	58 900	54 300	46 700
Higher education	22 900	20 000	18 800	21 400
Other educational institutions	12 500	13 400	13 000	11 200
<b>Total unmet demand</b>	<b>83 500</b>	<b>92 300</b>	<b>86 000</b>	<b>79 200</b>
Total vocational education and training students ('000)	1 535	1 647	1 749	1 757
<b>Unmet demand for vocational education and training as a percentage of total enrolments</b>	<b>3.1%</b>	<b>3.6%</b>	<b>3.1%</b>	<b>2.7%</b>

(a) Figures may not add up to total due to rounding.

\* Includes persons wishing to enrol in a program which does not (of itself) result in a recognised qualification. Source: Australian Bureau of Statistics, Education and Work, Australia, catalogue number 6227.0, unpublished data. Confidence limits are shown in the appendix in Table A2.5.

9 Employability skills for the future, [http://www.dest.gov.au/ty/publications/employability\\_skills/index.htm](http://www.dest.gov.au/ty/publications/employability_skills/index.htm)

# Key Performance Measure 3

## Employer Satisfaction with Vocational Education and Training

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## SUMMARY OF FINDINGS

### **Overall employer satisfaction remains high.**

In 2001, the vast majority of employers with recent vocational education and training graduates (eight in ten) were satisfied with vocational education and training providers in overall terms. This level of satisfaction has remained consistently high since 1997.

### **Employers remain positive about the skills of vocational education and training graduates.**

Two-thirds of employers felt that vocational education and training was continuing to provide graduates with skills appropriate to their needs. However, at least three-quarters also perceive a need for more practical job skills as well as more work experience or placements as part of vocational training. Aspects of graduates' general skills also appear to be a focus for more attention, particularly graduates' problem solving skills.

### **Employers were more satisfied with non-TAFE institute providers.**

Employers whose graduates were predominantly non-TAFE institute trained gave slightly higher ratings for overall satisfaction (85%) compared to employers of mainly TAFE institute trained graduates (79%). A relatively higher proportion of these employers also agreed that the vocational education and training system was providing graduates with appropriate skills (75%) compared to the proportion of employers who employed all or mostly TAFE institute trained graduates (65%).

### **Satisfaction with vocational education and training continues to differ across industries.**

Skill needs were more likely to be met for employers in the industries of communication services, education, and health and community services, while more awareness of the skill needs of employers is required in the mining and manufacturing industries. Small businesses are polarised in their views with some being extremely positive while a relatively large proportion remains dissatisfied.

### **Employers are engaging recent vocational education and training graduates in increasing numbers.**

Of the 432,400 employers in Australia in 2001, a total of 126,500 employers had recent vocational education and training graduates within their employ, which is double the number reported in 1995 (63,000).

## INTRODUCTION

Key performance measure (KPM) 3 monitors employers' views on the relevance and usefulness of skills acquired through vocational education and training, as well as their overall satisfaction with vocational education and training. The common objective of employers and industry is to have an appropriately skilled workforce able to apply acquired skills in the workplace and contribute to increased productivity.

The national Survey of Employer Views on Vocational Education and Training is the key source of data for reporting of this measure.<sup>10</sup> The survey, undertaken periodically since 1995 and again during 2001, provides quantitative data on employer characteristics and their attitudes to training, their satisfaction with vocational education and training providers, and their perceptions of, as well as satisfaction with, various aspects of graduates' skills and training courses. Elements from the survey related to the relevance and usefulness of graduates' skills to employers include:

- employer satisfaction overall with vocational education and training
- employer views on the appropriateness to their needs of graduates' skills
- employer satisfaction with particular skills.

The focus in this report is on the collective views of employers at the national level who have recently employed graduates from the vocational education and training system in Australia. It should be noted that the scope of the survey also includes employers with 'non-recent' vocational education and training graduates as well as employers who have no vocational education and training graduates at all within their employ.

It is noteworthy that the majority of employers with 'non-recent' vocational education and training graduates (64%) reported that they had not recruited vocational education and training graduates recently because they did not have appropriate vacancies for such employees in the recent past. The majority of employers without employees with vocational education and training qualifications (58%) had not recruited such employees because they felt that these qualifications were not relevant to their industry.

There were approximately 432,400 employers in Australia in 2001. Of these, some 126,500 (about one-third) had recent graduate employees. The number of employers with recent vocational education and training graduates has been steadily increasing since 1995.

## EMPLOYER SATISFACTION WITH VOCATIONAL EDUCATION AND TRAINING PROVIDERS

Employers with recent vocational education and training graduates continue to be satisfied with vocational education and training providers. In 2001, eight in ten (79%) employers of this type indicated that they were satisfied with providers. Of these, the largest proportion (41%) were 'very satisfied'. [Table 3.1]

The level of dissatisfaction among employers has remained consistently low since 1995 and variations in levels of satisfaction are considered to be largely due to fluctuations between being 'very' or 'moderately' satisfied and the 'don't know' category.

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10 The appendix provides further information regarding the <sup>43</sup> of the Survey of Employer Views.

**TABLE 3.1: OVERALL SATISFACTION WITH VOCATIONAL EDUCATION AND TRAINING PROVIDERS (EMPLOYERS OF RECENT GRADUATES)<sup>(a)</sup> (PER CENT)**

	1997	1999	2001
Very satisfied (8 to 10)	32	44	41
Moderately satisfied (6 to 7)	46	39	38
Subtotal satisfied	78	82	79
Neither satisfied nor dissatisfied (5)	13	7	8
Dissatisfied (1 to 4)	9	6	6

(a) Totals may not add up to 100 because of 'don't know' responses.

Source: NCVER Survey of Employer Views. Employers were asked to rate their satisfaction with providers on a scale of one to ten.

### Segmentation of employer views

A segmentation of employer characteristics was undertaken using 2001 data to develop an understanding as to how employer satisfaction varies according to provider type (TAFE or non-TAFE), business size, industry type, and training pathway.

Consistent with the growth of the training market, employers have reported a shift in the main type of training provider (TAFE or non-TAFE) from which their recent graduates received their training. Most employers tend to have graduates from one provider type, although around 10% of employers have graduates from a mix of provider types. The proportion of employers whose graduates were all or mostly trained in TAFE institutions has declined with each survey from 80% in 1997 to 66% in 2001.

### Employer satisfaction by provider type

Employers whose graduates were all or mostly non-TAFE institute trained were more likely to be satisfied and to give slightly higher ratings of overall satisfaction. Some 85% of these employers were satisfied overall while 45% were very satisfied. By comparison, 79% of employers with all or mostly TAFE trained graduates were satisfied with the provider while 41% of such employers were very satisfied.

The type of training provider also impacted on employer levels of satisfaction in 1999 with employers of non-TAFE institute trained graduates again having relatively higher levels of satisfaction. Overall, satisfaction declined only slightly for this group between 1999 and 2001 (from 86% to 85%). However, the proportion of employers with TAFE institute trained graduates who expressed overall satisfaction declined from 82% to 79%.

In summary, satisfaction levels remained high for both groups in 2001, although employers with TAFE trained graduates have lower levels of satisfaction with these levels having declined since 1999.

## Employer satisfaction by business size<sup>11</sup>

Small employers were most likely to be very satisfied with training providers (44% were very satisfied compared to 40% of medium and 35% of large employers).

However, in terms of overall satisfaction, this aspect rated highest amongst large employers (84%) and medium employers (81%) compared to small employers (78%).

This suggests a polarity among small business employers with a significant proportion being highly satisfied with their training provider, while a large proportion of other small businesses continued to express relatively lower levels of satisfaction.

## Employer satisfaction by industry type

The following industries had the highest proportion of employers who were very satisfied with providers: manufacturing (57%), personal and other services (55%), accommodation, cafes and restaurants (50%), and education (50%).

Industries in which employers were proportionally less likely to be very satisfied were mining (13%) and communication services (16%). However, both these industries were among those with high proportions of employers who were moderately satisfied (64% and 80%, respectively) such that the overall levels of satisfaction for these industries remained comparable with all other industries.

## Employer satisfaction with apprenticeships/traineeships

Employer experience with apprenticeship and/or traineeship training was also examined. However, this training pathway did not appear to be a determining factor in shaping employer satisfaction with providers overall.

Employers of graduates who had completed an apprenticeship or traineeship reported similar levels of satisfaction with 41% being very satisfied and 41% being moderately satisfied. Employers who had no apprenticeship or traineeship graduates (41% very satisfied and 37% moderately satisfied) essentially mirrored this result. Overall, both types of employers were statistically consistent with the national picture (41% very satisfied and 38% moderately satisfied).

## Employer satisfaction with skills

At the national level, employers were positive in their reported levels of satisfaction with the skills of their vocational education and training graduate employees. More than 80% of employers (84%) indicated that they were satisfied overall while one-quarter indicated that they were very satisfied. [Table 3.2] The data also suggests that the level of employer satisfaction with specific skills tended to reflect the level of importance attached to the skill by employers.

Employers were relatively more satisfied with the oral communication skills (76%) and practical job skills (75%) of their vocational education and training graduate employees. These skills were also more likely to be considered very or extremely important by employers (83% and 82% respectively).

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<sup>11</sup> Refer to the appendix for definitions of employer size.

A high proportion of employers considered graduates' problem solving skills to be very or extremely important (81%). However, in comparison to the other skills considered important, they were less likely to be satisfied with this skill (68%).

Employers were less likely to consider an ability to use current technology in the workplace to be an important skill (71%) and were less likely to be satisfied with their graduates' competence in this skill (69%).

**TABLE 3.2: SATISFACTION WITH VARIOUS GRADUATE SKILLS (EMPLOYERS WITH RECENT GRADUATES), 2001 (PER CENT)**

	Very or quite satisfied	Very or quite dissatisfied
Oral communication skills	76	5
Problem solving skills	68	9
Practical job skills	75	5
Computer skills	51	6
Ability to use current technology in the workplace	69	4
<b>Overall satisfaction with skills</b>	<b>84</b>	<b>4</b>

Source: NCVET Survey of Employer Views on Vocational Education and Training, 2001.

The relatively low proportion of employers reporting that they were satisfied with graduates' computing skills (51%) reflects a comparatively high proportion who were unable to comment on these skill in graduates. Around one in five employers were unable to comment on graduates' computing skills compared to one in ten for other skills. It is thought this is because computing skills were not of prime importance to employers and this is reflected in the relatively low proportion of employers (45%) who considered computing skills to be very or extremely important.

Although generally satisfied with the practical job skills acquired by graduates, employers would still like to see a more practical focus in graduates' training. Three-quarters (77%) of employers felt that the vocational education and training system needs to provide more practical job skills and more than eight in ten (84%) felt there should be more work experience or work placements as part of vocational training.

### Employer satisfaction with skills by provider type

Employers whose graduates were all or mostly non-TAFE institute trained were more likely to be satisfied with the skills of their vocational education and training graduates both in overall terms (91%) and in terms of those that were very satisfied (34%). This compares with satisfaction levels of 82% and 21%, respectively, for employers who have employed TAFE or mostly TAFE institute trained graduates.

## Employer satisfaction with skills by industry type

Among the industries in which a relatively high proportion of employers were very satisfied were communication services (79%), personal and other services (38%), and education (37%). Industries with relatively smaller proportions of employers in this category were manufacturing (12%), construction (14%) and retail trade (17%).<sup>12</sup>

## Employer satisfaction with skills of apprenticeships/traineeships

The proportion of employers with experience of apprenticeship or traineeship recent graduates who were very satisfied (22%) with the skills of vocational education and training graduates was somewhat lower than the proportion of employers whose graduates had not undertaken an apprenticeship or traineeship (27%).

## EMPLOYER VIEWS ON THE APPROPRIATENESS OF GRADUATES' SKILLS

In 2001, two out of three employers (69%) felt that the vocational education and training system was providing skills appropriate to their needs, while around one in ten (13%) disagreed with this view. The proportions of employers who report positive or negative perceptions remain unchanged from 1999. [Table 3.3]

**TABLE 3.3: APPROPRIATENESS OF GRADUATES' SKILLS (EMPLOYERS OF RECENT GRADUATES), 2001 (PER CENT)**

The system is providing graduates with skills appropriate to the needs of employers	1997	1999	2001
Agree	65	69	69
Disagree	19	13	13

Source: NCVET Survey of Employer Views.

## Employer views by provider type

A relatively higher proportion of employers with vocational education and training graduates who were all or mostly non-TAFE institute trained graduates believed that the vocational education and training system was providing them with graduates who had appropriate skills (75%). By comparison, 65% of employers with vocational education and training graduates, who were all or mostly TAFE institute trained, felt that their graduate employees' skills were appropriate for their needs.

There has been a steady increase in the proportion of employers with non-TAFE trained graduates since 1997 who agreed that the vocational education and training system was providing graduates with appropriate skills.

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12 Noteworthy is the relatively low satisfaction of employers in the mining industry. A comparatively low proportion of employers in mining (9%) reported being very satisfied and, although the sampling variability is too large to support a definitive conclusion, the findings suggest satisfaction with skills in the mining industry is at the lower end of all industries.



Over the same period, the proportion of employers with TAFE trained graduates who agreed that the vocational education and training system was providing graduates with appropriate skills has fluctuated. In 2001, the proportion of employers agreeing is now slightly lower than in 1997. However, there has not been a corresponding increase in the proportion of employers disagreeing that the TAFE system is providing graduates with appropriate skills. Rather, an increasing proportion of employers with TAFE trained graduates in 2001 indicated that they 'don't know' whether their graduate employees' skills were appropriate or not.

**TABLE 3.4: VIEWS ON THE APPROPRIATENESS OF GRADUATES' SKILLS BY TRAINING PROVIDER TYPE (EMPLOYERS OF RECENT GRADUATES), 1997-2001 (PER CENT)**

	The system is providing graduates with appropriate skills to the needs of employers					
	Agreed			Disagreed		
	1997	1999	2001	1997	1999	2001
All or mostly TAFE trained	66	71	65	18	13	14
All or mostly non-TAFE trained	63	64	75	19	15	11

Source: NCVET Survey of Employer Views.

### Employer views by industry type

Employers of recent vocational education and training graduates who felt the system was providing graduates with appropriate skills were more highly represented in the industries of communication services (90%), education (80%) and health and community services (78%).

Industries in which employers had relatively lower levels of satisfaction with the appropriateness of graduate skills were the mining and manufacturing industries. Over time, employers in manufacturing have become less positive about graduates' skills with the proportion agreeing that these skills are appropriate declining from 70% in 1997 to 50% in 2001. Similarly, in mining, there has been a significant decline in satisfaction with the appropriateness of graduates' skills from 83% in 1999 to 39% in 2001.

### Employer views on the value of formal training

Of those employers who felt their graduates' skills were appropriate, less than half felt it is more cost-effective to recruit trained people than to train people on the job (46%) and six in ten (61%) felt that on the job skills are more useful than skills obtained through formal education. Around half (51%) of employers who did not believe graduates' skills were appropriate felt it was more cost-effective to recruit trained people than to train people on the job while two-thirds (69%) felt that on the job skills are more useful than skills obtained through formal education.

### Employer views by business size

Employer size was examined but was found not to be a determining factor as to whether employers were positive or negative about the appropriateness of their graduates' skills. Just over two-thirds of small (68%), medium (69%) and large (72%) employers felt that their graduate employees' skills were appropriate.

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# Key Performance Measure 4

## Student Outcomes from Vocational Education and Training

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## SUMMARY OF FINDINGS

**While many vocational education and training students seek a qualification, large numbers of students also meet their skill development needs through completing specific modules and/or units of competency.**

Approximately 130,000 students successfully completed their training and were awarded a qualification from a TAFE institute in 2000. A significantly larger number of students (230,000) successfully completed one or more modules or units of competency and then left the TAFE institute.

**The successful completion of training enhances the employment circumstances of individuals, particularly those who were unemployed.**

Students who are unemployed before their training are in the minority, but improve their employment status after successfully completing training. In 2001, unemployed students represented 14% of graduates and 13% of 'module completers'. Of these, half of the graduates (49%) and more than one-third of 'module completers' (37%) were in employment following their training. Further study was also a successful outcome for unemployed students with 73% in employment or in further study.

**The majority of graduates who participated in vocational education and training for vocational reasons believed that they had achieved their main objective.**

Students who were employed beforehand were more likely than those who were unemployed or not in the labour force to report that they were satisfied with their post training outcomes. 'Module completers' who were unemployed or not in the labour force beforehand were least likely to be satisfied with their outcomes after training.

**Many students who were casually employed before their training moved into permanent employment after completing their training.**

The proportion of vocational education and training graduates in permanent employment increased from 58% at the start of training to 72% after the completion of training. The majority of both graduates (83%) and 'module completers' (62%) who were in casual employment beforehand also reported at least one job-related benefit.

**Students already in permanent employment before their training tend not to change their employment but are largely satisfied with the outcomes from their training.**

Almost all of the graduates and 'module completers' who were in permanent employment before their training, remained in permanent employment (89% and 90% respectively) and also tended to remain with the same employers (73% of graduates and 81% of 'module completers'). However, these students still reported that they achieved their main objective for training (87% of graduates and 78% of 'module completers') and graduates also reported at least one job-related benefit (63%).

**Further training or study is a successful outcome for more than one-third of vocational education and training graduates.**

In 2001, 35% of graduates went on to further training or studies, with the majority seeking another vocational education and training qualification. Vocational education and training graduates who were unemployed or not in the labour force after completing their training were more likely to be undertaking further training or study.

**Three-quarters of vocational education and training graduates expected to gain a direct improvement in their employment circumstances after completing their training. However, significant numbers of vocational education and training graduates commenced training for other reasons.**

In 2001, 26% of vocational education and training graduates indicated that their participation in vocational education and training had been motivated by reasons other than a direct employment-related or vocational benefit with many viewing the training they had completed as a pathway to further training or study.

## INTRODUCTION

Key performance measure (KPM) 4 monitors the level of enhancement to an individual's employment circumstances and prospects following their participation in vocational education and training. In this respect, this measure aims to assess the value-adding of Australia's vocational education and training system in providing students with skills that contribute to the achievement of their employment related aspirations.

One of the established objectives for the vocational education and training system is to equip Australians for the world of work. This objective manifests itself through the development of skills within people that assists them to enter (or re-enter) the workforce, to change careers, or to upgrade their competence within an existing job.

The annual Student Outcomes Survey undertaken by the NCVER is the primary source of data for monitoring student outcomes. The 2001 survey captures the outcomes for students who completed their training in 2000. Approximately 130,000 students successfully completed their training in 2000 and were awarded a qualification from an Australian TAFE institute while much larger numbers (230,000) completed one or more modules of training.

These two student groups form the basis for analysis and are referred to as 'graduates' and 'module completers' in the following pages. The survey is currently limited in its scope to include only 'successful' students (both graduates and 'module completers') who have completed their training through a TAFE institute.<sup>13</sup>

Graduates include those students who have completed their training and graduated with a qualification. 'Module completers' are students who successfully completed some modules or units of competency but did not complete the requirements for a full course or qualification. These students had also left the vocational education and training system at the time the survey was conducted.

Previous Student Outcome Surveys have found that the majority of successful vocational education and training students were already in some form of employment before they commenced their training. Therefore, the benefits and improved prospects for students following participation in vocational education and training need to consider other factors beyond a simple analysis of the level of participation in the workforce.

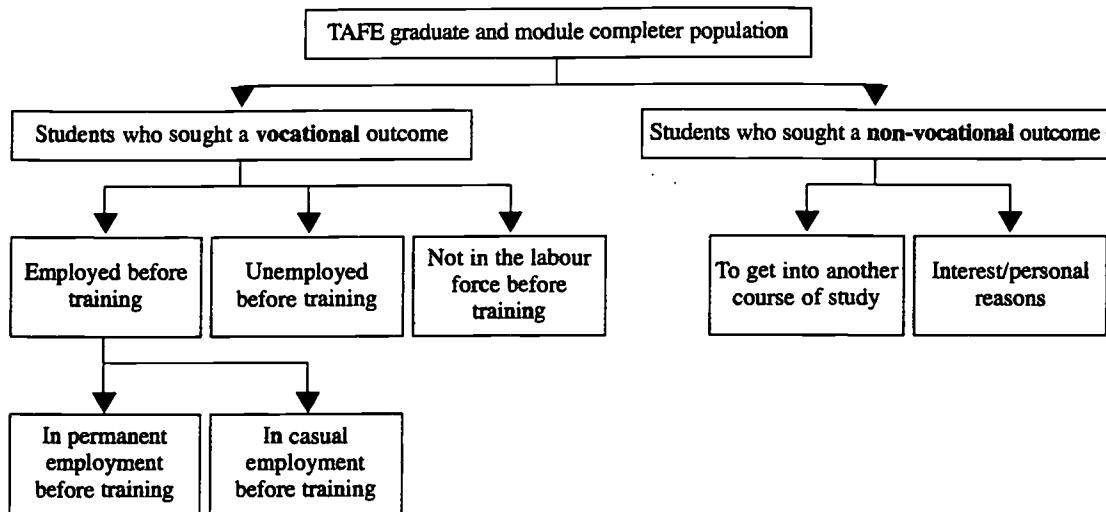
To facilitate this approach, the analysis of student outcomes in this report has been segmented according to whether the student (both graduates and 'module completers') sought a vocational or non-vocational benefit from their training. [Figure 4.1]

In recent years, pilot surveys of successful students from both the Adult and Community Education and private provider sectors have been undertaken. The results from these pilot surveys have not been sufficiently robust to enable their inclusion in this report.

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13 In 2000, Australian providers delivered vocational education and training to about 1.75 million students. A little more than three-quarters of these students (76%) undertook training at a Technical and Further Education (TAFE) institute or through other government providers. The remaining 24% of students received training through community providers or other registered training organisations.

**FIGURE 4.1: SEGMENTATION OF TAFE GRADUATES AND 'MODULE COMPLETERS'**



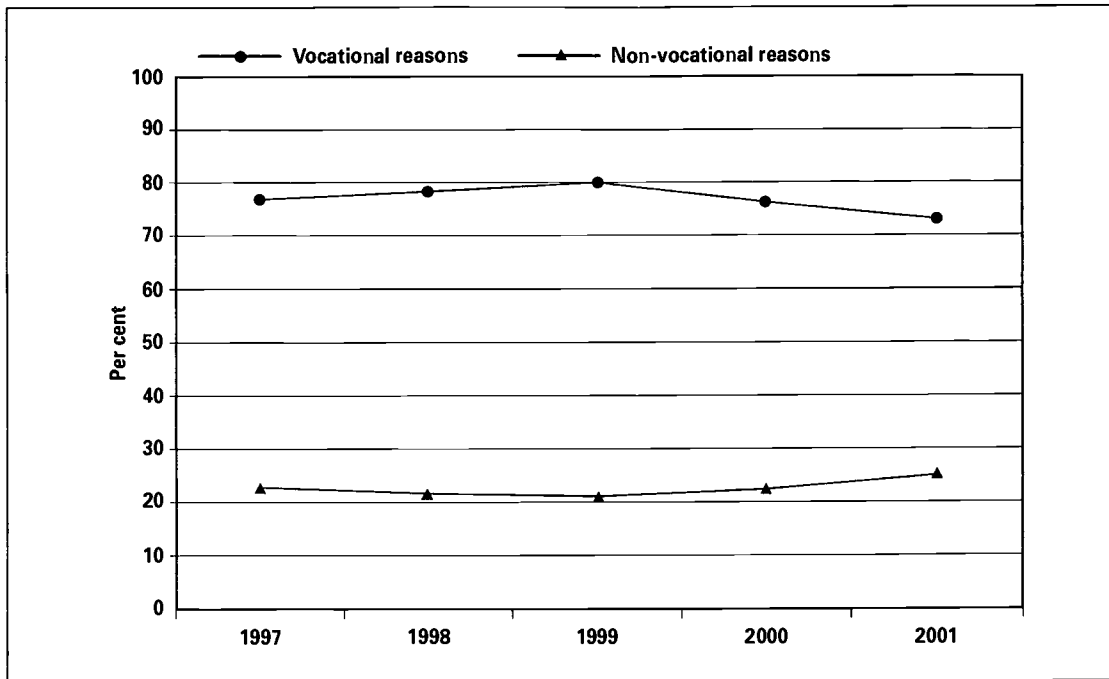
### **INDIVIDUAL MOTIVATION FOR DOING VOCATIONAL EDUCATION AND TRAINING: VOCATIONAL VS NON-VOCATIONAL**

The segmentation of students according to their primary reason for doing training (vocational or non-vocational) shows that the majority of successful students undertook vocational education and training for employment or vocational reasons.

In this respect, three-quarters of graduates (74%) and slightly less than two-thirds of 'module completers' (64%) provided a work-related reason as their motivation for undertaking the training that they had recently completed.

Since 1999, the proportion of graduates providing work-related reasons for undertaking vocational education and training has declined marginally. In 2001, one in four (26%) indicated that their participation in vocational education and training had been motivated by reasons other than a direct employment or vocational benefit. [Figure 4.2]

**FIGURE 4.2: REASON FOR PARTICIPATING IN VOCATIONAL EDUCATION AND TRAINING (TAFE GRADUATES), 1997-2001 (PER CENT)**



Note: Proportion of TAFE graduates undertaking vocational education and training for vocational or non-vocational reasons.

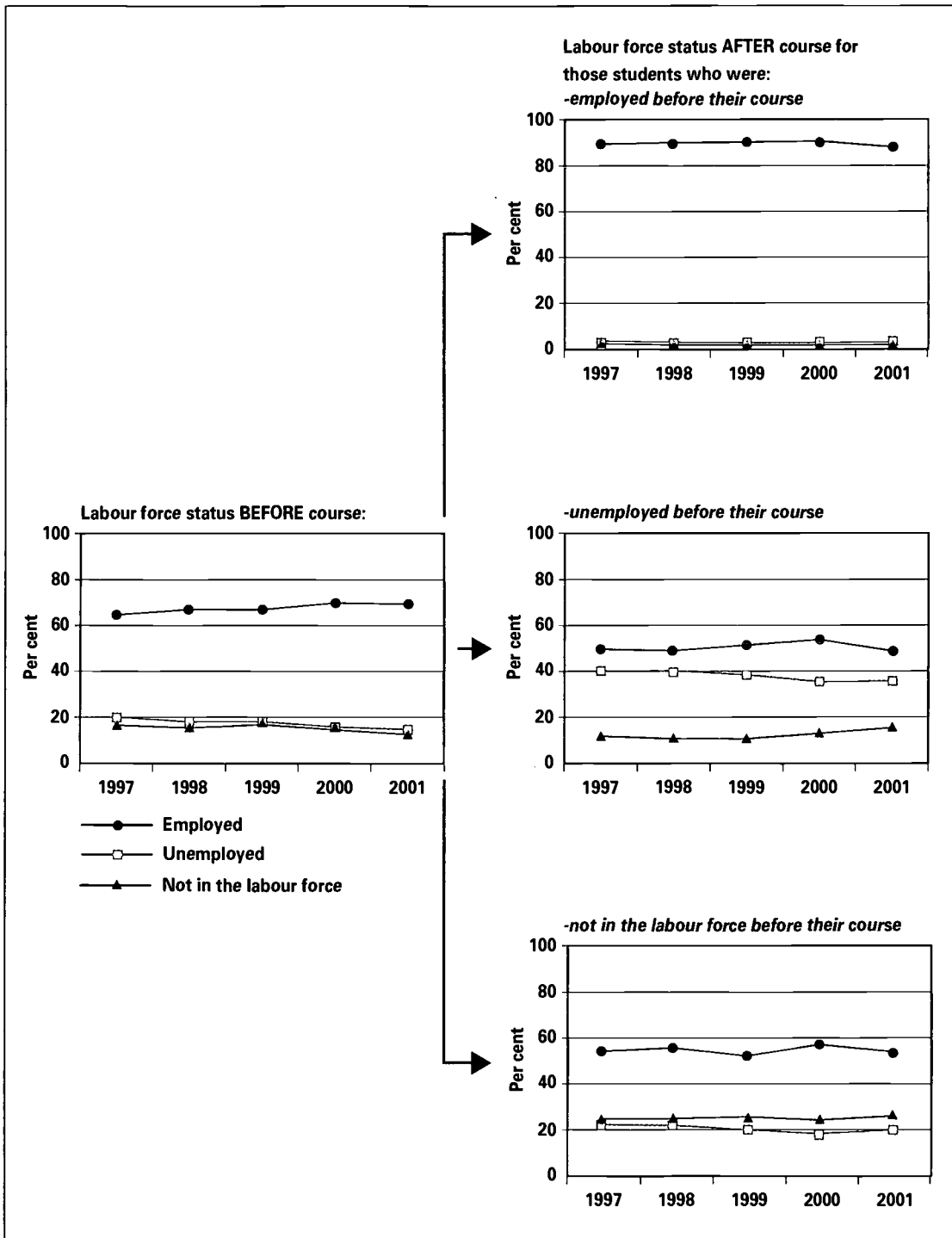
Source: NCVET Student Outcomes Surveys.

## **STUDENTS SEEKING A VOCATIONAL OUTCOME: CHANGES IN LABOUR FORCE STATUS**

The proportion of graduates who sought a vocational outcome, and who were employed prior to commencing their training, has grown incrementally to more than 70% over the five year period to 2001.

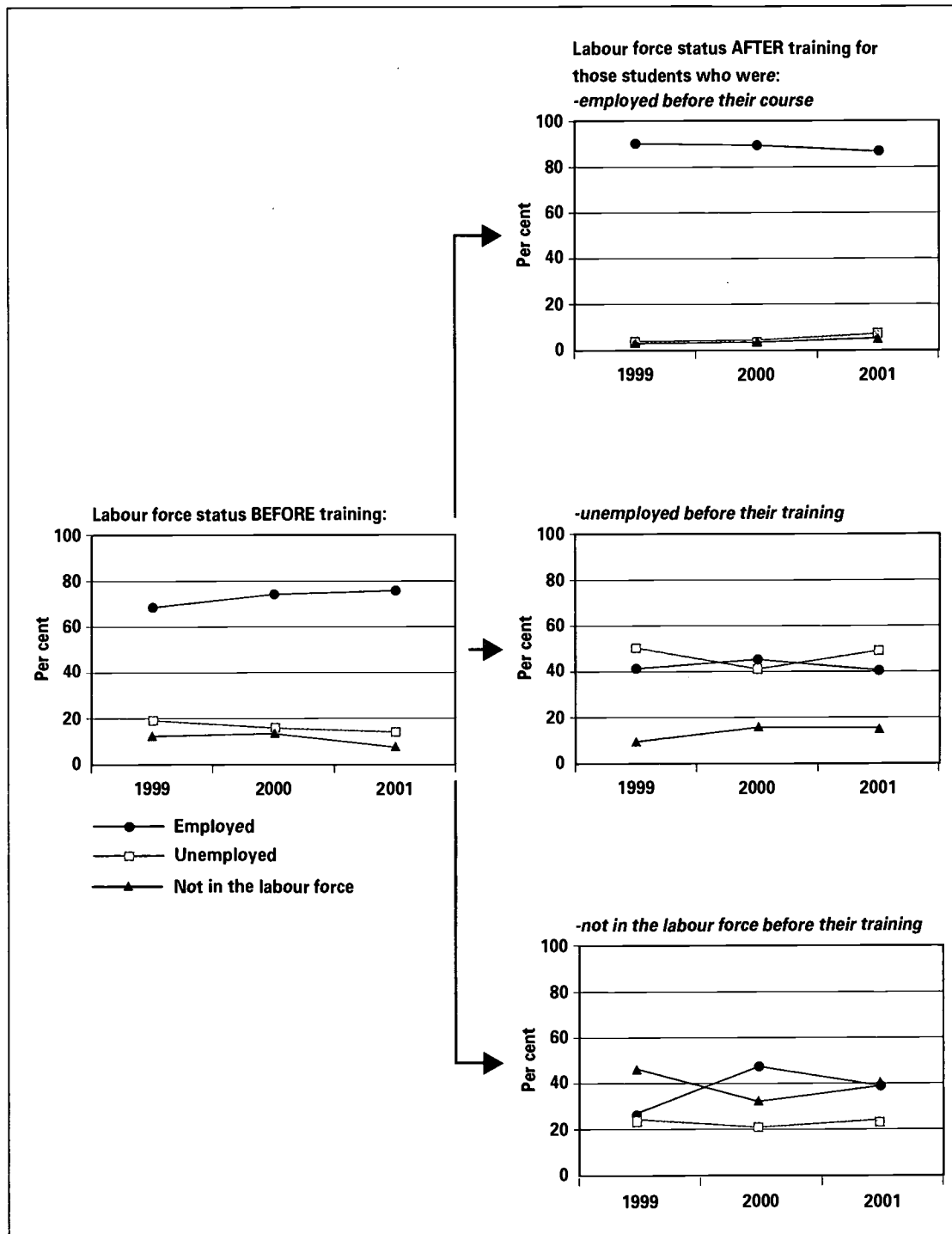
Figures 4.3 and 4.4 respectively provide an overview for both graduates and 'module completers'. Further detailed analysis is provided in the following sections. The figures span the years 1997 to 2001 for graduates and 1999 to 2001 for 'module completers'.

