

## CHAPTER 5

### OUTCOMES FROM VOCATIONAL EDUCATION AND TRAINING

5.1 The Committee was mindful that the Senate's Terms of Reference charged the Committee with providing an assessment of the quality of vocational education and training based on two criteria: its effectiveness in developing the educational skills of the Australian people; and its effectiveness in providing for the skills formation and productivity of the Australian workforce.

5.2 The Committee has interpreted the first of these as referring to the effectiveness of VET in meeting the needs of individuals, particularly by providing broad durable skills as a base for long term personal development, access to further learning, and mobility in the labour market, thus enabling them to play a full part in society and to be successful in an increasingly competitive labour market.<sup>1</sup>

5.3 The Committee has interpreted the second as referring to the effectiveness of VET in providing the labour force with the necessary skills to meet the needs of Australia's industry and the economy.

5.4 The Committee considered that a number of fundamental questions needed to be addressed in responding to the Senate's reference:

- How many Australians are gaining learning and skills through VET and what is the nature of the learning and skills they are attaining?
- Are the learning and skills being achieved through VET sufficient to meet the immediate and longer term needs of Australia's industry and the economy?
- Do the learning and skills being achieved through VET meet the needs of individuals?

5.5 This chapter explores these questions in relation to VET as a whole. Apprenticeships and traineeships data is included but not separately identified in the VET statistics used in this chapter. Data relating specifically to New Apprenticeships and major issues concerning New Apprenticeships are explored in Chapter 9.

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1 Committee of Inquiry into Labour Market Programs (Peter Kirby, Chair), *Report of the Committee of Inquiry into Labour Market Programs*, AGPS, Canberra, 1985

## Participation in vocational education and training

### *Growth in participation*

5.6 NCVET national VET statistics shows that there has been strong growth in total numbers and in the proportion of the working age population (15-64 year olds) participating in VET.

5.7 In 1999, a total of nearly 1.65 million people participated in VET, an estimated increase of 112,000, or 7.3 per cent, over 1998, and an increase of 374,000, or 29.4 per cent, since 1995.

5.8 Of the working age population, 1.189 million participated in VET in 1996 and 1.457 million participated in VET in 1999, an increase of 268,000 or 22.5 per cent. During the same period, the number of 15-64 year olds in the population increased by approximately 4.3 per cent. In 1996, nearly 10 in every one hundred 15-64 year olds participated in VET. By 1998 this had increased to just below 11.5 in every one hundred. Table 5.1 provides participation rates for 15-64 year olds in VET from 1996 to 1999. The largest increase in the participation rate was in Queensland and the smallest was in the ACT. From mid-1998 to mid-1999 there was a rapid growth in the number of apprentices and trainees, which contributed to the increased numbers in VET overall.

**Table 5.1: Vocational education and training participation rates by 15 to 64 year olds as a proportion of total population aged 15 to 64, 1996-1999**

Year	NSW %	VIC %	QLD %	SA %	WA %	TAS %	NT %	ACT %	Aust %	Aust (000,000)
1996	10.3	11.7	8.0	9.0	7.7	7.3	11.4	7.4	9.8	1.189
1997	10.4	12.4	7.0	11.0	8.2	7.7	9.9	7.0	10.0	1.234
1998	10.5	12.3	10.1	11.6	8.6	8.7	11.0	7.4	10.7	1.337
1999	11.0	13.5	11.2	11.4	9.2	9.4	12.7	8.0	11.4	1.457
<b>Change in participation rate 1996 to 1999 (percentage points)</b>	<b>0.7</b>	<b>1.9</b>	<b>3.2</b>	<b>2.3</b>	<b>1.5</b>	<b>2.0</b>	<b>1.2</b>	<b>0.6</b>	<b>1.7</b>	

*Source: National Centre for Vocational Education Research. Note: 1996 data has been adjusted to the same scope and boundary as 1997 data.*

### *Unmet Student Demand for Vocational Education and Training*

5.9 While participation growth appears very positive, it needs to be considered in the light of a number of other factors, one of which is unmet student demand for vocational education and training. Table 5.2 reports unmet demand in Australia for all

post-school education and training programs over the period 1995 to 1998.<sup>2</sup> The level of unmet demand for VET declined from 1995 to 1997, and remained the same for 1997 and 1998, at around 48,000. In 1999 it increased by slightly more than 10,000 to 58,900. Of this number, 48,500 could not obtain a place in TAFE, an increase of 10,500 over 1998, which accounts for almost all the increase in unmet demand. In 1997 and 1998 unmet demand represented approximately 3.1 per cent of all people who engaged in VET. In 1999 unmet demand increased to approximately 3.6 per cent of the total engaged in VET.

**Table 5.2: Unmet demand for post-school education and training, by provider sector, 1995-98 (persons)**

	1995	1996	1997	1998	1999
TAFE	60,700	48,300	35,300	35,200	45,800
Other Vocational Education & Training*	13,600	13,800	12,800	12,900	13,100
<b>Total Vocational Education &amp; Training</b>	<b>74,300</b>	<b>62,100</b>	<b>48,100</b>	<b>48,100</b>	<b>58,900</b>
Higher Education	28,700	25,300	18,300	22,900	20,000
Other Education Institutions	13,700	19,000	8,700	12,500	13,400
<b>Total</b>	<b>116,700</b>	<b>106,400</b>	<b>75,100</b>	<b>83,500</b>	<b>92,300</b>

Source: Australian Bureau of Statistics Survey - Transition from Education to Work Australia (cat. No. 6227.0)

Note: Table provided by NCVET. All figures have been rounded.

\*indicates persons wishing to enrol in a program which does not (of itself) result in a recognised qualification. Vocational education and training enrolments are on a module or unit of competency basis and many students enrol only in the programs they need to enhance their skill levels.

5.10 The Committee is concerned at the inability of the system to reduce unmet demand. While unmet demand as a proportion of all people engaged in VET is quite small, for the 58,900 unable to gain entry to a VET program it can be a serious problem that potentially affects their chances of active participation in the economic and social life of Australia.

5.11 The Committee also believes that, in view of Australia's need for skilled citizens there should not be any unmet demand in VET. Unmet demand is a waste of VET's potential to enhance Australia's skills base.

