



Second-chance vocational education and training

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National Centre for
Vocational Education Research



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ISBN 978 1 921170 53 9 web edition

TD/TNC 91.17

Published by NCVER

ABN 87 007 967 311

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Key messages

The vocational education and training (VET) sector has a reputation for providing individuals with a ‘second chance’. The purpose of this report is to critically examine this perception. Our approach is to define prospective second-chance students as early school leavers aged 24 years and below and adults aged 25 years and over who have not completed a non-school qualification. Due to the lack of longitudinal data, we can only *estimate* the role and impact of VET in providing individuals with a second chance in education.

The findings suggest that:

- ✧ The reputation of the VET sector as the ‘second chance’ sector is fully justified.
 - ◆ The percentage of VET students who can be characterised as second chance is very substantial—second-chance students represented 41% of the VET student population in 2004.
 - ◆ The percentage of the eligible second-chance population who undertakes VET is also very substantial—around 50% of early school leavers and the vast majority of eligible adults over the age of 25 years participates in second-chance VET.
- ✧ Despite the fact that VET provides this opportunity to many prospective second-chance students, the percentage of second-chance students leaving the sector with a qualification is low. The percentage is particularly low when restricted to certificate III or higher VET qualifications.
 - ◆ Just over 10% of early school leavers complete a certificate III or higher VET qualification within four years of leaving school.
 - ◆ 10 to 30%¹ of adults eligible for a second chance in education will complete a certificate III or higher VET qualification (at least up to the age of 49 years).

¹ The estimate varies depending on the methodology undertaken.

Executive summary

The purpose of this paper is to examine the extent to which vocational education and training (VET) is providing individuals with a second chance in education. By ‘second chance’ we are referring to opportunities in education taken by individuals who have not followed the conventional academic pathway of school completion followed by post-school study.

Our approach is to look at two groups. The first group consists of young early school leavers up to (and including) 24 years who have not completed a non-school qualification. The second group consists of adults aged 25 years and over who have not completed a non-school qualification.

The paper examines three research questions.

- ✧ How important is second-chance education within the VET sector?
- ✧ What proportion of the relevant population avails themselves of the opportunity?
- ✧ What are the outcomes of those who do undertake second-chance education?

Various data sets are analysed—the National VET Provider Collection, the National Apprentice and Trainee Collection, both maintained by the National Centre for Vocational Education Research (NCVER) and the Australian Bureau of Statistics (ABS) Survey of Education and Training. Each data set has its own shortcomings. The shortcomings include a mixture of data-quality issues, data-scope limitations and limited information on individuals’ educational histories. Due to these shortcomings, we are unable to provide precise answers to the research questions.

The first section of the paper involves estimating how many students enrolled in VET are second-chance students in a given year.

The second section of the paper focuses on the extent to which the eligible second-chance population participates in VET. Two approaches are undertaken. The first involves calculating the percentage of the eligible second-chance population who participated in VET in 2001. However, this only provides an indication of the proportion participating in VET in one year. The ideal approach would be to track a group of prospective second-chance students throughout their lifetime. However, we are restricted by the lack of longitudinal survey data and the lack of unique student identifiers in the National VET Provider Collection. In the absence of this ‘ideal’ data, we adopt a life table approach to estimate the extent of participation in VET amongst individuals eligible for a second chance.

The final issue looks at completion rates amongst the second-chance population. The number of qualifications completed by second-chance students is briefly discussed. Subsequently, the extent to which eligible second-chance students complete a VET qualification, and the subset of a certificate III to advanced diploma qualification, are estimated using a life table approach.

Despite the data-quality issues and limitations, we draw some fairly clear conclusions.

- ✧ The percentage of VET students who can be characterised as second chance is very substantial.
 - ◆ Second-chance students represented 41% of publicly funded VET students in 2004.
- ✧ Second-chance students enrolled in VET are less likely to undertake higher-level qualifications (certificate IV and higher) compared with other students enrolled in VET.

- ✧ The percentage of the eligible second-chance population who undertakes VET is very high.
 - ◆ Estimates suggest that around 50% of early school leavers access VET within four years of leaving school.
 - ◆ Estimates suggest that the overwhelming majority of eligible adults will access second-chance VET at some stage during their lives between the ages of 25 and 49 years (over three-quarters of the eligible population).
 - ◆ Females access second-chance VET at higher rates than males.
- ✧ The percentage of the second-chance population actually completing an award is low, and is particularly low when we focus on the completion of VET qualifications at certificate III or higher.
 - ◆ Our estimate suggests that 11% of male and 12% of female early school leavers complete a certificate III or higher VET qualification within four years of leaving school.
 - ◆ Depending on the methodology adopted, our estimates indicate that between 10 and 30% of adults eligible for second-chance VET will complete a certificate III or higher VET qualification (at least up to the age of 49 years).

We conclude that VET is living up to its reputation as providing early school leavers and adults with a second chance in education. The main issue to arise from the study concerns qualification completion—few who access second-chance VET actually complete a qualification (especially at the certificate III or higher level). However, it is worth noting that many people accessing second-chance VET are currently studying, and by definition have not yet had a chance to complete their course. For those who simply left the system prior to course completion, the failure to complete a qualification does not appear to be associated with the course being too difficult; rather, it appears to be more likely that the VET course was not what people expected, or that there was a lack of motivation or interest in continuing in the course.

Introduction

The vocational education and training (VET) sector has a reputation for providing individuals with a second chance. The purpose of this paper is to critically examine this perception. In particular we look at three issues:

- ✧ the importance of second-chance education within the VET sector (the importance)
- ✧ the percentage of the eligible second-chance population who go to VET (the coverage)
- ✧ the outcomes of those who do undertake second-chance education (the outcomes).

Before considering these issues we need to clarify what we mean by ‘second chance’ education. Obviously there is a degree of arbitrariness in any definition. Our approach is to look at two groups. The first consists of young early school leavers; that is, those young people who do not complete 12 years of schooling. In order to allow reasonable time for a young person to ‘find their feet’ we consider people up to (and including) 24 years.² The second group consists of people 25 years and over who have not completed a non-school qualification, irrespective of whether they have completed Year 12 or not.

It needs to be acknowledged at the outset that we cannot answer the research questions precisely. We make use of various data sets (the National VET Provider Collection, the National Apprentice and Trainee Collection, both maintained by the National Centre for Vocational Education Research [NCVER], and the Australian Bureau of Statistics [ABS] Survey of Education and Training) and consequently there are inconsistencies in concepts and coverage. Data-quality issues also affect the analysis. In particular, there are considerable numbers of unknowns in the previous education field in the National VET Provider Collection, and the field is an important element of the definition of the target population.

The structure of the report is as follows: the first section uses 2001 and 2004 data to look at how many students in VET are second-chance students. Characteristics such as sex and level of study are also examined.

In the second section, the coverage of second-chance education is considered. That is, we attempt to estimate the percentage of the eligible population who participated in second-chance education. A snapshot based on 2001 participation is provided, as well as a lifetime estimate.

In section three, outcomes are addressed, in particular, the completion of awards. The extent to which students complete a higher-level qualification (a certificate III to advanced diploma qualification) is also considered.

² Analyses derived from the ABS Survey of Education and Training excludes people aged less than 15 years, as the survey only provides information on 15 to 64-year-olds.

How important is second-chance VET?

Estimates are derived from two sources: the National VET Provider Collection and the ABS Survey of Education and Training.

Table 1 characterises the VET student population in 2004 using the National VET Provider Collection. To differentiate between categories of students, we use the labels *second chance*, *other* and *not known*.