**FIGURE 4.3: TAFE GRADUATES' CHANGE OF LABOUR FORCE STATUS (UNDERTOOK VOCATIONAL EDUCATION AND TRAINING FOR VOCATIONAL REASONS), 1997-2001 (PER CENT)**



Source: NCVET Student Outcomes Surveys.

**FIGURE 4.4: TAFE MODULE COMPLETERS' CHANGE OF LABOUR FORCE STATUS (UNDERTOOK VOCATIONAL EDUCATION AND TRAINING FOR VOCATIONAL REASONS), 1999-2001 (PER CENT)**



Source: NCVER Student Outcomes Surveys.

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## STUDENTS SEEKING A VOCATIONAL OUTCOME: OUTCOMES FOR THOSE ALREADY EMPLOYED

In 2001, the majority of students who were employed prior to commencing their training and were seeking a vocational outcome reported that they had wholly or partly achieved their main aim in undertaking vocational education and training (82% of graduates and 73% of 'module completers').

The vast majority of these students also remained in employment after completing their studies (90% of graduates and 88% of 'module completers'). Residual proportions were either unemployed (5% of graduates and 7% of 'module completers') or not in the labour force (5% of graduates and 'module completers').

For any labour force population, there will be people at any given time who are in the process of changing jobs, who are unemployed, or simply not working for a variety of reasons. To illustrate this point, more than half of graduates (53%) who were employed before their training and were not in the labour force afterwards, were enrolled in further study.

### Improvement in employment status

Consistent with the segmentation approach, a comparison of the employment status of students before and after undertaking vocational education and training reveals that a significant proportion of both graduates and 'module completers' benefited from their training in that they had moved from casual employment into a permanent job after completing their training.

Prior to commencing training, more than half of graduates who were employed (58%) were already in permanent jobs, while 37% were in casual positions and another 5% were conducting their own business. After completing their training, the proportion of graduates in permanent jobs had increased to 72%.

The trend for employed 'module completers' was similar, though the shift from casual to permanent employment was less marked.

### Students in casual employment before their training

Half of graduates (51%) and more than one-third of 'module completers' (37%) who were casually employed before undertaking vocational education and training moved to permanent work after completing their training.

Nine in ten graduates (90%) and three-quarters of 'module completers' (74%) who moved from a casual position into a permanent job reported to have wholly or partly achieved their main reason for undertaking the course.

In addition, 83% of graduates and 62% of 'module completers' from within this group reported at least one job-related benefit from undertaking vocational education and training. Eighty-seven per cent of graduates and 68% of module completers indicated that the training they had completed was relevant to their job.

Forty-six per cent of graduates and 59% of 'module completers' who were in casual employment before their training remained in casual positions upon completion of their training. However, the majority of students in this category (71% of graduates and 65% 'module completers') reported that they had achieved their main aim in undertaking vocational education and training. Of those graduates who remained in casual employment, 39% were enrolled in further study.

Relatively small proportions of students remaining in casual employment (17% of graduates and 12% of 'module completers') did not yet know whether vocational education and training had helped them to achieve their main reason for commencing training. This group of students comprised a large proportion of young people with 58% of graduates and 48% of 'module completers' under the age of 25 years.

## Students in permanent employment before their training

The vast majority of graduates (89%) and 'module completers' (90%) who were in permanent employment before commencing their training remained in permanent employment afterwards.

Residual proportions of graduates (9%) and 'module completers' (8%), who were in permanent employment at the commencement of their training, moved to casual employment after completing their training. A negligible proportion (2%) of both graduates and 'module completers' moved from permanent employment to conducting their own business after completing their training.

The majority of graduates (73%) and 'module completers' (81%) who remained in permanent employment had the same employer before, during and after their course. Those who retained permanent employment also reported that they had wholly or partly achieved their main objective for doing training (87% of graduates and 78% of 'module completers').

When asked for their main reason for undertaking training, 31% of graduates and one-quarter of 'module completers' (25%) from this group indicated that the training was a requirement of their job. A further 30% of graduates and 44% of 'module completers' said that they wanted to get extra skills for their job.

## Job-related benefits

Two-thirds of graduates (63%) and half of 'module completers' (47%), who were permanently employed before and after their training, reported at least one job-related benefit that arose from the successful completion of their training.

Graduates most commonly reported an increase in earnings (31%), a promotion (29%), or a change of job (17%) as benefits received. Similarly, 'module completers' most frequently identified a promotion (20%), an increase in earnings (14%), or a change of job (10%) as the main benefits from training.

Graduates who worked in trade occupations before commencing training and those working as lower-skilled workers (particularly in casual jobs) were more successful in gaining job-related benefits than other graduates who were in higher-skilled jobs before their training.

Across all occupations, graduates who were in casual positions before their training were more likely to report receiving at least one job-related benefit than were those who were in permanent positions before their training.

Amongst 'module completers', those employed in trade occupations before commencing vocational education and training, particularly those who were employed permanently, were the most likely to report at least one job-related benefit from completing their training, when compared with the other occupation groups. Casually employed managers and professionals were the least likely to report a job-related benefit after the successful completion of their training.

## Changes in occupation

Successful students (both graduates and 'module completers') who worked in lower-skilled occupations before commencing their training were more likely to change their occupation or move to a higher-skilled job following their training. [Table 4.1 and Table 4.2]

Similarly, successful students, who were employed in casual jobs before their training, were more likely to change jobs, or to move to higher-skilled work, than those who had worked in permanent jobs before commencing their training.

**TABLE 4.1: CHANGE IN EMPLOYMENT OUTCOMES FOR TAFE GRADUATES BY OCCUPATION, 2001 (PER CENT)**

	Managers & professionals		Tradespersons		Advanced & intermediate workers		Elementary workers & labourers		All graduates	
	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before
Changed occupation from before to after training	19	33	16	31	29	39	49	62	26	48
Moved to a higher skill level after training	4	3	8	12	24	29	48	61	19	38
Moved to a lower skill level after training	15	29	7	19	5	10	1	1	8	9
At least one job-related benefit from vocational education and training	55	60	71	75	63	68	66	71	63	69

Note: Occupation groups are described in the appendix to this chapter.

Source: NCVET Student Outcomes Survey, 2001.

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**TABLE 4.2: CHANGE IN EMPLOYMENT OUTCOMES FOR TAFE 'MODULE COMPLETERS' BY OCCUPATION, 2001 (PER CENT)**

	Managers & professionals		Tradespersons		Advanced & intermediate workers		Elementary workers & labourers		All module completers	
	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before	Permanent before	Casual before
Changed occupation	13	24	16	26	18	30	29	47	17	35
Moved to a higher skill level after training	3	3	5	8	13	19	28	46	10	25
Moved to a lower skill level after training	10	22	10	18	5	11	1	2	7	10
At least one job-related benefit from vocational education and training	46	45	53	51	45	50	49	49	47	49

Note: Occupation groups are described in the appendix to this chapter.

Source: NCVET Student Outcomes Survey, 2001.

Small proportions of both graduates (9%) and 'module completers' (8%) moved to a lower-skilled occupation following their training.

The majority of both graduates (82%) and 'module completers' (70%) who moved into a lower-skilled occupation after their training reported that they wholly or partly achieved their main reason for undertaking vocational education and training. Data from the survey also indicates that most of the people in this category changed their industry of employment following their training (71% of graduates and 68% of 'module completers'). The majority also reported a new employer after their training (83% of graduates and 'module completers'). This data suggests that the move to a lower-skilled occupation might have been a trade-off to open up a new career opportunity.

## **STUDENTS SEEKING A VOCATIONAL OUTCOME: OUTCOMES FOR THOSE WHO WERE UNEMPLOYED**

The majority of student respondents in 2001 who were seeking a vocational outcome after completing their training were employed before commencing their training. Only 14% of graduates and 13% of 'module completers' indicated that they were unemployed before participating in vocational education and training.

In 2001, many unemployed students were successful in improving their employment status after completing their training. Twenty-nine per cent of graduates and 19% of 'module completers' were already employed during their final semester and, overall, half of the graduates (49%) and 37% of 'module completers' were in employment after completing their training.

Of the unemployed who secured full-time employment after participating in vocational education and training, 40% of graduates and 37% of 'module completers' had obtained their first full-time job. Almost half of 'module completers' (48%) had found permanent jobs. The clear majority of both graduates and 'module completers' reported at least one job-related benefit from successfully completing their training (79% of graduates and 62% of 'module completers').

Participation in further study is also recognised as a positive outcome for some graduates who were unemployed before commencing their training. Although 15% of graduates, who were unemployed beforehand, reported that they had left the labour force, more than half of the people in this category were enrolled in further study. Of all graduates unemployed beforehand, 38% were enrolled in further study (73% were employed or in further study).

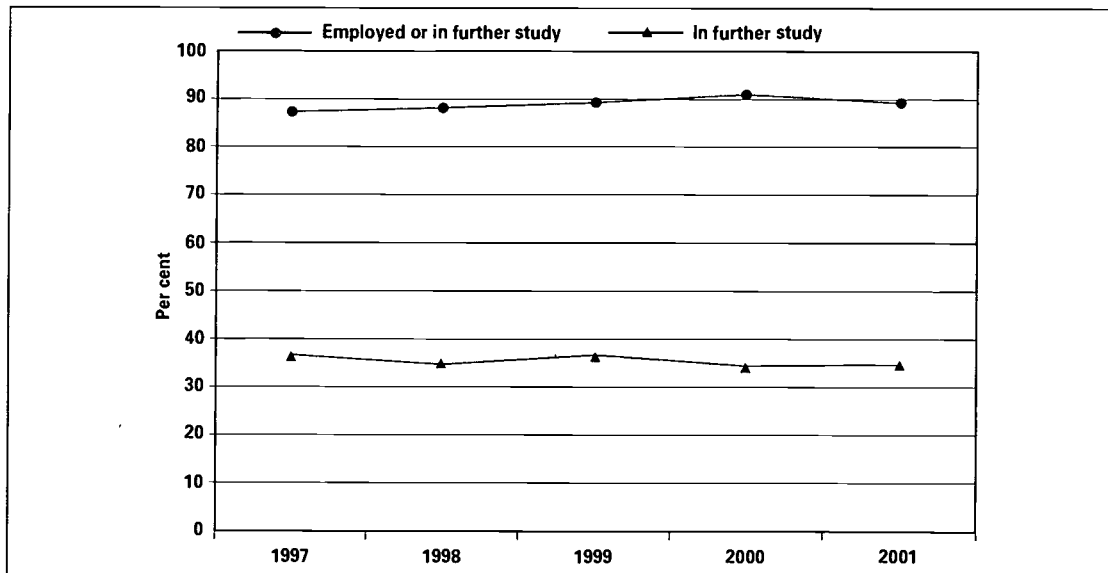
Of the 35% of graduates who remained unemployed after successfully completing their training, more than half (52%) had gained an Australian Qualifications Framework Certificate level I or II qualification and 43% were from a non-English speaking background. The situation for unemployed 'module completers' was worse with almost half (46%) remaining unemployed after completing their training. A further 15% of unemployed 'module completers' were no longer looking for work.

## FURTHER TRAINING OR STUDY

Many vocational education and training graduates go on to further training or study after successfully completing their training. In 2001, more than one-third of graduates (35%)<sup>14</sup>, who commenced their training for vocational reasons, reported that they were in further training or study to obtain a higher or an additional qualification.

Nine in ten graduates (89%) who undertook their training for work-related reasons were either employed or in further study after completing their training. The level of participation by vocational education and training graduates in further training or study has remained relatively constant since 1997. [Figure 4.5]

**FIGURE 4.5: FURTHER STUDY AFTER TRAINING (TAFE GRADUATES), 1997-2001 (PER CENT)**



Note: TAFE graduates undertaking vocational education and training for vocational reasons who undertook further studies after their training.

Source: NCVET Student Outcomes Surveys.

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14 'Module completers' are not currently asked about their further study activities in the Student Outcomes Survey.

In 2001, the majority of graduates in further training or study were attending a TAFE institute or a TAFE division of a university (70%), while a further 18% had commenced studies at a university. The remaining 12% were undertaking further training through a registered private, Adult and Community Education, or other provider.

The majority of these students indicated that they were undertaking further training or study for vocational reasons. The most frequently mentioned reasons were 'to get a job or own business' (25%), 'to get a better job or promotion' (20%) and 'to get extra skills for my present job' (18%).

Vocational education and training graduates who were unemployed or not in the labour force after completing their training were more likely to be in further study than those who were employed.

In 2001, four in ten graduates (41%) who were unemployed after completing their training and 59% of graduates who were not in the labour force, indicated that they were in further training or study. The corresponding figure for employed graduates was 31%.

Four in ten graduates (39%) participating in further training or study indicated that they had received some recognition of prior learning for having completed their earlier training.

The majority of graduates (64%) who went on to further study after completing their training were studying to obtain an Australian Qualifications Framework Certificate level IV or higher qualification. [Table 4.3]

**TABLE 4.3: QUALIFICATIONS STUDIED AFTER INITIAL TRAINING (TAFE GRADUATES), 2001 (PER CENT)**

Qualification	Per cent
Bachelors degree	16
Diploma	27
AQF Certificate IV and equivalent	21
AQF Certificate III and equivalent	16
AQF Certificate II and equivalent	6
AQF Certificate I and equivalent	1
Other certificate or statement of attainment	13
Total	100

Note: Qualifications studied after initial training by TAFE graduates who went on to further study and who undertook their initial training for vocational reasons.

Source: NCVER Student Outcomes Survey, 2001.

More than half (56%) of TAFE graduates who were both in employment as well as undertaking further study after their training, reported that they were studying in a similar field of study to both the training they had completed and the job in which they were employed. Another 15% of these graduates said that their further training or study was similar to the training they had completed. Slightly less than one-quarter of graduates in this group (23%) stated that their further training/study was neither similar to their completed training nor to their current job.

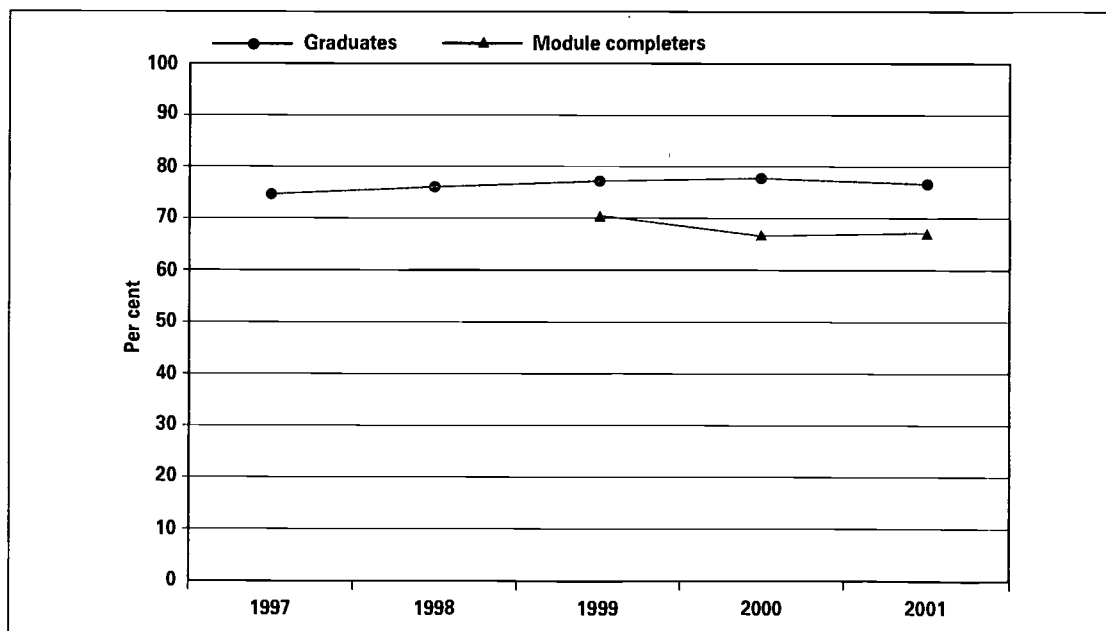
## STUDENTS SEEKING A VOCATIONAL OUTCOME: ACHIEVEMENT OF EXPECTATIONS

The majority of both graduates (77%) and, to a lesser extent, 'module completers' (67%) who undertook their training for vocational reasons indicated that they had achieved their main reason for commencing training in the first place. Since 1997, more than two-thirds of students have consistently reported that they had achieved their desired objective through training. [Figure 4.6]

However, those who were employed beforehand were more likely to report that they were satisfied with their outcomes post-training. In 2001, 82% of TAFE graduates and 73% of 'module completers', who were already employed, said they had wholly or partly achieved their main goal in undertaking vocational education and training.

By way of comparison, 61% of graduates who were unemployed beforehand, and 65% of graduates not in the labour force beforehand, reported satisfaction with their outcomes following training. Those least likely to report that they have achieved their desired outcomes were unemployed 'module completers' (46%) and 'module completers' who were not in the labour force (51%) prior to commencing vocational education and training.

**FIGURE 4.6: ACHIEVED VOCATIONAL REASONS FOR UNDERTAKING VOCATIONAL EDUCATION AND TRAINING, 1997-2001 (PER CENT)**



Note: Graduates and 'module completers' who undertook their training for vocational reasons who wholly or partly achieved their main reason for undertaking vocational education and training.

Source: NCVET Student Outcomes Surveys.

## STUDENTS SEEKING A NON-VOCATIONAL OUTCOME

In 2001, 6% of graduates and 4% of 'module completers' indicated that they had commenced their training to get into another course of study. A further 14% of graduates and 23% of 'module completers' advised that their training had been undertaken primarily for interest or personal reasons.

The proportions of students undertaking TAFE training for these two reasons has changed little over recent years. [Tables 4.4 and 4.5]

**TABLE 4.4: GRADUATES' NON-VOCATIONAL REASONS FOR TRAINING, 1997-2001 (PER CENT)**

	1997	1998	1999	2000	2001
To get into another course of study	6	6	6	6	6
For interest or personal reasons	14	13	12	14	14
Total	20	19	18	20	20

Note: The percentage of graduates undertaking TAFE training to get into another course of study or for interest or personal reasons.

Source: NCVER Student Outcomes Surveys.

**TABLE 4.5: MODULE COMPLETERS' NON-VOCATIONAL REASONS FOR TRAINING, 1999-2001 (PER CENT)**

	1999	2000	2001
To get into another course of study	4	4	4
For interest or personal reasons	24	25	23
Total	28	29	27

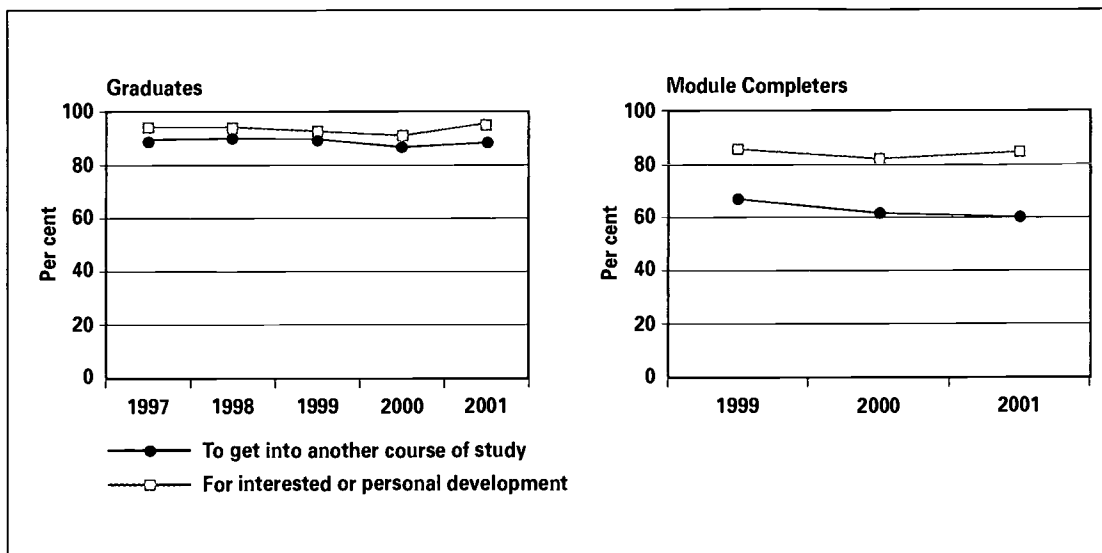
Note: The percentage of 'module completers' undertaking TAFE training to get into another course of study or for interest or personal reasons.

Source: NCVER Student Outcomes Surveys.

Students who undertook their training to get into another course of study or for interest or personal reasons were more likely to achieve their main aim in undertaking vocational education and training than those students who sought a vocational outcome. [Figures 4.3 and 4.7]



**FIGURE 4.7: ACHIEVED NON-VOCATIONAL REASONS FOR UNDERTAKING VOCATIONAL EDUCATION AND TRAINING, 1997-2001 (PER CENT)**



Note: The proportion of graduates (1997-2001) and 'module completers' (1999-2001) undertaking TAFE training to get into another course of study or for self-development who reported having achieved their main aim.  
Source: NCVET Student Outcomes Surveys.

Nine in ten graduates (91%) and eight in ten module completers (82%) who commenced training for personal development or to get into another course of study, partly or wholly achieved their main aim in undertaking vocational education and training.

These outcomes have changed little over the past few years. By comparison, about three-quarters of graduates (77%) and two-thirds of 'module completers' (67%) who enrolled at TAFE for vocational reasons indicated, after completing their training, that they had wholly or partly achieved the main reason for undertaking vocational education and training.

Although they reported that they undertook training for non-vocational reasons, 43% of all graduates and one-third of 'module completers' (32%) who wanted to get into another course of study or undertake self-development still reported at least one job-related benefit from their TAFE training. In comparison, for all graduates and 'module completers' these proportions were 68% and 50% respectively.

Three-quarters of graduates (77%) who participated in training to get into another course of study were enrolled in further study after completing their course. This proportion has varied little over the past five years, ranging from 80% in 1997 to 77% in 2001.

# Key Performance Measure 5

## Participation, Outputs and Outcomes for Client Groups

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## SUMMARY OF FINDINGS

### **Women participate and achieve equally with men though their employment outcomes are lower.**

In 2001, women represented 49% of the vocational education and training population, unchanged over the previous two years. While women achieved a marginally higher pass rate than men, the proportion of female graduates in employment after completing their training was lower than that for males.

### **Indigenous people participate strongly but continue to experience lower pass rates and poorer employment outcomes.**

Indigenous students represented 4% of those participating in vocational education and training during 2001, an increase of 12% over 2000 levels. The pass rate for these students (62%) was significantly lower than that achieved by other students (76%). In terms of employment outcomes, 63% of Indigenous graduates were employed after completing their training compared to 74% of non-Indigenous graduates. A similar trend exists for those who completed modules only.

### **Vocational education and training participation by people with a disability remains relatively low. Those who do participate in vocational education and training experience diminished pass rates and lower (and declining) employment outcomes.**

People who identified themselves as having a disability represented 4.5% of the total vocational education and training population in 2001. The pass rate for these students was relatively low (67%) compared with other students (76%). Only 43% of graduates with a disability were employed after completing their training compared to 73% of all vocational education and training graduates. This represents a significant decline from employment outcomes in 2000.

### **More than 600,000 vocational education and training participants in 2001 lived in rural and remote parts of Australia. These students generally achieved pass rates and employment outcomes that were on a par with, or better than, those for all students.**

People who live in rural and remote Australia participate strongly in vocational education and training (representing 36% of all participants) compared with their proportion within the Australian population (28%). Rural participants achieved a marginally better pass rate while the employment outcomes for remote students were better than the employment outcomes for all vocational education and training graduates.

### **More than 10% of vocational education and training participants in 2001 were from non-English speaking backgrounds. Pass rates for these students were slightly lower and employment outcomes were also down.**

In 2001, vocational education and training students who spoke a language other than English at home represented 12% of the vocational education and training population, while students born in a non-English speaking country accounted for 14%. Pass rates for both groups were 70% and 71% respectively, slightly lower than that for all students (75%). Between 52% and 58% of graduates and 'module completers' from these groups were in employment after completing their training, somewhat lower than the employment outcomes for all students.

## INTRODUCTION

Key performance measure (KPM) 5 assesses the level of participation and outputs achieved by specific client groups within vocational education and training. The benefits and outcomes for students that arise after the successful completion of training are also assessed. In this respect, this measure includes consideration of aspects from within both KPMs 1 and 4.

The identified client groups within vocational education and training are:

- women
- people living in rural and remote areas
- Aboriginal and Torres Strait Islander people
- people with a disability
- people from non-English speaking backgrounds.

Historically, these groups within the Australian community have been under-represented in vocational education and training and have had diminished outcomes following their successful participation in vocational education and training. In this sense, reporting against KPM 5 aims to ensure that the vocational education and training system identifies issues for these client groups so that responses may be developed that meet the training needs of all Australians.

A comprehensive understanding of patterns of participation, outputs and outcomes achieved by each client group in vocational education and training can only be developed through a detailed analysis of the various factors that contribute to results achieved under these measures.

The published equity Blueprints for vocational education and training have highlighted that there can be differences amongst the various groups as to which factors are the most critical. For example, while there is a high representation of Indigenous people in vocational education and training relative to their representation in the community, Indigenous people tend to undertake training at the lower qualification levels.

In a similar vein, the participation of women is now comparable to men. However, differences remain in terms of participation in various fields of study. Future reports will include a more detailed analysis of participation and outcomes for each of the groups to highlight specific issues. This year's report focuses on an analysis of the following measures:

- participation rates
- load pass rates
- employment outcomes for both vocational education and training graduates and 'module completers'
- the perceptions of vocational education and training graduates and 'module completers' as to the benefits received after completing their training.

The reporting of individuals within each client group is reliant on self-identification by the student as being a member of the client group at the time of enrolment. As a result, while the quality of national vocational education and training data overall is high, data relating to some student client groups is incomplete and remains problematic.

Steps taken by providers to encourage students to furnish this information at enrolment can improve the accuracy of information relating to equity group participation and outcomes. Ongoing initiatives have also been undertaken to improve the response rate for students in each client group. However, while the non-response rates appear to have improved during 2001, they remain relatively high and, accordingly, the results in this chapter have been adjusted to account for this 'missing' data.

There are ongoing initiatives to improve the definitions of the identified groups. For example, the definition for people with a disability was modified to improve the quality of data collected for this group. This change will come into effect from 2002 onwards.

Within vocational education and training, there is currently no single, agreed definition to identify people from a non-English speaking background. Performance data for this group continues to be reported based on the language that the student speaks at home as well as in terms of the student's country of birth.

## WOMEN

### Level of participation

Although the number of women participating in vocational education and training decreased marginally from 861,300 in 2000 to 860,400 in 2001, the percentage of women in vocational education and training has remained constant over the last three years at 49%. This follows steady growth in the level of participation throughout the 1990s. [Table 5.1]

**TABLE 5.1: VOCATIONAL EDUCATION AND TRAINING STUDENTS BY SEX, 1999-2001 ('000)**

	1999	2000	2001
Women	807.8	861.3	860.4
Men	839.4	888.0	896.3
Women as a proportion of all vocational education and training students <sup>(a)</sup>	49.0%	49.2%	49.0%

(a) Where sex status was known.

Source: NCVET 1999 - 2001 national vocational education and training collection.

### Load pass rate<sup>15</sup>

In 2001, women achieved a load pass rate of 76.1%, slightly higher than that achieved by men (74.8%). The load pass rate for both men and women remained fairly stable between 1999 and 2001, increasing by less than one percentage point over this time. [Table 5.2]

<sup>15</sup> Refer to the appendix for a definition of the load pass rate.

**TABLE 5.2: LOAD PASS RATE BY SEX, 1999-2001 (PER CENT)**

Student group	1999	2000	2001
Women	75.2	75.9	76.1
Men	74.1	75.2	74.8
Total Students	74.7	75.5	75.4

Source: NCVER 1999 - 2001 national vocational education and training collection.

## Employment outcomes

A smaller proportion of female vocational education and training graduates and 'module completers' were in employment in 2001 compared to men. Although men experienced a greater decline in employment outcomes between 2000 and 2001 than did women, women continued to obtain lower employment outcomes following their participation in vocational education and training.

The proportion of female graduates and 'module completers' in employment each fell by two percentage points between 2000 and 2001 to 70% and 63% respectively. The decline in employment outcomes for men was four percentage points to 77% for graduates and six percentage points to 71% for 'module completers'. [Table 5.3]

**TABLE 5.3: EMPLOYMENT OUTCOMES BY SEX, MAY 2001 (PER CENT)**

	Graduates			Module completers		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
Women	70	12	17	63	13	23
Men	77	11	11	71	14	14
Total Students	73	12	14	67	13	19

Note: May not add up to 100 due to rounding.

Source: NCVER Student Outcomes Survey, 2001.

## Training outcomes and individual expectations

In 2001, women were somewhat less positive than their male counterparts in reporting the extent to which their course helped them to achieve their main reason for study. In terms of vocational education and training graduates, 65% of women in 2001 (and 69% of men) indicated that the course they completed had helped them to achieve the main reason or objective for doing training in the first place. A similar pattern applies also for 'module completers'. [Table 5.4]

**TABLE 5.4: COURSE HELPED TO ACHIEVE MAIN REASON FOR TRAINING BY SEX, 2001 (PER CENT)**

	Course helped achieve main reason	Course partly helped achieve main reason	Course did not help achieve main reason	Don't know as yet	Total <sup>(a)</sup>	Proportion of respondents <sup>(b)</sup>	Number of respondents <sup>(b)</sup>
<b>Graduates</b>							
Women	65	14	9	12	100	58	23 050
Men	69	12	8	11	100	42	16 363
All graduates	67	13	9	12	100		39 426
<b>Module completers</b>							
Women	52	20	18	11	100	54	16 356
Men	54	17	18	11	100	46	13 763
All module completers	53	18	18	11	100		30 128

(a) Components may not add up to total due to non-response to some survey questions.

(b) Includes 'not stated' to whether achieved main reason.

Source: NCVET Student Outcomes Survey, 2001.

## PEOPLE FROM RURAL AND REMOTE AREAS

### Level of participation

In 2001, there were more than 600,000 people participating in vocational education from the rural and remote regions of Australia. [Table 5.5]

People doing vocational education and training in rural and remote Australia accounted for 36% of the total vocational education and training population (32% and 4% respectively). While rural and remote student numbers increased steadily between 1999 and 2001, their proportion of the total vocational education and training population only increased by one percentage point over this time.

People in rural and remote locations account for 28% of the Australian population. The factors that contribute to this relatively high level of participation merit closer examination.