2 National Centre for Vocational Education Research, National VET Statistics 1999. The table was prepared by NCVET (1999) from an analysis of the ABS survey, *Transition from Education to Work*. NCVET cautions that these figures are subject to variability due to sampling. The confidence limits are shown in the appendices of the annual performance reports. Furthermore, it is important to note that unmet demand is difficult to define and measure. The information contained in the VET performance report is obtained from the annual ABS survey of transition from education to work. The figures quoted are estimates of the number of people who applied unsuccessfully for entry into post-school education and training programs each year. The figures include a small number of applicants who were unsuccessful because they did not meet minimum entry requirements. The NCVET nevertheless considers that the results from this survey provide a reasonable indication of the level of unmet demand.

5.12 The Committee believes it is probable that the Commonwealth's 'growth through efficiency' policy discussed in Chapter 7 has contributed to the inability of the system to reduce unmet demand, and, as argued in that Chapter, the Commonwealth should reconsider its decision not to provide additional growth funding for VET.

## **Achievements in Vocational Education and Training**

### *Qualification levels*

5.13 The Committee notes the NCVER's view that AQF level can be used as an indicator of quality as it provides a profile of the intended skill levels of training being provided in Australia's VET system, with an increase in the amount of delivery at higher AQF levels indicating a likely increase in higher skill levels being attained by Australians. The Committee agrees with the NCVER view that AQF levels do not provide a measure of 'quality' in terms of factors such as the integrity of the qualification, quality of teaching and relevance of training to employment.

5.14 The Committee also notes that NCVER has adopted a methodology for reporting qualification level whereby clients are allocated to a qualification level according to the major (highest) qualification in which they are enrolled. That is, a client who is enrolled in more than one recognised qualification is counted only once, against the major (highest) qualification category. The hours undertaken by a client enrolled in more than one qualification are summed up and reported against the major (highest) qualification category. The Committee considers this methodology may well present an untrue picture of VET participation. Enrolment practices in each state are by no means consistent and therefore the interpretation of enrolment data is very complex. The summing and reporting of all hours against the highest qualification category is also misleading, as the number of hours directly associated with the major (highest) qualification may be relatively low, perhaps even a single module. In addition, where enrolment is into a qualification in which lower level qualifications are 'nested' (ie where there are exit points at different qualification levels) it may be several years before the student progresses to the higher level qualification, or the student may not, in fact, continue to the higher level qualification.

5.15 Table 5.3, provided by NCVER, and based on the methodology outlined above, shows a comparison of the number of clients undertaking VET at particular qualification levels, but given the limitations mentioned above, the Committee is cautious about reaching any conclusions based on the data. The table indicates that in 1999 the number of students in all AQF levels, with the exception of AQF diploma and above, has increased over 1998 levels. The largest proportion of students is enrolled in AQF level III (19.6 per cent) and the lowest in AQF I (5.5 per cent).

**Table 5.3: Number of VET students in each qualification category, 1998-1999**

<b>Qualification level</b>	<b>1998 ('000)</b>	<b>1998 (%)</b>	<b>1999 ('000)</b>	<b>1999 (%)</b>
AQF diploma and above	198.4	12.9	200.8	12.2
AQF certificate IV or equivalent	150.3	9.8	167.0	10.1

AQF certificate III or equivalent	267.3	17.4	323.3	19.6
AQF certificate II	196.9	12.8	261.8	15.9
AQF certificate I	76.9	5.0	90.6	5.5
AQF senior secondary	4.4	0.3	3.7	0.2
AQF level not known	91.6	6.0	57.5	3.5
Sub-total AQF or equivalent	985.7	64.2	1,104.8	67.1
Other recognised courses	294.2	19.2	135.4	8.2
Non-award	232.0	15.1	313.6	19.0
Module only enrolments	23.4	1.5	93.3	5.7
Total*	1,535.2	100.0	1,647.2	100.0

Source: National Centre for Vocational Education Research.

\* The scope and boundaries of the data presented in this table are the same as the annual VET statistics published by NCVER. The figures have not been adjusted for factors used in the National Performance Reports.

### Module Outcomes

5.16 The Committee considered two sets of statistics on module outcomes: pass rates and completion rates. The Committee notes ANTA's comments in the Annual National Report for 1998 that in many cases, successful completion of a module means that the student has been tested or assessed as competent against the industry standard for the module. However, in some areas (particularly language and literacy, preparatory studies and creative studies) different considerations can apply. In these cases, a successful outcome cannot necessarily be readily measured by an examination of pass rates.

### Pass Rates

5.17 Table 5.4 below provides a state comparison of pass rates for 1996 to 1999 for all students who were assessed.<sup>3</sup> The Committee notes that variations in pass rates between 1996 and 1997 (old pass rate formula) for some states, notably Western Australia and Queensland, are attributable to policy changes in the treatment of some records.<sup>4</sup>

3 NCVER provides the following notes: 'A number of changes have been made to the reporting of module pass and completion rates, as follows: • Until 1998, separate module pass and completion rates were reported in the performance report. As agreed by ANTA and the state or territory reference group, for 1999 only the pass rate is being reported. • Owing to a change in the AVETMISS standard for 1999, the formula used for determining module load pass rates changed. Therefore 1999 module load pass rates are not directly comparable with module load pass rates calculated for 1996, 1997 and 1998. However, it is possible to calculate the 1998 pass rates on the same basis as 1999, for comparative purposes, as shown in Table 3. • As module completion rates are no longer shown in the National Performance Report they have not been calculated for 1999. Furthermore, NCVER cannot compute 1999 module completion rates which are comparable with previous years because of the changes to AVETMISS noted above and because their calculation requires a set of adjustment factors which are not readily available for 1999. ' National Centre for Vocational Education Research, further information 15 September 2000, p.392

4 Australian National Training Authority, *Annual National Report*, ANTA, Brisbane, 1999, Vol. 3, p.91

## Completion rates

5.18 The completion rate compares students who completed a module (regardless of whether or not they undertook a final assessment) with all students who commenced the unit and were no longer studying that unit. Completion rates for 1996 to 1998 are provided in Table 5.5. The Committee notes that the policy changes referred to above in relation to pass rates, also apply to completion rates.

5.19 The Committee accepts the NCVET view that module outcomes should be a broad system-level indicator of quality outcomes. The figures available, even taking account of the break in series, suggest module completion rates have not improved since 1996.

5.20 The Committee notes that there are differing policy and reporting practices between states and territories and views this lack of consistency as a weakness in the national VET system.