Table 1 VET students classified by second-chance status, by sex, 2004 (%)^{a, b, c}

	Males	Females	All people
24 years and under			
<i>Second chance</i> : early school leaver, no prior education	9.6	5.9	7.8
<i>Other</i> : completed Year 12	16.0	16.0	16.0
<i>Other</i> : attending school and highest school level less than Year 12 or not known	5.6	5.9	5.7
<i>Other</i> : early school leaver, prior education	2.8	2.0	2.4
<i>Other</i> : early school leaving not known, prior education	0.3	0.3	0.3
<i>Not known</i> : early school leaver, prior education not known	1.4	0.8	1.1
<i>Not known</i> : early school leaving not known, no prior education	1.9	1.7	1.8
<i>Not known</i> : early school leaving not known, prior education not known	6.2	4.9	5.5
25 years and over			
<i>Second chance</i> : no prior education	20.5	25.1	22.7
<i>Other</i> : prior education	19.3	21.8	20.5
<i>Not known</i> : prior education not known	16.4	15.7	16.1
Total	100.0	100.0	100.0
Total <i>second chance</i>	30.1	31.0	30.5
Total <i>other plus not known</i>	69.9	69.0	69.5
Total	100.0	100.0	100.0
Total <i>second chance</i> , with data adjusted to include not known students ^d	41.3	40.8	41.1
Total <i>other</i> , with data adjusted to include not known students ^d	58.7	59.2	58.9
Total	100.0	100.0	100.0

Notes: (a) People with 'age not known' were excluded from the analysis.
 (b) In the table, 'prior education' refers to whether non-school qualifications have been completed.
 (c) Early school leavers are defined as not attending school and highest school level completed is Year 11 or below or did not attend school.
 (d) Data were adjusted by distributing the number of students in the 'not known' category to the 'second chance' and 'other' categories. See appendix A for a description of the methodology.115

Source: NCVET National VET Provider Collection, 2004

From table 1, we can see that second-chance education contributes a very substantial proportion of VET students. If we allow for the 'unknowns', 41% of students fall into our category of second chance.

In relation to the early school leaver group, there are some definitional issues that need to be addressed before we proceed further. Firstly, a significant proportion of the young early school leavers classified in table 1 as second chance are apprentices and trainees.³ It is true that undertaking an apprenticeship after leaving school early is a fairly conventional pathway to work. However, this vocational pathway could also be described as one that provides many opportunities for prospective second-chance individuals who have not undertaken the traditional academic pathway from Year 12 completion to post-school study. For this reason, apprentices and trainees are included within our second-chance definition.

It could also be argued that young people participating in VET while at school are accessing second-chance VET before leaving school. However, we have taken the conservative approach of omitting these students from our definition of 'second chance', as many school students are also undertaking VET as a school option, intending to take the conventional pathway into education and training after completing Year 12.

To offer an indication of its importance, table 2 gives an estimate of the hours of delivery of second-chance VET in 2004. The results suggest that second-chance education accounts for around 35% of 2004 training activity.

Table 2 Hours of VET delivery classified by second-chance status, by sex of students, 2004 (%)^{a, b, c}

	Males	Females	All people
24 years and under			
<i>Second chance</i> : early school leaver, no prior education	13.0	7.7	10.3
<i>Other</i> : completed Year 12	27.0	25.8	26.4
<i>Other</i> : attending school and highest school level less than Year 12 or not known	4.8	4.4	4.6
<i>Other</i> : early school leaver, prior education	3.8	2.8	3.3
<i>Other</i> : early school leaving not known, prior education	0.4	0.3	0.4
<i>Not known</i> : early school leaver, prior education not known	1.6	0.8	1.3
<i>Not known</i> : early school leaving not known, no prior education	2.2	1.6	2.0
<i>Not known</i> : early school leaving not known, prior education not known	6.6	5.2	5.9
25 years and over			
<i>Second chance</i> : no prior education	15.5	20.5	17.9
<i>Other</i> : prior education	16.3	21.1	18.6
<i>Not known</i> : prior education not known	8.8	9.8	9.3
Total	100.0	100.0	100.0
Total <i>second chance</i>	28.4	28.2	28.3
Total <i>other plus not known</i>	71.6	71.8	71.7
Total	100.0	100.0	100.0
Total <i>second chance</i> , with data adjusted to include not known students ^d	35.5	34.4	35.0
Total <i>other</i> , with data adjusted to include not known students ^d	64.5	65.6	65.0
Total	100.0	100.0	100.0

Notes: (a) People with 'age not known' were excluded from the analysis.
 (b) In the table, 'prior education' refers to whether non-school qualifications have been completed.
 (c) Early school leavers are defined as not attending school and highest school level completed is Year 11 or below or did not attend school.
 (d) Data were adjusted by distributing the number of students in the 'not known' category to the 'second chance' and 'other' categories. See appendix A for a description of the methodology.

Source: NCVER National VET Provider Collection, 2004

³ In fact, almost 40% of the young second-chance population was identified as an apprentice or trainee.

A deficiency of tables 1 and 2 is that the data only encompass students studying in the public VET sector.⁴ Table 3 presents alternative estimates, covering all people studying VET, irrespective of provider (see appendix B for the methodology). Data were sourced from the ABS Survey of Education and Training. The main limitation of these data is that they reflect the understanding of the individuals, and estimates based on these data tend to be typically lower than those based on administrative data. In addition, respondents answer for study in the current year (up to August), rather than the whole year covered by the National VET Provider Collection.

Table 3 People currently enrolled in VET^a by second-chance status by age and sex, 2001 (%)

	Males	Females	All people
15–24 years			
<i>Second chance</i> : no Year 12, without a non-school qualification, not at school	11.4	4.6	7.9
<i>Other</i> : no Year 12 at school	5.6	5.8	5.7
<i>Other</i> : no Year 12, with a non-school qualification, not at school	6.1	4.3	5.2
<i>Other</i> : Year 12	24.7	22.2	23.4
25–64 years			
<i>Second chance</i> : without a non-school qualification	14.7	22.0	18.4
<i>Other</i> : with a non-school qualification	37.5	41.1	39.4
Total	100.0	100.0	100.0
Total studying <i>second-chance</i> VET	26.1	26.6	26.3
Total <i>other</i>	73.9	73.4	73.7
Total	100.0	100.0	100.0

Notes: (a) VET includes enrolments in advanced diploma and below qualifications and level not determined.

Source: Derived from the ABS Survey of Education and Training Experience, 2001⁵

The estimate from the ABS Survey of Education and Training indicates that second-chance students accounted for around 26% of students enrolled in VET in 2001. These estimate data are lower than the estimate from administrative data, shown in table 1. Perhaps the publicly funded system caters more for ‘second chancers’?

Apprenticeships and traineeships form an important part of the VET sector, particularly for young males. Indeed, as mentioned previously, it could be argued that leaving school after Year 10 or 11 to enter an apprenticeship or traineeship is a fairly conventional pathway, and such people should not be treated as undertaking second-chance VET. In any case, the importance of apprenticeships and traineeships for early school leavers and adults without non-school qualifications is worth considering (table 4).

⁴ The public VET system in this context is defined as all activity delivered by technical and further education (TAFE) institutes, other government providers and community education providers, as well as publicly funded activity delivered by private providers.

⁵ ABS cat.no.6274.0

Table 4 Apprenticeship and traineeship commencements by second-chance status by sex, over 12 months ending 31 December, 2004 (%)^{a, b, c}

	Male	Female	All people
24 years and under			
<i>Second chance</i> : early school leaver, no prior education	20.9	12.7	17.6
<i>Other</i> : completed Year 12	26.4	29.6	27.7
<i>Other</i> : still at school	5.1	8.9	6.7
<i>Other</i> : early school leaver, prior education	6.4	4.6	5.6
<i>Other</i> : early school leaving not known, prior education	0.4	0.2	0.3
<i>Not known</i> : early school leaver, prior education not known	0.0	0.0	0.0
<i>Not known</i> : early school leaving not known, no prior education	1.2	0.6	1.0
<i>Not known</i> : early school leaving not known, prior education not known	0.0	0.0	0.0
25 years and over			
<i>Second chance</i> : no prior education	26.4	32.0	28.7
<i>Other</i> : prior education	13.2	11.3	12.4
<i>Not known</i> : prior education not known	0.0	0.0	0.0
Total	100.0	100.0	100.0
Total <i>second chance</i>	47.3	44.8	46.3
Total <i>other plus not known</i>	52.7	55.2	53.7
Total	100.0	100.0	100.0
Total <i>second chance</i> , with data adjusted to include not known students ^d	47.8	44.9	46.6
Total <i>other</i> , with data adjusted to include not known students ^d	52.2	55.1	53.4
Total	100.0	100.0	100.0

Notes: (a) People with 'age not known' were excluded from the analysis.
 (b) In the table, 'prior education' refers to whether non-school qualifications have been completed.
 (c) Early school leavers are defined as not attending school and highest school level completed is Year 11 or below or did not attend school.
 (d) Data were adjusted by distributing the number of commencements in the 'not known' category to the 'second chance' and 'other' categories. See appendix A for a description of the methodology.