**TABLE 5.5: VOCATIONAL EDUCATION AND TRAINING STUDENTS IN RURAL AND REMOTE AREAS, 1999-2001**

	1999	2000	2001
Students in rural areas	493 377	522 409	548 473
Percentage of all vocational education and training students <sup>(a)</sup>	30.7%	30.5%	31.7%
Students in remote areas	61 122	63 669	68 338
Percentage of all vocational education and training students <sup>(a)</sup>	3.8%	3.7%	4.0%
Students in rural/remote areas	554 499	586 078	616 811
Percentage of all vocational education and training students <sup>(a)</sup>	34.5%	34.2%	35.7%

(a) Where region was known.

Source: NCVER 1999 - 2001 national vocational education and training collection.

### Load pass rate<sup>16</sup>

In 2001, the load pass rate for rural students (77.5%) was higher than the pass rate for vocational education and training students overall. Students in remote areas had a load pass rate slightly below the national average, at 72.3%. The load pass rates for both rural and remote students remained steady between 1999 and 2001, varying by less than one percentage point. [Table 5.6]

**TABLE 5.6: LOAD PASS RATE BY REGION, 1999-2001 (PER CENT)**

Region	1999	2000	2001
Rural students	77.0	77.6	77.5
Remote students	72.0	71.7	72.3
Total vocational education and training students	74.7	75.5	75.4

Source: NCVER 1999 - 2001 national vocational education and training collection.

### Employment outcomes

The employment outcomes for rural and remote vocational education and training graduates were generally positive. The proportion of rural graduates employed after completing their training (74%) was similar to the proportion reported for all graduates (73%), while the proportion of employed vocational education and training graduates in remote areas was substantially higher (85%). [Table 5.7]

Generally, employment outcomes in 2001 for both graduates and 'module completers' from rural and remote areas were comparable to, or better than, the employment outcomes obtained by all students. For both rural and remote 'module completers', employment outcomes decreased marginally by two percentage points from 2000.

16 Refer to the appendix for a definition of the load pass rate.



**TABLE 5.7: EMPLOYMENT OUTCOMES FOR STUDENTS IN RURAL AND REMOTE AREAS, MAY 2001 (PER CENT)**

	Graduates			Module completers		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
Rural	74	12	13	67	12	19
Remote	85	5	9	76	8	15
All	73	12	14	67	13	19

Note: May not add up to 100 due to rounding.

Source: NCVET Student Outcomes Survey, 2001.

### Training outcomes and individual expectations

In 2001, relatively higher proportions of both graduates and 'module completers' from rural and remote Australia were of the view that their course had helped them in achieving their main reason for study. [Table 5.8]

**TABLE 5.8: COURSE HELPED TO ACHIEVE MAIN REASON FOR TRAINING FOR STUDENTS IN RURAL AND REMOTE AREAS, 2001 (PER CENT)**

	Course helped achieve main reason	Course partly helped achieve main reason	Course did not help achieve main reason	Don't know as yet	Total <sup>(a)</sup>	Proportion of respondents <sup>(b)</sup>	Number of respondents <sup>(b)</sup>
<b>Graduates</b>							
Rural	68	12	9	10	100	32	12 639
Remote	78	9	6	8	100	2	935
All graduates	67	13	9	12	100		39 426
<b>Module completers</b>							
Rural	58	17	16	9	100	41	12 343
Remote	63	18	11	8	100	7	2 123
All module completers	53	18	18	11	100		30 128

(a) Components may not add up to total due to non-response to some survey questions.

(b) Includes 'not stated' to whether achieved main reason.

Source: NCVET Student Outcomes Survey, 2001.

## INDIGENOUS PEOPLE

### Level of participation

The number of Indigenous people participating in vocational education and training has increased over the period since 1999 with a 12% rise being recorded in the past 12 months. Indigenous students now represent 4% of all vocational education and training students. [Table 5.9]

**TABLE 5.9: INDIGENOUS STUDENTS UNDERTAKING VOCATIONAL EDUCATION AND TRAINING, 1999-2001**

	1999	2000	2001
Indigenous students	50 795	51 662	58 046
Annual increase (%)		1.7%	12.4%
As a proportion of all vocational education and training students <sup>(a)</sup>	3.7%	3.7%	4.0%

(a) Where Indigenous status was known.

Source: NCVET 1999 - 2001 national vocational education and training collection.

### Load pass rate<sup>17</sup>

In 2001, the load pass rate for students who self-identified as Indigenous was 61.5%, noticeably lower than the national load pass rate of 75.4%. However, the load pass rate for Indigenous students increased by three percentage points between 1999 and 2001 (compared to a 0.7 percentage point increase for all vocational education and training students). [Table 5.10]

**TABLE 5.10: LOAD PASS RATE FOR INDIGENOUS STUDENTS, 1999-2001 (PER CENT)**

Student group	1999	2000	2001
Reported as Indigenous	58.5	60.4	61.5
Reported as non-Indigenous	75.3	76.3	76.1
Total students	74.7	75.5	75.4

Source: NCVET 1999 - 2001 national vocational education and training collection.

### Employment outcomes

Employment outcomes for both Indigenous graduates and 'module completers' continue to be generally poorer than those obtained by vocational education and training graduates overall. While the employment rate for Indigenous graduates improved from 59% in 2000 to 63% in 2001, this still remains ten percentage points below the employment rate for all graduates.

Employment outcomes for Indigenous students who complete modules were considerably poorer than for other 'module completers' (47% compared to 67%) and this rate has not improved in recent years. [Table 5.11]

7.3

17 Refer to the appendix for a definition of the load pass rate.

**TABLE 5.11: EMPLOYMENT OUTCOMES BY INDIGENOUS STATUS, MAY 2001 (PER CENT)**

	Graduates			Module completers		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
Indigenous students	63	16	20	47	25	26
Non-Indigenous students	74	12	14	68	13	18
Total students	73	12	14	67	13	19

Note: May not add up to 100 due to rounding.

Source: NCVET Student Outcomes Survey, 2001.

### Training outcomes and individual expectations

Indigenous graduates were marginally more positive in their assessment of the benefits that accrued from completing their training. In this respect, 69% of Indigenous graduates agreed that their training had helped them to achieve their main reason for study compared to 67% for total students. However, Indigenous 'module completers' were somewhat less positive than all other students regarding the extent to which the completion of training had helped them achieve their main reason for studying. [Table 5.12]

**TABLE 5.12: COURSE HELPED TO ACHIEVE MAIN REASON FOR TRAINING BY INDIGENOUS STATUS, AUSTRALIA 2001 (PER CENT)**

	Course helped achieve main reason	Course partly helped achieve main reason	Course did not help achieve main reason	Don't know as yet	Total <sup>(a)</sup>	Proportion of respondents <sup>(b)</sup>	Number of respondents <sup>(b)</sup>
<b>Graduates</b>							
Indigenous	69	11	9	10	100	2	737
Non-Indigenous	67	13	8	12	100	96	37 936
All graduates	67	13	9	12	100		39 426
<b>Module completers</b>							
Indigenous	50	20	17	13	100	2	719
Non-Indigenous	53	18	18	11	100	94	28 443
All module completers	53	18	18	11	100		30 128

(a) Components may not add up to total due to non-response to some survey questions.

(b) Includes 'not stated' to whether achieved main reason.

Source: NCVET Student Outcomes Survey, 2001.

## PEOPLE WITH A DISABILITY

People with a disability includes students who self-identify as having a 'permanent or significant disability'. This definition includes the following disability types: visual, sight, seeing; hearing; physical; intellectual; chronic illness; and other disability.

### Level of participation

In 2001, 69,160 vocational education and training students reported having a disability, an increase of 9.5% since 1999. However, the proportion of the total vocational education and training population<sup>18</sup> reporting a disability was largely unchanged over this time.<sup>19</sup> [Table 5.13]

**TABLE 5.13: VOCATIONAL EDUCATION AND TRAINING STUDENTS REPORTING A DISABILITY, 1999-2001**

	1999	2000	2001
Students reporting a disability	63 178	62 082	69 160
Annual increase (%)		-1.7%	11.4%
As a proportion of all vocational education and training students <sup>(a)</sup>	4.6%	4.5%	4.5%

(a) Where disability status was known.

Source: NCVER 1999 - 2001 national vocational education and training collection.

### Load pass rate<sup>20</sup>

In 2001, the load pass rate for students who reported a disability was 66.8%, considerably lower than the load pass rate for all vocational education and training students (75.4%). The load pass rate for people with a disability has decreased marginally since 1999. [Table 5.14]

**TABLE 5.14: LOAD PASS RATE FOR STUDENTS REPORTING A DISABILITY, 1999-2001 (PER CENT)**

Student group	1999	2000	2001
Reported as having a disability	68.0	67.3	66.8
Reported as not having a disability	74.9	76.1	75.9
Total students	74.7	75.5	75.4

Source: NCVER 1999 - 2001 national vocational education and training collection.

18 Where disability status was known.

19 The AVETMIS Standard definition of disability differs, in a number of respects, from the definition used by the Australian Bureau of Statistics. Comparisons with national disability statistics are not included for this reason and thus participation rates have not been calculated.

20 Refer to the appendix for a definition of the load pass rate.

## Employment outcomes

People with a disability had lower employment outcomes than other vocational education and training graduates. Only 43% of graduates who reported a disability were employed in 2001 compared with 73% of all graduates. Of greater concern is the fact that the 2001 proportion of graduates with a disability who were in employment after competing their training represents a substantial decline of 11 percentage points over 2000 levels.

For 'module completers' reporting a disability, employment outcomes were also poor, with only 38% being employed in 2001 compared with 67% of all 'module completers'. This was a similar result to the previous year, when 39% of 'module completers' reporting a disability were employed. [Table 5.15]

**TABLE 5.15: EMPLOYMENT OUTCOMES BY DISABILITY STATUS, MAY 2001 (PER CENT)**

	Graduates			Module completers		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
Reported having a disability	43	20	35	38	19	40
Total	73	12	14	67	13	19

Note: May not add up to 100 due to rounding.

Source: NCVER Student Outcomes Survey, 2001.

## Training outcomes and individual expectations

Compared to the total population, relatively smaller proportions of both graduates and 'module completers' reporting a disability were of the view that the successful completion of their training had helped them to achieve their main objective for doing training in the first instance.

Almost one-quarter (24%) of people with a disability who successfully completed modules were of the view that the training had not helped at all in this regard. [Table 5.16]

**TABLE 5.16: COURSE HELPED TO ACHIEVE MAIN REASON FOR TRAINING BY DISABILITY STATUS, 2001 (PER CENT)**

	Course helped achieve main reason	Course partly helped achieve main reason	Course did not help achieve main reason	Don't know as yet	Total <sup>(a)</sup>	Proportion of respondents <sup>(b)</sup>	Number of respondents <sup>(b)</sup>
<b>Graduates</b>							
Reporting a disability	52	17	14	17	100	5	1 831
No disability	67	13	8	11	100	93	36 696
All graduates	67	13	9	12	100		39 426
<b>Module completers</b>							
Reporting a disability	43	20	24	13	100	8	2 463
No disability	54	18	18	10	100	88	26 544
All module completers	53	18	18	11	100		30 128

(a) Components may not add up to total due to non-response to some survey questions.

(b) Includes 'not stated' to whether achieved main reason.

Source: NCVER Student Outcomes Survey, 2001.

## PEOPLE FROM NON-ENGLISH SPEAKING BACKGROUNDS

The analysis of participation, outputs and outcomes for vocational education and training students from non-English speaking backgrounds is currently undertaken using two definitions:

- students who speak a language other than English at home
- students who were born in a non-English speaking country.

There is no agreed composite definition that would simplify analysis and many students may be included under both categories.

### Level of participation

#### Students who speak a language other than English at home<sup>21</sup>

In 2001, 170,621 vocational education and training students (approximately 12% of all vocational education and training student respondents) reported that they spoke a language other than English at home. [Table 5.17]

21 This may include immigrant households and Aboriginal or Torres Strait Islander households where Indigenous languages are spoken.

The number of vocational education and training students who reported speaking a language other than English at home has been steadily decreasing in recent years, as has their proportional share of the total vocational education and training population.

**TABLE 5.17: VOCATIONAL EDUCATION AND TRAINING STUDENTS REPORTING SPEAKING A LANGUAGE OTHER THAN ENGLISH AT HOME, 1999-2001**

	1999	2000	2001
Students who spoke a language other than English at home	192 251	171 076	170 621
Annual increase (%)		-11%	-0.3%
As a proportion of all vocational education and training students <sup>(a)</sup>	14.9%	12.6%	12.0%

(a) Where language spoken at home status was known.

Source: NCVET 1999 - 2001 national vocational education and training collection.

### Students who were born in a non-English speaking country<sup>22</sup>

In 2001, 204,673 vocational education and training students (approximately 15% of all vocational education and training student respondents) reported that they were born in a non-English speaking country. While the number of these students has increased since 1999, their proportion of the total vocational education and training population has remained constant over this time. [Table 5.18]

**TABLE 5.18: VOCATIONAL EDUCATION AND TRAINING STUDENTS BORN IN A NON-ENGLISH SPEAKING COUNTRY, 1999-2001**

	1999	2000	2001
Students born in a non-English speaking country	194 071	202 656	204 673
Annual Increase (%)		4.4%	1%
As a proportion of all vocational education and training students <sup>(a)</sup>	14.7%	14.9%	14.5%

(a) Where country of birth status was known.

Source: NCVET 1999 - 2001 national vocational education and training collection.

### Load pass rate<sup>23</sup>

Since 1999, students from non-English speaking backgrounds have achieved lower load pass rates than other students. [Table 5.19]

In 2001, the load pass rate for students who spoke a language other than English at home was 69.8%, while for students who were born in a non-English speaking country the load pass rate was a little higher at 71.2%. These results compare with a load pass rate of 75.4% for all vocational education and training students.

For both groups, the load pass rate has remained essentially unchanged between 1999 and 2001.

22 This category includes students from countries where English is not the dominant language. Refer to the appendix for details on non-English speaking countries.

23 Refer to the appendix for a definition of the load pass rate.

**TABLE 5.19: LOAD PASS RATE BY NON-ENGLISH SPEAKING BACKGROUND STATUS, 1999-2001 (PER CENT)**

	1999	2000	2001
Students who spoke a language other than English at home	69.2	70.0	69.8
Students from non-English speaking countries	69.3	71.1	71.2
Total vocational education and training students	74.7	75.5	75.4

Source: NCVER 1999 - 2001 national vocational education and training collection.

### Employment outcomes

In 2001, the employment outcomes for TAFE graduates and 'module completers' who were from a non-English speaking background were relatively lower than the employment outcomes for graduates and 'module completers' overall.

Only 58% of TAFE graduates who spoke a language other than English at home, and 52% of graduates from a non-English speaking country, were employed in 2001 after completion of their training. By way of comparison, 73% of all TAFE graduates were in employment after completing their training. [Table 5.20]

Also, only 57% of 'module completers' who spoke a language other than English at home, and 55% of 'module completers' from a non-English speaking country were employed in 2001 (compared with 67% of all 'module completers').

**TABLE 5.20: EMPLOYMENT OUTCOMES BY NON-ENGLISH SPEAKING BACKGROUND STATUS, MAY 2001 (PER CENT)**

	Graduates			Module completers		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
Spoke a language other than English at home	58	18	24	57	18	23
From a non-English speaking country	52	20	27	55	17	26
Total students	73	12	14	67	13	19

Note: May not add up to 100 due to rounding.

Source: NCVER Student Outcomes Survey, 2001.



## Training outcomes and individual expectations

TAFE graduates and 'module completers' who spoke a language other than English at home, or who were born in a non-English speaking country, were substantially less positive than all TAFE graduates or 'module completers' in reporting the degree to which the completion of their training had helped them to achieve their main training objective. [Table 5.21]

**TABLE 5.21: COURSE HELPED TO ACHIEVE MAIN REASON FOR TRAINING BY NON-ENGLISH SPEAKING BACKGROUND STATUS, AUSTRALIA 2001 (PER CENT)**

	Course helped achieve main reason	Course partly helped achieve main reason	Course did not help achieve main reason	Don't know as yet	Total <sup>(a)</sup>	Proportion of respondents <sup>(b)</sup>	Number of respondents <sup>(b)</sup>
<b>Graduates</b>							
Spoke a language other than English at home	59	16	10	16	100	20	7 574
From a non-English speaking country	56	17	10	17	100	16	6 302
All graduates	67	13	9	12	100		39 426
<b>Module completers</b>							
Spoke a language other than English at home	46	21	20	13	100	15	4 267
From a non-English speaking country	44	22	20	14	100	12	3 360
All module completers	53	18	18	11	100		30 128

(a) Components may not add up to total due to non-response to some survey questions.

(b) Includes 'not stated' to whether achieved main reason.

Source: NCVER Student Outcomes Survey, 2001.

# Key Performance Measures 6/7

## Efficiency Performance



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## SUMMARY OF FINDINGS

### **Efficiency performance continued to improve nationally in 2001.**

The unit cost per hour of publicly funded vocational education and training was \$12.40 in 2001 representing a 5.3% improvement over 2000 levels.

### **Efficiency improvement since 1997 has been substantial.**

Over the four-year period since 1997, efficiency performance has improved by 16.3% nationally.

### **Efficiency performance across States and Territories is variable.**

Queensland, with a unit cost of \$12.90 in 2001, achieved the largest improvement in efficiency performance over the past 12 months (13.6%). Victoria reported an increased unit cost in 2001 but remains the most efficient jurisdiction across Australia (\$10.80). New South Wales is the largest jurisdiction and its efficiency performance has a significant impact on the national result. Efficiency performance in New South Wales improved by 9.6% to \$13.00 during 2001.

### **Continuing efficiency improvement appears not to be sustainable in some jurisdictions.**

A number of jurisdictions have reported increased unit costs in 2001 and indicated that the efficiency levels achieved at the end of 2000 could not be sustained.

## INTRODUCTION

The key performance measures (KPMs) in this chapter are designed to assess the efficiency of the vocational education and training system. In this respect, efficiency is the rate at which inputs (in this case, public expenditure on vocational education and training) are translated into outputs (in this case, the quantum of recognised skill outputs).

One of the objectives of the vocational education and training system is to maximise the value of public vocational education and training expenditure. An assessment of efficiency performance contributes to our understanding as to how successful the vocational education and training system has been in achieving this objective.

By themselves efficiency measures do not assess the effectiveness or quality of, the vocational education and training system. These measures must be considered alongside other performance measures, particularly KPMs 2, 3, 4 and 5.

There are two established efficiency measures in vocational education and training:

- KPM 6 which measures the efficiency of producing **publicly funded vocational education and training skill outputs** from recurrent government funding for vocational education and training
- KPM 7 which measures the efficiency of producing **total vocational education and training skill outputs** (both publicly and privately funded) from recurrent government funding for vocational education and training.

By including all recognised skill outputs within KPM 7, this measure seeks to quantify the extent to which outputs, beyond those that are government funded, are leveraged from the substantial investment that governments have made in the vocational education and training system.

The quantum of government recurrent expenditure includes:

- all recurrent funds provided annually by State/Territory governments for vocational education and training that are allocated through their respective State/Territory Training Authorities
- all recurrent vocational education and training funds provided annually by the Commonwealth government under the Vocational Education and Training Funding Act that are distributed to States and Territories in accordance with decisions of the ANTA Ministerial Council.

Both performance measures rely on the application of a standardised output measure because the amount of skill output associated with individual modules and/or units of competency is variable. However, as reported under KPM 1, a standardised output measure has not yet been developed. In the absence of such a measure, vocational education and training Ministers have agreed that the nominal number of training hours<sup>24</sup> associated with each module and unit of competency, and as reported by each State/Territory, will be used to support reporting against KPM 6.

Therefore, the unit cost per nominal hour of training activity for publicly funded vocational education and training is the key basis for measuring efficiency performance. The hours of training activity used in this report are based on data provided by States and Territories under the AVETMIS Standard for Vocational Education and Training Providers. This data has been 'adjusted' to improve the accuracy and comparability of the reported efficiency measures. Adjustments are made by ANTA based on formal advice provided by the NCVER auditors that has been endorsed by each State and Territory.

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24 Except for Victoria where scheduled hours are currently accepted for national reporting purposes. Victoria considers that this data provides a more accurate measure of the level of training activity undertaken in this State.

The unit cost of producing a successful output, from public expenditure, for both publicly funded and total outputs (KPM 7), has also been included in previous reports. With the adoption of enrolment activity end date reporting from 2001<sup>25</sup>, the methodology for reporting against these measures is currently under review. Accordingly, no data has been presented against these measures for this year's report. It is anticipated that a new series of data will be reported from next year.

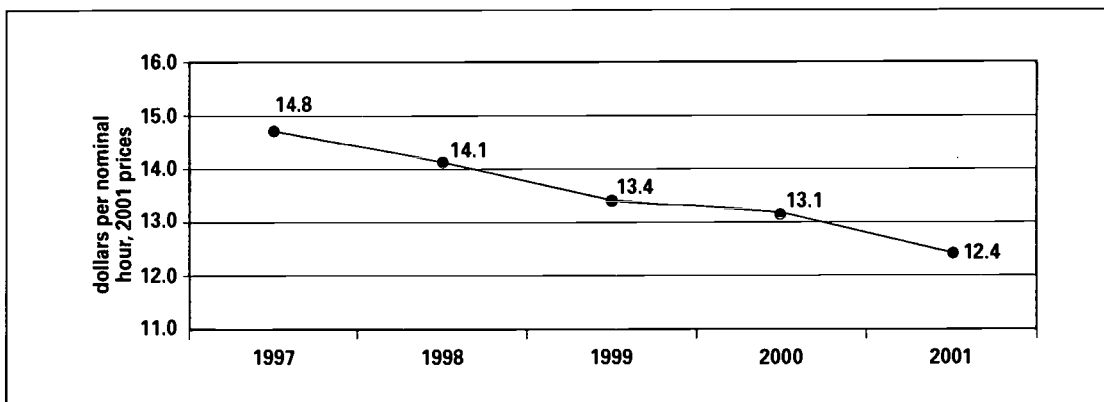
The efficiency performance of each State and Territory was an integral aspect of the previous ANTA Agreement (1998-2000). Under these arrangements, States and Territories agreed to achieve improved efficiency levels over the three-year period to the end of 2000. The data presented in last year's Annual National Report provided the basis for assessing whether efficiency had improved in each State and Territory over the life of the Agreement.

Over the period of the current ANTA Agreement (2001-2003), States and Territories have restated their commitment to maximising the value of public expenditure on vocational education and training and will continue to strive for ongoing efficiency improvements. Efficiency performance, however, is no longer strongly tied to the release of Commonwealth funds. However, the ANTA Agreement requires that the Annual National Report include, within each year of the Agreement, a report for each State/Territory on 'relative efficiency'. In meeting this requirement, the efficiency performance of each State and Territory in 2001 is reported within this chapter.

## KEY PERFORMANCE MEASURE 6: UNIT COST OF PUBLICLY FUNDED VOCATIONAL EDUCATION AND TRAINING OUTPUTS

In 2001, the national unit cost of producing a nominal hour of publicly funded training, from public recurrent funding, was \$12.40. This represents an efficiency improvement of 5.3% over 2000 levels and a 16.3% improvement since 1997. The collective efficiency performance of States and Territories has increased each year since 1997. [Figure 6.1]

**FIGURE 6.1: PUBLIC RECURRENT EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR (ADJUSTED), AUSTRALIA 1997-2001 (ACCRUAL, 2001 PRICES)**



Source: Government recurrent expenditure is determined using data prepared by States/Territories under the AVETMIS Standard for Vocational Education and Training Financial Data. Supplementary information was also provided by ANTA. Nominal hour (adjusted) is determined from annual audit reports of non-financial activity prepared for ANTA.

25 See appendix for KPM 1 for explanation of activity end date reporting.

It is worth noting that, in achieving improved efficiency performance during 2001, States and Territories have also collectively achieved substantial growth in the number of publicly funded training hours. The total number of hours delivered within the scope and boundary of the ANTA Agreement was 278.6 million in 2001, an increase of 16.3 million hours over 2000 levels (6.2%).

## STATE AND TERRITORY PERFORMANCE

Table 6.1 reports the efficiency levels in each State and Territory for each year from 1997 to 2001. The table also indicates the percentage change in efficiency performance from 2000 to 2001 as well as the change that has occurred over the period since 1997. A negative value indicates improved efficiency.

The detailed information used in determining these figures, including any explanatory notes, is provided in the appendix.

**TABLE 6.1: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 1997-2001 (\$/ADJUSTED HOUR, 2001 PRICES)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aus
2001	13.0	10.8	12.9	11.4	13.7	14.3	19.7	12.0	12.4
2000	14.4	9.9	14.9	12.7	13.4	15.9	21.6	13.7	13.1
1999	15.4	9.9	14.2	12.5	13.8	16.8	20.9	16.1	13.4
1998	16.2	11.1	13.0	14.4	14.2	17.6	29.4	18.2	14.1
1997	16.0	11.1	15.8	16.5	16.1	20.1	30.5	18.3	14.8
% change 2000 to 2001	-9.6	+8.4	-13.6	-10.7	+2.6	-10.0	-8.5	-12.4	-5.3
% change 1997 to 2001	-18.4	-3.2	-18.3	-31.3	-14.5	-28.9	-35.4	-34.5	-16.3

Source: Government recurrent expenditure is determined using data prepared by States/Territories under the AVETMIS Standard for Vocational Education and Training Financial Data. Supplementary information was also provided by ANTA. Nominal hour (adjusted) is determined from annual audit reports of non-financial activity prepared for ANTA.

Although the range of efficiency performance reported across Australia has narrowed in recent years, efficiency levels remain quite variable across States and Territories in 2001. Two jurisdictions (Victoria and Western Australia) reported increased unit costs in 2001. Both jurisdictions had previously advised ANTA that their efficiency levels at the end of 2000 were not sustainable.

New South Wales is the largest jurisdiction and its efficiency performance has a significant impact on the national result. Efficiency performance in New South Wales improved by 9.6% during 2001 to reach \$13.00. Victoria reported an increase in unit costs in 2001 (8.4%) to \$10.80, but remains the most efficient jurisdiction across Australia. Increased training delivery costs were identified by Victoria as a key driver that contributed to this result.

Queensland, with a unit cost of \$12.90 in 2001, achieved the largest improvement in efficiency performance over the past 12 months (13.6%). A contributing factor in this result was a re-evaluation of nominal hour values that was undertaken by Queensland in 2001. Caution should therefore be exercised in interpreting this figure.

Although recording an 8.5% improvement in unit costs during 2001, the Northern Territory continues to report the highest unit cost among all States and Territories. It is recognised that the Territory incurs relatively higher costs than other States and Territories due to a number of geographic and demographic reasons. Nevertheless, the Northern Territory also achieved the highest level of efficiency improvement (35.4%) over the period since 1997.

In summary, States and Territories are continuing to improve the alignment of their planning and purchasing activities to achieve better value for money. Other areas that contribute to improved efficiency include the expansion and refinement of competitive purchasing arrangements, the maximisation of value within User Choice, and the enhanced use of information and communications technology within both training and training system support activities.

## TRAINING ACTIVITY PER HEAD OF POPULATION

The number of training hours per head of population (aged 15-64) provides an indication of the level of vocational education and training services that the publicly funded vocational education and training system provides for all Australians. In 2001, an average of 21.3 hours of training was provided to each Australian aged 15-64. [Table 6.2]

**TABLE 6.2: NOMINAL HOURS (ADJUSTED) PER HEAD OF POPULATION, STATE/TERRITORY 1997-2001**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aus
2001	22.4	23.1	18.2	21.3	19.0	18.0	25.8	25.2	21.3
2000	21.0	22.8	17.0	19.6	19.4	16.0	24.1	22.1	20.4
1999	20.2	22.9	17.0	20.8	19.0	15.3	22.6	20.8	20.1
1998	19.7	21.7	18.4	17.3	17.8	14.1	17.6	20.3	19.4
1997	19.9	20.5	16.0	15.8	16.2	12.8	15.5	19.5	18.4
% change 2000 to 2001	6.6	1.2	6.8	8.7	-2.1	12.4	6.9	13.7	4.7
% change 1997 to 2001	12.3	12.4	14.0	35.2	17.0	40.9	66.1	29.0	15.8

Notes: This information represents the number of hours of training delivered in ANTA Agreement funded programs for all ages as a proportion of the total number of people in the population aged 15-64. Population figures for Australia includes information from 'Other Territories'.

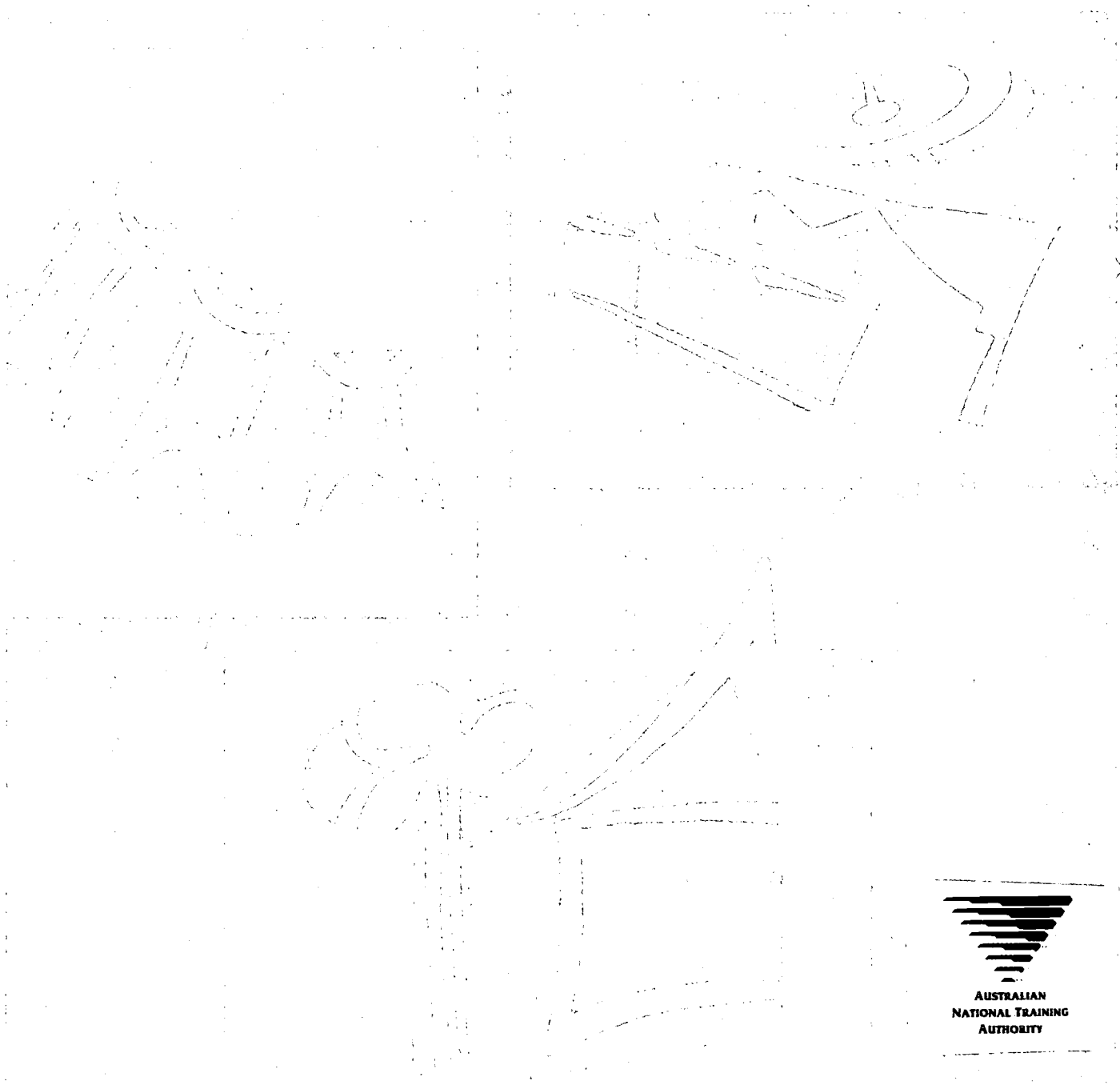
Source: Australian Bureau of Statistics Estimated Resident Population and annual audit reports of non-financial activity prepared for the Australian National Training Authority.