**Table 5.4: Comparison of vocational education and training pass rates, by state and territory, 1996-1999**

	NSW %	VIC %	QLD %	SA %	WA %	TAS %	NT %	ACT %	AUS %
Old pass rate formula									
1996 (final)	78.9	80.0	88.6	91.7	90.3	81.8	83.1	75.0	82.2
1997 (final)	77.9	81.6	92.0	91.7	91.6	82.5	75.2	75.0	82.8
1998 *	77.8	80.7	74.9	93.5	81.9	88.9	75.8	79.8	79.7
<b>Note break in series and change to new formula</b>									
New pass rate formula									
1998 *	74.3	75.1	74.0	85.4	75.7	85.4	69.0	76.5	75.5
1999	71.9	73.6	74.9	85.7	73.3	83.4	69.5	79.8	74.4
<b>Variation 1998-1999 (percentage points)</b>	<b>-2.4</b>	<b>-1.4</b>	<b>0.8</b>	<b>0.3</b>	<b>-2.3</b>	<b>-2.0</b>	<b>0.5</b>	<b>3.3</b>	<b>-1.2</b>

Source: National Centre for Vocational Education Research.

\* In 1999 the reporting standard changed with the effect that enrolment withdrawals were no longer subclassed in "student withdrew – without failure", "student withdrew – failed" and "student withdrew – transferred". As a consequence, the formula used for calculating module load pass rates changed such that the denominator, which prior to 1999 included "withdrew – failed" outcomes, now includes all withdrawals. Therefore from 1999 module load pass rates apparently are smaller than in previous years.

**Table 5.5: Comparison of vocational education and training completion rates, by state and territory, 1996-1999**

	NSW %	VIC %	QLD %	SA %	WA %	TAS %	NT %	ACT %	AUS %
1996 (final)	81.4	80.1	83.8	92.0	87.7	85.3	78.1	81.1	82.7
1997 (final)	80.6	80.5	83.2	90.6	88.6	88.3	78.2	80.6	82.3
1998 (final)	80.1	80.3	78.7	87.5	78.8	90.0	74.2	82.8	80.4
1999**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Variation 1996-1998</b>	<b>-1.3</b>	<b>+0.2</b>	<b>-5.1</b>	<b>-4.5</b>	<b>-8.9</b>	<b>+4.7</b>	<b>-3.9</b>	<b>+1.7</b>	<b>-2.3</b>

Source: National Centre for Vocational Education Research.

\*\* From 1999 the VET Performance Report no longer includes module load completion rates.

### Successful completions by individual students

5.21 The NCVER favours a student-centred approach to completions, looking at success from the standpoint of the individual student. Passes by the student in either assessable or non-assessable training at the unit or module level are viewed as successful completion.

5.22 In 1999, over two-thirds of students successfully completed effectively all (more than 95 per cent) of their training (Table 5.6). A small number of students (12.4 per cent nationally) completed effectively none (less than 5 per cent) of their training. These figures indicate that a large proportion of students are successful in their VET endeavours.

**Table 5.6: Distribution of successful completions for individual students in units of competency and modules by state and territory, 1999 (per cent).**

Proportion of training completed	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
All or nearly all (>95%)	64.7	70.4	66.8	77.3	54.0	67.0	52.7	58.4	66.7
Some (5-95%)	22.6	17.2	23.0	16.1	26.3	19.6	26.7	29.6	20.9
None or almost none (<5%)	12.6	12.4	10.2	6.6	19.7	13.4	20.5	12.0	12.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Centre for Vocational Education Research.

### *Australia's qualifications profile*

#### VET qualifications held by Australians

5.23 The Committee considers that a fundamental piece of information needed for its inquiry is how many Australians hold VET qualifications, in what industry or occupational areas, and at what level.

5.24 This information proved difficult to obtain. The Australian Bureau of Statistics (ABS) collects and reports on 'highest educational attainment of the Australian labour force' in its *Transition from Education to Work* series. As only the highest level of qualification is reported, VET qualifications held by people with higher qualifications are not reported. ABS data reported in ANTA's 1998 Annual National Report shows that more than half the Australian labour force aged 25 to 64 had post school qualifications. Of the total labour force in this age bracket, a third had a vocational education and training qualification and a further 18 per cent had a university qualification.<sup>5</sup> For all industries, except the *property and business services, education, and finance and insurance* industry sectors, VET qualifications were more prevalent than higher education qualifications. What concerns the Committee however, is the

5 Australian National Training Authority, *Annual National Report*, ANTA, Brisbane, 1999, Vol. 3, p.35

high percentage of the labour force, nearly 50 per cent, who have no post school qualifications.

### International comparison

5.25 ANTA reported in 1999 that it would appear that Australia's skill base remains low compared to those of other OECD countries for whom information is available. In 1996, 37 per cent of Australia's workforce aged 25 to 64 years had not completed upper secondary, compared to a country mean of 34 per cent. Nearly 35 per cent of the Australian workforce had completed upper secondary education, compared to a country mean of 43 per cent and in total 63 per cent of the Australian workforce had completed some form of post-compulsory education, compared to a country mean of 64 per cent. Australia was in fact 18<sup>th</sup> out of 26 in the OECD in terms of post Y12 qualifications in the population.

5.26 The Committee is alarmed by this comparison as it impacts directly on Australia's international competitiveness. The Australian Industry Group points out that Australia currently ranks fourteenth in the World Economic Forum composite competitiveness rankings, and behind the best both in terms of adults with at least upper secondary education, and in knowledge-developing activity, including spending on research and development. The Australian Industry Group stresses that Australia must continue to strive for world best practice.

### **Meeting the needs of employers**

#### *VET skills and qualifications needed by employers*

5.27 The demand for skills is affected by a number of factors, including the Australian economy and the state of the labour market. Economic growth of 4.2 per cent in 1999 was higher than the long term trend, unemployment fell from an average of 8 per cent in 1998 to 7.3 per cent in 1999 and job vacancies reached 103,100 (seasonally adjusted) in November 1999 compared with 97,100 in November 1998<sup>6</sup>.

5.28 The retail trade had the largest share of employment (approximately 16 per cent), followed by manufacturing (slightly less than 14 per cent) and the property and business services sector (slightly less than 12 per cent). The greatest average annual rate of employment growth for one year, from May 1998 to May 1999 was in the government administration and defence industry sector (9.8 per cent), followed by communication services (6.5 per cent), retail trade (6.4 per cent) and cultural and recreational services (6.2 per cent).