Source: NCVET National Apprentice and Trainee Collection, based on December 2005 estimates

Table 4 suggests that 'second chancers' make up just under a half of apprenticeship and traineeship commencements.⁶ Apprenticeships and traineeships are clearly an important pathway for both early school leavers and older people without non-school qualifications.

Table 5 considers the qualification level studied by second-chance students.

⁶ Commencements provide an indication of the flow of apprentices and trainees into the apprentice and trainee system. This is distinct from the figures presented in table 1 which provide an indication of the stock of publicly funded VET students in 2004 (that is, data encompass both commencing and continuing students). As we are interested in following a cohort of individuals moving through the VET system, we would prefer to focus on commencing VET students, as we have done with the apprentice and trainee figures in table 4. Unfortunately we are restricted by the VET Provider Collection not containing a unique student identifier that would allow us to follow a cohort of commencing students.

Table 5 Classification of VET students by major qualification and second-chance status, 2004 (%)^a

	People 24 years and under			People 25 years and over		
	Second chance ^b	Other	Not known	Second chance ^c	Other	Not known
Diploma or higher	3.1	17.5	10.5	8.2	15.2	5.5
Certificate IV	5.0	10.8	7.1	10.8	18.7	13.1
Certificate III	47.1	32.7	27.8	23.7	19.9	15.2
Certificate II	23.7	20.8	16.0	15.1	11.6	9.9
Certificate I	6.9	5.1	5.9	6.2	3.6	4.9
Non-AQF qualifications ^d	14.2	13.1	32.7	36.0	31.0	51.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: (a) People with age not known were excluded from the analysis.
(b) Refers to early school leavers with no prior education (no non-school qualifications). Early school leavers are defined as not attending school and highest school level completed is Year 11 or below, or did not attend school.
(c) Refers to people 25 years and over with no prior education (no non-school qualifications).
(d) Non-AQF refers to programs outside the Australian Qualifications Framework. This includes senior secondary education, other recognised courses, non-award courses and subject-only enrolments.

Source: NCVET National VET Provider Collection, 2004

Second-chance students, not surprisingly, are less likely to undertake higher-level qualifications (certificate IV and higher). The high proportion of young second-chance students in certificate III qualifications reflects that a sizeable proportion of the young second-chance population has gone into an apprenticeship or traineeship⁷ after leaving school early. It is worth noting from the table that a significant proportion of young second-chance students are also undertaking what could be described as entry-level training (certificate I and II qualifications).

The second-chance population aged 25 years and over are less concentrated at the certificate III level compared with the younger early school leaver group. For this older second-chance group, participation is dominated by enrolments in VET programs outside the Australian Qualifications Framework (AQF).

⁷ The majority of apprentices and trainees undertake training at AQF certificate III.

The coverage of second-chance VET

We now move to a rather more difficult issue. This section details the findings relating to the extent to which individuals avail themselves of second-chance VET.

Table 6 Percentage of early school leavers^a and adults eligible for second-chance VET,^b grouped by enrolment status, 2001

	Males	Females	All people
15–24 years			
Early school leavers without a non-school qualification, enrolled in VET in 2001	58 307	24 766	83 073
All early school leavers without a non-school qualification	268 491	180 169	448 660
Coverage of second-chance VET (%) ^c	21.7	13.7	18.5
25–64 years			
Adults without a non-school qualification, enrolled in VET in 2001	75 005	118 761	193 766
All people without a non-school qualification	1 971 313	2 444 439	4 415 752
Coverage of second-chance VET (%) ^c	3.8	4.9	4.4

Notes: (a) Early school leavers are defined as people not attending school who have not completed Year 12 (includes 'did not attend school').

(b) VET includes enrolments in advanced diploma and below qualifications and level not determined.

(c) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

From table 6, according to the ABS Survey of Education and Training, in 2001 around 19% of the young eligible population and 4% of the older eligible population undertook second-chance VET (see appendix C for the methodology).

This concept however is difficult to interpret. If, for example, each second-chance student undertook one year of study, then we could multiply by the years that a person will live and obtain a lifetime percentage. But such a calculation provides an implausible figure (well over 100%), because many people will study over a number of years.

Consequently, a more sophisticated calculation is required. First, early school leavers are considered. The ABS Survey of Education and Training has considerable education history: qualifications, current enrolment status, and whether a person has incomplete qualifications within the previous five years. Thus, for early school leavers, we get an estimation of those going onto VET for each age by including:

- ✧ those with a VET qualification
- ✧ those without a qualification but currently studying VET
- ✧ those without a qualification, not currently studying VET but studied VET within the previous five years.

See appendix D for further information on the methodology used to derive the variable 'going to VET'.

Table 7 gives the results, and so we estimate that 55% of male and 51% of female early school leavers access VET by 24 years of age.⁸

Table 7 Percentage of early school leavers^a aged 15 to 24 years who have accessed VET^b by age, 2001

	15–19	20–24
Males		
Total early school leavers going to VET	81 918	123 257
VET qualification	25 907	89 360
Without a qualification but currently enrolled in VET	42 075	16 232
Without a qualification, not currently enrolled in VET but studied VET in last five years	13 936	17 666
All early school leavers	161 999	223 137
Percentage of early school leavers going to VET^c	50.6	55.2
Females		
Total early school leavers going to VET	44 404	90 518
VET qualification	23 468	68 579
Without a qualification but currently enrolled in VET	16 198	8 568
Without a qualification, not currently enrolled in VET but studied VET in last five years	4 738	13 371
All early school leavers	95 940	177 871
Percentage of early school leavers going to VET^c	46.3	50.9

Notes: (a) Early school leavers are defined as people not attending school who have not completed Year 12 (includes 'did not attend school').

(b) VET includes advanced diploma and below qualifications and level not determined.

(c) Calculations of percentages and subtotals were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

An alternative approach is to focus on year left school rather than age. The results are shown in table 8 and the methodology is outlined in appendix D.

The conclusions drawn from table 8 are similar to those from table 7, with a little over 50% of the 1997 early school leavers going to VET (approximately four years after leaving school). The relatively small percentages in relation to the 2001 date reflect that the survey was conducted in 2001, and for many students there is a gap between leaving school and going on to VET. Contrary to expectations, the percentages going to VET do not consistently increase as the time since leaving school increases. However, there was a fair degree of noise in these data. This noise reflects that data are based on a survey sample, which comprised small numbers when data were analysed by year left school.

The paper now considers the extent to which the older population eligible for a second chance in education takes the chance through VET. The preferred approach would be to track the eligible population over their lifetime to determine the proportion who goes onto VET. However, in the absence of longitudinal data, estimates are derived using a conventional life table approach. The approach synthesises events over a hypothetical individual's life by making use of age-specific data from a cross-section. The fundamental assumption is that what is observed at a particular age in the cross-section will hold true for a new cohort as it ages (see appendix E for further information about this approach).

⁸ The estimate for 20 to 24-year-olds is an underestimate to the extent that it does not include early school leavers who accessed VET without completing a VET qualification and then did not return to VET within five years of the survey period.