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# Key Performance Measure 8

## Total Expenditure on Vocational Education and Training



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## SUMMARY OF FINDINGS

**A consolidated measure of total expenditure on training is not currently available.**

Currently, there is no single comprehensive data source available to accurately report the overall financial investment in vocational education and training by governments, enterprises and individuals. Data from the Australian Bureau of Statistics Survey of Training Expenditure and Practices will be available next year.

**Individual participation in training is increasing, although these people are less likely to be self-funded.**

Australian Bureau of Statistics data indicates that participation in training and work-related courses is growing with an increasing number of individuals undertaking some form of training or work-related study. Individuals are also proportionally less likely to have to fund their own training with a greater proportion receiving some type of financial support for the courses or studies undertaken.

**Expenditure on vocational education and training by both government and enterprises appears to be increasing.**

Both government and enterprises are supporting an increasing number of work-related courses and training. Expenditure on vocational education and training appears to be increasing, although there are changes in the way training is undertaken.

## INTRODUCTION

Key performance measure (KPM) 8 monitors total expenditure on vocational education and training. The measure assesses the level of investment in vocational education and training by government, enterprises and individuals.

Some information on government funding of vocational education and training is available from data collected under the AVETMIS Standard for Vocational Education and Training Financial Data although there remain some gaps in this data relating to government expenditure on training that is funded outside of each State/Territory Training Authority. Reliable data on the level of enterprise and individual spending on vocational education and training is even more difficult to acquire and quantify. Reporting against this KPM therefore remains under development.

The Australian Bureau of Statistics Training Expenditure Survey, last undertaken in 1996, has historically been the main source of data to assess the level of enterprise expenditure on vocational education and training. A new Australian Bureau of Statistics survey, developed in consultation with and funded by ANTA, is being conducted in 2002. In 2003, results from this survey will be available to inform the report of enterprise expenditure for this KPM.

In the absence of more recent data being available from this survey instrument, ANTA investigated the possibility of developing an hours-based approach using data from the Australian Bureau of Statistics Survey of Education and Training Experience to quantify the total level of training activity across Australia from all funding sources. It was anticipated that inferences could be made from this data regarding the level of financial contribution to vocational education and training by employers, relative to the known financial contribution made by government.

At the time of finalising this report, only limited data was available from the 2001 survey. Therefore it was not possible to test the hours-based approach, although some data from the 2001 and 1997 surveys has been analysed in relation to enterprise financial support for vocational education and training. Contextual information is also available from the Survey of Employer Views undertaken by NCVET.

Information on fee-for-service activity (part of which is individual expenditure on training) provided through the public TAFE system is available from the AVETMIS Standard for Vocational Education and Training Financial Data collection, although fee-for-service expenditure on training undertaken through private providers is not currently available.

Comprehensive information as to how much individuals spend on training is also not available, although the Survey of Education and Training Experience does provide data on the number of people who do not receive any financial support for training or courses undertaken. A holistic and comprehensive report on individual expenditure on vocational education and training therefore continues to be unavailable.

## GOVERNMENT EXPENDITURE ON VOCATIONAL EDUCATION AND TRAINING

While total government funding on vocational education and training cannot be readily quantified, data on recurrent revenues from government on vocational education and training is available from data collected under the AVETMIS Standard for Vocational Education and Training Financial Data. This data shows that government expenditure on vocational education and training increased by 10% between 1997 and 2001. [Table 8.1]

**TABLE 8.1: RECURRENT REVENUES FROM GOVERNMENT ON VOCATIONAL EDUCATION AND TRAINING**

Year	Government Expenditure \$ (billion)	Annual Change (per cent)
2001	4.361	+4.8%
2000	4.161	+5.6%
1999	3.939	-0.3%
1998	3.949	-0.1%
1997	3.954	

Note: Students undertaking any vocational education and training activity, including recognition for prior learning and credit transfer, adjusted for the non-financial activity audit are included. Students in the schools collections, fee-for-service, overseas full-fee paying and from private provider collections are excluded.

Source: Recurrent revenues from government on vocational education and training is sourced from the NCVER's Financial Data Statistics publications. Total government expenditure on vocational education and training is not captured by the AVETMIS Standard collection on which these publications are based.

## ENTERPRISE EXPENDITURE ON VOCATIONAL EDUCATION AND TRAINING

There are positive signs that enterprise investment in training is increasing.

According to the Australian Bureau of Statistics Survey of Education and Training Experience, employers are funding a greater proportion of external courses and are providing more in-house courses (although all courses are becoming shorter on average).

The number of external courses undertaken by wage and salary earners with employer financial support increased from 65% of total external courses undertaken in 1997 to 71% in 2001. The number of in-house courses undertaken increased to over six million and 73% of total courses undertaken, compared to 70% in 1997.

The number of courses undertaken by wage and salary earners increased by 15% to over eight million between 1997 and 2001. The average duration of the course declined by 18% to 17 hours, however total training hours reported under this study declined by only 3% over the same period to 143,449,800 hours in 2001.

The number of people receiving financial support while specifically studying for a vocational education and training qualification increased from 288,800 in 1997 to 519,600 in 2001.

The proportion of people studying towards a vocational education and training qualification who received employer financial support in 2001 is greater than the proportion who received government financial support (24% compared to 20%).

The NCVER Survey of Employer Views on Vocational Education and Training also supports the view that employer investment in training is increasing. From 1999 to 2001 there was an eight percentage point increase in both the proportion of employers with recent graduates (to 81%) and in the proportion of employers without vocational education and training graduates (to 48%) who are paying for, or subsidising, employee training. In 2001, 68% of employers with non-recent graduates were paying for or subsidising employee training.

Employers in all three categories were most likely to subsidise external training. Although support for all types of training (on-the-job, in-house and external) increased significantly between 1999 and 2001, support for external training increased more than for the other types of training.

## **INDIVIDUAL EXPENDITURE ON VOCATIONAL EDUCATION AND TRAINING**

One element of individual expenditure on vocational education and training is the amount paid to public providers of training on a fee-for-service basis. Although broader than just fees from individuals, fee-for-service revenue<sup>26</sup> has increased each year and reached \$445 million in 2001.

It would appear however, that the increases in fee-for-service revenue are in line with increasing student numbers and increased participation from overseas students. According to the Australian Bureau of Statistics Survey of Education and Training Experience data, individuals are more likely to receive financial support for training undertaken in 2001 than in 1997, and are therefore less likely to be financing their training themselves.

It is not currently possible to estimate the amount that individuals spend on training or to determine precisely whether individuals are financing their training themselves fully or partially. An individual's training could be financed from a number of sources, including self-funding, government funding and/or enterprise funding. However, information is available on the number of people who did not receive any financial support and presumably financed their training or studies themselves.

In 2001, only one-quarter of wage and salary earners (26%) undertaking an external course did not receive financial support, in comparison to 31% in 1997. Less than half of those studying for a vocational education and training qualification in 2001 (47%) did not receive financial support, in comparison to 51% in 1997. Although the number of individuals not receiving financial support increased from 298,600 in 1997 to 467,700 in 2001, this increase is at a smaller rate in comparison to those receiving financial support.

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26 Fee-for-service revenue includes fees from individuals, other than regulatory student fees, and organisations, including Government organisations, for on- and off-the-job vocational education and training, and for other training related purposes that are paid to and retained by the provider. Included are overseas students fees, government and private revenues for specific training usually on a tendering/pricing basis, consultancy fees and fees for Adult and Community Education passing through the accounts of public training providers.

# Appendices

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# Appendix:

## Key Performance Measure 1

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## DATA EXCLUSIONS

For the calculation of participation rates, load pass rates and successful completions by individual students, the following have been excluded from the calculations:

- Students whose entire activity is non-vocational
- Hours from enrolments associated with a course/qualification where the intent is not vocational (vocational education and training flag = N on the course) and those enrolments not associated with a course/qualification with vocational intent (vocational education and training flag = N on the enrolment)
- students enrolled in, and hours from, fee-for-service activity by private providers or overseas full-fee paying activity from private providers
- hours associated with activity, and students enrolled in training, that took place at an overseas training provider location
- hours associated with activity, and students enrolled in training, in schools.<sup>27</sup>

## UNITS OF COMPETENCY ACHIEVED: CALCULATIONS

The calculation of units of competency achieved is based on data submitted under the AVETMIS Standard for Vocational Education and Training Providers. The achievement of a unit of competency is identified as either a successful outcome (01) in the enrolment file associated with a unit of competency, or by States and Territories within the unit of competency achieved file. It is assumed if a unit of competency has been broken into modules for the purpose of delivery by a training provider that the completion of the unit has been subsequently identified by that provider within the AVETMIS Standard collection.

To put the number of units of competency achieved into perspective, it is useful to consider the amount of training activity undertaken in Training Packages over the last three years. The following tables outline the percentage of enrolments [Table A1.1] and total annual hours [Table A1.2] for Training Packages each year since 1999. A further breakdown of the number of units of competency achieved within each Training Package is also provided. [Table A1.3]

Training Package activity is identified in the national vocational education and training data collection by recognition status of '01 – Nationally accredited course designed to lead to a qualification specified in a national Training Package'. It should also be noted that units of competency can be undertaken as part of a Training Package qualification, as individual units not leading to any qualification, or as units borrowed for other nationally accredited courses. In 2001, 11.5% of units of competency achieved were not part of a Training Package qualification.

27 Data on training activity in schools within New South Wales, Queensland, South Australia, Tasmania, Northern Territory and the Australian Capital Territory is identifiable within the national data collection from 2001.

**TABLE A1.1: TRAINING PACKAGE ENROLMENTS, STATE/TERRITORY 1999-2001 (PER CENT)**

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999	14.2	14.4	17.5	14.8	2.6	26.3	23.1	18.1	14.3
2000	32.6	33.8	36.7	34.1	24.6	52.8	45.5	53.2	33.9
2001	45.1	46.9	53.2	47.6	39.1	71.1	60.4	63.7	47.6

Note: Enrolments undertaken as part of a Training Package.

Source: NCVER 1999-2001 national vocational education and training collections.

**TABLE A1.2: TRAINING PACKAGE ANNUAL HOURS, STATE/TERRITORY 1999-2001 (PER CENT)**

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999	9.5	12.2	15.4	15.0	2.2	24.4	19.8	14.1	11.4
2000	25.1	29.5	36.1	36.0	20.6	51.5	41.5	46.3	29.5
2001 <sup>(a)</sup>	37.5	40.1	51.8	46.0	33.3	66.5	53.3	51.7	41.6

Note: Annual hours undertaken as part of a Training Package.

(a) Total hours for 2001 exclude hours associated with continuing enrolments.

Source: NCVER 1999-2001 national vocational education and training collections.

**TABLE A1.3: UNITS OF COMPETENCY ACHIEVED BY TRAINING PACKAGE, 1999-2001**

Training Package	1999	2000	2001
Administration	288 457	394 236	454 854
Aeroskills	137	240	461
Agriculture	26 569	73 293	120 062
Assessment and Workplace Training	16 590	80 090	118 921
Asset Maintenance	2 111	31 722	64 690
Asset Security	13 380	80 028	59 147
Australian Meat Industry	15 582	22 436	35 725
Automotive Industry Manufacturing			126
Automotive Industry Retail Service and Repair	743	28 602	93 238
Black Coal	604	5 007	7 504
Business Services			371
Caravan Industry		679	1 116
Chemical Hydrocarbons and Oil Refining	92	2 401	4 696
Civil Construction	2 553	9 435	9 921
Community Services	6 309	242 134	391 727
Correctional Services	<5	2 138	7 812
Drilling Industry		123	399
Electrotechnology Industry		422	1 136
Entertainment Industry	554	2 116	3 047
Extractive Industry	250	906	1 167
Finance (Superseded by Financial Services)	54	917	70
Financial Services		14 144	122 251
Floristry		670	6 219



Training Package	1999	2000	2001
Food Processing Industry	5 995	56 558	67 876
Forest and Forest Products Industry		359	7 105
General Construction	4 269	40 790	85 537
Hairdressing			4 643
Horticulture	17 031	114 917	174 855
Hospitality Industry	303 782	566 428	553 410
Information Technology	3 080	205 310	392 986
Laboratory Operations		11	7 898
Lifts Industry			
Local Government		11	330
Manufactured Mineral Products		10	2 439
Metal and Engineering Industry	1 830	64 945	117 631
Metalliferous Mining		1 733	6 329
Museum and Library/Information Services		151	9 583
Music			546
National Beauty		8 229	23 160
National Community Recreation Industry			191
National Fitness Industry			279
National Outdoor Recreation Industry		5 192	37 893
National Public Services		1 239	2 751
National Sport Industry		174	10 774
National Utilities - Gas Sector		35	248
National Utilities - Transmission and Distribution Sector			124
National Utilities - Water Sector		20	252
National Utilities Electricity Supply - Generation Sector		39	
Off-site Construction		117	860
Plastics Rubber and Cablemaking		2 837	5 654
Printing and Graphic Arts		10 204	23 596
Public Safety			105
Pulp and Paper Manufacturing Industries	42	374	169
Racing Industry	337	2 199	4 971
Retail	45 902	105 380	171 040
Seafood Industries		882	10 793
Telecommunications Industry Technical	563	21 787	65 441
Textiles, Clothing and Footwear		941	19 280
Tourism	15 369	114 393	127 043
Transport and Distribution	15 593	84 090	124 189
Veterinary Nursing	81	6 533	10 183
Woolworths - Confidential		709	200
Units of competency achieved not as part of a Training Package qualification <sup>(a)</sup>	150 830	301 659	464 663
<b>Total</b>	<b>938 691</b>	<b>2 709 995</b>	<b>4 039 687</b>

(a) Units of competency can be undertaken as part of a Training Package qualification, as individual units not leading to any qualification, or as units borrowed for other nationally accredited courses.

Source: NCVER 1999-2001 national vocational education and training collections.

## ASSESSABLE MODULES COMPLETED

The number of assessable modules completed is derived from enrolment data submitted by States and Territories under the AVETMIS Standard for Vocational Education and Training Providers. The number completed is based on the number of module enrolments with a successful outcome that is not associated with any unit of competency achieved. That is, an outcome of '01- Assessable enrolment – successfully completed' (see Table A1.10).

**TABLE A1.4: UNITS OF COMPETENCY ACHIEVED AND ASSESSABLE MODULES COMPLETED BY AREA OF LEARNING, 1999-2001**

Area of learning (discipline group)	1999		2000		2001	
	Units of competency achieved	Assessable modules completed <sup>(a)</sup>	Units of competency achieved	Assessable modules completed <sup>(a)</sup>	Units of competency achieved	Assessable modules completed <sup>(a)</sup>
01 Humanities	70 539	364 003	45 065	315 750	38 900	268 318
02 Social Studies	1 764	79 033	21 590	59 085	45 110	47 630
03 Education	25 066	57 866	101 639	33 272	150 133	25 671
04 Sciences	23 962	152 344	49 346	134 660	69 992	90 972
05 Math Computing	77 817	794 394	319 325	657 433	546 529	530 392
06 Visual Performing Arts	895	214 193	1 988	207 643	10 426	210 164
07 Engineering Processing	36 469	790 002	168 382	671 200	355 915	538 012
08 Health Sciences	73 544	698 446	380 806	470 520	513 750	404 673
09 Admin Bus Econ Law	280 441	1 111 445	683 411	859 087	1 018 982	707 555
10 Built Environment	13 406	336 493	37 066	336 749	81 427	295 864
11 Agriculture Renewable Resources	23 199	326 746	102 102	181 105	157 862	132 821
12 Hospitality Tourism & Personal Services	216 939	436 526	385 561	255 314	456 968	219 334
13 Social Education & Employment Skills	94 602	570 456	411 278	467 089	577 397	442 126
Not Stated	48		2 436		16 296	
<b>Total<sup>(b)</sup></b>	<b>938 691</b>	<b>5 931 947</b>	<b>2 709 995</b>	<b>4 648 907</b>	<b>4 039 687</b>	<b>3 913 532</b>

(a) The methodology used to determine assessable modules may result in under-reporting in the case of New South Wales.

(b) Units of competency and modules vary in skill level and intensity of training. Care should be exercised when interpreting total numbers.

Source: NCVET 1999-2001 national vocational education and training collections.

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## QUALIFICATIONS COMPLETED

The definition used in the AVETMIS Standard for Vocational Education and Training Providers (Release 3.0) states:

"this file contains a record for each acknowledgment by the training organisation that a client has completed the requirements of a qualification, either during the collection period, or in a year prior to the collection period (where the qualification completed has not previously been reported), regardless of whether or not the client has physically received the acknowledgment."

Historically, most State and Territory systems (with the exception of New South Wales) have not been able to determine eligibility of a qualification without the student coming forward to claim the qualification. Consequently, in the past a number of students who completed the requirements for their qualifications would not be reported as an output.

A computer approach for reporting qualifications eligibility was developed and implemented. The completion of the first stage of this project (relating to Training Package qualifications) in 2001 means that some 'qualifications completed' may now be reported. However, as States and Territories are still in the process of implementing this system, the figures reported may not capture the full extent of qualifications attained by students in 2001. Work is underway in 2002 on incorporating nationally accredited courses and maintaining the currency of Training Package information in this system.

### Qualification groups

The qualification groups used for reporting are based on the data supplied as part of the national vocational education training collection. When reporting qualification completions both non-award courses and module only activity (by definition) are not included as it is not possible to gain a qualification with these enrolments.

**TABLE A1.5: AUSTRALIAN QUALIFICATIONS FRAMEWORK (AQF) QUALIFICATION GROUPS**

Type of Qualification	Qualification codes in AVETMIS Standard Release 3.0
1 Diplomas and above	10 Diploma 20 Associate Diploma 86 AQF – Diploma 87 AQF - Advanced Diploma 88 AQF – Bachelor’s Degree 91 AQF – Graduate Diploma 92 AQF – Graduate Certificate
2 AQF Certificate IV and equivalent	31 Advanced Certificate 32 Advanced Certificate – other 85 AQF - Certificate IV
3 AQF Certificate III and equivalent	41 Certificate – trade 84 AQF - Certificate III
4 AQF Certificates I and II	82 AQF - Certificate I 83 AQF - Certificate II
5 Senior secondary	81 AQF - Senior secondary
6 Other certificates	42 Certificate - not elsewhere classified 60 Statement of attainment

### Statements of attainment

The Australian Qualifications Framework includes ‘statements of attainment’ which, falling short of a qualification, may contribute towards a qualification outcome. This can occur as a partial completion of a course or attainment of competencies within a Training Package. While these statements of attainment are not recognised qualifications, the skills attained are reported under units of competency achieved and remaining assessable modules completed upon successful completion of the enrolment.

Statements of attainment can also be issued on completion of a nationally accredited short course, and these may contribute towards a qualification through a recognition process. These are usually accredited short courses and are often listed on the National Training Information Service under accredited courses. Examples of such courses include course in senior first aid, training program in small business management, course in adult literacy/numeracy, training program in alpaca production, and course in service and repair of outboard motors. As such these courses are included in the qualifications reported for 2001, outside of the Australian Qualifications Framework under ‘other certificates’.

**TABLE A1.6: QUALIFICATIONS BY TYPE AND AUSTRALIAN QUALIFICATIONS CATEGORY (AQF), STATE/TERRITORY 2001**

Type	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Training Package Qualification</b>									
Diploma and above	2 237	1 911	1 742	466	808	391	55	301	7 911
AQF Certificate IV and equivalent	9 698	5 043	4 286	1 318	1 616	990	325	612	23 888
AQF Certificate III and equivalent	14 701	10 758	8 842	3 686	3 330	2 052	311	929	44 609
AQF Certificate II	15 435	10 904	7 681	3 817	3 310	1 621	505	879	44 152
AQF Certificate I	1 352	758	1 394	683	615	438	250	27	5 517
Total	43 423	29 374	23 945	9 970	9 679	5 492	1 446	2 748	126 077
<b>Nationally Recognised Course</b>									
Diploma and above	6 222	7 541	2 820	1 215	2 724	408	97	523	21 550
AQF Certificate IV and equivalent	8 539	5 439	1 574	2 127	2 336	505	79	363	20 962
AQF Certificate III and equivalent	12 606	5 876	4 883	2 316	5 476	625	210	301	32 293
AQF Certificate II	8 882	5 283	10 575	1 221	2 906	255	122	171	29 415
AQF Certificate I	6 191	1 831	1 032	403	1 393	90	115	69	11 124
Senior Secondary		(b)					(b)		20
Total	42 440	25 984	20 884	7 282	14 835	1 883	629	1 427	115 364
<b>Other State/Territory<sup>(a)</sup></b>									
Diploma and above	1 195	71				(b)			1 270
AQF Certificate IV and equivalent	599	95	19	63		(b)	(b)		788
AQF Certificate III and equivalent	3 515	(b)		23	(b)	424	(b)	52	4 025
AQF Certificate II	1 452	41	35	63	(b)	22		34	1 651
AQF Certificate I	126		78	(b)	16			(b)	232
Total	6 887	214	132	157	23	453	10	90	7 966
Total all types	92 750	55 572	44 961	17 409	24 537	7 828	2 085	4 265	249 407

Note: Number of students eligible for qualifications.

(a) Includes courses accredited or approved by a local State/Territory authority.

(b) Small numbers.

Source: NCVET 2001 national vocational education and training collection.

## **PARTICIPATION IN VOCATIONAL EDUCATION AND TRAINING**

### **Breaks in time series**

There have been a number of breaks in the time series for the number of vocational education and training students, as follows.

- Between 1993 and 1994 with the introduction of the Australian Vocational Education Training Management Information Statistical Standard (AVETMIS Standard) as the data collection standard.
- In 1995 with the inclusion of community education providers.
- In 1996 with the partial inclusion of private providers.
- In 1997 with the further inclusion of private providers in the collection.

The following changes at the State/Territory level may have also impacted on the time series data.

- When AVETMIS Standard Release 3.0 was introduced in 1998, some courses in Queensland were considered outside the scope of reporting. In 1999 these courses were reclassified as vocational education and training courses. This resulted in an additional 40,000 students being reported in 1999.
- Student numbers were higher than normal in 2000 due to one-off additional Olympic related activity in New South Wales.
- In some jurisdictions a break in series may have occurred in 2001 with the introduction of enrolment activity end date reporting.
- Six States and Territories currently provide some vocational education and training data related to school activity as part of the national data collection, including New South Wales and the Australian Capital Territory for the first time in 2001. It is not possible however to identify separately the 'vocational education and training in schools' funded activity components for each State and Territory. In addition, there are some inherent inconsistencies in reporting schools related information between States and Territories. As a result, care is required when making any comparison between published 2000 and 2001 figures.

### **Data scope**

As in previous reports data exclusions have been made to student numbers to calculate participation rates by State and Territory, and age.

Data is sourced from Australian Bureau of Statistics survey, census and population data. All other data used is sourced from the national vocational education and training data collection coordinated by the NCVER.

Data used in this section relates only to students who:

- were enrolled in at least one vocational program (that is, those course/qualifications with vocational intent and those module/unit of competency enrolments not associated with a course/qualification with vocational intent)
- were actively engaged in training (that is, had at least one outcome which was not recognised prior learning or credit transfer).

## Data adjustments

Participation data supplied within the AVETMIS Standard for Vocational Education and Training Providers have been adjusted for student enrolments with no participation, based on information supplied by the non-financial activity auditors from the NCVER.

Rates of student enrolment with no participation, formerly known as student enrolment no attendance (SENA) rates, have been determined from samples drawn from the AVETMIS Standard client file (NAT00080). This allows for a more accurate estimate of the number of students participating in government recurrent-funded vocational education and training, by determining those students reported in the AVETMIS Standard where there is no confirmed evidence of participation in any of their enrolments within the reporting year.

**TABLE A1.7: STUDENT ENROLMENT NO PARTICIPATION RATES, 1999-2001 (PER CENT)**

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
1999	3.00	1.15	5.52	1.09	1.24	3.76	3.14	2.71
2000	2.53	1.08	2.66	1.17	2.00	2.30	3.59	0.93
2001	1.69	0.81	3.13	0.60	1.60	2.14	2.08	4.65

Source: NCVER 1999-2001 non-financial activity audit verification reports.

## Participation by State/Territory

**TABLE A1.8: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION RATES (PERSONS AGED 15-64), STATE/TERRITORY 1999-2001 (PER CENT)**

Year	NSW <sup>(a)</sup>	Vic	Qld	SA	WA	Tas	NT	ACT	Aust <sup>(a)</sup>
1999	11.0	13.5	11.2	11.4	9.2	9.4	12.7	8.0	11.4
2000	13.0	13.5	10.3	12.0	9.4	9.6	13.7	8.8	12.0
2001 <sup>(b)</sup>	11.8	13.4	11.3	11.3	9.7	10.0	13.8	8.6	11.8

(a) Student numbers were higher than normal in 2000 due to one-off additional Olympic related activity in New South Wales.

(b) In some jurisdictions a break in series on student numbers may have occurred due to enrolment activity end date reporting.

Source: NCVER 1999-2001 national vocational education and training collections and Australian Bureau of Statistics 1996-2001 June Quarter Estimated Resident Population data.

## Participation by age

**TABLE A1.9: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION RATES BY AGE, STATE/TERRITORY 2001 (PER CENT)**

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.2	10.0	10.2	6.0	11.8	1.4	18.4	1.7	9.1
16	23.2	20.9	21.5	13.9	24.6	11.6	33.1	5.5	21.3
17	27.7	24.8	27.8	20.0	30.9	19.8	27.7	14.6	26.3
18	35.8	38.7	32.2	31.8	33.1	29.4	29.8	30.3	34.9
19	31.7	39.0	29.1	30.0	26.6	28.3	26.1	29.6	32.2
20	25.4	31.6	23.5	24.6	20.5	23.5	23.1	23.6	25.9
21	19.9	25.3	19.2	20.2	15.3	18.0	19.7	16.2	20.6
22	16.8	20.6	16.5	17.5	13.6	16.9	20.4	13.3	17.4
23	15.1	17.8	14.8	15.6	12.0	14.4	17.3	11.5	15.4
24	13.8	16.3	13.8	14.7	10.7	13.7	13.5	10.5	14.1
25-29	12.0	14.1	12.2	12.9	10.0	12.4	14.0	9.4	12.4
30-34	10.8	12.4	10.9	11.7	9.2	10.7	13.1	8.1	11.1
35-39	10.7	11.9	10.2	11.2	8.2	10.2	12.6	7.7	10.7
40-44	10.3	11.6	9.6	10.5	7.3	9.2	12.1	7.0	10.1
45-54	8.2	9.2	7.5	8.1	5.7	6.9	9.2	5.0	8.0
55-64	4.7	5.3	3.9	4.2	2.8	2.6	5.3	2.3	4.4
65+	1.4	1.6	0.7	1.1	0.6	0.4	1.2	0.1	1.2
15-64	11.8	13.4	11.3	11.3	9.7	10.0	13.8	8.6	11.8
All Ages	8.5	9.6	7.9	8.3	6.9	6.8	10.6	6.2	8.5

Note: In some jurisdictions a break in series on student numbers may have occurred due to enrolment activity end date reporting.

Source: Derived using NCVER 2001 national vocational education and training collection and Australian Bureau of Statistics 2001 June Quarter Estimated Resident Population data by sex and age.

## ENROLMENT ACTIVITY END DATE REPORTING

The hours reported for 2001 are based on the enrolment activity end date of each module or unit of competency. This is to ensure hours are reported once (in the year the subject enrolment is finalised) and to ensure that the enrolment is collected with its final outcome. Consequently the hours associated with an enrolment showing 'continuing studies' will not be counted until the year the result is finalised. This differs to 2000 where the hours reported were calculated based on all hours reported in the collection year.

Due to different reporting arrangements in Victoria (based on scheduled hours) the hours reported for 2001 have been calculated based on all enrolments in the collection year and include 'continuing studies'.

Enrolment activity end date reporting has not been used when determining efficiency performance under KPM 6.

2001

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## Continuing studies

For some enrolments, particularly those in correspondence, self-paced learning, or flexible delivery modes, training activity continues past the end of 2001. A proportion of these enrolments will achieve a successful outcome in 2002. In 2001, there were 737,485 continuing enrolments in modules and units of competency amounting to 23,225,838 million hours.

## LOAD PASS RATES

Load pass rates provide a broad indication of the level of success of students undertaking assessed vocational education and training. Load pass rate calculations are based on the nominal hours supervised<sup>28</sup> associated with enrolment data reported under the AVETMIS Standard for Vocational Education and Training Providers.

**TABLE A1.10: OUTCOMES USED FOR LOAD PASS RATE CALCULATIONS**

1999 – 2001 outcome codes
01 – Assessable enrolment - successfully completed.
02 – Assessable enrolment - not successfully completed.
03 – Non-assessable enrolment - not satisfactorily completed.
04 – Non-assessable enrolment - satisfactorily completed.
05 – Continuing studies (into next collection period).
06 – Status (or credit) granted through recognition of prior learning (RPL).
09 – Status (or credit) granted through credit transfer (CT) arrangements.
10 – Withdrawn.
90 – Result not available.

Source: Outcomes reported under AVETMIS Standard for Vocational Education and Training Providers Release 3.0.

## Load pass rate definition

For 1999 to 2001, the calculation of the load pass rate is based on the nominal hours supervised associated with each outcome according to the following formula:

$$\text{Load Pass Rate} = \frac{01 \text{ (successful)}}{01 \text{ (successful)} + 02 \text{ (not successful)} + 10 \text{ (withdrawn)}} \times 100$$

28 In some States, Victoria in particular, nominal hours supervised have not been recorded for all units of competency. For 2000 and 2001 activity in Victoria, scheduled hours have been used in the calculation of load pass rates instead.

## Scope of modules/units of competency

In previous reports, the hours associated with modules or units of competency consisting of less than 10 or greater than 400 hours were also excluded from the load pass rate calculations. These modules and units of competencies are now included in the calculation. Load pass rates for 1999 and 2000 have been recalculated to include these hours.

This exclusion was applied to ensure that relatively large or small modules do not skew the load pass rate. However, with the introduction of Training Packages and short units of competency this activity needs to be considered in the load pass rates. It appears that these long and short modules did not actually skew the calculation because the load pass rate for 2000 only changed by 0.1% with these units of competency included.

## Data adjustments

The following data adjustments made for load pass rate calculations arise from the non-financial activity audits undertaken on behalf of ANTA by the NCVER.

1999 - Western Australia, Australian Capital Territory and Tasmania had their '02 – Assessable enrolment - not successfully completed' outcome hours adjusted to exclude non-finalised outcomes. In Western Australia, this represents 1,652,983 hours, in Tasmania 178,068 hours and in the Australian Capital Territory 50,021 hours.

2000 - Western Australia and the Northern Territory had their '02 – Assessable enrolment - not successfully completed' outcome hours adjusted to exclude non-finalised outcomes. In Western Australia this represents 739,870 hours and in the Northern Territory 109,207 hours. Western Australia have had their '10 - Withdrawn' outcome hours and enrolments adjusted to exclude non-finalised outcomes. This represents 572,725 hours.

2001 - Australian Capital Territory had their '02 – Assessable enrolment - not successfully completed' outcome hours adjusted to exclude non-finalised outcomes. This represents 25,000 hours. Northern Territory '02 – Assessable enrolment - not successfully completed' outcome hours also include non-finalised outcomes, however, this is not quantifiable, hence no data adjustments have occurred.

These adjustments affect load pass rates reported in the appendices and in the chapters on KPMs 1 and 5.