5.29 The property and business services sector had the largest share of job vacancies (19.5 per cent), followed by manufacturing with 13.8 per cent and the retail trade and the accommodation, cafes and restaurants sector with approximately 10 per cent

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6 Australian Bureau of Statistics, *Australian Economic Indicators*, catalogue no. 1350.0, March 2000



respectively. There was a 10 per cent increase in the number of skilled vacancies during 1999, and a 20 per cent increase in the number of skilled vacancies for trades.

5.30 Between 1986-1999, the estimated proportion of low skilled employees in the workforce was about 29 per cent. During the same period, the percentage of high skilled workers increased from 33 per cent to 36 per cent, and the percentage of medium skilled workers fell from 38 per cent to 35 per cent<sup>7</sup>.

### *Employers' views on the relevance of skills acquired through VET*

#### Employer satisfaction surveys

5.31 Employer satisfaction surveys provide indicators of quality in VET. NCVER has conducted surveys in 1995, 1997 and 1999. The most recent survey, conducted in 1999, indicates an increase (5 per cent) in employers reporting being satisfied or very satisfied with VET since the last survey in 1997. Compared with 1995, a larger proportion (13 per cent) of employers in 1999 agreed or strongly agreed that the VET system is providing graduates with skills appropriate to employers' needs. The proportion who agreed, or strongly agreed, that training pays for itself through increased productivity has remained stable (between 72-74 per cent) for the three years of the survey. There has also been a drop from 40 per cent to 32 per cent in the proportion of employers holding the view that the VET system does not take into account the needs of employers.

5.32 The Committee agrees that the surveys show very positive attitudes to overall VET. However, given the very substantial changes that have been made to the VET system since 1995 in order to make VET more flexible and responsive to employer needs, a more significant increase in overall satisfaction levels could perhaps have been expected.

5.33 The Committee is also mindful of Schofield's observation that satisfaction is always influenced by expectations and that the expectations of both clients and stakeholders are likely to be different. From the evidence put before it in this inquiry the Committee feels it is safe to conclude that the expectation of most employers is that training will meet their individual needs, which are for immediate, enterprise-specific skills and training. The Committee questions whether this is in the best interests of individuals and industry more broadly, in terms of labour mobility and currency of skills and qualifications. The Committee notes as well that there is a high degree of inconsistency between the results of the satisfaction survey and evidence from submissions and public hearings. Most employers or employer associations providing evidence to the Committee gave conditional support for the current system. While they supported many of the changes they also drew the Committee's attention to many aspects that were not working well.

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7 Department of Industry, Science and Resources, 2000, *Industry Brief: Manufacturing Sector*

### *Skill shortages*

5.34 The Committee also examined the incidence of skill shortages as another possible indicator of whether VET in Australia is meeting employers needs.

5.35 The Department of Employment, Workplace Relations and Small Business (DEWRSB) reports that skill shortages have become evident in a broadening range of occupations, especially information technology and telecommunications (IT&T) skills, health occupations and the trades. From 1995-1998 the annual growth rate of 1.5 per cent in numbers of apprentices and trainees in the 'tradespersons and related workers' occupational category was the lowest of all major occupational groups which had growth rates of at least 10 per cent. Construction tradespersons, other tradespersons and skilled agricultural and horticultural workers categories shrank, while the food tradespersons category increased by 8 per cent.

5.36 According to DEWRSB, skill shortages, if extensive and sustained, can limit investment and growth opportunities, give rise to upward pressure on earnings and thereby dampen the pace of economic and jobs growth and make it more difficult to reduce unemployment.<sup>8</sup>

5.37 DEWRSB argues that skill shortages may arise in a number of ways and are the result of a complex array of labour supply and demand factors. Employment and vacancy growth are important influences, as is the education and training system. DEWRSB identifies occupational wastage (qualified workers who are no longer employed in the trade for which they are qualified) and wastage during training (apprentices not completing their apprenticeship) as major causes of skill shortages. Wastage in these circumstances helps to explain the emergence of shortages in the context where employment for trades overall is growing only slowly (3.3 per cent over the five years to May 1999).

5.38 Other factors leading to skill shortages are:

- economic and demographic change;
- cyclical fluctuations in labour demand (especially for trades occupations);
- emerging demands of new technology;
- lack of flexibility in wages; and
- regional mismatches.

5.39 The Tasmanian Government suggests that skills shortages arise because the pattern of training distribution for the New Apprenticeship Scheme does not reflect the outcomes of the recent Tasmanian Industry Audits that it conducted.

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8 Department of Employment, Workplace Relations and Small Business, *Skill Shortages in the Trades - an Employment Perspective*, September 1999, p.2

5.40 The Australian Centre for Industrial Relations Research and Training argues that the prospect of existing skill shortages and skill gaps is becoming much worse as the combined effects of declining apprenticeship numbers, less formal structured training and the outsourcing of many skilled functions impact on the labour market.<sup>9</sup>

5.41 Wastage in the trades and traineeship areas due to non-completion of training is discussed below. The Committee sees skill shortages as evidence that there is considerable room for improvement in the extent to which national VET objectives are being met. The Committee considers that skill shortages are a particular concern in relation to apprenticeship and traineeship outcomes.

#### *Non-completion of New Apprenticeships*

5.42 Many submissions are concerned about the rate of attrition in apprenticeships and traineeships. The number of apprentices and trainees who successfully complete their contracts of training, and gain recognised skills and qualifications as a result is an important indicator of both efficiency and effectiveness of apprenticeship and traineeship training. The Australian Industry Group sees high non-completion rates as indicative of possible wastage in some New Apprenticeships in new industries, and questions whether or not the expansion in New Apprenticeships has led to a less efficient use of public money. Undoubtedly, high attrition rates can represent a massive waste of time, money and effort for governments, employers and individuals.<sup>10</sup>

5.43 The Committee therefore considers the level of attrition in apprenticeships and traineeships, and the causes of attrition, as important issues in its inquiry.

5.44 Determining apprenticeship and traineeship attrition rates has proved to be a difficult and complex task, largely confounded by the lack of reliable data. The NCVET, for example, only recently began publishing national data on non-completion.

5.45 Until recently little research had been undertaken to establish the real extent of attrition in apprenticeships and traineeships, the reasons for attrition and possible strategies to encourage or facilitate continuation of training. Much of this research is currently underway and not available to the Committee during its inquiry. The Committee questions why, as attrition has been recognised as a potential problem for several years, more substantial investigation and research into the problem of non-completion was not initiated much earlier.