Table 8 Percentage of early school leavers^a aged 15 to 24 years who have accessed VET^b by year left school, 2001^{c, d, e}

Early school leavers	Year left school				
	2001	2000	1999	1998	1997
Males					
Early school leavers going to VET	3 629	20 889	23 522	27 068	26 098
VET qualification	1 125	4 047	8 517	10 586	14 934
Without a qualification but currently enrolled in VET	2 504	13 796	12 051	8 734	7 998
Without a qualification, not currently enrolled in VET but studied VET in last five years	0	3 046	2 954	7 747	3 166
All early school leavers	13 065	41 258	48 194	45 512	50 021
Percentage of early school leavers going to VET	27.8	50.6	48.8	59.5	52.2
Females					
Early school leavers going to VET	1 438	14 391	12 743	12 543	14 496
VET qualification	579	1 791	8 174	9 402	11 307
Without a qualification but currently enrolled in VET	859	11 776	2 032	1 494	1 654
Without a qualification, not currently enrolled in VET but studied VET in last five years	0	824	2 537	1 647	1 535
All early school leavers	8 847	24 817	32 316	24 442	28 394
Percentage of early school leavers going to VET	16.3	58.0	39.4	51.3	51.1

Notes: (a) Early school leavers are defined as people not attending school who have not completed Year 12 (includes 'did not attend school').

(b) VET includes advanced diploma and below qualifications and level not determined.

(c) Early school leavers who left school prior to 1997 were not included in the analysis.

(d) Figures in italics indicate that unweighted survey counts are less than five and should therefore be interpreted with caution.

(e) Calculations of percentages and subtotals were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

Using, the life table approach, our population of interest comprises all people who did not have a non-school qualification at 25 years of age. This was derived as follows:

- ✧ population aged 25 to 29 years: people without a non-school qualification
- ✧ population aged 30 to 34 years: people without a non-school qualification or who obtained their first non-school qualification in the last five years
- ✧ population aged 35 to 39 years: people without a non-school qualification or who obtained their first non-school qualification in the last ten years
- ✧ population aged 40 to 44 years: people without a non-school qualification or who obtained their first non-school qualification in the last in the last 15 years
- ✧ population aged 45 to 49 years: people without a non-school qualification or who obtained their first non-school qualification in the last 20 years (see appendix F for further details on the derivation of the eligible second-chance population).

The aim is to track these eligible people over various points in time to observe the percentage of people who go to VET by each time point. The points in time are: time one when people are aged 25 to 29 years; time two when people are aged 30 to 34 years; and so on until the final point in time when people are aged 49 years.⁹ By adding the percentages obtained at each point in time (that is at each age range), we can estimate the accumulated chance over an individual's lifetime of accessing second-chance VET.

People going to VET (see appendix G for the methodology) at each point in time include:

- ✧ those who, in the last five years, completed a VET qualification as their first qualification

⁹ We are restricted by survey data only being able to identify people aged up 49 years of age who were without a qualification when they were 25 years of age.

- ✧ those who do not have a qualification but are currently studying VET
- ✧ those who do not have a qualification and are not currently studying VET but who have studied VET in the last five years.

Table 9 shows the results.

Table 9 Second-chance people aged 25 to 49 years who have accessed VET^a as a percentage of people eligible for a second chance in education by age, 2001^b

	Age				
	25–29	30–34	35–39	40–44	45–49
Males					
Total going to VET	63 560	78 392	63 574	41 199	27 329
In last 5 years completed a VET qualification as first qualification ^c	36 010	45 124	36 323	23 470	16 027
Without a qualification but currently enrolled in VET	19 613	18 490	13 699	11 343	5 851
Without a qualification, not currently enrolled in VET but studied VET in last five years ^c	7 938	14 778	13 552	6 386	5 451
Eligible for second-chance education ^d	268 540	347 537	374 132	371 159	353 857
Percentage of eligible second-chance population going to VET	23.7	22.6	17.0	11.1	7.7
Cumulative percentage	23.7	46.2	63.2	74.3	82.0
Females					
Total going to VET	61 488	92 341	77 773	77 020	61 587
In last 5 years completed a VET qualification as first qualification ^c	30 995	51 487	42 067	44 614	36 009
Without a qualification but currently enrolled in VET	22 137	22 581	21 745	18 517	17 207
Without a qualification, not currently enrolled in VET but studied VET in last five years ^c	8 356	18 273	13 961	13 889	8 371
Eligible for second-chance education ^d	264 826	386 184	426 826	456 975	424 299
Percentage of eligible second-chance population going to VET	23.2	23.9	18.2	16.9	14.5
Cumulative percentage	23.2	47.1	65.4	82.2	96.7

- Notes: (a) VET includes advanced diploma and below qualifications and level not determined.
 (b) Calculations of percentages and subtotals were based on non-rounded data.
 (c) For 25 to 29-year-olds the estimate is modified by taking a third of people completing or undertaking VET in the last five years. This is due to the last five years potentially covering the ages of 20–29 years, with people aged less than 25 years not meeting our definition of second chance.
 (d) 'Eligible for second-chance education' refers to people without a non-school qualification at 25 years of age.

Source: Derived from ABS Survey of Education and Training Experience, 2001

Table 9 suggests that, by the first point in time (by the time people are aged 25 to 29 years), almost one-quarter of males and females eligible for second-chance education take the 'chance' through VET. By the second point in time (by the time people are aged 30 to 34 years), a further 23% of males and 24% of females take the chance by going to VET. This means that by 30 to 34 years of age, almost 50% of eligible second-chance males and females take the second chance in education by going to VET. While deficiencies in the data make estimates imprecise, it is clear that, by the time people are aged 45 to 49 years, the overwhelming majority of the eligible population will take advantage of the opportunity to undertake VET (in fact our estimates suggest up to 82% of males and 97% of females).

Outcomes

We have seen that large numbers of people undertake second-chance education in VET. We now turn to their outcomes.

Table 10 presents the number of qualifications completed by level of qualification, using NCVET administrative data (the National VET Provider Collection).

Table 10 Qualifications completed in 2004, classified by second-chance status of students

	24 years and below			25 years and above		
	Second chance	Other	Not known	Second chance	Other	Not known
Diploma or higher	454	14 465	3 802	4 955	10 432	3 702
Certificate IV	821	11 929	2 857	9 450	19 140	8 112
Certificate III	8 915	31 060	7 962	23 532	19 740	10 819
Certificate II	6 948	23 785	4 861	12 151	11 288	4 789
Certificate I	1 730	5 218	1 601	3 276	2 821	2 022
Senior secondary education	109	55	53	(a)	(a)	(a)
Total	18 977	86 512	21 136	53 373	63 426	29 449

Note: (a) Indicates that there are between one and nine qualifications completed.

Source: NCVET National VET Provider Collection, 2004

The most striking feature of the table is that the number of qualifications completed is quite small compared with the number of students (around 1.6 million in 2004). However, this does not give a true picture of the completion rate, because completions are a flow and the number of students is a stock.

The remainder of the paper focuses on completion rates that were derived using data from the ABS Survey of Education and Training. Table 11 provides the VET qualification completion rate for early school leavers by the year they left school (see appendix H for the methodology).

These estimates indicate quite high completion rates, with around 30% of male and 40% of female early school leavers completing a qualification since leaving school in 1997 (within approximately four years of leaving school). Of course, these calculations provide an indication of the rate at which all early school leavers completed a VET qualification. Turning to the access rates calculated earlier in table 8, we can alternatively estimate the completion rate for the early school leavers who access VET.¹⁰ The resulting completion rates are even higher when restricted to the early school leavers who participate in VET. These rates suggest that, within four years of leaving school, 57% of male and 78% of female early school leavers who access VET will go on to complete a VET qualification.

¹⁰ The methodology involves dividing the completion rates shown in table 11 by the access rates shown in table 8 within each year left school category and multiplying by 100.