## Load pass rate by State/Territory

**TABLE A1.11: LOAD PASS RATE, STATE/TERRITORY 1999-2001 (PER CENT)**

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999 <sup>(a)</sup>	72.1	73.9	75.8	85.8	73.4	83.4	69.8	79.8	74.7
2000 <sup>(b)</sup>	74.2	74.9	74.8	87.2	72.8	81.3	69.4	80.5	75.5
2001 <sup>(b)</sup>	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4
Variation 2000 to 2001	0.0	0.0	0.9	0.2	-1.3	-1.9	1.0	-2.2	-0.1

(a) In some states, Victoria in particular, in 1999, nominal hours supervised have not been recorded for most units of competency and as such are not included in the calculation of load pass rates.

(b) In Victoria in 2000 and 2001, nominal hours supervised have not been recorded for all units of competency, which now represent a significant amount of training effort. Basing the load pass rate on these hours would exclude this activity. For Victoria in 2000 and 2001, scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVER 1999-2001 national vocational education and training collections.

## OUTCOMES (HOURS) BY STATE/TERRITORY

TABLE A1.12: OUTCOMES, STATE/TERRITORY 2001 (ANNUAL HOURS)

Outcome	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
01 Assessable enrolment – successfully completed	76 603 716	62 009 497	36 268 765	18 221 854	20 399 149	4 778 351	2 724 629	4 098 815	225 104 776
02 Assessable enrolment - not successfully completed	6 251 795	12 435 194	9 147 018	1 194 471	4 455 057	886 981	842 960	701 512	35 914 988
03 Non-assessable enrolment - not satisfactorily completed	1 725 640	195 149	152 376	59 745	24 471	4 588	740		2 162 709
04 Non-assessable enrolment – satisfactorily completed	6 894 779	4 742 619	1 709 393	1 735 847	1 587 065	53 769	1 350	207 984	16 932 806
06 Status (or credit) granted through recognition of prior learning	4 304 291	1 980 910	835 437	1 200 575	543 324	151 390	233 162	523 900	9 772 989
10 Withdrawn	20 342 468	8 342 879	2 545 765	1 445 970	3 672 582	353 996	303 778	434 955	37 442 393
90 Result not available	58 938	1 930 927	2 793 558	12 464		41 455	4 580	8 263	4 850 185
Total <sup>(b)(c)</sup>	116 181 627	99 837 598 <sup>(b)</sup>	53 452 312	23 870 926	30 681 648	6 270 530	4 111 199	5 975 429	340 381 269
05 Continuing studies	157 0358	8 200 423	8 872 011	742 728	1 456 054	1 045 666	287 878	1 050 720	23 225 838
09 Status (or credit) granted through credit transfer arrangements	9 586 244	0	336 769	115 612	1 675 614	701 866	335 517	31 063	12 782 685

(a) In some states, Victoria in particular, nominal hours supervised have not been recorded for all units of competency. Scheduled hours have been used in the table above and in the calculation of the load pass rate for Victoria.

(b) The total excludes hours associated with '05' and '09' outcome codes, except for Victoria where hours associated with the '05' outcome code are included due to the use of scheduled hours.

(c) The total number of hours have not been adjusted for the non-financial activity invalid enrolment rates. Source: NCVET 2001 national vocational education and training collections.

## SUCCESSFUL COMPLETIONS BY INDIVIDUAL STUDENTS

Rates of success at the student level are based on the enrolment data submitted to the national vocational education and training data collection at the NCVET.

The calculation of successful completion for individual students is based on the outcomes of enrolments according to the following formula:

$$\frac{01 \text{ (successful)} + 04 \text{ (satisfactory)}}{01 \text{ (successful)} + 02 \text{ (not successful)} + 03 \text{ (unsatisfactory)} + 04 \text{ (satisfactory)} + 10 \text{ (withdrawn)}} \times 100$$

01 (successful) + 02 (not successful) + 03 (unsatisfactory) + 04 (satisfactory) + 10 (withdrawn)

Students are then categorised as completing nearly all (>95%), none (<5%), or some enrolment activity during 2001.

## FINN TARGETS FINAL OUTCOMES

In 1991, Ministers for vocational education and training set national youth targets for post-compulsory education and training. These so-called Finn Targets, after Brian Finn AO, Chair of the committee that produced the report, can be summarised as:

- by 2001, 95% of 19 year olds will be participating towards, or have attained, year 12 or a post-school education and training qualification
- by 2001, 60% of 22 year olds will be participating in, or have attained, a Certificate III level qualification or higher.

This represents the final year of the targets. From 2002, the performance of youth will be monitored through the new MCEETYA youth performance measures.

### Progress towards the targets

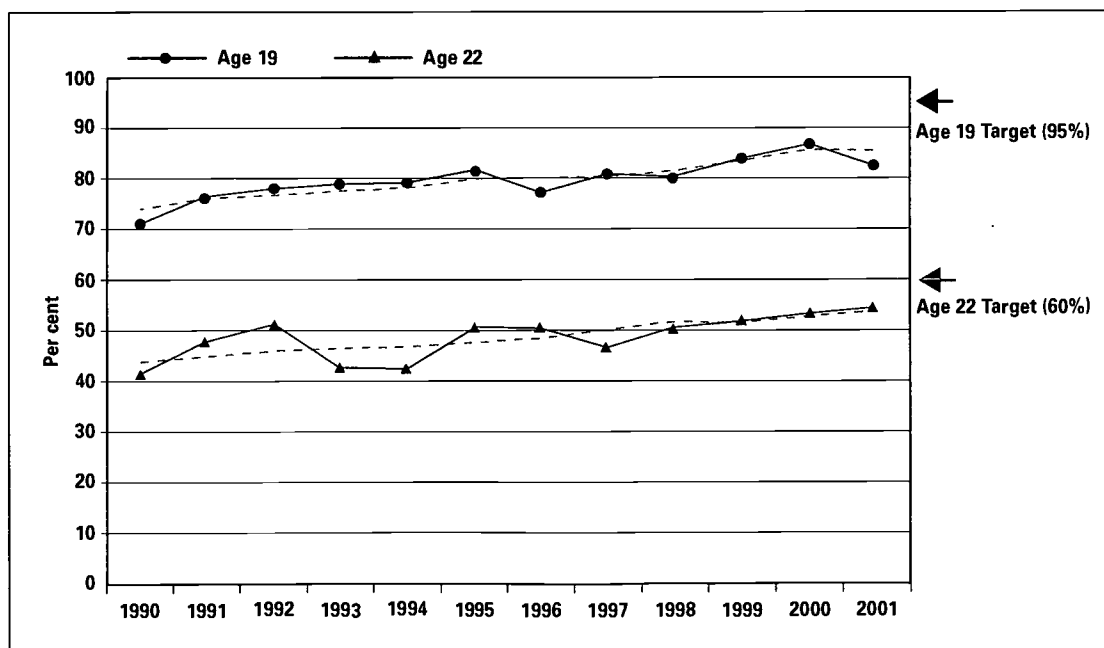
Despite significant increases in the number of young people participating in post-school education and training, and achieving qualifications through such training, neither target was achieved by the end of 2001. [Figure A1.1]

In 2001, 82% of 19 year olds were participating towards, or had attained, year 12 or a post-school education and training qualification, 13 percentage points short of the target. This represents an increase of 11 percentage points since 1990.

In terms of the other target, 55% of 22 year olds were participating in, or had attained a Certificate III level qualification or higher by the end of 2001, which was five percentage points short of the target. This represents an increase of 13 percentage points since 1990.

The base levels established in 1990 were 71% of 19 year olds and 42% of 22 year olds.

**FIGURE A1.1: FINN TARGETS, 1990-2001 (PER CENT)**



Note: Participation and attainment in post-compulsory education and training by 19-22 year olds.

Source: Derived using unpublished data from the annual Australian Bureau of Statistics Transition from Education to Work surveys, now Education and Work Australia, catalogue number 6227.0.

## Technical notes

A break in time series occurred in 2001 with the introduction of the Australian Standard Classification of Education (ASCED) to the survey. Data on education and training for the period 1990 to 2000 from the Australian Bureau of Statistics are based on the Australian Bureau of Statistics Classification of Qualifications (ABSCQ). Data for 2001 has been concorded to the ABSCQ, for time series consistency.

Under the ABSCQ, participation and attainment against the Finn Targets was calculated as follows.

For 19 year olds:

- attainment of any post-school qualification level from basic vocational through to higher degree, including short courses and unknown courses; or
- participation at any post-school qualification level from basic vocational through to higher degree; or
- participation in short courses or unknown courses; or
- completion of year 12; or
- participation at school level.

For 22 year olds:

- attainment of any post-school qualification level from skilled vocational through to higher degree; or
- participation at any post-school qualification level from skilled vocational through to higher degree.

## MCEETYA YOUTH PERFORMANCE MEASURES

From 2002, the performance of youth will be monitored through a set of measures developed by the Ministerial Council on Employment, Education, Training and Youth Affairs (MCEETYA) National Education Performance Monitoring Taskforce.

The measures are broader than the Finn Targets in that they also capture participation in employment.

The performance indicators developed are:

- the proportion of young people, by single year of age, participating in full-time education or training, in full-time work, or in both part-time work and part-time education or training
- the percentage of 19 year olds who have completed year 12 or attained a Certificate II level qualification or above
- the percentage of 24 year olds who have completed a Certificate III level qualification or above.

Further refinement of these indicators, and subsequent endorsement by Ministers, is expected to be finalised during 2002.

# **Appendix:**

## **Key Performance Measure 2**

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## THE CLASSIFICATION OF QUALIFICATIONS

Advanced diploma, associate diploma, diploma and equivalent qualifications based on the Australian Qualifications Framework obtained in the vocational education and training system and the higher education sector have been classified as vocational education and training qualifications. (In the 2000 report, vocational education and training qualifications obtained in the higher education sector were classified as higher educational qualifications). The exception is Figure 2.3 and Table A2.1 where data has been provided by the Australian Bureau of Statistics under the ABSCQ with vocational education and training qualifications obtained in the higher education sector classified as higher educational qualifications.

**TABLE A2.1: CONFIDENCE LIMITS: LABOUR FORCE BY HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT (PERSONS AGED 25-64), AUSTRALIA 2001 ('000)**

	1998	1999	2000	2001	Annual rate of increase 1998 to 2001
<b>With post-school qualifications</b>	<b>3 897</b> (3 853-3 941)	<b>4 063</b> (4 015-4 111)	<b>4 169</b> (4 122-4 216)	<b>4 383</b> (4 337-4 416)	<b>4.0</b>
Higher education qualification	1 871 (1 839-1 903)	1 945 (1 914-1 977)	2 068 (2 033-2 103)	2 203 (2 170-2 236)	5.6
Vocational education and training	2 026 (1 994-2 058)	2 117 (2 086-2 149)	2 102 (2 067-2 137)	2 180 (2 147-2 220)	2.5
<b>Without post-school qualifications</b>	<b>3 417</b> (3 372-3 461)	<b>3 291</b> (3 243-3 339)	<b>3 395</b> (3 348-3 442)	<b>3 280</b> (3 240-3 349)	<b>-1.4</b>
Total	7 315 (7 260-7 371)	7 354 (7 270-7 439)	7 565 (7 507-7 623)	7 663 (7 594-7 663)	1.6

Notes: The classification of qualifications used here is based on the Australian Bureau of Statistics Classification of Qualifications (ABSCQ). Includes persons who never attended school. Includes persons whose study was not intended to result in a recognised educational qualification. Confidence limits are provided in brackets.

Source: Australian Bureau of Statistics, Education and Work, unpublished data.

**TABLE A2.2: PROPORTION OF INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME <sup>(a)</sup>,  
2000-2001 (PER CENT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Agriculture, forestry and fishing	3	4	5	5	4	7	4	0	4
Mining	2	2	6	3	23	2	31	0	5
Manufacturing	13	16	10	15	9	15	4	2	13
Electricity, gas and water supply	2	3	2	3	3	6	2	3	3
Construction	6	5	6	5	6	5	3	6	6
Wholesale trade	5	5	5	4	4	3	2	2	5
Retail trade	5	5	7	6	5	6	4	5	5
Accommodation, cafes and restaurants	3	2	4	3	2	3	3	3	3
Transport and storage	5	5	6	5	5	5	4	3	5
Communication services	3	4	3	3	3	3	3	2	3
Finance and insurance	9	8	5	6	4	5	2	4	7
Property and business services	14	14	10	10	10	5	7	14	12
Government administration and defence	3	2	4	3	2	5	8	25	3
Education	4	5	5	5	3	5	5	6	4
Health and community services	6	6	6	7	6	9	6	6	6
Cultural and recreational services	2	2	2	2	1	1	2	3	2
Personal and other services	2	2	3	3	2	2	2	3	2
Ownership of dwellings	12	9	9	10	7	9	5	8	10
General government <sup>(b)</sup>	2	2	3	2	2	3	3	5	2
All industries	100	100	100	100	100	100	100	100	100

Source: Australian Bureau of Statistics, catalogue number 5220.0, 2000-01.

(a) The figures may not add up to total due to rounding.

(b) Data on state by industry details of gross operating surplus are not available.

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## ECONOMIC GROWTH AND INDUSTRY ACTIVITY

The economy grew by 2.6% in real terms over 2001. Industry gross value added in real terms in the services sector and mining sectors grew by 3.7% and 1.9% respectively. Industry gross value added in real terms contracted by 1.3% and 3.8%, respectively, in the manufacturing and agriculture sectors.

Overall, the services sector<sup>29</sup> contributed 77.2% of gross domestic product in 2001<sup>30</sup> and 82% of employment. Manufacturing contributed 13.7% of gross industry value added (excluding ownership of dwellings) and was the largest provider of full-time employment in 2000-01 at 12.4%. The mining and agriculture industry sectors contributed 5.5% and 3.6% to gross domestic product, respectively. There are differences in the relative importance of industry sectors across States and Territories.

[Table A2.2]

Table A2.3 shows growth rates for the major industry sectors for 2000-01 and the previous five years. In 2000-01, cultural and recreational services was the fastest growing industry sector, with growth of 12%.

The decline in construction activity in 2000-01 (decline of 17% in 2001) was reversed in the second half of 2001 largely because of lower interest rates, strong demand from investors and government support for first home owners. Dwelling investment increased by 22% and expenditure on alterations and additions increased by 16% over 2001.

**TABLE A2.3: AVERAGE ANNUAL GROSS VALUE ADDED GROWTH RATES BY INDUSTRY AVERAGE, 1999-2000 PRICES (PER CENT)**

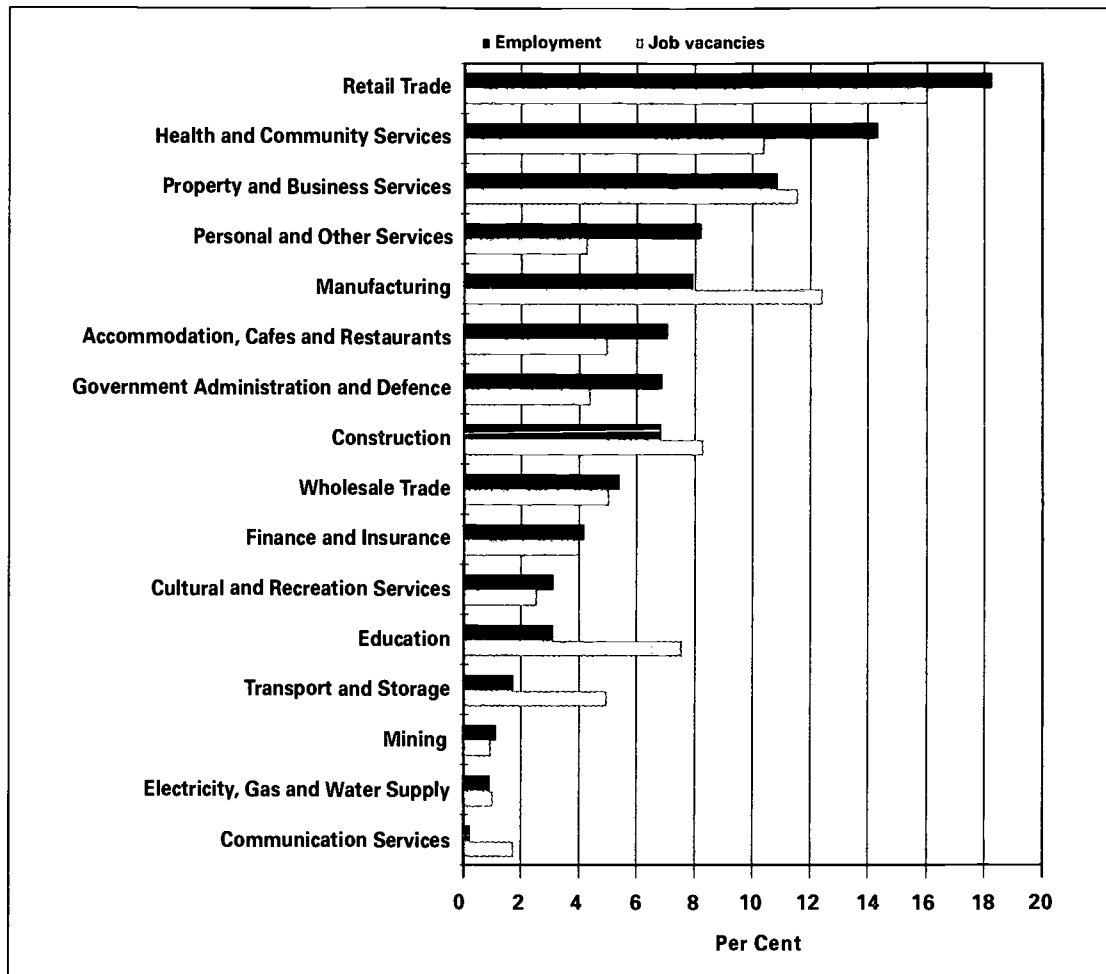
	Average annual rate of growth (%)	
	Five year period 1996-97 to 2000-01	One year period 1999-00 to 2000-01
Agriculture, forestry and fishing	1.5	-0.3
Mining	3.8	5.4
Manufacturing	2.0	0.2
Electricity, gas and water supply	2.1	2.9
Construction	0.7	-17.4
Wholesale trade	3.3	0.2
Retail trade	2.8	0.8
Accommodation, cafes and restaurants	4.0	2.9
Transport and storage	1.8	1.4
Communication services	8.0	9.0
Finance and insurance	4.7	4.6
Property and business services	6.2	9.7
Government administration and defence	1.3	2.9
Education	1.5	1.8
Health and community services	3.1	7.2
Cultural and recreational services	4.8	12.3
Personal and other services	4.2	3.1
Ownership of dwellings	3.2	4.1
All industries	3.3	2.5

Source: Australian Bureau of Statistics, catalogue number 1350.0, May 2002.

29 The services sector includes construction, wholesale and retail trade, transport and storage, finance and insurance, property and business services, electricity, gas and water, communication services, education, health, government administration and defence.

30 Australian Industry 2001: Key facts, Department of Industry, Tourism and Resources.

**FIGURE A2.1: JOB VACANCIES AND EMPLOYMENT BY INDUSTRY, AUSTRALIA NOVEMBER 2001 (PER CENT)**



Source: Australian Bureau of Statistics, catalogue number 6354.0, November 2001 and Australian Bureau of Statistics catalogue number 6203.0, November 2001.

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**TABLE A2.4: AGE DISTRIBUTION OF EMPLOYED PERSONS BY INDUSTRY, MAY 2001 (PER CENT)**

	Age in years (per cent)						Total
	15-19	20-24	25-34	35-44	45-54	Over 55	
Agriculture, forestry & fishing	5.6	7.2	18.0	24.0	20.0	25.3	100.0
Mining	0.8	5.2	29.1	32.4	26.8	5.5	100.0
Manufacturing	3.8	10.0	27.0	26.2	23.1	9.9	100.0
Electricity, gas & water supply	1.5	5.5	25.0	29.9	27.9	10.4	100.0
Construction	5.3	10.7	26.0	25.8	22.2	10.1	100.0
Wholesale trade	3.5	10.8	23.7	27.9	22.8	11.3	100.0
Retail trade	24.7	15.8	19.1	17.2	15.5	7.7	100.0
Accommodation, cafes & restaurants	14.6	18.6	23.8	20.2	14.3	8.5	100.0
Transport and storage	2.3	8.1	25.1	27.5	24.8	12.3	100.0
Communication services	2.1	9.8	29.0	30.0	22.1	7.1	100.0
Finance and insurance	2.3	11.7	33.6	28.0	18.1	6.3	100.0
Property and business services	3.7	11.4	28.2	23.9	21.2	11.6	100.0
Government administration & defence	1.7	6.4	24.5	30.4	27.0	10.0	100.0
Education	1.4	7.3	18.6	27.6	32.4	12.8	100.0
Health & community services	2.6	8.6	21.9	28.9	25.8	12.2	100.0
Cultural & recreational services	11.2	13.2	28.8	20.6	17.6	8.5	100.0
Personal & other services	7.3	11.2	28.5	24.5	20.3	8.3	100.0
All industries	7.3	11.0	24.3	24.9	21.8	10.7	100.0

Source: Australian Bureau of Statistics, Australia Labour Force, May 2001, catalogue number 6203.0

**TABLE A2.5: CONFIDENCE LIMITS: UNMET DEMAND FOR POST-SCHOOL EDUCATION AND TRAINING BY PROVIDER SECTOR, AUSTRALIA 2001**

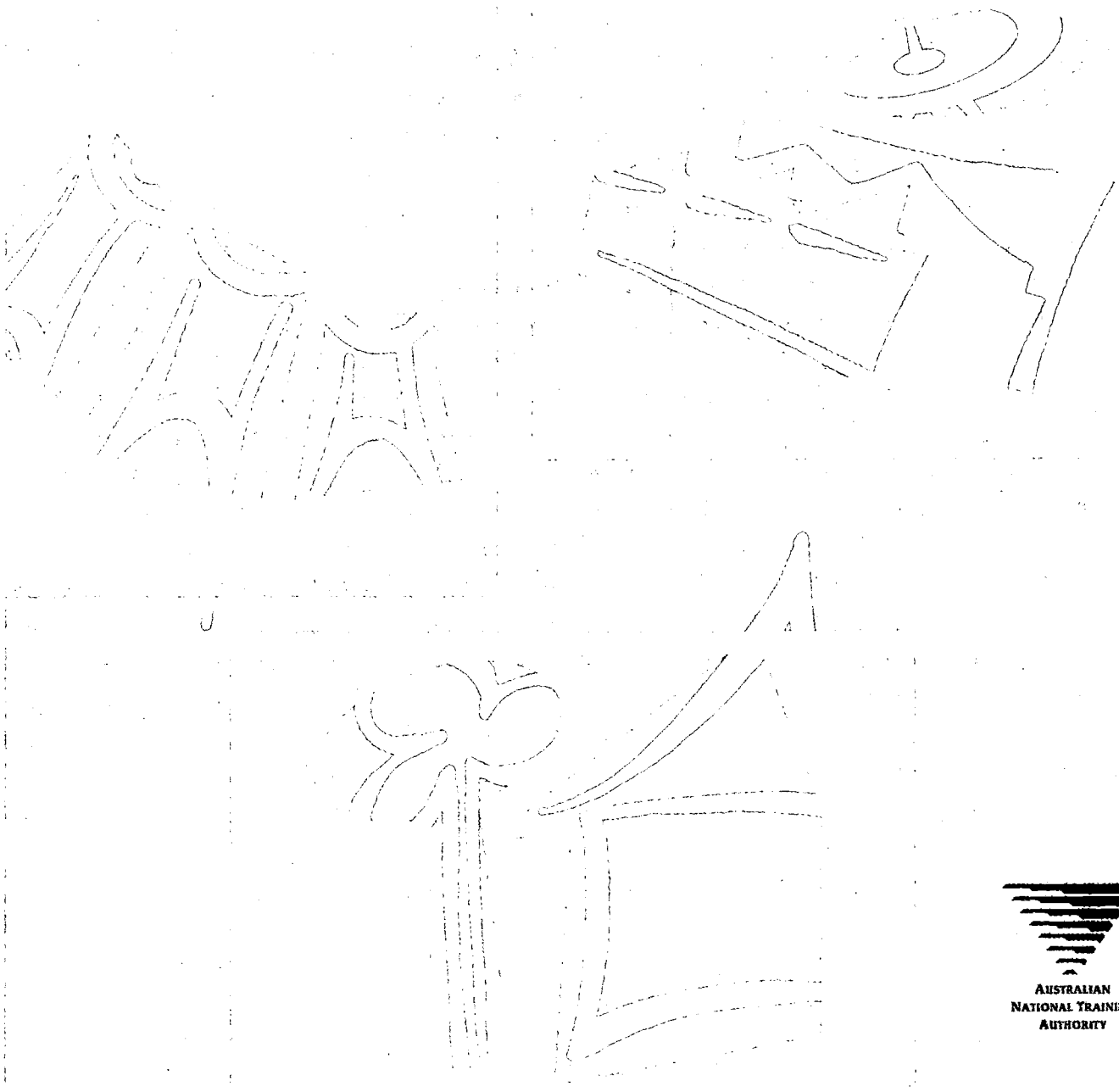
	1998	1999	2000	2001
<i>TAFE</i>	35 200 (29 100-41 300)	45 800 (38 300-53 300)	40 500 (33 160-47 840)	34 600 (28 000-38 700)
<i>Other vocational education and training*</i>	12 900 (9 100-16 700)	13 100 (8 900-17 300)	13 800 (9 400-18 200)	12 000 (8 000-19 600)
Total vocational education and training	48 100 (41 200-55 000)	58 900 (50 700-67 100)	54 300 (45 900-62 700)	46 700 (39 100-52 000)
Higher education	22 900 (17 900-27 900)	20 000 (14 800-25 200)	18 800 (13 700-23 900)	21 400 (16 000-25 200)
Other educational institutions	12 500 (8 800-16 200)	13 400 (9 200-17 600)	13 000 (8 800-17 200)	11 200 (7 300-20 400)
<b>Total unmet demand</b>	<b>83 500</b> <b>(75 300-91 700)</b>	<b>92 300</b> <b>(82 500-102 100)</b>	<b>86 000</b> <b>(75 200-96 200)</b>	<b>79 200</b> <b>(70 000-79 200)</b>

\*Includes persons wishing to enrol in a program which does not (of itself) result in a recognised qualification.  
Source: Australian Bureau of Statistics, Education and Work, catalogue number 6227.0, unpublished data and confidence intervals supplied by the Australian Bureau of Statistics. Totals may not add up due to rounding.

# Appendix:

## Key Performance Measure 3

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## SURVEY OF EMPLOYER VIEWS ON VOCATIONAL EDUCATION AND TRAINING

The 2001 Survey of Employer Views on Vocational Education and Training is the fourth survey of this nature. Previous surveys were conducted in 1995, 1997 and 1999. For the 2001 survey, a review of the survey content was conducted which resulted in changes to some of the data collected in respect of employers of recent vocational education and training graduates. For this group, the 2001 survey has a stronger focus on graduates' skills compared to earlier surveys. Also, over time, the survey scope has broadened and, for the first time in 2001, representatives of each of the three identified employer types were included. The three employer types are:

- employers with at least one employee who completed a vocational education and training course of at least 200 hours within the two years prior to the survey. Such employees are termed recent vocational education and training graduates
- employers with no vocational education and training graduates in their employ, recent or otherwise. This group was introduced into the survey in 1999
- employers with graduates of the vocational education and training system in their employ, yet none of whom had graduated recently (viz. non-recent vocational education and training graduates). This group was introduced into the survey in 2001.

A response rate of 76% was achieved for the 2001 survey and a weighting design was implemented to account for the differential response rates across industry type, industry size and State/Territory jurisdiction.

As in previous years, the survey was a sample that provided estimates of the results that would be found had all employers in Australia been included. Accordingly, an allowance for sampling variability should be made when using the results.

Sampling variability can be measured by the 'standard error' which indicates the extent to which an estimate might have varied by chance because only a sample of employers had been included rather than a full census. In terms of confidence intervals, we can be 95% confident that the true percentage value lies within two standard errors of the estimated value.

Figures with a relative standard error of 25% or more are marked with '\*' because estimates with sampling variability of this magnitude are not reliable for most practical purposes. Comparisons have been made and conclusions have been drawn in this report where the results are statistically significant at the 95% confidence level.

Where estimates are presented in tables, an approximate guide to the allowance, which should be made at a 95% confidence interval, can be gained from the standard error tables in this appendix.

## STATE/TERRITORY DATA

**TABLE A3.1: APPROPRIATENESS OF GRADUATES' SKILLS (EMPLOYERS WITH RECENT GRADUATES)<sup>(a)</sup>, STATE/TERRITORY 2001 (PER CENT)**

The system is providing graduates with skills appropriate to the needs of employers	NSW n=547	Vic n=526	Qld n=428	SA n=438	WA n=409	Tas n=367	NT n=263	ACT n=293	Aust n=3 271
Agree	69	72	70	65	61	70	67	79	69
Neither agree nor disagree	20	15	15	17	17	16	14	10	17
Disagree	9	12	15	17	22	13	17	10	13

(a) Totals may not add up to 100 because of 'don't know' responses.

Source: Survey of Employer Views.

**TABLE A3.2: SATISFACTION WITH VARIOUS GRADUATES' SKILLS (EMPLOYERS WITH RECENT GRADUATES)<sup>(a)</sup>, STATE/TERRITORY 2001 (PER CENT)**

	NSW n=547	Vic n=526	Qld n=428	SA n=438	WA n=409	Tas n=367	NT n=263	ACT n=293	Aust n=3 271
Very satisfied	40	39	46	40	37	46	37	45	41
Moderately satisfied	42	39	36	35	34	38	34	28	38
Neither	6	7	9	8	10	6	11	13	8
Dissatisfied	3	8	7	8	19	8	13	5	6

(a) Totals may not add up to 100 because of 'don't know' responses.

Source: Survey of Employer Views.

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## STANDARD ERROR TABLES

The standard error tables provided below should be used as a guide to the 95% confidence interval on an estimate by using the size of the sample or population on which an estimate is based, in conjunction with the size of the estimate itself.

There are several different populations on which estimates are based and a separate standard error look-up table is provided for each group:

- Table A Employers with recent vocational education and training graduates, of whom, at least one completed training after commencing their current employment (population A)
- Table B Employers with recent vocational education and training graduates, all of whom, completed training before commencing their current employment (population B)
- Table C Employers with no vocational education and training graduates (population C)
- Table D Employers with vocational education and training graduates, all of whom, completed their qualification more than two years ago (ie 'non recent' vocational education and training graduates) (population D)

Table AB Employers with recent vocational education and training graduates (population A+B)

Table 1 shows estimates for employers with recent vocational education and training graduates in the left two columns, employers with no recent vocational education and training graduates in the centre column (ie had vocational education and training graduates, but all were 'non recent') and employers with no vocational education and training graduates (recent or otherwise) in the right two columns. This means the estimates in the left two columns of the table are based on population A+B, the estimates in the centre column are based on population D and estimates in the right two columns are based on population C. In this appendix, the standard error look-up table for population A+B is table AB, for population D it is table D, and for population C, table C.

**TABLE 1: EMPLOYERS BY CHOICE OF TRAINING PROVIDER (PER CENT)**

Choice of training provider	Employers with recent VET graduates		Employers with no recent VET graduates <sup>(n)</sup>	Employers with no VET graduates	
	1999	2001	2001	1999	2001
More likely to choose TAFE	42	41	45	36	36
More likely to choose non-TAFE training provider	20	16	16	13	13
It would depend	34	36	32	31	34
Can't say at this stage	4	6	7	19	17
Total	100	100	100	100	100



### Example 1

The left column of Table 1 with 2001 data shows the survey estimated that 41% of employers with recent vocational education and training graduates reported they would be more likely to choose TAFE for a training provider. Standard error table AB shows the sample size upon which this estimate is based was 3,271. The table of standard errors also shows that for a sample size of 3,271, and a survey estimate of 40% (the closest to 41%), two standard errors is  $\pm 1.7\%$ . In terms of confidence intervals, we can be close to 95% confident that the true percentage of employers with vocational education and training graduates who would choose TAFE, lies between 39.3% and 42.7%.