5.46 The research that is available suggests that non-completion rates differ between those engaged in traditional apprenticeships and those engaged as trainees. The non-completion rate appears to be higher for trainees.

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9 Submission 42, Australian Centre for Industrial Relations Research and Training, vol.2, p.369

10 Submission 64, Australian Industry Group, vol.3, p.716

5.47 For example, Smith, in a Queensland study, found that over half (52.2 per cent) of the cohort of apprentices who commenced their training in 1994-95 did not successfully complete their approved program.<sup>11</sup> This is a higher attrition rate than has previously been ascribed in Qld apprenticeships; the percentage of apprentices who withdraw during their probationary period has remained fairly constant and, in the light of many current assertions, surprisingly low across the last five years. The 6-7 per cent level of withdrawals indicates that the bulk of apprentices do not, as many believe, tend to pull out very early in their training when they find that it is not what they expected; and if the trend with the 1994-95 cohort continues, then at least 3 per cent of each apprentice cohort are cancelling in the final year of their apprenticeship. While the percentage itself may not seem significant, this represents something in the order of 350 students a year who may be curtailing their training after successfully completing at least 75 per cent of their program.

5.48 Smith also reported that almost 60 per cent of trainees do not successfully complete their approved program. The attrition rate has been getting slowly but consistently worse over the last five years. Approximately 31 per cent of trainees who commenced in 1998-99 have already withdrawn, cancelled or expired.

5.49 The percentage of trainees who withdraw during their probationary period has remained at a constant 5-7 per cent across the last five years. This level of withdrawals indicates that the bulk of trainees do not, as many believe, tend to pull out because they find that it is not what they expected. Around 20 per cent of trainees in each traineeship cohort fail to complete their training with the prescribed time limit.

5.50 The Smith findings are at odds with the findings of a study by DETYA into attrition among apprentices who started between July 1994 and June 1996.<sup>12</sup> The study estimated that about 23 to 30 per cent of the cohort had or would drop out. This is less than the estimates of 40 per cent emerging from the Smith study. The NCVER is discussing the Smith and DETYA studies with the parties concerned to see whether some of the difference might be related to different methodology or datasets.<sup>13</sup>

5.51 DETYA also undertook a study of non-completion of traineeships which found:

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11 L R Smith, *Apprenticeships and Traineeships: Queensland Trends*, Department of Employment, Training and Industrial Relations [Qld], 1998. L R Smith, *Apprenticeships and Traineeships: Queensland Trends - 1998-99 update*, Department of Employment, Training and Industrial Relations [Qld], February 2000, pp.17,31,36

12 D Ray & others, *Attrition in Apprenticeships - an analysis of apprentices commencing between July 1994 and June 1996*, Department of Education, Training and Youth Affairs, February 2000, pp.3,7-8. 'Attrition' is defined as: the apprentice leaves the apprenticeship by withdrawing (contract terminated during probation) or cancelling (contract terminated after probation but before completion) and does not recommence within two years in the same occupation.

13 Ms J Borthwick (NCVER), *Hansard*, Canberra 4 July 2000, p.684

- From 1985 (when traineeships were introduced) to 1993, on average about 40 per cent of trainees did not complete their traineeship.
- From 1995 to 1997 non-completion increased to 45 per cent.
- This rate of non-completion was similar to the rate of separation from permanent jobs similar to traineeships within a year of commencement, and considerably higher than the rate of non-continuation in other forms of education or training.<sup>14</sup>
- Personal characteristics of the trainees affect the probability of non-completion; but even those who have completed Year 12 and have little or no prior unemployment have a 35-36 per cent non-completion rate.
- The non-completion rate for small business and hospitality/tourism trainees was higher than would be expected. Both these traineeships allow training to be entirely on the job. 'It is possible that discontent with the training provided in these two traineeships contributes to their high non-completion rates.'<sup>15</sup>
- Voluntary non-completion (55 per cent of total non-completion) seems to have a number of causes, including wages too low, lack of training and poor workplace relations.<sup>16</sup>

5.52 The DETYA study found that non-completion of traineeships is similar to rates of separation from permanent jobs similar to traineeships within a year of commencement. The Committee does not find this provides any comfort. It could be expected that where a contract of training is involved, with elaborate quality assurance measures in place, and the progress and welfare of trainees supposedly monitored by New Apprenticeship Centres and state training authorities, that the rate of separation would be significantly lower.

5.53 DETYA stressed that it is concerned about the rate of non-completion and it has initiated a project to develop and trial models to support New Apprentices at risk of not completing their training.

5.54 An earlier study, in 1998, by the Australian Council for Educational Research, found that 76 per cent of apprentices who had commenced by age 19 had completed by age 24. This suggests attrition of 24 per cent.<sup>17</sup>

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14 The dropout rate between first and second year university is about 25 per cent; the non-completion rate for VET modules is about 15 per cent.

15 Among surveyed non-completers (both voluntary and involuntary) the main reason for leaving was: laid off 17%; business broke/changed owner 16%, personality clash/ harassment 14%; pay was too low 11%; personal reasons 11%, job offer 8%, mismatch 8%, poor training/support 6%, poor conditions 4%, did unspecified duties 3%, other 3%.

16 K Grey & others, *Traineeship Non-completion*, Department of Education, Training and Youth Affairs, February 1999, pp.1,15,29

17 S Lamb & others, *Access and Equity in Vocational Education and Training*, ACER Research Monograph No. 55, ACER Press, 1998, p.51

5.55 A recent NCVER commissioned report considered completion and non-completion of TAFE courses, using 1994-96 data. It found that 11 per cent of 1994 TAFE participants were enrolled in complete trade courses (stream 3212), which include traditional apprenticeship courses and that these students have only a 24 per cent probability of completing one of these courses. However they do have a high probability (85 per cent) of completion *or partial completion* (defined as succeeding in all modules they attempt). The report argues that partial completion is a significant outcome, and raises the question of whether the concept of a full course is becoming redundant as the focus moves to acquiring skills as they are needed, rather than investing resources in complete courses, parts of which may have little relevance to their immediate need.<sup>18</sup>

5.56 In evidence the NCVER said:

- There is higher attrition from shorter courses. Since traineeships tend to be shorter than apprenticeships, the recent rapid growth in traineeships relative to apprenticeships may have contributed to the higher attrition.
- Data on completion is the least robust of the data on apprenticeships and traineeships, because of the uncertain extent to which employers and trainees fail to report completion, withdrawal or cancellation. 'It remains to be seen if the establishment of New Apprenticeship Centres overcomes this difficulty through the application of incentives and fee for service arrangements.'<sup>19</sup>

5.57 The Committee is aware that many non-completions are not negative outcomes from the apprentice's/trainee's perspective. Many take up what they regard as better options or opportunities.