Table 11 Percentage of early school leavers^a aged 15 to 24 years who have completed a VET qualification^b by year left school, 2001^{c, d}

Early school leavers	Year left school				
	2001	2000	1999	1998	1997
Males					
Early school leavers completed a VET qualification	<i>1 125</i>	4 047	8 517	10 586	14 934
All early school leavers	13 065	41 258	48 194	45 512	50 021
Percentage of early school leavers who completed a VET qualification^e	8.6	9.8	17.7	23.3	29.9
Females					
Early school leavers who completed a VET qualification	<i>579</i>	<i>1 791</i>	8 174	9 402	11 307
All early school leavers	8 847	24 817	32 316	24 442	28 394
Percentage of early school leavers who completed a VET qualification^e	6.5	7.2	25.3	38.5	39.8

Notes: (a) Early school leavers are defined as people not attending school who have not completed Year 12 (includes 'did not attend school').

(b) VET includes advanced diploma and below qualifications and level not determined.

(c) Early school leavers who left school prior to 1997 were not included in the analysis.

(d) Figures in italics indicate that unweighted survey counts are less than five and should therefore be interpreted with caution.

(e) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

Table 12 estimates the rate early school leavers complete a certificate III to advanced diploma qualification (see appendix H for the methodology).

Table 12 Percentage of early school leavers^a aged 15 to 24 years who have completed a certificate III to advanced diploma qualification by year left school, 2001^{b, c}

Early school leavers	Year left school				
	2001	2000	1999	1998	1997
Males					
Early school leavers completed a certificate III to advanced diploma qualification	<i>516</i>	0	1 893	3 390	5 268
All early school leavers	13 065	41 258	48 194	45 512	50 021
Percentage of early school leavers who completed a certificate III to advanced diploma qualification^d	3.9	0.0	3.9	7.4	10.5
Females					
Early school leavers who completed a certificate III to advanced diploma qualification	0	824	3 017	2 352	3 269
All early school leavers	8 847	24 817	32 316	24 442	28 394
Percentage of early school leavers who completed a certificate III to advanced diploma qualification^d	0.0	3.3	9.3	9.6	11.5

Notes: (a) Early school leavers are defined as people not attending school who have not completed Year 12 (includes 'did not attend school').

(b) Early school leavers who left school prior to 1997 were not included in the analysis.

(c) Figures in italics indicate that unweighted survey counts are less than five and should therefore be interpreted with caution.

(d) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

It can be seen that completion rates for early school leavers are much lower when restricted to certificate III qualifications or higher, with just over 10% of the male and female 1997 early school leavers completing a certificate III or higher VET qualification (within approximately four years of leaving school).

Completion rates for the older age groups are considered in the remaining tables. Table 13 uses the same life table approach adopted for table 9, which presented access rates. Again, the population of interest is all people who did not have a non-school qualification by 25 years of age (see appendix F for further details about the derivation of the eligible second-chance population). The aim of the life table methodology is to track these people over various points in time (that is, by various ages) to observe the percentage of people who complete a VET qualification by each time point (see appendix I for the derivation of people who, in the last five years, completed a VET qualification).

Table 13 People aged 25 to 49 years who in the last five years completed a VET^a qualification as their first qualification, as a percentage of people eligible for a second chance in education, 2001

	Age				
	25–29	30–34	35–39	40–44	45–49
Males					
In last five years completed a VET qualification as the first qualification ^b	36 010	45 124	36 323	23 470	16 027
Eligible for second-chance education ^c	268 540	347 537	374 132	371 159	353 857
Percentage of eligible second-chance population who completed a VET qualification^d	13.4	13.0	9.7	6.3	4.5
Cumulative percentage^d	13.4	26.4	36.1	42.4	47.0
Females					
In last five years who completed a VET qualification as the first qualification ^b	30 995	51 487	42 067	44 614	36 009
Eligible for second-chance education ^c	264 826	386 184	426 826	456 975	424 299
Percentage of eligible second-chance population who completed a VET qualification^d	11.7	13.3	9.9	9.8	8.5
Cumulative percentage^d	11.7	25.0	34.9	44.7	53.1

Notes: (a) VET includes advanced diploma and below qualifications and level not determined.

(b) For 25 to 29-year-olds the estimate is modified by taking a third of people completing VET within the last five years. This is due to the last five years potentially covering the ages of 20–29 years, with people aged less than 25 years not meeting our definition of second chance.

(c) 'Eligible for a second chance in education' refers to people without a non-school qualification at 25 years of age.

(d) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

The results in table 13 suggest that, by the first point in time (by the time people are aged 25 to 29 years), 13% of eligible second-chance males and 12% of eligible second-chance females will complete a VET qualification as their first qualification. By the second point in time (by the time people are aged 30 to 34 years), a further 13% of males and females take the chance to enter VET, resulting in around a quarter of males and females taking the chance by 30 to 34 years of age.

By the final point in time (by the time people are aged 45 to 49 years), around half of the adults eligible for a second chance will have completed a VET qualification. It is noted that, for both males and females, completion rates in table 13 are much lower than the access rates calculated earlier in table 9.

The VET completion rates shown in table 13 indicate the rate at which all eligible second-chance adults up to 49 years of age complete a VET qualification. Using the access rates calculated in table 9, we can also estimate the completion rate for second-chance adults aged up to 49 years who access VET.¹¹ This calculation suggests that 57% of males and 55% of females who access VET will go on to complete a VET qualification by 49 years of age.

Table 14 repeats table 13 but this time examines the percentage of eligible second-chance people who completed, as their first qualification, a certificate III to advanced diploma qualification in the last five years (see appendix F for the derivation of people eligible for a second chance in education

¹¹ The methodology involves dividing the accumulated completion rate shown in table 13 by the accumulated access rate shown in table 9 for the 45 to 49-year-old age group and multiplying by 100.

and appendix I for the derivation of those who in the last five years completed a certificate III to advanced diploma as their first qualification).

Table 14 People aged 25 to 49 years who in the last five years completed a certificate III to advanced diploma qualification as their first qualification, as a percentage of people eligible for a second chance in education, 2001

	Age				
	25–29	30–34	35–39	40–44	45–49
Males					
In last five years completed a certificate III to advanced diploma qualification as the first qualification ^a	26 123	29 129	21 511	11 277	9 290
Eligible for second-chance education ^b	268 540	347 537	374 132	371 159	353 857
Percentage of eligible second-chance population who completed a certificate III to advanced diploma qualification^c	9.7	8.4	5.7	3.0	2.6
Cumulative percentage^c	9.7	18.1	23.9	26.9	29.5
Females					
In last five years who completed a certificate III to advanced diploma qualification as the first qualification ^a	17 336	25 349	20 324	23 579	20 231
Eligible for second-chance education ^b	264 826	386 184	426 826	456 975	424 299
Percentage of eligible second-chance population who completed a certificate III to advanced diploma qualification^c	6.5	6.6	4.8	5.2	4.8
Cumulative percentage^c	6.5	13.1	17.9	23.0	27.8

Notes: (a) For 25 to 29-year-olds the estimate is modified by taking a third of people completing VET in the last five years. This is due to the last five years potentially covering the ages of 20–29 years, with people aged less than 25 years not meeting our definition of second chance.

(b) 'Eligible for a second chance in education' refers to people without a non-school qualification at 25 years of age.

(c) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

A familiar pattern is emerging. While very high proportions of adult second chancers access VET, the numbers who complete qualifications are more modest, especially when we look at certificate III qualifications or higher.¹²

An examination of the reasons for not completing a VET qualification given by the adult second-chance group suggests that non-completion is often attributed to work-related reasons for males (28% of males reported this reason), and personal or family-related reasons for females (40% of females reported this reason).¹³ However, of interest to the current study is that over 10% of males and females reported reasons relating to the course not being what they expected, and over 10% reported reasons relating to their losing interest or motivation. Relatively few indicate that non-completion is associated with poor performance.

For early school leavers, the reasons given for their not completing a VET qualification often relate to the course not being what they expected (28% of males and 31% of females reported this reason), and losing interest or motivation (21% of males and 11% of females reported this reason).