### Example 2

The right column of Table 1 shows the survey estimated in 2001 that 13% of employers with no vocational education and training graduates reported they would be more likely to choose a non-TAFE training provider. Standard error table C shows the sample size upon which this estimate is based was 2,500. The table of standard errors also shows that for a sample size of 2,500, and a survey estimate of 15% (the closest to 13%), two standard errors is  $\pm 1.4\%$ . In terms of confidence intervals, we can be close to 95% confident that the true percentage of employers with no vocational education and training graduates who would choose non-TAFE lies between 11.6% and 14.4%.

### Example 3

Table 2 shows views on course delivery for employers of recent vocational education and training graduates, of whom, at least one completed their training after commencing their current employment, that is, population A. The survey estimated that 29% of employers in Tasmania were very satisfied with the relevance of course content. Standard error table A shows, the sample size for Tasmania was 285. The standard error table A also shows that for the sample size of 285, and a survey estimate of 30%, (the closest to 29%), two standard errors is  $\pm 5.0\%$ . In this case, one standard error is  $\pm 2.5\%$  and the relative standard error for the example would be, approximately, 8.6%. In terms of confidence intervals, we can be close to 95% confident that the true percentage of this group of employers in Tasmania who were very satisfied with the relevance of the course content lies between 24% and 34%.

**TABLE 2: EMPLOYERS' SATISFACTION WITH RELEVANCE OF COURSE CONTENT (PER CENT)**

Satisfaction Level	NSW n=426	Vic n=413	Qld n=350	SA n=319	WA n=311	Tas n=285	NT n=200	ACT n=213	Aust n=2 517
1. Very satisfied	20	22	33	19	22	29	19	20	23
2. Quite satisfied	61	53	44	56	52	50	52	55	54
3. Neither satisfied nor dissatisfied	8	17	10	8	12	12	14	10	11
4. Quite dissatisfied	3	6	8	7	5	3	9	6	5
5. Very dissatisfied	2	1	2	4	8	4	2	1	2
Can't say	6	2	3	6	1	3	3	8	4
Total	100	100	100	100	100	100	100	100	100

**TABLE A: EMPLOYERS WITH RECENT VOCATIONAL EDUCATION AND TRAINING GRADUATES, OF WHOM AT LEAST ONE COMPLETED TRAINING AFTER COMMENCING THEIR CURRENT EMPLOYMENT (POPULATION A) 2 STANDARD ERRORS PERCENTAGE FOR ESTIMATED PROPORTION (+- THIS VALUE FOR 95 PER CENT CONFIDENCE INTERVAL)**

Strata	Pop'n	Sample	5%/95%	10%/90%	15%/85%	20%/80%	25%/75%	30%/70%	35%/65%	40%/60%	45%/55%	50%
Agriculture	3 968	37	7.0%	9.6%	11.4%	12.8%	13.8%	14.6%	15.2%	15.6%	15.9%	16.0%
Mining	260	41	6.4%	8.8%	10.5%	11.8%	12.8%	13.5%	14.1%	14.4%	14.7%	14.7%
Manufacturing	7 354	288	2.5%	3.4%	4.1%	4.5%	4.9%	5.2%	5.4%	5.6%	5.7%	5.7%
Electricity	93	25	8.3%	11.4%	13.6%	15.3%	16.5%	17.5%	18.2%	18.7%	19.0%	19.1%
Construction	13 089	124	3.8%	5.2%	6.2%	7.0%	7.6%	8.0%	8.3%	8.6%	8.7%	8.7%
Wholesale	2 758	95	4.3%	6.0%	7.1%	8.0%	8.6%	9.1%	9.5%	9.8%	9.9%	10.0%
Retail	14 557	230	2.8%	3.8%	4.6%	5.1%	5.6%	5.9%	6.1%	6.3%	6.4%	6.4%
Accommodation	5 291	193	3.0%	4.1%	4.9%	5.5%	6.0%	6.3%	6.6%	6.7%	6.8%	6.9%
Transport	2 226	94	4.3%	6.0%	7.1%	8.0%	8.6%	9.1%	9.5%	9.7%	9.9%	9.9%
Communications	1 170	23	8.8%	12.2%	14.5%	16.2%	17.6%	18.6%	19.4%	19.9%	20.2%	20.3%
Finance	2 475	155	3.3%	4.6%	5.5%	6.1%	6.6%	7.0%	7.3%	7.5%	7.6%	7.7%
Property	9 669	250	2.7%	3.7%	4.4%	4.9%	5.3%	5.6%	5.8%	6.0%	6.1%	6.1%
Government	1 313	238	2.4%	3.4%	4.0%	4.5%	4.9%	5.1%	5.4%	5.5%	5.6%	5.6%
Education	3 967	158	3.3%	4.5%	5.4%	6.1%	6.6%	6.9%	7.2%	7.4%	7.5%	7.6%
Health	11 256	347	2.2%	3.1%	3.7%	4.1%	4.5%	4.7%	4.9%	5.1%	5.1%	5.2%
Cultural	2 156	85	4.5%	6.2%	7.4%	8.3%	9.0%	9.5%	9.9%	10.1%	10.3%	10.3%
Personal	7 049	134	3.7%	5.0%	6.0%	6.7%	7.3%	7.7%	8.0%	8.2%	8.3%	8.4%
Total	88 650	2 517	0.8%	1.2%	1.4%	1.5%	1.7%	1.8%	1.8%	1.9%	1.9%	1.9%
<b>Size</b>												
Small	38 741	874	1.4%	2.0%	2.4%	2.6%	2.9%	3.0%	3.1%	3.2%	3.3%	3.3%
Medium	32 016	921	1.4%	1.9%	2.2%	2.5%	2.7%	2.9%	3.0%	3.1%	3.1%	3.1%
Large	17 893	722	1.5%	2.1%	2.5%	2.8%	3.0%	3.2%	3.3%	3.4%	3.4%	3.5%
Total	88 650	2 517	0.8%	1.2%	1.4%	1.5%	1.7%	1.8%	1.8%	1.9%	1.9%	1.9%
<b>State/Territory</b>												
New South Wales	33 223	426	2.1%	2.8%	3.4%	3.8%	4.1%	4.3%	4.5%	4.6%	4.7%	4.7%
Victoria	14 884	413	2.1%	2.9%	3.4%	3.8%	4.1%	4.4%	4.6%	4.7%	4.7%	4.8%
Queensland	17 369	350	2.3%	3.1%	3.7%	4.1%	4.5%	4.7%	4.9%	5.1%	5.2%	5.2%
South Australia	9 534	319	2.3%	3.2%	3.8%	4.3%	4.6%	4.9%	5.1%	5.3%	5.3%	5.4%
Western Australia	7 494	311	2.4%	3.3%	3.9%	4.4%	4.7%	5.0%	5.2%	5.3%	5.4%	5.5%
Tasmania	3 184	285	2.4%	3.3%	3.9%	4.3%	4.7%	5.0%	5.2%	5.3%	5.4%	5.4%
Northern Territory	1 157	200	2.7%	3.7%	4.4%	4.9%	5.3%	5.6%	5.8%	6.0%	6.1%	6.1%
Australian Capital Territory	1 803	213	2.7%	3.7%	4.4%	5.0%	5.4%	5.7%	5.9%	6.1%	6.2%	6.2%
Total	88 650	2 517	0.8%	1.2%	1.4%	1.5%	1.7%	1.8%	1.8%	1.9%	1.9%	1.9%

**TABLE B: EMPLOYERS WITH RECENT VOCATIONAL EDUCATION AND TRAINING GRADUATES, ALL OF WHOM COMPLETED TRAINING BEFORE COMMENCING THEIR CURRENT EMPLOYMENT (POPULATION B) 2 STANDARD ERRORS PERCENTAGE FOR ESTIMATED PROPORTION (+- THIS VALUE FOR 95 PER CENT CONFIDENCE INTERVAL)**

Strata	Pop'n	Sample	5%/95%	10%/90%	15%/85%	20%/80%	25%/75%	30%/70%	35%/65%	40%/60%	45%/55%	50%
Agriculture	739	9	14.1%	19.4%	23.1%	25.9%	28.0%	29.6%	30.8%	31.7%	32.2%	32.3%
Mining	652	11	12.1%	16.6%	19.8%	22.1%	24.0%	25.4%	26.4%	27.1%	27.5%	27.7%
Manufacturing	8 027	61	5.4%	7.5%	8.9%	10.0%	10.8%	11.4%	11.9%	12.2%	12.4%	12.4%
Electricity	9	4	21.1%	29.0%	34.6%	38.7%	41.9%	44.4%	46.2%	47.4%	48.2%	48.4%
Construction	2 134	30	7.7%	10.6%	12.7%	14.2%	15.4%	16.3%	16.9%	17.4%	17.7%	17.7%
Wholesale	2 123	26	8.3%	11.4%	13.6%	15.2%	16.5%	17.4%	18.1%	18.6%	18.9%	19.0%
Retail	5 179	56	5.7%	7.8%	9.3%	10.4%	11.3%	11.9%	12.4%	12.8%	13.0%	13.0%
Accommodation	1 797	68	5.1%	7.1%	8.4%	9.4%	10.2%	10.8%	11.2%	11.5%	11.7%	11.8%
Transport	1 818	43	6.4%	8.8%	10.4%	11.7%	12.7%	13.4%	14.0%	14.3%	14.6%	14.6%
Communications	47	7	15.7%	21.6%	25.8%	28.9%	31.2%	33.1%	34.4%	35.3%	35.9%	36.1%
Finance	513	31	7.4%	10.2%	12.1%	13.6%	14.7%	15.5%	16.2%	16.6%	16.9%	16.9%
Property	5 377	107	4.1%	5.6%	6.7%	7.5%	8.1%	8.6%	9.0%	9.2%	9.3%	9.4%
Government	89	50	4.3%	5.9%	7.0%	7.8%	8.5%	9.0%	9.3%	9.6%	9.8%	9.8%
Education	1 078	51	5.8%	8.0%	9.5%	10.6%	11.5%	12.2%	12.6%	13.0%	13.2%	13.3%
Health	5 660	132	3.7%	5.0%	6.0%	6.7%	7.3%	7.7%	8.0%	8.2%	8.4%	8.4%
Cultural	732	35	7.0%	9.7%	11.5%	12.9%	14.0%	14.8%	15.4%	15.8%	16.0%	16.1%
Personal	1 904	33	7.4%	10.2%	12.1%	13.6%	14.7%	15.6%	16.2%	16.6%	16.9%	17.0%
Total	37 878	754	1.5%	2.1%	2.5%	2.8%	3.1%	3.2%	3.4%	3.5%	3.5%	3.5%
<b>Size</b>												
Small	31 009	400	2.1%	2.9%	3.5%	3.9%	4.2%	4.5%	4.6%	4.8%	4.8%	4.9%
Medium	6 308	262	2.6%	3.6%	4.2%	4.7%	5.1%	5.4%	5.7%	5.8%	5.9%	5.9%
Large	561	92	4.1%	5.6%	6.7%	7.5%	8.1%	8.6%	8.9%	9.2%	9.3%	9.4%
Total	37 878	754	1.5%	2.1%	2.5%	2.8%	3.1%	3.2%	3.4%	3.5%	3.5%	3.5%
<b>State/Territory</b>												
New South Wales	17 978	121	3.9%	5.3%	6.3%	7.1%	7.7%	8.1%	8.5%	8.7%	8.8%	8.9%
Victoria	7 051	113	4.0%	5.5%	6.5%	7.3%	7.9%	8.4%	8.7%	9.0%	9.1%	9.2%
Queensland	5 938	78	4.8%	6.6%	7.9%	8.8%	9.6%	10.1%	10.5%	10.8%	11.0%	11.0%
South Australia	2 577	119	3.8%	5.3%	6.3%	7.0%	7.6%	8.1%	8.4%	8.6%	8.7%	8.8%
Western Australia	2 441	98	4.2%	5.8%	7.0%	7.8%	8.4%	8.9%	9.3%	9.6%	9.7%	9.7%
Tasmania	816	82	4.5%	6.2%	7.4%	8.3%	8.9%	9.5%	9.9%	10.1%	10.3%	10.3%
Northern Territory	293	63	4.9%	6.7%	8.0%	9.0%	9.7%	10.3%	10.7%	11.0%	11.2%	11.2%
Australian Capital Territory	785	80	4.4%	6.1%	7.3%	8.2%	8.8%	9.3%	9.7%	10.0%	10.1%	10.2%
Total	37 878	754	1.5%	2.1%	2.5%	2.8%	3.1%	3.2%	3.4%	3.5%	3.5%	3.5%

**TABLE C: EMPLOYERS WITH NO VOCATIONAL EDUCATION AND TRAINING GRADUATES  
(POPULATION C) 2 STANDARD ERRORS PERCENTAGE FOR ESTIMATED PROPORTION  
(+- THIS VALUE FOR 95 PER CENT CONFIDENCE INTERVAL)**

Strata	Pop'n	Sample	5%/95%	10%/90%	15%/85%	20%/80%	25%/75%	30%/70%	35%/65%	40%/60%	45%/55%	50%
Agriculture	3 397	39	6.8%	9.4%	11.2%	12.5%	13.6%	14.3%	14.9%	15.3%	15.6%	15.7%
Mining	462	45	6.0%	8.3%	9.9%	11.1%	12.0%	12.7%	13.2%	13.6%	13.8%	13.9%
Manufacturing	13 287	171	3.3%	4.5%	5.3%	6.0%	6.5%	6.8%	7.1%	7.3%	7.4%	7.5%
Electricity	235	9	14.2%	19.5%	23.2%	26.0%	28.2%	29.8%	31.0%	31.8%	32.3%	32.5%
Construction	12 528	101	4.2%	5.8%	6.9%	7.8%	8.4%	8.9%	9.3%	9.5%	9.7%	9.7%
Wholesale	9 152	102	4.2%	5.8%	6.9%	7.7%	8.4%	8.9%	9.2%	9.5%	9.6%	9.7%
Retail	50 880	282	2.5%	3.5%	4.2%	4.7%	5.0%	5.3%	5.6%	5.7%	5.8%	5.8%
Accommodation	12 383	214	2.9%	4.0%	4.8%	5.3%	5.8%	6.1%	6.4%	6.5%	6.6%	6.7%
Transport	8 545	154	3.4%	4.7%	5.6%	6.3%	6.8%	7.2%	7.5%	7.7%	7.8%	7.8%
Communications	1 001	71	5.0%	6.8%	8.1%	9.1%	9.9%	10.5%	10.9%	11.2%	11.3%	11.4%
Finance	5 659	147	3.5%	4.8%	5.7%	6.4%	6.9%	7.3%	7.6%	7.8%	7.9%	8.0%
Property	22 492	288	2.5%	3.4%	4.1%	4.6%	5.0%	5.3%	5.5%	5.6%	5.7%	5.7%
Government	445	104	3.9%	5.4%	6.4%	7.2%	7.7%	8.2%	8.5%	8.8%	8.9%	8.9%
Education	7 231	188	3.1%	4.2%	5.0%	5.6%	6.1%	6.5%	6.7%	6.9%	7.0%	7.0%
Health	13 094	363	2.2%	3.1%	3.6%	4.1%	4.4%	4.7%	4.9%	5.0%	5.1%	5.1%
Cultural	2 642	76	4.8%	6.7%	7.9%	8.9%	9.6%	10.2%	10.6%	10.9%	11.1%	11.1%
Personal	10 027	146	3.5%	4.8%	5.7%	6.4%	7.0%	7.4%	7.7%	7.9%	8.0%	8.0%
Total	173 459	2 500	0.8%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	1.9%	1.9%	1.9%
<b>Size</b>												
Small	150 458	1 887	1.0%	1.3%	1.6%	1.8%	1.9%	2.1%	2.1%	2.2%	2.2%	2.2%
Medium	21 610	506	1.9%	2.6%	3.1%	3.5%	3.7%	4.0%	4.1%	4.2%	4.3%	4.3%
Large	1 391	107	4.1%	5.6%	6.6%	7.4%	8.1%	8.5%	8.9%	9.1%	9.2%	9.3%
Total	173 459	2 500	0.8%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	1.9%	1.9%	1.9%
<b>State/Territory</b>												
New South Wales	46 289	388	2.2%	3.0%	3.5%	4.0%	4.3%	4.5%	4.7%	4.9%	4.9%	5.0%
Victoria	46 241	429	2.1%	2.8%	3.4%	3.8%	4.1%	4.3%	4.5%	4.6%	4.7%	4.7%
Queensland	42 766	350	2.3%	3.1%	3.7%	4.2%	4.5%	4.8%	5.0%	5.1%	5.2%	5.2%
South Australia	8 905	311	2.4%	3.3%	3.9%	4.4%	4.8%	5.0%	5.3%	5.4%	5.5%	5.5%
Western Australia	20 669	320	2.4%	3.3%	3.9%	4.4%	4.7%	5.0%	5.2%	5.3%	5.4%	5.4%
Tasmania	3 820	282	2.5%	3.4%	4.1%	4.6%	4.9%	5.2%	5.4%	5.6%	5.7%	5.7%
Northern Territory	2 297	200	2.9%	4.0%	4.7%	5.3%	5.7%	6.1%	6.3%	6.5%	6.6%	6.6%
Australian Capital Territory	2 472	220	2.8%	3.8%	4.6%	5.1%	5.5%	5.9%	6.1%	6.3%	6.4%	6.4%
Total	173 459	2 500	0.8%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	1.9%	1.9%	1.9%

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**TABLE D: EMPLOYERS WITH NO RECENT VOCATIONAL EDUCATION AND TRAINING GRADUATES  
(POPULATION D) 2 STANDARD ERRORS PERCENTAGE FOR ESTIMATED PROPORTION  
(+- THIS VALUE FOR 95 PER CENT CONFIDENCE INTERVAL)**

Strata	Pop'n	Sample	5%/95%	10%/90%	15%/85%	20%/80%	25%/75%	30%/70%	35%/65%	40%/60%	45%/55%	50%
Agriculture	5 704	14	11.4%	15.7%	18.7%	21.0%	22.7%	24.0%	25.0%	25.7%	26.1%	26.2%
Mining	275	22	9.1%	12.5%	14.9%	16.7%	18.1%	19.1%	19.9%	20.5%	20.8%	20.9%
Manufacturing	16 471	127	3.8%	5.2%	6.2%	7.0%	7.5%	8.0%	8.3%	8.5%	8.7%	8.7%
Electricity	206	4	21.4%	29.4%	35.0%	39.2%	42.4%	44.9%	46.7%	48.0%	48.8%	49.0%
Construction	17 321	65	5.3%	7.3%	8.7%	9.7%	10.5%	11.1%	11.6%	11.9%	12.1%	12.2%
Wholesale	3 127	49	6.1%	8.4%	10.0%	11.2%	12.1%	12.8%	13.4%	13.7%	13.9%	14.0%
Retail	25 963	79	4.8%	6.6%	7.9%	8.8%	9.5%	10.1%	10.5%	10.8%	11.0%	11.0%
Accommodation	6 322	65	5.3%	7.3%	8.7%	9.7%	10.5%	11.1%	11.6%	11.9%	12.1%	12.2%
Transport	7 887	66	5.3%	7.2%	8.6%	9.7%	10.4%	11.1%	11.5%	11.8%	12.0%	12.1%
Communications	299	23	8.9%	12.3%	14.6%	16.3%	17.7%	18.7%	19.5%	20.0%	20.3%	20.4%
Finance	4 222	53	5.9%	8.1%	9.6%	10.8%	11.7%	12.3%	12.8%	13.2%	13.4%	13.5%
Property	15 133	124	3.8%	5.3%	6.3%	7.0%	7.6%	8.1%	8.4%	8.6%	8.8%	8.8%
Government	359	80	4.8%	6.6%	7.8%	8.8%	9.5%	10.0%	10.5%	10.7%	10.9%	11.0%
Education	4 406	69	5.1%	7.1%	8.4%	9.4%	10.2%	10.8%	11.3%	11.6%	11.7%	11.8%
Health	14 028	138	3.6%	5.0%	6.0%	6.7%	7.2%	7.6%	8.0%	8.2%	8.3%	8.3%
Cultural	2 051	25	8.5%	11.8%	14.0%	15.7%	17.0%	18.0%	18.7%	19.2%	19.5%	19.6%
Personal	8 616	47	6.2%	8.6%	10.2%	11.4%	12.4%	13.1%	13.6%	14.0%	14.2%	14.3%
Total	132 391	1 050	1.3%	1.8%	2.2%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%	3.0%
<b>Size</b>												
Small	112 128	519	1.9%	2.6%	3.1%	3.4%	3.7%	3.9%	4.1%	4.2%	4.3%	4.3%
Medium	18 920	424	2.1%	2.9%	3.4%	3.8%	4.1%	4.4%	4.5%	4.7%	4.7%	4.8%
Large	1 342	107	4.1%	5.7%	6.8%	7.6%	8.2%	8.7%	9.0%	9.3%	9.4%	9.5%
Total	132 391	1 050	1.3%	1.8%	2.2%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%	3.0%
<b>State/Territory</b>												
New South Wales	50 652	173	3.2%	4.5%	5.3%	6.0%	6.5%	6.8%	7.1%	7.3%	7.4%	7.5%
Victoria	27 152	187	3.1%	4.3%	5.1%	5.7%	6.2%	6.6%	6.8%	7.0%	7.1%	7.2%
Queensland	23 868	140	3.6%	5.0%	5.9%	6.6%	7.2%	7.6%	7.9%	8.1%	8.2%	8.3%
South Australia	8 931	127	3.8%	5.2%	6.2%	7.0%	7.5%	8.0%	8.3%	8.5%	8.7%	8.7%
Western Australia	14 665	125	3.8%	5.3%	6.3%	7.0%	7.6%	8.0%	8.4%	8.6%	8.7%	8.8%
Tasmania	3 689	120	3.9%	5.4%	6.4%	7.2%	7.7%	8.2%	8.5%	8.8%	8.9%	8.9%
Northern Territory	1 506	80	4.8%	6.6%	7.8%	8.8%	9.5%	10.0%	10.5%	10.7%	10.9%	11.0%
Australian Capital Territory	1 928	98	4.3%	5.9%	7.1%	7.9%	8.6%	9.1%	9.4%	9.7%	9.8%	9.9%
Total	132 391	1 050	1.3%	1.8%	2.2%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%	3.0%

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**TABLE AB: EMPLOYERS WITH RECENT VOCATIONAL EDUCATION AND TRAINING GRADUATES, OF WHOM AT LEAST ONE COMPLETED TRAINING AFTER COMMENCING THEIR CURRENT EMPLOYMENT (POPULATIONS A PLUS B) 2 STANDARD ERRORS PERCENTAGE FOR ESTIMATED PROPORTION (+- THIS VALUE FOR 95 PER CENT CONFIDENCE INTERVAL)**

Strata	Pop'n	Sample	5%/95%	10%/90%	15%/85%	20%/80%	25%/75%	30%/70%	35%/65%	40%/60%	45%/55%	50%
Agriculture	4 707	46	6.2%	8.6%	10.2%	11.5%	12.4%	13.1%	13.7%	14.0%	14.2%	14.3%
Mining	912	52	5.7%	7.8%	9.3%	10.4%	11.3%	11.9%	12.4%	12.8%	13.0%	13.0%
Manufacturing	15 381	349	2.3%	3.1%	3.7%	4.1%	4.5%	4.7%	4.9%	5.1%	5.1%	5.2%
Electricity	102	29	7.7%	10.7%	12.7%	14.2%	15.4%	16.3%	17.0%	17.4%	17.7%	17.8%
Construction	15 223	154	3.4%	4.7%	5.6%	6.3%	6.8%	7.2%	7.5%	7.7%	7.8%	7.8%
Wholesale	4 881	121	3.8%	5.3%	6.3%	7.1%	7.6%	8.1%	8.4%	8.7%	8.8%	8.8%
Retail	19 736	286	2.5%	3.5%	4.1%	4.6%	5.0%	5.3%	5.5%	5.6%	5.7%	5.8%
Accommodation	7 088	261	2.6%	3.6%	4.3%	4.8%	5.2%	5.5%	5.7%	5.8%	5.9%	6.0%
Transport	4 044	137	3.6%	4.9%	5.9%	6.6%	7.1%	7.5%	7.9%	8.1%	8.2%	8.2%
Communications	1 217	30	7.7%	10.6%	12.7%	14.2%	15.4%	16.3%	16.9%	17.4%	17.7%	17.7%
Finance	2 988	186	3.0%	4.2%	5.0%	5.6%	6.1%	6.4%	6.7%	6.9%	7.0%	7.0%
Property	15 046	357	2.2%	3.1%	3.7%	4.1%	4.4%	4.7%	4.9%	5.0%	5.1%	5.1%
Government	1 402	288	2.2%	3.0%	3.6%	4.0%	4.4%	4.6%	4.8%	4.9%	5.0%	5.0%
Education	5 045	209	2.9%	3.9%	4.7%	5.3%	5.7%	6.0%	6.3%	6.4%	6.5%	6.6%
Health	16 916	479	1.9%	2.6%	3.1%	3.5%	3.8%	4.0%	4.2%	4.3%	4.4%	4.4%
Cultural	2 888	120	3.8%	5.2%	6.2%	7.0%	7.5%	8.0%	8.3%	8.5%	8.7%	8.7%
Personal	8 953	167	3.3%	4.5%	5.4%	6.0%	6.5%	6.9%	7.2%	7.4%	7.5%	7.5%
Total	126 528	3 271	0.7%	1.0%	1.2%	1.4%	1.5%	1.5%	1.6%	1.7%	1.7%	1.7%
<b>Size</b>												
Small	69 750	1 274	1.2%	1.6%	1.9%	2.2%	2.4%	2.5%	2.6%	2.7%	2.7%	2.7%
Medium	38 324	1 183	1.2%	1.7%	2.0%	2.2%	2.4%	2.5%	2.6%	2.7%	2.8%	2.8%
Large	18 454	814	1.4%	1.9%	2.3%	2.6%	2.8%	3.0%	3.1%	3.2%	3.2%	3.2%
Total	126 528	3 271	0.7%	1.0%	1.2%	1.4%	1.5%	1.5%	1.6%	1.7%	1.7%	1.7%
<b>State/Territory</b>												
New South Wales	51 201	547	1.8%	2.5%	3.0%	3.3%	3.6%	3.8%	4.0%	4.1%	4.1%	4.2%
Victoria	21 935	526	1.8%	2.5%	3.0%	3.4%	3.7%	3.9%	4.0%	4.1%	4.2%	4.2%
Queensland	23 307	428	2.0%	2.8%	3.4%	3.8%	4.1%	4.3%	4.5%	4.6%	4.7%	4.7%
South Australia	12 111	438	2.0%	2.7%	3.3%	3.7%	4.0%	4.2%	4.4%	4.5%	4.6%	4.6%
Western Australia	9 935	409	2.1%	2.9%	3.4%	3.8%	4.1%	4.4%	4.5%	4.7%	4.7%	4.8%
Tasmania	4 000	367	2.1%	2.9%	3.4%	3.9%	4.2%	4.4%	4.6%	4.7%	4.8%	4.8%
Northern Territory	1 450	263	2.3%	3.2%	3.8%	4.3%	4.6%	4.9%	5.1%	5.3%	5.3%	5.4%
Australian Capital Territory	2 588	293	2.3%	3.2%	3.8%	4.2%	4.6%	4.9%	5.1%	5.2%	5.3%	5.3%
Total	126 528	3 271	0.7%	1.0%	1.2%	1.4%	1.5%	1.5%	1.6%	1.7%	1.7%	1.7%

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## BUSINESS SIZE OF EMPLOYERS

TABLE A3.3: EMPLOYERS BY EMPLOYMENT SIZE, 2001 (PER CENT)

	Employers with recent graduate employees	Employers with non-recent graduate employees	Employers with no graduate employees
Small employers (1 – 19 employees)	55	85	87
Medium employers (20 – 99 employees)	30	14	12
Large employers (100+ employees)	15	1*	1

\* Subject to high sampling variability

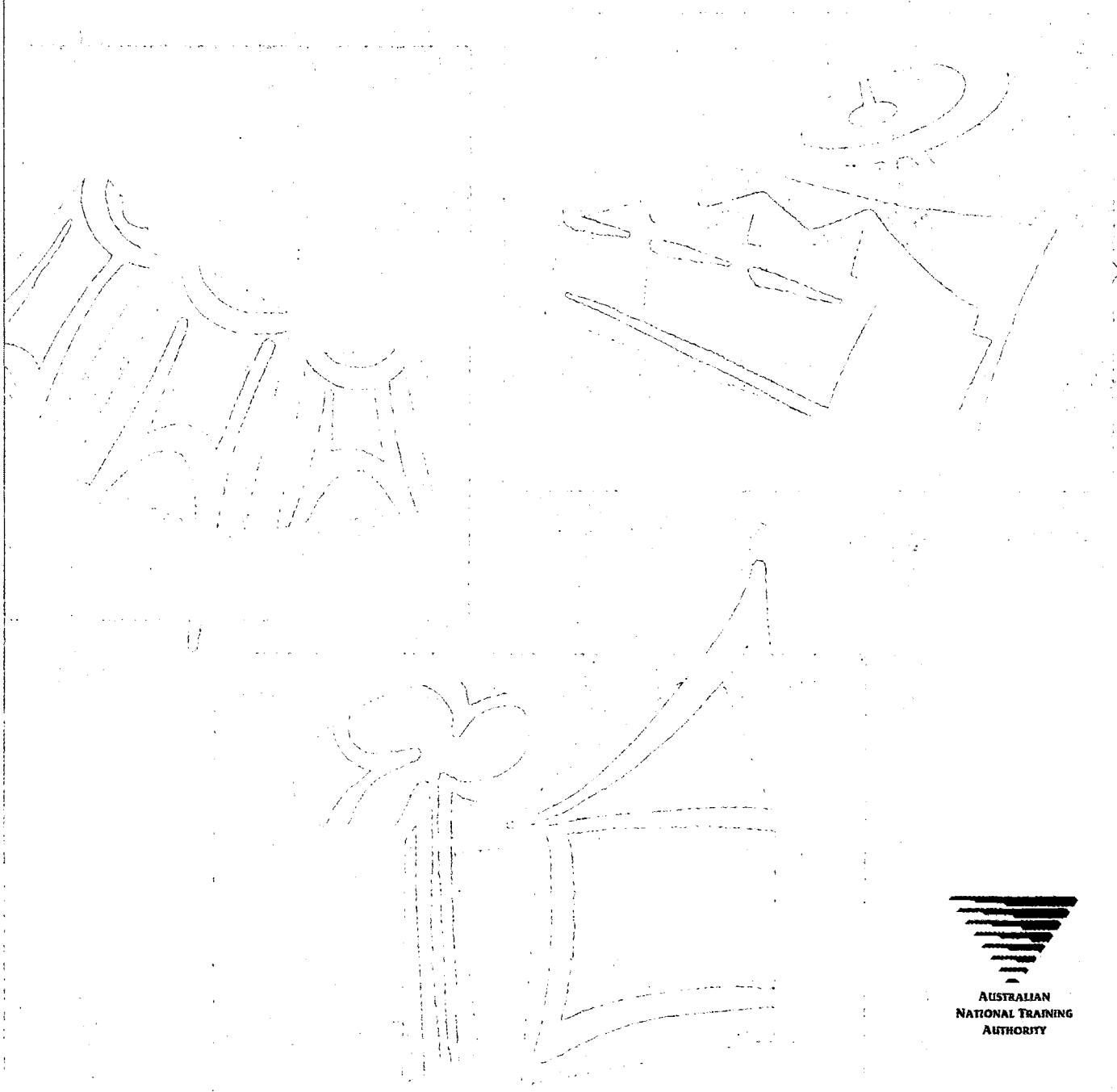
Of the 126,500 employers in 2001 who had recent vocational education and training graduate employees, the employment size distribution across small, medium and large employers was different from that of employers in the other two groups. Employers with non-recent graduate employees and employers with no graduate employees were quite similar to each other, both having a majority of small sized businesses.