5.58 The Committee also acknowledges the possibility that partial completion might also be a positive outcome: One view is that it is possible that both trainees and employers gain benefits from partial completion which offset some or all of any associated costs. The experience and skills gained from partial completion may provide individuals with a stepping stone to other employment. However, some research suggests that non-completers have considerably worse employment prospects than completers.<sup>20</sup>

5.59 Submissions to this inquiry and available research suggest many reasons for non-completion. These include: workplace conflict; low wages; and conflict arising from misunderstanding of obligations, to poor training, lack of mediation facilitators; extension of training into industry sectors without a training culture; unsuitable

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18 J Foyster, H K Fai & C Shah, *Student Flows Through Australian TAFE Courses*, National Centre for Vocational Education Research, 2000, p.xv,20,29. Stream 3212 participants are roughly co-extensive with apprentices doing their training at TAFE.

19 Submission 74, NCVER, vol.4, p.903. NCVER, further information 22 March 2000, p.54-55

20 K Grey & others, *Traineeship Non-completion*, Department of Education, Training and Youth Affairs, February 1999, pp.13-16.

enrolments because of pressure by New Apprenticeship Centres or Registered Training Organisations to increase the numbers; inadequate basic literacy and numeracy; inadequate support services and lack of pastoral care for trainees; and employer incentives that reward commencement more than completion.<sup>21</sup>

5.60 Mr Ron Seidel, for example, suggests that if there is an increasing rate of non-completion this may be due to inadequate support infrastructure possibly brought about by the reduction in resources, and the expansion of apprenticeships and traineeships into areas where these have not previously existed and where there is limited training experience.<sup>22</sup>

5.61 The Shop, Distributive and Allied Employees' Association, on the other hand, argues that high levels of attrition among trainees are, at least in part, due to the low wages and poor treatment many receive from their employers and the system generally.<sup>23</sup>

5.62 The Victorian Government suggests that it is likely that the marketing of apprenticeships and traineeships primarily as a means of accessing employer incentives is contributing to poor completion rates for some courses, arguing that:

In 1997, only around 30% of trainees studying at AQF Level 2 completed their contracts of training, compared to around 50% in the previous two years. Such low completion rates are likely to result partly from people enrolling in inappropriate courses where participation is driven by employers' desire to access incentives, rather than training considerations. Employer incentives need to be presented and structured as an extra incentive for employers to make a genuine training effort, rather than as the main reason to become involved in training.<sup>24</sup>

5.63 In a survey by the Australian Council for Private Education and Training, only 21 per cent of respondents thought that the main reason for non-completion is poor training delivery. According to ACPET, other factors are: trainee not suited to the work, lack of employer support for traineeship, [poor] quality of information to trainee and employer, misuse of incentive money and national training wage, personality conflicts on the job and poor attitude.<sup>25</sup>

5.64 This view is supported by Callan who found in his March 2000 survey of non-completing apprentices and trainees in Queensland that the majority of apprentices/trainees did not believe that they had access to good trainers, or staff who understood their training needs and that poor quality training was cited as one of the

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21 Submission 83, Government of Tasmania, vol.4, p.1090

22 Submission 22, Mr R Seidel, vol 2, p.172

23 Submission 50, Shop, Distributive & Allied Employees Association, vol 2, p.532

24 Submission 119, Victorian Government, vol.7, p.1898

25 Submission 59, Australian Council for Private Education and Training, vol.3, p.628

dominant reasons for trainees and apprentices not completing their program of training.<sup>26</sup>

5.65 The Committee regards the rate of non-completion as a matter of great concern regardless of the precise figures. As a representative of the Queensland Department of Employment, Training and Industrial Relations said:

Frankly, I am not particularly concerned whether the Smith [Queensland] methodology is right or the DETYA methodology is right... The point is that, whichever way you look at it, the non-completion rate is too high, particularly for traineeships, and it has always been too high. It is about time that was focussed on as an issue.<sup>27</sup>

5.66 Non-completion is a great concern because of the significant wastage of public money that it represents. Of equal concern are the findings of research which show that non-completers have much poorer prospects of enjoying the benefits of full participation in economic life. The Committee notes the suggested connection between high rates of non-completion and fully on the job training.<sup>28</sup> The Committee is aware also of some research that indicates a connection between the lack of support systems, particularly peer support, and attrition rates in other forms of VET. The Committee considers that the relationship between the nature and availability of both educational and social welfare support systems for apprentices/trainees, and apprentice/trainee movements or non-completion, either through withdrawal, cancellation, transfer to another employer, or other event, should be a priority for further research.

**The Committee recommends that:**

**ANTA commission independent national research into the relationship between the nature and availability of both educational and social welfare support systems for apprentices/trainees, and apprentice/trainee movements or non-completion, either through withdrawal, cancellation, transfer to another employer, or other event.**

*Understanding apprentice and trainee movements and transactions*

5.67 A number of gaps in data and information critical for sound VET policy development and planning emerged during the Committee's inquiry. One such deficiency is in the area of individual apprenticeship and traineeship movements or

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26 V Callan, *Report on Apprenticeship and Traineeship Non-Completions*, University of Queensland, 2000

27 Mr P Noonan (Qld Department of Employment, Training and Industrial Relations), *Hansard*, Canberra, 5 July 2000, p797

28 K Grey & others, *Traineeship Non-completion*, Department of Education, Training and Youth Affairs, February 1999, p.1



transactions (that is, withdrawal, cancellation, recommencement, or any other event that involves an apprentice or trainee leaving an employer prior to completion). A much better understanding of the employment and training experience of individual apprentices and trainees and the reasons behind their movements between employers and in and out of training is needed.

5.68 There are also considerable and unacceptable delays in movements being identified, reported and recorded, which undermines the reliability of apprenticeship and traineeship statistics. Although sophisticated formulas are applied to estimate commencements, withdrawals, numbers in training, completions etcetera, the true picture cannot be determined with complete confidence at any particular time.

5.69 Currently, state training authorities, New Apprenticeship Centres, employers, apprentices and trainees, and RTOs have a role in monitoring, recording and reporting on apprentices' and trainees' movements, and the reasons for movements, but no single group or organisation has primary responsibility for all processes. The Committee believes this should be addressed as a matter of priority.