We now take a different approach to estimating completion rates based on the 45 to 49-year-old cohort, which could loosely be described as a longitudinal approach (although it is based on historical recall). Again, the population of interest is those without a qualification at 25 years of age (eligible second-chance people).

¹² While noting that some of the second-chance adults accessing VET are currently studying VET and have not yet had a chance to complete their VET qualification.

¹³ Reasons relate to study undertaken but not completed within the past five years. Data are not provided for study ceased more than five years ago.

The results are shown in table 15, which provides the accumulated chance over an individual's lifetime of completing second-chance VET by the age completion occurred (see appendix J for the derivation of people who completed a VET qualification as their first qualification and appendix K for the derivation of people eligible for a second chance in education).

Table 15 People aged 45 to 49 years who completed a VET^a qualification as their first qualification, as a percentage of people eligible for second-chance VET, by age of completion, 2001

	Age completed the qualification			
	25–31.5 ^b	28.5–36.5	33.5–41.5	38.5–49
Males				
Completed a VET qualification as the first qualification	7 008	20 346	9 228	20 835
Eligible for second-chance education ^c	353 857	353 857	353 857	353 857
Percentage of eligible second-chance population who completed a VET qualification^d	2.0	5.7	2.6	5.9
Cumulative percentage^d	2.0	7.7	10.3	16.2
Females				
Completed a VET qualification as the first qualification	3 847	17 198	23 052	45 831
Eligible for second-chance education ^c	424 299	424 299	424 299	424 299
Percentage of eligible second-chance population who completed a VET qualification^d	0.9	4.1	5.4	10.8
Cumulative percentage^d	0.9	5.0	10.4	21.2

Notes: (a) VET includes advanced diploma and below qualifications and level not determined.
 (b) People completing a VET qualification between the ages 25–31.5 years were calculated by taking a third of the estimate of 45 to 49-year-olds who completed a VET qualification between 1980 and 1984 when they were aged between 23.5 and 31.5 years. The reason for taking a third of the estimate is that ages below 25 years do not meet our definition of second chance and we estimate that most do complete their qualification before 25 years of age.
 (c) 'Eligible for a second chance in education' refers to people aged 45–49 years who were without a non-school qualification at 25 years of age. See appendix K for the derivation of this variable.
 (d) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

This approach gives us slightly lower estimates, with around 21% of the female cohort and just over 16% of the male cohort completing a VET qualification by age 45 to 49 years. The 'longitudinal' approach adopted for table 15 could be regarded as a more precise method for estimating completion rates than the life table approach adopted earlier. This is because we are tracing the educational history of the same people and determining if and when they completed a VET qualification as their first qualification. However, the ability to generalise the findings to younger groups is limited, as the cohort (aged 45 to 49 years at the time of the survey in 2001) faced different labour markets and educational policies when they were young adults compared with the labour markets and educational policies encountered by today's youth.

Table 16 repeats table 15, except that it looks at those who completed a certificate III to advanced diploma qualification as their first qualification (see appendix J for the derivation of people who completed a certificate III to advanced diploma qualification as their first qualification and appendix K for the derivation of people eligible for a second chance in education).

We note that completion numbers fall off when we restrict ourselves to certificate III and higher qualifications—by 45 to 49 years of age, around 10% of the cohort completed a certificate III or higher qualification.

Table 16 People aged 45 to 49 years who completed a certificate III to advanced diploma qualification as their first qualification, as a percentage of people eligible for second-chance VET, by age of completion, 2001

	Age completed the qualification			
	25–31.5 ^a	28.5–36.5	33.5–41.5	38.5–49
Males				
Completed a certificate III to advanced diploma qualification as the first qualification	4 728	14 027	5 859	12 076
Eligible for second-chance education ^b	353 857	353 857	353 857	353 857
Percentage of eligible second-chance population who completed a certificate III to advanced diploma qualification^c	1.3	4.0	1.7	3.4
Cumulative percentage^c	1.3	5.3	7.0	10.4
Females				
Completed a certificate III to advanced diploma qualification as the first qualification	2 203	8 235	8 192	25 319
Eligible for second-chance education ^b	424 299	424 299	424 299	424 299
Percentage of eligible second-chance population who completed a certificate III to advanced diploma qualification^c	0.5	1.9	1.9	6.0
Cumulative percentage^c	0.5	2.5	4.4	10.4

Notes: (a) People completing a certificate III to advanced diploma qualification between the ages 25–31.5 years was calculated by taking a third of the estimate of 45 to 49-year-olds completing the qualification between 1980 and 1984 when they were aged between 23.5 and 31.5 years. The reason for taking a third of this estimate is that ages below 25 years do not meet our definition of second chance and we estimate that most do complete their qualification before 25 of age.

(b) 'Eligible for a second chance in education' refers to people aged 45–49 years who were without a non-school qualification at 25 years of age. See appendix K for the derivation of this variable.

(c) Calculations of percentages were based on non-rounded data.

Source: Derived from ABS Survey of Education and Training Experience, 2001

Conclusion

In this report we have struggled with some rather unsatisfactory data in order to assess the extent to which the VET sector lives up to its reputation as the second-chance education sector. Despite the difficulties with the data, we can draw some fairly clear conclusions.

- ✧ The percentage of VET students who can be characterised as second-chance students—young early school leavers and people over the age of 25 years without non-school qualifications—is very substantial.
- ✧ The percentage of the eligible second-chance population who undertakes VET is very high indeed—around 50% for early school leavers and over three-quarters of people aged 25 to 49 years.
- ✧ However, the percentage of the second-chance population actually completing a qualification is lower, and lower again if we restrict ourselves to certificate III or higher.
 - ◆ Our estimate is that around 10% of early school leavers complete a certificate III or higher VET qualification within four years of leaving school.
 - ◆ Our estimate is that 10 to 30%¹⁴ of people eligible for a second chance in education will complete a certificate III or higher VET qualification (at least up to the age of 49 years).

So it appears that at a broad level there are no real issues with VET providing access for ‘second chancers’. If there is an issue, it is that access is one thing, completion of a qualification (especially at the certificate III level or higher) is another.

¹⁴ The estimate varies depending on the methodology undertaken.

Appendix A

Methodology: Distributing ‘not known’ values (pro-rata methodology)

There were a number of students in administrative datasets who could not be classified by second-chance status due to missing information regarding highest school level completed, attendance at school and/or prior education. This appendix describes the method used to distribute the number of students in the ‘not known’ category to the ‘second chance’ and ‘other’ categories (pro-rata methodology). The methodology was used in table 1, which presents the number of students enrolled in publicly funded VET in 2004. The method is repeated for table 2, which presents the number of hours of delivery in the public VET system in 2004, and for table 4, which presents the number of apprenticeship and traineeship commencements, 12 months ending 31 December 2004.

Step 1: Calculate ‘second chance’ and ‘other’ students as a proportion of the known total

The number of students in the ‘second chance’ and ‘other’ categories were summed to determine the total known value. The number of second-chance students was divided by the known total to determine the proportion of the known total who are second-chance students. Similarly, the number of ‘other’ students was divided by the known total to determine the proportion of the known total who are ‘other’ students.

Step 2: Distribute the number of students in the ‘not known’ category to the ‘second chance’ and ‘other’ categories

The number of students in the ‘not known’ category was multiplied by the proportion of the known total who are second-chance students (the proportion calculated in step 1). This value is added to the number of students in the second-chance category. Similarly, the number of students in the ‘not known’ category was multiplied by the proportion of the known total who are ‘other’ students (the proportion also calculated in step 1). This value is then added to the number of students in the ‘other’ category.

Appendix B

Methodology: Second-chance population enrolled in VET in 2001

This appendix describes the method used to determine the size of the second-chance population who undertook VET in 2001. The methodology was undertaken for table 3. Data were sourced from the ABS Survey of Education and Training, 2001.

VET was defined as advanced diploma and below qualifications, or level not determined.