Industry type does not appear to be a factor in the extent to which businesses have employed recent vocational education and training graduates, yet can be a factor in whether they employ vocational education and training graduates at all.

# Appendix:

## Key Performance Measure 4

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## STUDENT OUTCOMES SURVEY

The scope of the Student Outcomes Survey includes a stratified sample of graduates and 'module completers' from TAFE institutes only. Responses have been weighted to population benchmarks and all proportions derived from the survey are estimates only, having been calculated based on stated responses. The reliability of estimates is addressed later in this appendix.

TAFE graduates are defined as students who graduated from a TAFE institute in Australia in the year prior to the survey. 'Module completers' include students who successfully completed some training at a TAFE institute but had left the TAFE system by the time the survey was undertaken. The survey undertaken in 2001 was the third successive year that the Student Outcomes Survey was conducted in this form. Previous surveys that included only TAFE institute graduates were conducted in 1995, 1997 and 1998.

### Break in series

There was a break in the time series between 1999 and 2000 data due to:

- a widening in the definition of the survey from including only those graduates who undertook a course of at least 200 hours or one semester in duration, to including all graduates irrespective of the length of their course
- the selection of a sample (as opposed to a census) of graduates, the responses of which are weighted to population benchmarks, compared with previous surveys in which a census of all graduates was undertaken
- the removal of 'not stated' responses in the derivation of proportions.

However, even noting this break in series, most of the key outcome measures that are collected from the surveys have remained considerably stable since the data was first collected in 1995.

### Scope for graduates

For inclusion in the 2001 Student Outcomes Survey TAFE graduates were required to meet the following criteria.

- The graduate must have completed the requirements for their course during 2000 at a publicly funded TAFE institute in Australia. Also included were persons who were awarded a qualification as recognition for prior learning.
- The graduate must have been eligible for any of the following awards:
  - Diploma or Associate Diploma
  - Advanced Certificate - post trade or other
  - Certificate - trade or other
  - Australian Qualifications Framework - Bachelor's Degree; Advanced Diploma; Diploma; Certificates I - IV.
- Those persons who undertook recreational or hobby courses (short courses) were excluded from the survey.
- The graduate must have had an Australian address as their usual address.

From the population of graduates that met these criteria a sample was randomly selected, stratified by TAFE institute, field of study, gender, and age.

## Scope for 'module completers'

TAFE institute 'module completers' were required to meet the following criteria for inclusion in the survey.

- The 'module completer' must have successfully completed at least one module during 2000 at a publicly funded TAFE institute in Australia, and not be a graduate (as defined above).
- Those persons who undertook recreational or hobby courses (short courses) were excluded from the survey.
- The 'module completer' must have had an Australian address as their usual address.

## Reliability of estimates

Two types of error are possible in an estimate based on a survey: sampling error and non-sampling error.

A non-sampling error may occur for reasons such as non-response bias, incorrect responses, interviewer errors, attrition and processing errors.

A sampling error is a measure of the variability that occurs because a sample, rather than the entire population, responds to a survey. Since the estimates in this report are based on information provided by a sample these estimates are subject to sampling variability. That is, the estimated results may differ from the actual results that would have been produced if all graduates or 'module completers' had been included and had responded to the survey. One measure of the likely difference is given by the standard error. There are about nineteen chances in twenty (or 95%) that the difference between the real and estimated proportions will be less than two standard errors.

Standard errors enable us to calculate confidence intervals, or significance levels, for the estimates.

Significance levels in this context are defined as twice the standard error, which corresponds to a 95% confidence interval for the results. That is, if the survey were to be repeated there is a 95% chance that the new results obtained would be within the interval reported, plus or minus its significance level.

Significance levels are provided in Table 1. In this table the simple random sample formula for the calculation of variances has been used and the standard error is the square root of the variance. It should be noted that the significance limits relate to the sample size (that is, the number of actual respondents) on which an estimated proportion is based.

As an example of how to use Table 1, assume that the estimate of interest is the proportion of 'module completers' who were employed at 25 May 2001. This proportion is 67.2% and is based on a sample of 28,891 respondents (who in turn represent 216,656 'module completers'). Using Table 1, go to the nearest estimated proportion as identified across the top of the table (that is, 70%) and move down this column until you get to the closest sample size on which the proportion is based (30,000), which then gives a significance level of 0.4 percentage points. Therefore a 95% confidence interval is plus or minus 0.4 percentage points, that is, the true estimate for employed 'module completers' actually lies between 66.8% and 67.6%.

This table can be used for estimates for both graduates and 'module completers'.

**TABLE 1: ESTIMATES OF STANDARD ERRORS FOR SURVEY PERCENTAGES AT THE 95 PER CENT CONFIDENCE LIMIT (PERCENTAGE POINTS)**

Sample size	Estimated proportion								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
100	6.0	8.0	9.2	9.8	10.0	9.8	9.2	8.0	6.0
200	4.2	5.7	6.5	6.9	7.1	6.9	6.5	5.7	4.2
300	3.5	4.6	5.3	5.7	5.8	5.7	5.3	4.6	3.5
400	3.0	4.0	4.6	4.9	5.0	4.9	4.6	4.0	3.0
500	2.7	3.6	4.1	4.4	4.5	4.4	4.1	3.6	2.7
600	2.4	3.3	3.7	4.0	4.1	4.0	3.7	3.3	2.4
700	2.3	3.0	3.5	3.7	3.8	3.7	3.5	3.0	2.3
800	2.1	2.8	3.2	3.5	3.5	3.5	3.2	2.8	2.1
900	2.0	2.7	3.1	3.3	3.3	3.3	3.1	2.7	2.0
1 000	1.9	2.5	2.9	3.1	3.2	3.1	2.9	2.5	1.9
1 100	1.8	2.4	2.8	3.0	3.0	3.0	2.8	2.4	1.8
1 200	1.7	2.3	2.6	2.8	2.9	2.8	2.6	2.3	1.7
1 600	1.5	2.0	2.3	2.4	2.5	2.4	2.3	2.0	1.5
3 000	1.1	1.5	1.7	1.8	1.8	1.8	1.7	1.5	1.1
4 000	0.9	1.3	1.4	1.5	1.6	1.5	1.4	1.3	0.9
6 000	0.8	1.0	1.2	1.3	1.3	1.3	1.2	1.0	0.8
8 000	0.7	0.9	1.0	1.1	1.1	1.1	1.0	0.9	0.7
10 000	0.6	0.8	0.9	1.0	1.0	1.0	0.9	0.8	0.6
11 000	0.6	0.8	0.9	0.9	1.0	0.9	0.9	0.8	0.6
12 000	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.7	0.5
30 000	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3
42 000	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3

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## OCCUPATION GROUPS

- 1) managers and professionals:
  - managers and administrators
  - professionals
  - technicians and associate professionals
- 2) tradespersons:
  - tradespersons and related workers
- 3) advanced and intermediate workers:
  - advanced clerical and service workers
  - intermediate clerical, sales and service workers
  - intermediate production and transport workers
- 4) elementary workers and labourers:
  - elementary clerical, sales and service workers
  - labourers and related workers

## STATE/TERRITORY DATA

Caution should be exercised when comparing State/Territory information as set out below as each jurisdiction has different economic, demographic and social profiles. These factors are likely to have an impact on a range of vocational education and training-related outcomes. It should also be noted that students in the Northern Territory were less likely to respond to the survey than students from other jurisdictions. For example, in 2001, the response rates for TAFE graduates and TAFE 'module completers' in the Northern Territory were 37% and 32%, respectively. In comparison, at the national level in the same year, response rates of 53% and 41% were recorded respectively for these groups.

**TABLE A4.1: MAIN REASON FOR UNDERTAKING COURSE (VOCATIONAL VS NON-VOCATIONAL), STATE/TERRITORY 2001 (PER CENT)**

		Main reason for undertaking course	
		Vocational	Non-vocational
NSW	Graduates	72	28
	Module completers	60	40
Vic	Graduates	73	27
	Module completers	71	29
Qld	Graduates	76	24
	Module completers	63	37
SA	Graduates	83	18
	Module completers	71	29
WA	Graduates	73	27
	Module completers	59	41
Tas	Graduates	83	17
	Module completers	69	31
NT	Graduates	76	24
	Module completers	67	33
ACT	Graduates	75	25
	Module completers	70	30
Australia	Graduates	74	26
	Module completers	64	36

Source: NCVER Student Outcomes Survey, 2001.

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**TABLE A4.2: STUDENTS EMPLOYED AFTER TRAINING BY LABOUR FORCE STATUS BEFORE COURSE, STATE/TERRITORY 2001 (PER CENT)**

		Labour force status before course				Total Employed After
		Employed	Unemployed	Not in labour force	Not employed <sup>(a)</sup>	
NSW	Graduates	88	44	36	53	72
	Module completers	85	33	17	33	62
Vic	Graduates	89	45	42	50	74
	Module completers	88	39	29	45	75
Qld	Graduates	88	45	38	60	75
	Module completers	85	33	18	12*	65
SA	Graduates	93	60	59	59	85
	Module completers	90	34	26	35	75
WA	Graduates	86	47	37	54	70
	Module completers	86	41	20	38	70
Tas	Graduates	91	57	51	60	78
	Module completers	89	40	23	54	69
NT	Graduates	94	36	30	66	81
	Module completers	90	36	20	36	77
ACT	Graduates	89	59	60	66	81
	Module completers	89	44	38	50	77
Australia	Graduates	88	45	39	54	74
	Module completers	86	35	20	35	67

(a) These respondents did not provide enough information to be classified as unemployed or not in the labour force.

\* The relative standard error is greater than 25%. The estimate should therefore only be used with extreme caution.

Source: NCVER Student Outcomes Survey, 2001.

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**TABLE A4.3: LABOUR FORCE STATUS AFTER TRAINING OF STUDENTS EMPLOYED BEFORE TRAINING, STATE/TERRITORY 2001 (PER CENT)**

		Labour force status after course				Total Employed Before
		Employed	Unemployed	Not in labour force	Not employed <sup>(a)</sup>	
NSW	Graduates	80	31	25	29	65
	Module completers	84	29	21	30	61
Vic	Graduates	79	29	26	38	66
	Module completers	88	40	32	43	75
Qld	Graduates	83	33	31	24*	70
	Module completers	87	34	22	29	66
SA	Graduates	83	36	41	17*	76
	Module completers	90	37	25	46	75
WA	Graduates	77	36	26	39*	63
	Module completers	87	40	27	28*	70
Tas	Graduates	76	26	31	55*	66
	Module completers	82	30	18	24*	63
NT	Graduates	88	26*	22*	55*	76
	Module completers	92	38	34	36*	79
ACT	Graduates	78	43	40		71
	Module completers	86	40	32		74
Australia	Graduates	80	32	27	30	67
	Module completers	86	34	24	33	67

(a) These respondents did not provide enough information to be classified as unemployed or not in the labour force.

\* The relative standard error is greater than 25%. The estimate should therefore only be used with extreme caution.

Source: NCVET Student Outcomes Survey, 2001.

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**TABLE A4.4: ACHIEVED MAIN REASON FOR UNDERTAKING TRAINING BY LABOUR FORCE STATUS BEFORE TRAINING, STATE/TERRITORY 2001 (PERCENTAGE OF STUDENTS WHO WHOLLY OR PARTLY ACHIEVED THEIR MAIN REASON FOR UNDERTAKING TRAINING)**

		Labour force status before course				Group Total
		Employed	Unemployed	Not in labour force	Not employed <sup>(a)</sup>	
NSW	Graduates	83	68	76	83	80
	Module completers	76	55	73	71	72
Vic	Graduates	83	66	74	81	79
	Module completers	74	51	71	63	71
Qld	Graduates	85	63	77	78	81
	Module completers	74	50	65	69	69
SA	Graduates	87	79	81	82	85
	Module completers	78	50	72	69	74
WA	Graduates	80	66	73	83	77
	Module completers	72	50	73	71	70
Tas	Graduates	83	64	72	73	77
	Module completers	78	58	71	77	73
NT	Graduates	88	55	71	78	84
	Module completers	83	69	65	64	79
ACT	Graduates	82	70	80	85	80
	Module completers	69	56	66	63	67
Australia	Graduates	83	67	75	82	80
	Module completers	75	53	71	69	71

(a) These students did not provide enough information to be classified as unemployed or not in the labour force.  
 Note: The proportion of TAFE graduates and 'module completers' who wholly or partly achieved their main reason for undertaking training by labour force status before their course.  
 Source: NCVET Student Outcomes Survey, 2001.

**TABLE A4.5: LABOUR FORCE STATUS OF GRADUATES, STATE/TERRITORY MAY 2001 (PER CENT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	72	73	74	84	69	77	80	80	73
Unemployed	12	12	12	8	13	11	6	8	12
Not in labour force	15	14	13	7	16	10	12	11	14
Total <sup>(a)(b)</sup>	100	100	100	100	100	100	100	100	100
Number of respondents <sup>(a)</sup>	11 167	9 308	7 602	2 891	6 110	1 109	392	847	39 426

(a) Includes 'not stated'.  
 (b) Components may not add up to totals due to 'not stated' responses to some survey questions or rounding.  
 Source: NCVET Student Outcomes Survey, 2001.

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**TABLE A4.6: LABOUR FORCE STATUS OF GRADUATES PRIOR TO COMMENCING TRAINING, STATE/TERRITORY MAY 2001 (PER CENT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	65	66	70	76	63	66	76	71	67
Unemployed	14	14	13	11	12	19	7	10	14
Not in labour force	14	15	14	10	18	13	12	13	14
Total <sup>(a) (b)</sup>	100	100	100	100	100	100	100	100	100
Number of respondents <sup>(a)</sup>	11 167	9 308	7 602	2 891	6 110	1 109	392	847	39 426

(a) Includes 'not stated'.

(b) Components may not add up to totals due to 'not stated' responses to some survey questions or rounding.

Source: NCVET Student Outcomes Survey, 2001.

**TABLE A4.7: EMPLOYMENT OUTCOMES FOR GRADUATES UNEMPLOYED PRIOR TO COMMENCING TRAINING, STATE/TERRITORY MAY 2001 (PER CENT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	43	44	44	60	47	56	36*	59	45
Unemployed	36	38	38	29	32	29	53	23	36
Not in labour force	19	16	16	10	20	13	11*	18	18
Total <sup>(a) (b)</sup>	100	100	100	100	100	100	100	100	100
Number of respondents <sup>(a)</sup>	1 606	1 288	1 121	309	746	206	26	87	5 389

(a) Includes 'not stated'.

(b) Components may not add up to totals due to 'not stated' responses to some survey questions or rounding.

\* The relative standard error is greater than 25%. The estimate should therefore only be used with extreme caution.

Source: NCVET Student Outcomes Survey, 2001.

# Appendix:

## Key Performance Measure 5

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## DATA SOURCES

The principal data sources are the AVETMIS Standard for Vocational Education and Training Providers, the Student Outcomes Survey and population data reported by the Australian Bureau of Statistics.

Australian Bureau of Statistics population data for Indigenous people and speakers of languages other than English at home are sourced from the 1996 Census. At the time of finalising this report, census information for 2001 was not publicly available. The latest Australian Bureau of Statistics population figures relating to people with a disability have been sourced from 1998.

## DATA ADJUSTMENTS

Refer to the appendix for KPM 1 for both load pass rate and participation rate data adjustments.

Table A5.1 shows the percentage of students who did not report their status within the identified equity groups. These 'not known' percentages could not be included as part of the calculation of load pass rates for the equity groups. The load pass rates for the students who did not report their equity group status were calculated under 'student group not reported'.

## DATA QUALITY

Data quality relating to some client groups remains an issue and needs to be taken into account when considering the reported performance in relation to Indigenous people, people with a disability and people from non-English speaking backgrounds. [Table A5.1]

**TABLE A5.1: NON-RESPONSE RATES FOR EQUITY GROUPS, AUSTRALIA 1999-2001 (PER CENT)**

Student group	1999	2000	2001
Sex	0.5	0.4	0.4
Client/Region <sup>(a)</sup>	2.3	2.1	1.7
Indigenous students	17.3	20.9	17.6
Students with a disability	16.1	19.1	13.2
Language spoken at home	20.6	21.3	19.1
Country of birth	18.9	21.1	17.8

Note: The proportion of total student population where identified status with the particular social group is not known.

(a) Used to distinguish rural, remote and urban students.

Source: NCVER 1999 - 2001 national vocational education and training collection.

## STATE/TERRITORY DATA: WOMEN

**TABLE A5.2: LOAD PASS RATE BY SEX, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Women	74.7	76.1	76.5	87.5	71.7	81.0	69.3	81.4	76.1
Men	73.7	73.8	74.8	87.2	71.4	78.0	71.3	75.1	74.8
Total Students	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVER 2001 national vocational education and training collection.

**TABLE A5.3: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY SEX, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Women (aged 15 to 64)	12.1	12.7	11.3	11.0	9.3	8.7	14.5	8.2	11.6
Men (aged 15 to 64)	11.7	14.4	11.7	11.8	10.4	11.4	13.4	9.2	12.2
Total Students (aged 15 to 64)	11.8	13.4	11.3	11.3	9.7	10.0	13.8	8.6	11.8
Total Students (all ages)	8.5	9.6	7.9	8.3	6.9	6.8	10.6	6.2	8.5

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

Source: Derived using NCVER national vocational education and training data collection and Australian Bureau of Statistics 2001 June quarter estimated resident population data.

## PEOPLE FROM RURAL AND REMOTE AREAS

The geographic region classification was developed to provide geographic location information about vocational education and training students.

The Department of Industry, Tourism and Resources and the Department of Education, Science and Training have developed geographic classifications based on statistical local areas. The four classifications in Table A5.4 are derived by mapping the student's residential postcode to a statistical local area and then grouping the appropriate Department of Industry, Tourism and Resources or Department of Education Science and Training geographic regions. This work was done by the NCVER.

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**TABLE A5.4: GEOGRAPHICAL REGION CLASSIFICATIONS**

Classification	Consists of
Capital city	<ul style="list-style-type: none"> <li>■ Australian Bureau of Statistics State and Territory capital city statistical divisions (Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart, Darwin and Canberra)</li> <li>■ Department of Industry Tourism and Resources Rural, Remote and Metropolitan Zones classification: Capital city</li> <li>■ Department of Education Science and Training Rural/Remote classification: Capital</li> </ul>
Other metropolitan	<ul style="list-style-type: none"> <li>■ Statistical divisions associated with urban centres of population greater than 100,000 (Geelong, Newcastle, Wollongong, Gold Coast and Tweed, Townsville-Thuringowa and Queanbeyan)</li> <li>■ Department of Industry Tourism and Resources rural, remote and metropolitan zones classification: Other metropolitan</li> <li>■ Department of Education Science and Training rural/remote classification: Urban.</li> </ul>
Rural	<ul style="list-style-type: none"> <li>■ Statistical local areas associated with urban centres of population 5,000 or more and not classified as remote (Albury-Wodonga, Dubbo, Lismore, Orange, Port Macquarie, Tamworth, Wagga Wagga, Ballarat, Bendigo, Shepparton-Mooroopna, Bundaberg, Cairns, Mackay, Maroochydhore-Mooloolaba, Rockhampton, Toowoomba, Whyalla, Bunbury, Launceston, Bathurst, Wangaratta, Morwell, Gladstone, Mount Gambier, Mandurah, Devonport, Blayney, Bairnsdale, Banana, Berri, Busselton, Scottsdale and Litchfield)</li> <li>■ Department of Industry Tourism and Resources rural, remote and metropolitan zones classification: Large rural centre, small rural centre, other rural area</li> <li>■ Department of Education Science and Training rural/remote classification: Provincial, rural, agricultural.</li> </ul>
Remote	<ul style="list-style-type: none"> <li>■ Urban centres with an Index of Remoteness greater than 10.5 (Blackwater, Bowen, Emerald, Mareeba, Moranbah, Mount Isa, Roma, Broome, Carnarvon, East Pilbara, Esperance, Kalgoorlie/Boulder, Karratha, Port Hedland, Alice Springs, Katherine, Brewarrina, Walgett, Orbost, Boulia, Coober Pedy, Exmouth, Strahan and Jabiru). The Index of Remoteness defines the boundary between rural and remote areas of Australia and is based on the distance and population density characteristics of the area of interest.</li> <li>■ Department of Industry Tourism and Resources rural, remote and metropolitan zones classification: Large remote centre, other remote centre</li> <li>■ Department of Education Science and Training rural/remote classification: Remote, isolated.</li> </ul>

## STATE/TERRITORY DATA: RURAL AND REMOTE

**TABLE A5.5: LOAD PASS RATE BY REGION, STATE/TERRITORY 2001 (PER CENT)**

Region	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Capital city	73.6	73.6	73.9	85.8	70.8	81.3	71.8	77.7	74.5
Other metropolitan	75.4	77.4	76.3	+	+	+	+	+	75.9
Rural	74.4	78.7	77.8	91.2	74.2	77.8	72.4	+	77.5
Remote	74.1	81.9	72.9	92.0	69.4	79.2	68.1	+	72.3
All persons	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

+ Numbers too small to calculate a meaningful rate.

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVET 2001 national vocational education and training collection.

**TABLE A5.6: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY REGION, STATE/TERRITORY 2001 (PER CENT)**

Region	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Proportion of VET students</b>									
Capital city	53.7	59.7	43.2	66.9	64.6	38.9	34.0	77.2	55.2
Other metropolitan	11.8	3.7	11.8	+	+	+	+	+	7.2
Rural	31.7	32.7	36.6	26.8	18.7	58.5	5.8	+	31.3
Remote	1.0	0.8	6.2	3.8	15.0	1.5	55.4	+	3.9
Total students	100	100	100	100	100	100	100	100	100
<b>Australian Population</b>									
Capital city	7.1	8.0	7.5	7.5	6.1	6.2	7.6	4.7	7.2
Other metropolitan	8.0	10.5	6.5						7.8
Rural	11.4	13.2	8.2	9.2	7.6	6.9	10.8		10.4
Remote	13.4	30.7	10.5	14.4	11.2	8.0	12.2		11.9
Total students	8.5	9.6	7.9	8.3	6.9	6.8	10.6	6.2	8.5

+ Numbers too small to calculate a meaningful rate.

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

Source: NCVET 2001 national vocational education and training collection and Australian Bureau of Statistics June 2001 quarter estimated residential population data.

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## STATE/TERRITORY DATA: INDIGENOUS PEOPLE

**TABLE A5.7: LOAD PASS RATE BY INDIGENOUS STATUS, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Reported as Indigenous	60.0	56.4	64.7	72.1	56.1	69.9	62.6	74.1	61.5
Reported as non-Indigenous	74.7	75.2	76.4	88.1	73.7	79.5	75.2	78.6	76.1
Client group not reported	75.5	74.6	74.8	87.2	68.6	84.1	82.4	66.5	75.0
All students	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVET 2001 national vocational education and training collection.

**TABLE A5.8: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY INDIGENOUS STATUS, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Proportion of VET students</b>									
Students reported as Indigenous	3.0	0.9	4.2	3.2	5.9	3.6	41.3	1.4	3.3
...adjusted for not reported	3.7	1.1	5.0	3.9	8.7	4.0	42.9	1.4	4.1
Reported as non-Indigenous	77.0	85.3	80.5	78.8	62.3	86.4	55.0	95.6	79.1
Client group not reported	20.0	13.8	15.3	18.0	31.8	10.0	3.7	3.0	17.6
All persons	100	100	100	100	100	100	100	100	100
<b>Australian Population</b>									
Indigenous people	1.7	0.5	2.9	1.4	3.0	3.0	24.4	1.0	2.0

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

Source: Derived using NCVET 2001 national vocational education and training collection and Australian Bureau of Statistics 1996 Census data.

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## STATE/TERRITORY DATA: PEOPLE WITH A DISABILITY

**TABLE A5.9: LOAD PASS RATE BY DISABILITY, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Students reported as having a disability	66.1	65.8	66.4	81.4	62.0	67.3	70.2	72.1	66.8
Students reported as not having a disability	74.6	75.0	76.0	87.6	73.0	81.7	69.6	78.8	75.9
Disability status not reported	75.5	83.5	65.9	87.4	67.7	60.6	79.4	73.0	75.6
Total students	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVET 2001 national vocational education and training collection.

**TABLE A5.10: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY DISABILITY, STATE/TERRITORY 2001 (PER CENT)**

Student group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Proportion of VET students</b>									
Students reported as having a disability	4.6	3.9	4.1	3.7	2.7	5.6	2.9	4.2	4.1
...adjusted for not reported	5.8	4.2	4.1	4.7	4.1	6.3	3.2	4.4	4.7
Students reported as not having a disability	75.6	90.1	95.9	75.7	62.6	83.4	87.1	92.1	82.7
Client group not reported	19.8	6.0	0.0	20.6	34.8	11.0	10.0	3.7	13.2
Total students	100	100	100	100	100	100	100	100	100
<b>Australian Population</b>									
Persons with a disability as proportion of total population	19.3	18.0	19.9	22.4	19.5	22.3	13.3	17.2	19.3
Persons with a disability (aged 15 - 64) as proportion of total population (aged 15 - 64) <sup>(b)</sup>	14.3	13.1	15.1	17.3	14.3	17.1	10.4	12.0	14.4

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

(b) Includes specific restrictions: core activity (i.e. communication, mobility and self care) restrictions as well as schooling or employment restrictions.

Source: Derived using NCVET 2001 national vocational education and training collection and Australian Bureau of Statistics disability, ageing and carers, 1998, catalogue number 4430.0.



## STATE/TERRITORY DATA: PEOPLE FROM NON-ENGLISH SPEAKING BACKGROUNDS

People who speak a language other than English at home

**TABLE A5.11: LOAD PASS RATE BY LANGUAGE SPOKEN AT HOME, STATE/TERRITORY 2001 (PER CENT)**

Language spoken at home	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Language other than English	72.5	68.3	62.7	80.8	62.4	81.2	59.6	72.8	69.8
English	74.4	76.8	77.0	88.1	73.8	80.3	74.7	79.4	76.7
Language not reported	75.7	74.6	70.0	87.5	67.6	70.4	77.6	69.1	74.4
Total students	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVET 2001 national vocational education and training collection.

**TABLE A5.12: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY LANGUAGE SPOKEN AT HOME, STATE/TERRITORY 2001 (PER CENT)**

Language spoken at home	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Proportion of VET students</b>									
Speaking a language other than English at home	11.2	11.1	5.0	9.4	7.0	2.2	27.7	9.5	9.6
...adjusted for not reported	13.8	14.1	5.6	11.7	11.0	2.4	29.9	9.8	11.9
Speaking English at home	69.8	67.5	84.3	71.6	56.8	87.2	65.0	86.8	71.2
Language spoken at home not reported	19.0	21.5	10.7	19.0	36.2	10.6	7.3	3.8	19.1
Total students	100	100	100	100	100	100	100	100	100
<b>Australian Population</b>									
Speaking a language other than English at home	18.2	20.2	6.9	12.3	11.6	3.4	23.3	13.9	15.1
Speaking only English at home	81.8	79.8	93.1	87.7	88.4	96.6	76.7	86.1	84.9

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

Source: Derived using NCVET 2001 national vocational education and training collection and Australian Bureau of Statistics 1996 Census data.

## People born in a non-English speaking country

Countries classified as the main English speaking countries are Australia, New Zealand, United Kingdom (England, Scotland, Wales, Northern Ireland, Channel Islands, Isle of Man), Ireland, Canada, United States of America and South Africa.

**TABLE A5.13: LOAD PASS RATE BY COUNTRY OF BIRTH, STATE/TERRITORY 2001 (PER CENT)**

Country of birth	NSW	Vic <sup>(a)</sup>	Qld	SA	WA	Tas	NT	ACT	Aust
Non-English speaking country	73.0	69.6	65.8	83.5	65.8	79.4	65.2	75.0	71.2
Mainly English speaking country	74.3	76.7	76.9	87.9	73.3	79.3	70.5	78.7	76.5
Not reported	75.9	73.9	73.4	86.9	68.4	83.6	78.5	80.7	74.7
Total students	74.2	74.9	75.6	87.3	71.5	79.4	70.4	78.3	75.4

(a) In Victoria in 2001, nominal hours supervised have not been recorded for all units of competency and scheduled hours have been used in the calculation of load pass rates instead.

Source: NCVET 2001 national vocational education and training collection.

**TABLE A5.14: VOCATIONAL EDUCATION AND TRAINING PARTICIPATION<sup>(a)</sup> BY COUNTRY OF BIRTH, STATE/TERRITORY 2001 (PER CENT)**

Country of birth	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<b>Proportion of VET students</b>									
Non-English-speaking country	15.1	13.2	7.9	9.9	9.5	4.1	7.4	13.9	12.1
...adjusted for not reported	18.7	16.2	8.8	11.9	14.2	4.3	7.9	16.3	14.7
Mainly English-speaking country	65.8	68.4	81.8	73.6	57.1	92.1	86.6	71.2	70.1
Country of birth not reported	19.2	18.4	10.3	16.5	33.4	3.7	6.0	14.9	17.8
Total students	100	100	100	100	100	100	100	100	100
<b>Australian Population</b>									
Non-English speaking country	15.8	17.1	7.3	10.6	11.8	3.9	8.1	13.8	13.3
Mainly English-speaking country	84.2	82.9	92.7	89.4	88.2	96.1	91.9	86.2	86.7

(a) In some jurisdictions a break in series on student numbers may have occurred in 2001, as these jurisdictions are now ensuring that a student and all of their activity are reported each year (see enrolment activity end date reporting in appendix for KPM 1).

Source: Derived using NCVET 2001 national vocational education and training collection and Australian Bureau of Statistics 1996 Census data.

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# Appendix:

## Key Performance Measures 6/7

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## DATA SOURCES

### Government recurrent expenditure

Estimates of government recurrent expenditure used in calculating unit costs have been sourced primarily from data prepared by States and Territories under the AVETMIS Standard for Vocational Education and Training Financial Data. Revenue and expenditure items used to estimate government recurrent expenditure from this data have been audited since 1998.

### Nominal hours data

Nominal hours data covering all publicly funded programs are sourced from data prepared by States and Territories under the AVETMIS Standard for Vocational Education and Training Providers. Adjusted nominal hours data used in calculating unit costs with respect to the ANTA Agreement have been determined by ANTA from audit reports of non-financial activity prepared by the NCVET on behalf of ANTA.

## DATA ADJUSTMENTS

### Government recurrent expenditure

Government recurrent expenditure is derived from financial data that has been provided by each State and Territory on an accrual basis under the AVETMIS Standard for Vocational Education and Training Financial Data. The established formula for estimating the combined level of State/Territory and Commonwealth government recurrent expenditure is described below.

	Total operating expenditure
minus	Fee-for-service revenue
minus	Ancillary trading revenue
minus	Other operating revenues
minus	Revenue from specific purpose Commonwealth funds (ANTA & other).

Each of these elements are audited under the AVETMIS Standard arrangements. At the time of publication, data from the Northern Territory is unaudited.

To promote the comparability of the financial data between States and Territories, as well as comparability between the financial and activity data, the following adjustments have also been made:

- Commonwealth funded expenditure on vocational education and training in schools (\$20m in 2001) has been excluded
- redundancy payments funded externally to vocational education and training budgets have, as agreed with States and Territories, been excluded
- skills centre capital revenue and new technologies monies receipted within States and Territories as operating funds have been excluded
- Commonwealth revenue associated with industry based skills centres, skill centres for school students and facilities for Aboriginal and Torres Strait Islander people, as determined by ANTA, has been excluded.