5.70 In recommending the establishment of better tracking, recording and reporting systems and arrangements, the Committee acknowledges that young people can be highly mobile and there may be difficulties in contacting them when they leave employment or change jobs. However, the Committee does not see this as preventing the establishment of much better systems than are currently in place.

**The Committee recommends that:**

**(a) Systems and arrangements for tracking individual apprentice and trainee movements or transactions (ie withdrawal, cancellation, recommencement, or any other event that involves an apprentice or trainee leaving an employer prior to completion) be strengthened, including by the establishment of systems and arrangements whereby**

**(i) apprentices and trainees whose contractual status changes (because of withdrawal, cancellation, recommencement or any other event that involves an apprentice or trainee leaving an employer prior to completion), and their employers, are interviewed in person or by phone about the circumstances surrounding the change; and**

**(ii) records of such changes and the reasons for the changes are maintained in a form that will allow results to be compiled in a timely manner in a national data base to assist training policy analysis and development.**

**(b) ANTA and the Commonwealth jointly convene a working group to investigate and make recommendations to ANTA MINCO on possible arrangements to ensure that apprentice and trainee movements or transactions, and the reasons for these changes, are more effectively tracked, recorded and**

reported. The investigation should consider the roles and responsibilities of employers, apprentices and trainees, registered training organisations, New Apprenticeship Centres and state training authority agents such as Field Officers, to determine where initial or primary responsibility for tracking apprentice and trainee movements or transactions, contacting apprentices and trainees and their employers, and maintaining records of and reporting on changes could most effectively rest.

(c) Responsibility for administering the systems and arrangements for monitoring and reporting on apprentice and trainee movements and transactions pass to the National Qualifications and Quality Assurance Authority when established.

### Meeting the needs of individuals

#### *Participation and attainment by client groups in VET*

5.71 One of the objectives of the *National Strategy for the Vocational Education and Training 1998-2003*, is to achieve equitable outcomes in VET. This includes improving the participation and outcomes for clients from equity groups such as people with a disability, Indigenous people, women, young people, older people, and people from non-English speaking backgrounds. The Committee notes that states and territories have funded a range of initiatives to assist these particular client groups.

5.72 In VET in 1999:

- (49.0 per cent) were women
- 63,200 (3.8 per cent) reported a disability
- 50,800 (3.1 per cent) identified as Aboriginal/Torres Strait Islanders
- 279,400 (17.0 per cent) were born outside Australia
- 17,100 (1.0 per cent) were full-fee paying students from overseas
- 192,300 (11.7 per cent) spoke a language other than English at home

#### Women

5.73 In 1998, 48.5 per cent<sup>29</sup> of clients participating in publicly-funded VET programmes were female. This is an increase of almost 4 per cent over the number of female clients in 1994. Although approximately 51.5 per cent of all clients in 1998 were male, the majority of clients aged over 25 were female. Significantly more males than females participated in New Apprenticeships in 1998: 70.7 per cent (155,301) of New Apprentices were male and 29.3 per cent (64,504) were female.

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29 In this chapter, all data is taken from National Centre for Vocational Education Research, *Australian Vocational Education and Training Statistics*, various years

## Opportunities for Young People

5.74 The VET sector caters for the training needs of all age groups, with the majority of clients being mature age adults. In 1999 young people aged 15-24 were 36.4 per cent of all clients undertaking publicly-funded vocational programs. This is a decrease of 1.6 per cent from the previous year, but remains approximately 2.4 per cent above 1997, when 15-24 year olds were 34.1 per cent of all clients.

5.75 These participation rates need to be considered in the light of general demographic trends. Over the period 1995 to 1998:

- The greatest average annual growth rate occurred for the 40 to 64 year old age cohort (2.66 per cent).
- The 20 to 24 year old age cohort has experienced an average annual rate of decline of 1.61 per cent.
- Annual growth rates for the 15 to 19 and 25 to 39 year old age cohorts were 1.21 per cent and 0.92 per cent respectively.

5.76 In 1999, approximately 11.4 per cent of all 15-64 year olds in the Australian population participated in VET. When these figures are disaggregated according to age groupings, they show that 23 per cent of all 15-19 year olds and 18 per cent of all 20-24 year olds in the population participated in VET during 1999.

## Post-compulsory education and training (Finn) targets

5.77 In 1991, Ministers set targets for the participation of young people in post-compulsory education and training which became known as the Finn targets after Brian Finn, chair of the committee that produced the related report.<sup>30</sup>

5.78 The purpose of the targets recommended in the Finn report was to raise the base skill level of those who were entering the work force without any appropriate form of education and training. In its recommendation the Finn committee stated that Australia as a nation should be committed to providing for all of its young people as a program of education and training which prepares them for life as individuals, citizens and workers now, through the current decade and into the coming century.<sup>31</sup>

5.79 The Finn targets are:

**Target One:** By 2001, 95 per cent of 19 year olds:

- are participating in Year 12; or
- have completed Year 12; or

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30 B Finn, *Young People's Participation in Post-Compulsory Education and Training - report of the Australian Education Council Review Committee*, July 1991

31 Australian National Training Authority, *Annual National Report 1998*, ANTA, Brisbane, 1999, vol.3, p.21-22

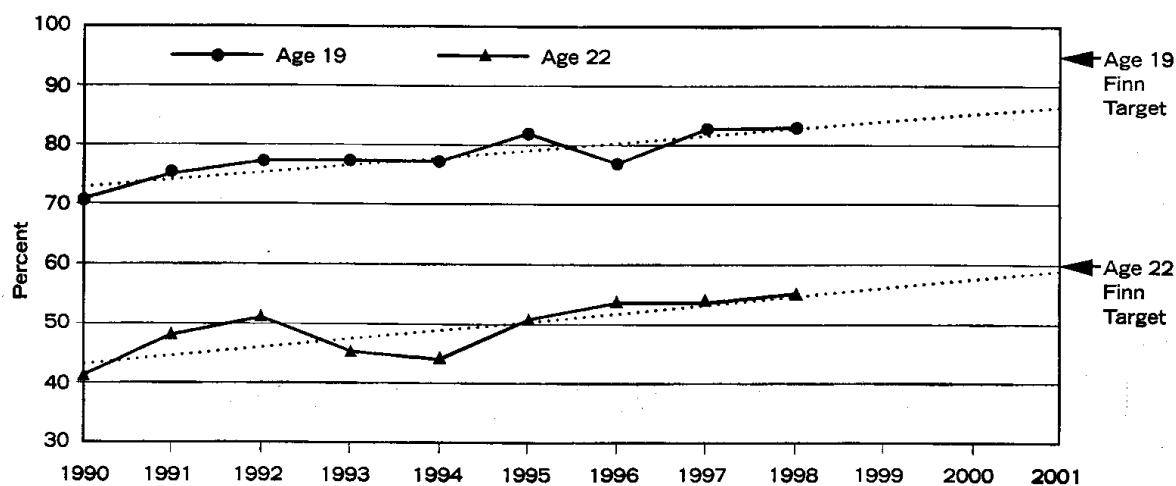
- have completed Year 10 and 11 and are participating in some formally recognised education and training; or
- have completed Year 10 or 11 and have completed some formally recognised education and training.