Step 1: Determining the second-chance VET population in 2001 (numerator)

Early school leavers undertaking second-chance VET were people aged 15 to 24 years who were currently enrolled in VET (used variable 'level of current non-school study') and were:

- ✧ not at school (used variable 'people currently attending school') and
- ✧ had not completed Year 12 or did not attend school (used variable 'highest year of school completed') and
- ✧ were without a non-school qualification (used variable 'number of non-school qualifications completed').

People aged 25 to 64 years undertaking second-chance VET were those who were currently enrolled in VET (used variable 'level of current non-school study') and were without a non-school qualification (used variable 'number of non-school qualifications completed').

Step 2: Determining the total VET population in 2001 (denominator)

The total VET population in 2001 was the total number of people (early school leavers aged 15 to 24 years plus adults aged 25 to 64 years) currently undertaking VET (used variable 'level of current non-school study').

Step 3: Determining the percentage

The second-chance VET population in 2001 was divided by the total people number of studying VET in 2001 and multiplied by 100.

Appendix C

Methodology: Eligible second-chance population enrolled in VET in 2001

This appendix describes the method used to determine the number of people eligible for second-chance VET who enrolled in VET in 2001. The methodology was undertaken for table 6. Data were sourced from the ABS Survey of Education and Training, 2001.

Step 1: Determining eligible second-chance population (denominator)

The early school leavers eligible for second-chance VET were people aged 15 to 24 years who were not at school (used variable 'persons currently attending school'), who had not completed Year 12 or did not attend school (used variable 'highest year of school completed'), and were without a non-school qualification (used variable 'number of non-school qualifications completed').

People aged 25 to 64 years eligible for second-chance VET were those without a non-school qualification (used variable 'number of non-school qualifications completed').

Step 2: Determining second-chance population in VET (numerator)

VET study was defined as enrolments in advanced diploma and below qualifications and level not determined. Of the eligible second-chance population, the number of people studying VET in 2001 was determined (used variable 'level of current non-school study').

Step 3: Determining the percentages

The second-chance population enrolled in VET in 2001 was divided by the eligible second-chance population and multiplied by 100.

Appendix D

Methodology: Early school leavers who go to VET

This appendix describes the method used to derive the number of early school leavers who go to VET. The derivation was undertaken for tables 7 and 8. Table 7 involved producing the analysis for early school leavers by age, and table 8 involved producing the analysis for early school leavers by year left school. Data were sourced from the ABS Survey of Education and Training, 2001.

VET was defined as advanced diploma and below qualifications, or level not determined. Early school leavers who go to VET were defined as the sum of those:

- ✧ with a VET qualification
- ✧ without a qualification but currently studying VET
- ✧ without a qualification, not currently studying VET but studied VET within the previous five years.

Step 1: Classifying early school leavers

Early school leavers were aged 15 to 24 years. Early school leavers were defined as people not attending school (used variable 'persons currently attending school'), who had not completed Year 12 or did not attend school (used variable 'highest year of school completed').

Step 2: Determining early school leavers with a VET qualification

Early school leavers with a VET qualification were defined as having a VET qualification as either their first, second or third highest qualification. The following variables were used to determine the early school leavers with a VET qualification:

- ✧ level of highest non-school qualification completed
- ✧ level of second highest non-school qualification completed
- ✧ level of third highest non-school qualification completed.

Step 3: Determining early school leavers currently studying VET

Early school leavers currently studying VET were defined as those without a non-school qualification (used variable 'number of non-school qualifications completed') who enrolled in VET in 2001 (used variable 'level of current non-school study').

Step 4: Determining early school leavers with incomplete VET

Early school leavers with incomplete VET were defined as those without a non-school qualification (used variable 'number of non-school qualifications completed'), who were not currently studying VET (used variable 'level of current non-school study'), and who reported that they had enrolled in, but had not completed VET in the last five years (used variable 'level of non-school study not completed').

Appendix E

Overview of a life table approach

Life tables are a standard way of estimating lifetime probabilities or expected duration of events, and are commonly used in demography and epidemiology. The approach synthesises events over a hypothetical individual's life by making use of age-specific data from a cross-section. The fundamental assumption is that what is observed at a particular age in the cross-section will hold true for a new cohort as it ages.

It is best described by way of an example. Assume that we wish to estimate the proportion of a cohort who will attend VET before they turn 25 years old. Assume that we have 100 people aged 15 years. If we could observe this cohort as it ages, we might find that data are as presented in the following table.

Table E1 Hypothetical attendance at VET for a cohort of 15-year-olds

Age (years)	Number of individuals who attend VET for first time at this age	Number of individuals who attend VET by this age
15	5	5
16	6	11
17	8	19
18	9	28
19	7	35
20	5	40
21	4	44
22	2	46
23	2	48
24	1	49

So 49 out of 100 individuals in this cohort had attended VET by the time they were 25 years old. This probability (0.49) is obtained by summing the individual probabilities of attending VET for the first time at each age. That is,

$$p = \sum_{i=15}^{24} p_i$$

where p_i is the probability that an individual in the cohort attends VET for the first time at age i .

In many situations we can only observe p_i from a cross-section at a particular time point. For example, in 2007 we might observe 15-year-olds who have attended VET for the first time in the last 12 months, 16-year-olds who have attended VET for the first time in the last 12 months, and so on. The life table approach uses these observations to estimate the lifetime probability for the cohort of 15-year-olds using the formula defined above. The assumption is that those who are 15 in 2007 will act as 16-year-olds (in 2008) in the same way that 16-year-olds are acting in 2007.¹⁵

¹⁵ There are more sophisticated models in which individual age probabilities are projected forward on the basis of past changes, but these are well beyond the scope of this paper.

Appendix F

Methodology: People eligible for a second chance in education

This appendix describes the method used to derive the population who had not completed a non-school qualification by 25 years of age (people eligible for a second chance in education). This derived variable was used as the denominator for calculations in tables 9, 13 and 14. Data were sourced from the ABS Survey of Education and Training, 2001.

The population eligible for second-chance VET, for each age group, was derived as follows:

- ✧ 25 to 29 years: people without a non-school qualification
- ✧ 30 to 34 years: people without a non-school qualification or who obtained their first non-school qualification in the last five years
- ✧ 35 to 39 years: people without a non-school qualification or who obtained their first non-school qualification in the last ten years
- ✧ 40 to 44 years: people without a non-school qualification or who obtained their first non-school qualification in the last 15 years
- ✧ 45 to 49 years: people without a non-school qualification or who obtained their first non-school qualification in the last 20 years.

Step 1: Determining which non-school was the first qualification completed

For the population with one non-school qualification, the highest qualification was taken as the first qualification completed.

For the population with two qualifications, we used the following variables to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification.

For the population with three or more qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

From the above analysis, we determined which qualification was completed first. Where there were two or more qualifications completed at the same time, the lowest qualification was categorised as the first qualification. This was based on the assumption that most people will complete a lower qualification first and use this as a pathway to study at a higher level.

Step 2: Determining the year completed the first non-school qualification

The year the first qualification was completed was determined using one of the following variables (depending on whether the first qualification was the highest, second highest or third highest qualification).

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

The year completed variables involve categorical data. The categories are:

- ✧ completed before 1980
- ✧ completed 1980–1984
- ✧ completed 1985–1989
- ✧ completed 1990–1994
- ✧ completed 1995–1999
- ✧ completed 2000 to survey date during the period of the end of April to the start of August 2001 (which we treat as mid-2001).

Step 3: Determining the number of people without a non-school qualification by 25 years of age

For 25 to 29-year-olds, the population of interest was those without a non-school qualification.

The analysis for the remaining age groups was complicated by the year-completed categories comprising ranges that are inconsistent in length of time. These data made it difficult to determine precisely when qualifications were completed. Due to this complication, the last five years was treated as between 1995 and 2001, multiplied by 5/6.5. Therefore, people aged 30 to 34 years who were without a qualification by age 25 years were defined as the sum of the number of people who:

- ✧ completed their first non-school qualification between 1995 and mid-2001, multiplied by 5/6.5 (the last five years)
- ✧ were without a non-school qualification.