## Nominal Hours data

Nominal hours data includes all such hours that are publicly funded within the scope and boundary of the ANTA Agreement. To promote comparability of activity data, the following adjustments have been made.

- Total hours have been adjusted for invalid enrolments based on information supplied by the NCVER non-financial activity audit.
- Hours associated with enrolments that have recognition of prior learning as their reported outcome have been determined using the established formula of five hours plus 10% of nominal hours, to a maximum of 10 hours. For modules of less than five hours, the full hours are used.
- Commonwealth funding of additional, conditional trainees has been rolled into base recurrent expenditure from 1998 onwards. Accordingly, all trainee activity is included in each year when calculating comparative unit costs.
- The full nominal hours associated with fully in the workplace trainees are also included on the proviso that:
  - the training and assessment undertaken on the job is auspiced by a registered training organisation
  - a registered training organisation moderates the assessment
  - a registered training organisation issues the qualifications
  - funds from the State/Territory training authority are contributed in support of these activities.

## Invalid enrolment factor

Under the AVETMIS Standard for Vocational Education and Training Providers, training providers are required to prepare electronic data records for each student who participated in training that was publicly funded. The data includes individual records for each module and/or unit of competency enrolment. Each year, the data includes a number of enrolments where there is no evidence of participation. Such enrolments are deemed 'invalid'.

The proportion of invalid enrolments in 2001 was determined by the NCVER under contract to ANTA. The proportion of invalid enrolments used in this report has been derived from data provided by TAFE institute providers. ANTA is working with States and Territories to establish arrangements for including data from all training providers when determining the level of invalid enrolments in future years. The national level of invalid enrolments was 3.6% in 2001. [Table A6.1]

**TABLE A6.1: INVALID ENROLMENT FACTOR, STATE/TERRITORY 1998-2001 (PER CENT)**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1998	6.8	7.9	5.4	4.1	3.2	9.7	7.2	8.2	6.4
1999	8.5	3.7	7.0	1.6	2.6	3.1	5.6	4.7	5.7
2000	7.3	3.0	5.5	1.1	2.8	3.8	10.0	5.2	4.9
2001	5.4	1.7	3.8	1.5	3.2	3.1	3.5	4.8	3.6

Source: Annual audit reports of non-financial activity prepared for the Australian National Training Authority.

## Course mix weight

Efficiency calculations are weighted to recognise the different proportions of relatively more-expensive and less-expensive training programs that occur in jurisdictions. The course mix weighting factor has used the same training area weights established by the Unit Cost Working Party in 1995. Factors for each jurisdiction are updated to reflect the revised planned distribution of activity in 2001.

A weighting above one indicates that the State or Territory is offering relatively more-expensive programs, compared to the national profile. [Table A6.2]

**TABLE A6.2: COURSE MIX WEIGHTINGS, STATE/TERRITORY 1997-2001**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1997	0.974	1.011	1.011	1.009	1.026	1.034	0.976	0.966	1.000
1998	0.979	0.999	1.009	1.020	1.048	1.053	0.962	0.995	1.000
1999	0.979	1.014	0.992	1.006	1.046	1.037	1.005	0.976	1.000
2000	0.979	1.014	0.994	1.010	1.039	1.016	1.019	0.990	1.000
2001	0.976	1.014	1.009	1.002	1.040	1.020	1.003	0.962	1.000

Source: Derived by the Australian National Training Authority using 2001 revised planned activity as reported in State and Territory annual vocational education and training plans for 2002 and unit cost weightings developed by the Unit Cost Working Party.

The following national cost relativities were used to determine the course mix weightings for each State and Territory. [Table A6.3]

**TABLE A6.3: VOCATIONAL EDUCATION AND TRAINING COST RELATIVITIES BY TRAINING AREA, AUSTRALIA**

Training Area	Cost Relativities
<b>Category A</b>	
Arts, Entertainment, Sports & Recreation	1.03
Automotive	1.33
Building and Construction	1.16
Community Services, Health & Education	0.91
Finance, Banking & Insurance	0.68
Food Processing	1.14
TCF and Furnishings	1.18
Communications	1.16
Engineering and Mining	1.28
Primary Industry	1.12
Process Manufacturing	1.16
Sales and Personal Service	0.94
Tourism and Hospitality	1.10
Transport and Storage	1.20
Utilities	1.29
<b>Category B</b>	
Business and Clerical	0.79
Computing	0.84
Science, Technical and Other	1.06
<b>Category C</b>	
General Education & Training	0.85
Total	1.00

Source: Derived by the Australian National Training Authority from information provided by the Unit Cost Working Party.

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## FACTORS EFFECTING THE COST OF SERVICES

The Commonwealth Grants Commission advises the Commonwealth Government on cost differentials to be applied to States and Territories when distributing general revenue grants. The Commission analyses the factors that effect the cost of service provision in each State and Territory, and forms a judgement as to the resources that are required in each jurisdiction to provide a standard level of service at an average level of efficiency.

In their 2002 update of State revenue sharing relativities, the Commission used an assessment structure for vocational education and training expenditure that considered the impact of various factors within three broad components. These are:

- scale-affected expenditure (2.7% weighting), comprising administrative scale and input costs
- institutes (97.03% weighting), comprising dispersion of the population, sociodemographic composition, cross-border services, input costs, and service delivery scale
- isolation (0.27% weighting), accounting for economic and geographical isolation.

Table A6.4 shows the 'category factor' determined for each State and Territory under this assessment structure. This factor provides a single index, which aggregates the combined effect of the factors observed in each jurisdiction.

**TABLE A6.4: VOCATIONAL EDUCATION AND TRAINING CATEGORY FACTOR, STATE/TERRITORY 2000-2001**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
2000-2001	0.966	0.969	1.010	0.943	1.059	1.031	1.995	1.305

Note: Student/teacher ratios are a major influence on vocational education and training system costs. Reasonable diversity of programs in low population areas results in student/teacher ratios significantly lower than those occurring in capital city and country metropolitan areas. Some jurisdictions with a significant proportion of delivery in low population areas believe that the Commonwealth Grants Commission does not adequately address this additional cost when determining factors for vocational education and training.

Source: Commonwealth Grants Commission Report on State Revenue Sharings Relativities, 2002 update, Working Papers, Volume 4.



## STATE/TERRITORY DATA: 1997 TO 2001

**TABLE A6.5: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 1997 (\$/ADJUSTED HOUR, 2001 PRICES)**

1997	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government Recurrent Expenditure (\$m)	1 190.29	653.63	533.91	235.71	299.43	75.64	55.83	69.25	3 113.69
Price deflator (Non-farm Gross Domestic Product)	0.921	0.921	0.921	0.921	0.921	0.921	0.921	0.921	0.921
Government Recurrent Expenditure (\$m, 2001 prices)	1 291.94	709.44	579.50	255.84	325.00	82.10	60.59	75.16	3 379.58
Total Audited Annual Hours Curriculum (m)	89.512	68.861	39.314	15.619	22.001	4.570	2.567	4.651	247.095
Invalid Enrolment (IE) Rate (%)	7.15	8.89	8.29	3.58	10.44	15.36	21.15	10.34	8.23
IE Adjusted Annual Hours Curriculum (m)	83.112	62.739	36.054	15.060	19.704	3.868	2.024	4.170	226.733
Adjusted Recognition of prior learning (06)	0.629	0.446	0.258	0.268	0.019	0.073	0.009	0.084	1.786
Other adjustments (m)	-0.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.727
Total - Adjusted Annual Hours Curriculum (m)	83.014	63.185	36.312	15.329	19.723	3.941	2.033	4.254	227.791
\$ per Adjusted Annual Hours Curriculum	15.56	11.23	15.96	16.69	16.48	20.83	29.80	17.67	14.84
Course Mix Weight	0.974	1.011	1.011	1.009	1.026	1.034	0.976	0.966	1.000
\$ per Final Adjusted Annual Hours Curriculum	15.97	11.10	15.79	16.55	16.06	20.15	30.54	18.28	14.84

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

**TABLE A6.6: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 1998 (\$/ADJUSTED HOUR, 2001 PRICES)**

1998	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government Recurrent Expenditure (\$m)	1 233.41	696.51	525.35	232.27	307.76	75.05	61.96	74.83	3 207.13
Price deflator (Non-farm Gross Domestic Product)	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934
Government Recurrent Expenditure (\$m, 2001 prices)	1 320.12	745.47	562.28	248.60	329.39	80.33	66.31	80.09	3 432.59
Total Audited Annual Hours Curriculum (m)	88.295	72.726	44.832	17.311	22.782	4.728	2.507	4.684	257.865
Invalid Enrolment (IE) Rate (%)	6.77	7.90	5.43	4.10	3.17	9.74	7.18	8.24	6.44
IE Adjusted Annual Hours Curriculum (m)	82.318	66.981	42.398	16.601	22.059	4.268	2.327	4.298	241.249
Adjusted Recognition of prior learning (06)	0.695	0.552	0.321	0.298	0.039	0.061	0.013	0.131	2.111
Total - Adjusted Annual Hours Curriculum (m)	83.013	67.533	42.719	16.899	22.099	4.329	2.340	4.429	243.360
\$ per Adjusted Annual Hours Curriculum	15.90	11.04	13.16	14.71	14.91	18.56	28.34	18.08	14.10
Course Mix Weight	0.979	0.999	1.009	1.020	1.048	1.053	0.962	0.995	1.000
\$ per Final Adjusted Annual Hours Curriculum	16.24	11.05	13.04	14.42	14.22	17.62	29.45	18.18	14.10

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

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**TABLE A6.7: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 1999 (\$/ADJUSTED HOUR, 2001 PRICES)**

1999	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government Recurrent Expenditure (\$m)	1 227.80	683.02	532.66	242.08	327.02	77.19	60.49	67.34	3 217.60
Price deflator (Non-farm Gross Domestic Product)	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941
Government Recurrent Expenditure (\$m, 2001 prices)	1 304.20	725.52	565.80	257.15	347.37	82.00	64.25	71.53	3 417.82
Total Audited Annual Hours Curriculum (m)	93.332	74.752	43.097	20.480	24.576	4.783	3.214	4.690	268.924
Invalid Enrolment (IE) Rate (%)	8.52	3.68	7.03	1.61	2.61	3.12	5.55	4.73	5.67
IE Adjusted Annual Hours Curriculum (m)	85.380	72.001	40.068	20.150	23.935	4.634	3.035	4.468	253.671
Adjusted Recognition of prior learning (06)	0.871	0.394	0.114	0.308	0.056	0.063	0.031	0.093	1.930
Total - Adjusted Annual Hours Curriculum (m)	86.251	72.396	40.181	20.458	23.991	4.697	3.066	4.561	255.601
\$ per Adjusted Annual Hours Curriculum	15.12	10.02	14.08	12.57	14.48	17.46	20.95	15.68	13.37
Course Mix Weight	0.979	1.014	0.992	1.006	1.046	1.037	1.005	0.976	1.000
\$ per Final Adjusted Annual Hours Curriculum	15.45	9.88	14.19	12.49	13.84	16.83	20.85	16.07	13.37

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

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**TABLE A6.8: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 2000 (\$/ADJUSTED HOUR, 2001 PRICES)**

2000	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government Recurrent Expenditure (\$m)	1 226.95	705.68	582.99	239.04	332.48	76.49	70.08	63.44	3 297.15
Price deflator (Non-farm Gross Domestic Product)	0.959	0.959	0.959	0.959	0.959	0.959	0.959	0.959	0.959
Government Recurrent Expenditure (\$m, 2001 prices)	1 279.71	736.03	608.06	249.32	346.77	79.78	73.10	66.16	3 438.93
Total Audited Annual Hours Curriculum (m)	96.968	74.926	43.215	19.326	25.556	5.050	3.665	5.065	273.772
Invalid Enrolment (IE) Rate (%)	7.32	3.00	5.46	1.10	2.77	3.84	9.95	5.24	4.91
IE Adjusted Annual Hours Curriculum (m)	89.870	72.678	40.856	19.114	24.849	4.856	3.300	4.800	260.322
Adjusted Recognition of prior learning (06)	0.851	0.465	0.107	0.286	0.075	0.077	0.028	0.092	1.982
Total - Adjusted Annual Hours Curriculum (m)	90.721	73.143	40.963	19.400	24.924	4.933	3.328	4.891	262.304
\$ per Adjusted Annual Hours Curriculum	14.11	10.06	14.84	12.85	13.91	16.17	21.96	13.53	13.11
Course Mix Weight	0.979	1.014	0.994	1.010	1.039	1.016	1.019	0.990	1.000
\$ per Final Adjusted Annual Hours Curriculum	14.41	9.92	14.93	12.73	13.39	15.91	21.56	13.67	13.11

Note: Queensland output data has been updated from that which was previously published. Queensland has advised that abnormal expenses totaling approximately \$23 million have significantly impacted upon unit costs. These abnormal expenses relate to depreciation/amortisation, losses on asset sales, and the treatment of information technology expenditure as recurrent expenditure. Excluding these abnormal expenses, Queensland's 2000 public expenditure per publicly funded nominal hour (adjusted) would be \$14.34.

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

**TABLE A6.9: PUBLIC EXPENDITURE PER PUBLICLY FUNDED NOMINAL HOUR, STATE/TERRITORY 2001 (\$/ADJUSTED HOUR, 2001 PRICES)**

2001	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government Recurrent Expenditure (\$m)	1 245.97	820.17	580.45	241.53	354.59	81.04	71.20	64.73	3 459.67
Total Audited Annual Hours Curriculum (m)	102.656	76.138	46.157	21.289	25.514	5.701	3.667	5.801	286.923
Invalid Enrolment (IE) Rate (%)	5.43	1.73	3.75	1.52	3.19	3.09	3.46	4.81	3.60
IE Adjusted Annual Hours Curriculum (m)	97.082	74.821	44.426	20.966	24.700	5.525	3.540	5.522	276.581
Adjusted Recognition of prior learning (06)	0.928	0.424	0.143	0.242	0.131	0.025	0.057	0.098	2.048
Total - Adjusted Annual Hours Curriculum (m)	98.010	75.245	44.570	21.208	24.831	5.550	3.597	5.620	278.629
\$ per Adjusted Annual Hours Curriculum	12.71	10.90	13.02	11.39	14.28	14.60	19.79	11.52	12.42
Course Mix Weight	0.976	1.014	1.009	1.002	1.040	1.020	1.003	0.962	1.000
\$ per Final Adjusted Annual Hours Curriculum	13.03	10.75	12.90	11.36	13.73	14.32	19.73	11.98	12.42

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA.  
Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

# Glossary

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<b>ABS</b>	Australian Bureau of Statistics
<b>Age</b>	<p>For participation data, a student's age is calculated as the difference in years between 30 June 2001 and their date of birth. Where only the year of birth has been reported, the client's age is defaulted to 30 June of their year of birth for the age calculation.</p> <p>For Student Outcomes Survey data, age is calculated in years at the survey reference date, 28 May 2001.</p>
<b>Annual hours curriculum (AHC)</b>	The total number of hours of training delivered in a year, calculated by multiplying the approved number of curriculum hours for a module or unit of competency by the number of modules or units of competency delivered to the number of students in a traditional, supervised delivery setting. Changed in 1999 to 'nominal hours - supervised'.
<b>Annual rate of growth</b>	Annual rates of growth are compound growth rates. This means that an annual growth rate of 10% would result in growth of 33.1% over a three-year period.
<b>ANTA</b>	Australian National Training Authority
<b>ANTA Agreement</b>	The ANTA Agreement is a ministerial agreement between the Commonwealth, State and Territory Governments that provides the basis for a joint partnership between governments, with industry, in the development and refinement of a national vocational education and training system.
<b>Apprentice/trainee</b>	A student who has signed a formal agreement with an employer, known as either a training agreement or contract of training. See <i>New Apprenticeships</i> .
<b>Area of learning</b>	A code (also known as <i>Discipline Group</i> ) that describes the primary content of a module or unit of competency independent of the context (primary subject matter of the course or qualification) in which it may be taught.
<b>Australian Standard Classification of Occupations (ASCO)</b>	See <i>Occupational Groupings</i> .

**Australian Qualifications Framework (AQF)**

The Australian Qualifications Framework is a comprehensive, nationally consistent framework for all post-compulsory education and training qualifications in Australia. The AQF recognises that the schools system, vocational education and training system and higher education system each have different industry and institutional linkages. It connects these in a coherent single framework incorporating qualification levels, titles and guidelines. Qualifications range from the Senior Secondary Certificate of Education (generally offered in schools) to doctoral degrees obtained through university study.

The AQF links together all these qualifications and is a highly visible, quality-assured national system of educational recognition intended to promote lifelong learning and a seamless and diverse education and training system.

**Australian Vocational Education and Training Management Information Statistical Standard (AVETMIS Standard)**

The AVETMIS Standard offers a nationally consistent standard for the collection, analysis and reporting of vocational education and training information throughout Australia. The AVETMIS Standard has been developed in accordance with the national strategy for vocational education and training (VET) statistical information and has been endorsed by Commonwealth and State/Territory Ministers. The standard is subject to periodic revision.

The elements which comprise the AVETMIS Standard are:

- **The AVETMIS Standard for Vocational Education and Training Providers**  
Release 3.0 of this Standard is current until the end of 2001.  
Release 4.0 is effective for the year 2002 collection that is reported in 2003.
- **The AVETMIS Standard for New Apprenticeships**  
Release 3.0 of this Standard is current until the end of 2001.  
Release 4.0 is effective for the year 2002 collection.
- **The AVETMIS Standard for Vocational Education and Training Financial Data**  
Release 1.2 effective during 2001.

**Client**

A person who is engaged in vocational education and training activity. Also see *student*.



<b>Competency</b>	<i>See Unit of Competency.</i>
<b>Contract of training</b>	A legal agreement between an employer and employee (apprentice or trainee) specifying the competencies to be developed over the period of the contract and the rights and obligations of each party. Also known as a training agreement. See also <i>New Apprenticeships</i> .
<b>Course</b>	A structured program of study including, where appropriate, practical experience. A course may lead to a recognised qualification. Where a program is a nationally-recognised accredited course, the term 'course' is used; where a program is designed to lead to a qualification in a national Training Package, the term 'qualification' is used. See also <i>Qualification</i> .
<b>Course mix weighting</b>	Course mix weightings are used to adjust unit costs to account for training programs that are more or less expensive than the national average. Where the weighting in a jurisdiction is greater than one, the mix of training delivered by the jurisdiction is relatively more expensive than the national average.
<b>Credit transfer</b>	The granting of status or credit by an institution or training organisation to clients for units of competency, subjects or modules completed at the same or another institution or training organisation. Compare with <i>Recognition of Prior Learning</i> .
<b>Disability</b>	<p>A disability is a physical or mental incapacity, either congenital or resulting from an injury or illness. A disability is considered to be both significant and permanent, and it may affect the student's training performance.</p> <p>For the 2001 Student Outcomes Survey, a person was asked to report a disability if they had one or more of a visual disability, hearing disability, physical disability, intellectual disability, chronic illness or other disability.</p>

<b>Enrolment</b>	The registration of a student with a training provider for the purpose of undertaking a course/qualification or module/unit of competency. The enrolment is considered valid only if the student has undertaken enrolment procedures, met their fee obligations, and has engaged in learning activity regardless of the mode of delivery, or the client has applied for, and been granted, status through recognition of prior learning or credit transfer (or related procedures).
<b>Equity (groups)</b>	Equity policy incorporates measures to improve access to, participation in, and outcomes of vocational education and training for those who may be disadvantaged or have traditionally been under-represented, especially Indigenous Australians, people with a disability, women, people in remote and rural communities, and people from a non-English speaking background.
<b>Fee-for-service</b>	Training for which most or all of the cost is borne by the client, or a person or organisation on behalf of the client.
<b>Field of study</b>	A hierarchical classification of qualifications or courses originally based on the principal subject matter of the course.
<b>Finn Targets</b>	Year 2001 vocational education and training participation rate targets for 19 and 22 year olds, set by ministers for vocational education and training. The targets are named after Brian Finn AO, the Chair of the committee that recommended the targets.
<b>Funding source</b>	A classification that describes the funding source associated with a module or unit of competency enrolment.
<b>GDP</b>	Gross Domestic Product
<b>Geographic region</b>	Australia is subdivided into four geographical regions (capital cities, other metropolitan, rural and remote) for the purposes of reporting data on rural and remote students. To determine the student's location, their residential postcode was mapped to the regional classifications of the Department of Industry, Tourism and Resources and the Department of Education, Science and Training. See also the technical notes in the appendix to key performance measure 5 - <i>Definition of regions</i> .

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<b>Graduate</b>	Identified in the 2001 Student Outcomes Survey as a student who satisfactorily completed a course of study at a TAFE institute in Australia in 2000. (This represented a widening of the scope of the survey, which was previously limited to graduates who undertook a course of at least 200 hours or one semester in duration.) Students participating in recreational, leisure or self-enrichment courses and students who did not have an Australian address were excluded from the survey.
<b>Growth derived through efficiency</b>	A framework within the 1998-2000 ANTA Agreement whereby the Commonwealth has agreed to maintain funding levels (in real terms) and States and Territories have agreed to achieve growth and identify ways to increase efficiency that are specific to their individual circumstances and histories of efficiency improvement.
<b>Indigenous</b>	In Australia the term Indigenous is used to refer to both Aboriginal and Torres Strait Islander peoples. For more information refer to the Australian Bureau of Statistics definition.
<b>Industry group (of employer)</b>	Australian and New Zealand Standard Industry Classification (ANZSIC) classification category. This classification is based on the Australian Bureau Statistics, Australian and New Zealand Standard Industry Classification (ANZSIC), 1993 Edition (ABS Catalogue No 1292.0) and identifies the industry or principle activity in which an employer is engaged.
<b>Invalid enrolment</b>	An enrolment in a module or unit of competency that has been reported by a training organisation under the AVETMIS Standard even though there has been no confirmed engagement in training for that enrolment by the student within the reporting year.
<b>Key performance measure (KPM)</b>	Measures used to monitor or evaluate the efficiency or effectiveness of a system, and which may be used to demonstrate accountability and to identify areas for improvement. Eight key performance measures have been agreed to by the Commonwealth, State and Territory Governments that apply to the national vocational education and training system.

**Labour force status****EMPLOYED**

People who, during the reference period:

- Worked for one hour or more for pay, profit, commission or payment in a job or business on a farm, or
- Worked for one hour or more without pay in a family business or on a farm, or who had a job, business or farm, but were not at work.

**UNEMPLOYED**

People who were not employed during the reference period and who had actively looked for full-time or part-time work at any time during that period.

**NOT IN LABOUR FORCE**

People who were neither employed, nor unemployed, as defined above.

**EMPLOYED FULL-TIME**

People who were employed full-time if they usually worked 35 hours or more a week in their main job during the reference period.

**EMPLOYED PART-TIME**

People who were employed part-time if they usually worked less than 35 hours per week during the reference period.

**Load pass rate**

The ratio of hours attributed to students who 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 nominal hours supervised for each assessable module or unit of competency.

**Major qualification**

The highest qualification attempted by a student within a calendar year. See also *Australian Qualifications Framework and Qualification*.

**Module**

A unit of training in which a student may enrol and be assessed. A module must be capable of being separately assessed and be capable of standing on its own or being linked to other modules in the same or related studies. Modules are usually components of accredited courses. See also *Unit of Competency*.

**Module completers**

Identified in the 2001 Student Outcomes Survey as a student who is not a graduate and successfully completed some training in a course of study at a TAFE institute in Australia in 2000 and then left the TAFE system. Students participating in recreational, leisure or self-enrichment courses, and students who did not have an Australian address were excluded from the survey.

<b>Module outcome</b>	See <i>Outcome</i> .
<b>NCVER</b>	National Centre for Vocational Education Research Ltd.
<b>New Apprenticeships</b>	A term for national apprenticeship and traineeship arrangements which came into effect on 1 January 1998. Government-supported structured work and training programs in which the employer is obliged to provide training, supervision and support; and the apprentice or trainee is obliged to undertake paid work as well as do the training. These obligations are specified in the National Apprenticeship/Traineeship Training Contract, a training agreement between the employer and the apprentice or trainee.
<b>Nominal hours supervised</b>	The anticipated hours of supervised learning or training deemed necessary to adequately present the educational material associated with the delivery of a training program when delivered in standard classroom delivery mode. These hours are generally specified in the curriculum documentation and do not include hours associated with work experience, industry placement, or field placement. See also <i>Annual Hours Curriculum (AHC)</i> .
<b>Non-English speaking background</b>	<p>For the purposes of participation and load pass rate data, a person's background is based on their country of birth and language spoken at home.</p> <p>Countries classified as the main English speaking countries are Australia, New Zealand, United Kingdom (England, Scotland, Wales, Northern Ireland, Channel Islands, Isle of Man), Ireland, Canada, United States of America and South Africa.</p> <p>For the 2001 Student Outcomes Survey, a person was classified as having a non-English speaking background if they answered yes to either, 'Do you speak a language other than English in your home?' or, 'Do either of your parents speak a language other than English as their first language?'</p>

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<b>Occupational groupings</b>	The Australian Standard Classification of Occupations is used for occupational groupings. This is an Australian Bureau of Statistics classification which identifies occupations according to their primary purpose. Australian Bureau of Statistics, Australian Standard Classification of Occupations (ASCO), Second Edition (ABS Catalogue No 1220.0, July 1997).
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>Outcome</b>	The result or outcome of a client's enrolment in a unit of competency or module.
<b>Participation rates</b>	The ratio of the number of students in a defined subgroup of all those doing vocational education and training, to a subgroup of the Australian population with the same characteristics.
<b>Program type</b>	Programs are classified as 'vocational' or 'non-vocational', according to whether the program is intended to develop skills of relevance to the workplace. Courses/qualifications are classified according to their VET flag. Module/unit of competency-only enrolments are also classified as vocational according to their VET flag. See <i>VET flag</i> .
<b>Qualification</b>	<ol style="list-style-type: none"> <li>1. A recognised award granted to an individual upon successful completion of a structured program of study. See also <i>Australian Qualifications Framework</i>.</li> <li>2. A term used for a program designed to lead to a qualification specified in a national Training Package. See also Course.</li> </ol>
<b>Recognition of prior learning (RPL)</b>	<ol style="list-style-type: none"> <li>1. This is a process through which people can be assessed for the skills and knowledge they already have.</li> <li>2. An enrolment where the client has been assessed as competent for the whole unit of competency or module. The result of the assessment is on the basis of the client's prior skills and knowledge acquired through previous training, work or life experience.</li> </ol> <p>Compare with <i>Credit Transfer</i>.</p>

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<b>Registered training organisation (RTO)</b>	An organisation registered by a State or Territory recognition authority to deliver specified vocational education and training and/or assessment services, and issue nationally recognised qualifications in accordance with the Australian Quality Training Framework (AQTF). Registered training organisations include TAFE colleges and institutes, adult and community education providers, private providers, community organisations, schools, higher education institutions, commercial and enterprise training providers, industry bodies and other organisations meeting the registration requirements.
<b>Statement of Attainment</b>	<p>The Australian Qualifications Framework includes 'statements of attainment' which, falling short of a qualification, may contribute towards a qualification outcome. This can occur as a partial completion of a course or attainment of competencies within a Training Package.</p> <p>Statements of attainment can also be issued on completion of a nationally accredited short course, and these may contribute towards a qualification through a recognition process. These are usually accredited short courses and are often listed on the National Training Information Service under accredited courses.</p>
<b>Stream</b>	A classification that describes a course according to its level of vocational outcome. No longer used - see <i>VET flag</i> .
<b>Student</b>	A person who is engaged in vocational education and training activity. Also see <i>Client</i> .
<b>Student enrolment no participation (SENP)</b>	A student that has been reported by a training organisation under the AVETMIS Standard even though there has been no confirmed engagement in training for any of their module or unit of competency enrolments within the reporting year.

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<b>Student Outcomes Survey</b>	An annual national survey of 'module completers' and graduates of publicly funded TAFE providers designed to assess student employment outcomes and prospects before and after participation in vocational education and training.
<b>Successful completion by individual students</b>	For an individual, the ratio of enrolments passed (in assessable and non-assessable modules or units of competency) to all enrolments either passed (assessed and non-assessed), failed or withdrawn.
<b>Survey of Employer Views on Vocational Education and Training</b>	A national survey of three types of employer: those with recent vocational education and training graduate employees; those with no vocational education and training graduate employees; and those with non-recent vocational education and training graduate employees. In this survey, recent vocational education and training graduates completed a qualification in the two years prior to the survey. The survey collects employer views on vocational education and training in order to obtain the industry perspective on the availability, relevance and quality of delivery.
<b>TAFE providers</b>	Technical and further education providers that are publicly-owned registered training organisations, except in Victoria, where TAFE includes all registered training organisations.
<b>Training Package</b>	An integrated set of nationally-endorsed standards, guidelines and qualifications for training, assessing and recognising people's skills; developed by industry to meet the training needs of an industry or group of industries. Training Packages consist of endorsed competency standards, assessment guidelines and qualifications, and optional non-endorsed support materials such as learning strategies, assessment resources and professional development materials.
<b>Unit cost</b>	A measure of efficiency that reports the average cost of producing a training output. Unit cost is currently calculated by dividing government recurrent expenditure by adjusted nominal hours supervised.

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<b>Unit of competency</b>	The basic unit in the competency standards framework. A unit of competency is the smallest component that can be assessed and recognised in the vocational education and training system. A component of endorsed Training Packages. See also <i>Training Package</i> .
<b>VET</b>	Vocational education and training
<b>VET flag</b>	A flag in the AVETMIS Standard that indicates whether or not the training program (course/qualification or module/unit of competency) is of vocational intent. See also <i>Stream</i> .
<b>Vocational programs</b>	Programs intended to develop skills of relevance to the workplace. Defined as those courses/qualifications with vocational intent and those module/unit of competency enrolments not associated with a course/qualification with vocational intent.

# Acknowledgements

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Volume 3 of the 2001 Annual National Report on Australia's national vocational education and training system was prepared by ANTA, in consultation with all States and Territories, and the Commonwealth.

For the first time in 2001, the report was developed under the guidance of the National Training Statistics Committee (NTSC). The NTSC is a sub-committee of the ANTA Board that works in consultation with the ANTA CEOs' Committee to develop and implement data collection and reporting arrangements for the national vocational education and training system.

The National Training Statistics Committee is chaired by Mr Ken Smith, Director-General and CEO, Queensland Department of Employment and Training.

State and Territory members include Dr Michele Bruniges (New South Wales), Mr Phil Clarke (Victoria), Mr John Stalker (Queensland), Ms Chris Harrison (South Australia), Mr David Lloyd (Western Australia), Mr Michael Stevens (Tasmania), Mr Bruce Dunn (Northern Territory) and Mr Paul Fennell (Australian Capital Territory).

Mr Brett Levy (Commonwealth Department of Education, Science and Training), Ms Kareena Arthy (Australian National Training Authority) and Mr Mel Butler (Australian Bureau of Statistics) are also committee members.

A representative from the Productivity Commission also participated with observer status during the preparation of Volume 3.

A draft report was prepared under contract by the National Centre for Vocational Education Research (NCVER) with contributions from Dr Kaye Bowman (General Manager, Research and Evaluation), Ms Katrina Ball, Mr Phil Clancy, Ms Sandra Pattison, Mr Michael Jones, Mr Thomas Mettenmeyer, Ms Pam Lee, and Ms Jo Hargreaves.

The report was finalised by ANTA with assistance from Mr Peter May and Ms Jane Barker.

# anta



AUSTRALIAN  
NATIONAL TRAINING  
AUTHORITY

Australian National Training Authority  
AMP Place 10 Eagle Street Brisbane Queensland 4000  
GPO Box 3120 Brisbane Queensland 4001  
Telephone: (07) 3246 2300 Facsimile: (07) 3246 2490  
Website: [www.anta.gov.au](http://www.anta.gov.au)



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