**Target Two:** By 2001, 60 per cent of 22 year olds:

- are participating in education and training programs which lead to level 3 awards; or
- have attained level 3 Qualifications; or
- have attained above level 3 Qualifications; or
- are participating in, or have completed higher education studies such as degrees and diplomas.

5.80 Figure 5.1 shows that participation and attainment for 22 year olds is increasing in line with the Finn targets indicated by the arrow on the right-hand side of the figure. The figure also indicates that if the current participation and attainment trends for 19 year olds continues, the achievement of the Finn target for this age cohort by 2001 will be at risk. As can be seen from the figure, an extrapolation of the time series participation and attainment trend for 19 year olds does not meet the Finn target by 2001. The reduced retention rate of students through to the completion of Year 12, observed since 1993, has contributed to this trend.<sup>32</sup>

**Figure 5.1: Participation and attainment in post-compulsory education and training: people aged 19 and 22**



Source: Australian National Training Authority, *Annual National Report, 1998, vol.3, p.21*

32 Australian National Training Authority, *Annual National Report 1998*, ANTA, Brisbane, 1999, vol.3, p.21-22

5.81 Submissions referred to the fact that the 1991 'Finn targets' for participation in post-compulsory education by 2001 are not being achieved.<sup>33</sup> In general:

The Finn report on post-compulsory education and training in Australia 1991 was a very significant document... Australian governments - Commonwealth, state and territory - subsequently set national targets (known as the Finn targets)..... if current trends continue in the down-turn in the participation and attainment by 18 year olds (mainly due to recent declines in Year 12 retention rates) then the Finn target for 19 year olds in 2001 will not be met.<sup>34</sup>

5.82 The Victorian Government also cautioned that Australia was in danger of not meeting the Finn targets.<sup>35</sup> Latest figures indicate that neither the age 19, nor the age 22 target will be achieved by 2000, with both likely to be close to 10 per cent below the target on current predictions.

### Opportunities for Older People

5.83 A substantial proportion of national VET activity is about addressing the skills needs of the existing workforce. A large proportion of VET students are mature aged and are already in work and seeking to upgrade their skills

5.84 There has been a significant increase in the participation of older people aged 25 and above in VET. In 1998, 61.2 per cent of all clients in publicly-funded vocational education and training programmes were aged 25 and above, an increase from 50.2 per cent in 1994.

5.85 The VET system can also provide a 'second chance' for some mature age students who enrol in preparatory courses in order to move into other education and training courses. In 1998, approximately 20 per cent of VET clients were enrolled in non-award courses, of which around 26 per cent were preparatory or pre-vocational in nature.

### People with a Disability

5.86 In general, the proportion of VET clients who have a disability has remained stable over the past three years. In 1998, 3.5 per cent of clients reported having a disability, compared with 3.3 per cent in 1997 and 3.5 per cent in 1996. The self-reporting option identifying disability makes it difficult to obtain an accurate picture of participation in VET by this group of people.

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33 Submission 139, New South Wales Department of Education and Training, vol.9, p.2416. Submission 140, Australian Council of Trade Unions, vol.9, p.2492

34 Submission 140, Australian Council of Trade Unions, vol.9, p.2492-3

35 Submission 119, Government of Victoria, vol.7, p.1891

## Indigenous People

5.87 Representation of Indigenous people in VET programmes is higher than their representation in the Australian population as a whole. While Indigenous people comprise approximately 2 per cent of Australia's total population, 3.7 per cent of all clients aged 15-64 undertaking publicly-funded VET in 1998 were Indigenous. Over the last four years, there has been a significant increase in the participation of Indigenous people in VET. In 1994, 2 per cent of all vocational education and training client were Indigenous people. In 1998, this proportion had almost doubled. The self-reporting option regarding Aboriginal and Torres Strait Islander background, makes it is difficult to obtain an accurate picture of participation in vocational education and training by Indigenous people.

### *Summary*

5.88 The Committee considers that overall VET outcomes are positive. There has been considerable growth, client surveys suggest clients are generally satisfied with the standard of VET delivered. Nevertheless, the Committee believes the system could and should do better. On the evidence available, Australia is still considerably below other countries in terms of educational qualifications and there is evidence it is restricting the country's international competitiveness.

5.89 With the average age of the workforce increasing, re-skilling older workers will become increasingly important and the increase in participation in VET by older people is to be welcomed. A major concern, however, is that the Finn targets for younger people will not be achieved for either 19 or 20 year olds within the original timeframe, and in fact, the targets will be missed by some 10 per cent for each age group.

5.90 Equity issues did not feature prominently in submissions or evidence, although a number of areas where equity problems exist were brought to the Committee's attention. The Committee gained the impression that while there is always room for improvement, there have been concerted efforts to address equity issues. The Committee does not see room for complacency, however, and is well aware that equity groups are likely to be the most affected by the problems and deficiencies in the VET system identified later in this report, and will therefore, be equally assisted by the recommended action to address those problems and deficiencies.

5.91 The Committee received few submissions that raise concerns about the quality of overall VET outcomes. Some, however, were concerned that New Apprenticeships and arrangements designed essentially to encourage and facilitate New Apprenticeships training are impinging inappropriately on VET generally.

5.92 Weaknesses in quality assurance processes, the quality of VET programs and assessment processes and the integrity of qualifications awarded emerged as major issues during the Committee's inquiry and are discussed later in this report. The issues raised are primarily related to New Apprenticeships training, and do not, in the Committee's opinion, detract from the generally positive outcomes from VET overall,

as assessed by the statistical indicators the Committee has considered above, and the evidence gathered during its inquiry.