People aged 35 to 39 years who were without a non-school qualification by 25 years of age were defined as the sum of the number of people who:

- ✧ completed their first non-school qualification between 1990 and 1994
- ✧ completed their first non-school qualification between 1995 and 2001, multiplied by 5/6.5
- ✧ were without a non-school qualification.

People aged 40 to 44 years who were without a non-school qualification by 25 years of age were defined as the sum of the number of people who:

- ✧ completed their first non-school qualification between 1985 and 1989
- ✧ completed their first non-school qualification between 1990 and 1994
- ✧ completed their first non-school qualification between 1995 and 2001, multiplied by 5/6.5
- ✧ were without a non-school qualification.

People aged 45 to 49 years who were without a non-school qualification by 25 years of age were defined as the sum of the number of people who:

- ✧ completed their first non-school qualification between 1980 and 1984

- ✧ completed their first non-school qualification between 1985 and 1989
- ✧ completed their first non-school qualification between 1990 and 1994
- ✧ completed their first non-school qualification between 1995 and 2001, multiplied by 5/6.5
- ✧ were without a non-school qualification.

Limitations of the methodology

This methodology will underestimate the number of people eligible for a second chance in education. Taking the 25 to 29-year-old group as an example, a person in their late twenties might have obtained a qualification in the last three to five years. Following our methodology, they would not be included as a potential second chancer (as we look at only those 25 to 29-year-olds without non-school qualifications), despite meeting our definition of people eligible for a second chance in education (no qualification by age 25 years).

This methodology will slightly overestimate 45 to 49-year-olds who completed a VET qualification before 25 years of age, if they completed the qualification in 1980 or 1981. This is because these people could potentially be aged 45 years in mid-2001, making them aged less than 25 years in 1980 and 1981, which does not meet our definition of second-chance VET (no qualification prior to 25 years of age).

Appendix G

Methodology: People aged 25 to 49 years going to VET

This appendix describes the method for deriving the number of people aged 25 to 49 years who went to VET within the last five years. This derived variable was used in table 9. Data were sourced from the ABS Survey of Education and Training, 2001.

VET was defined as advanced diploma and below, or level not determined. People going to VET within the last five years were defined as the sum of those who:

- ✧ in the last five years completed a VET qualification as their first qualification
- ✧ do not have a qualification but are currently studying VET
- ✧ do not have a qualification, are not currently studying VET but have studied VET within the previous five years.

Step 1: Determining which non-school was the first qualification completed

To determine the number of people who in the last five years completed a VET qualification as their first qualification, the first step was to identify the qualification completed first. For the population with one qualification, the highest qualification was taken as the first qualification completed.

For the population with two qualifications, we used the following variables to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification.

For the population with three or more qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

Where there were two or more qualifications completed at the same time, the lowest qualification was categorised as the first qualification. This was based on the assumption that most people will complete a lower qualification first and use this as a pathway to study at a higher level.

Step 2: Determining if the first qualification completed was vocational

The qualification was classified as VET if it was advanced diploma and below, or the level was not determined. Depending on whether the first qualification was the highest, second highest or third highest qualification, the following variables were used to determine whether the first qualification was in VET:

- ✧ level of highest non-school qualification completed

- ✧ level of second highest non-school qualification completed
- ✧ level of third highest non-school qualification completed.

Step 3: Determining the year completed the first qualification

For people whose first qualification was vocational, we calculated when the first VET qualification was completed, using one of the following variables (depending on whether the first qualification was the highest, second highest or third highest qualification).

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

The year completed variables are categorical with the following levels:

- ✧ completed before 1980
- ✧ completed 1980–1984
- ✧ completed 1985–1989
- ✧ completed 1990–1994
- ✧ completed 1995–1999
- ✧ completed 2000 to survey date during the period of the end of April to the start of August 2001 (which we treat as mid-2001).

Step 4: Determining whether the first qualification was completed within the last five years

The major difficulty in determining the number of people who, in the last five years, completed a VET qualification as their first qualification is that we can not clearly identify the time at which qualifications were obtained, because the survey restricts us to five-year age groups and ranges of years in which qualifications were completed. These ranges in years are inconsistent in length of time.

The difficulties are approached by taking the last five years as 1995 to the survey date (2001). The number of people completing within this range was multiplied by 5/6.5.

The estimate is also modified for 25 to 29-year-olds completing a VET qualification within the last five years, due to the last five years potentially covering ages 20 to 29 years, which does not meet our definition of second-chance VET (no qualification prior to 25 years of age). As qualifications are more likely to have been completed at the early part of this age bracket, it is estimated that two-thirds of the population who have accessed VET would have done so before 25 years of age. Therefore, one-third of the estimate is taken for 25 to 29-year-olds.

Step 5: Determining people currently studying VET

People currently studying VET were defined as those without a non-school qualification (used variable ‘number of qualifications completed’) who enrolled in VET in 2001 (used variable ‘level of current non-school study’).

Step 6: Determining people with incomplete VET

People with incomplete VET were defined as without a non-school qualification (used variable 'number of qualifications completed'), who were not enrolled in VET in 2001 (used variable 'level of current non-school study'), and who had studied but not completed VET within the previous five years (used variable 'level of non-school study not completed').

We took one-third of the estimate for 25 to 29-year-olds who accessed but did not complete VET within the last five years. This was required as the last five years potentially covers ages 20 to 29 years, which does not meet our definition of second-chance VET (no qualification prior to 25 years of age).

Appendix H

Methodology: VET completion rate for early school leavers

This appendix describes the method used to calculate the percentage of early school leavers who completed a VET qualification. The methodology was undertaken for table 11. The same methodology was repeated for table 12, except that we derived the percentage of early school leavers who completed a certificate III to advanced diploma qualification. Data were sourced from the ABS Survey of Education and Training, 2001.

Step 1: Classifying early school leavers

Early school leavers were aged 15 to 24 years. Early school leavers were defined as people not attending school (used variable 'persons currently attending school'), who had not completed Year 12 or who did not attend school (used variable 'highest year of school completed').

Step 2: Determining early school leavers with a VET qualification (numerator)

VET was defined as advanced diploma and below qualifications or level not determined. The following variables were used to determine the early school leavers with a VET qualification:

- ✧ level of highest non-school qualification completed
- ✧ level of second highest non-school qualification completed
- ✧ level of third highest non-school qualification completed.

Step 3: Determining early school leavers (denominator)

Early school leavers were defined as people not attending school (used variable 'persons currently attending school'), who had not completed Year 12 or who did not attend school (used variable 'highest year of school completed').

Step 4: Determining the percentage

The number of early school leavers with a VET qualification was divided by the total number of early school leavers and multiplied by 100.

Appendix I

Methodology: Completed a VET qualification in the last five years as their first qualification

This appendix describes the method for deriving the number of people aged 25 to 49 years who completed, as their first qualification, a VET qualification in the last five years. This derived variable was used in table 13. The same derivation was repeated for table 14 except that we derived the number of people who completed a certificate III to advanced diploma qualification in the last five years, as their first qualification. Data were sourced from the ABS Survey of Education and Training, 2001.

Step 1: Determining which non-school was the first qualification completed

For the population with one qualification, the highest qualification was taken as the first qualification completed.

For the population with two qualifications, we used the following variables to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification.

For the population with three or more qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

From the above analysis, we determined which qualification was completed first. Where there were two or more qualifications completed at the same time, the lowest qualification was categorised as the first qualification. This was based on the assumption that most people will complete a lower qualification first and use this as a pathway to study at a higher level.

Step 2: Determining if the first qualification was vocational

The qualification was classified as VET if it was at advanced diploma and below, or in level not determined. Depending on whether the first qualification was the highest, second highest or third highest qualification, the following variables were used to determine whether the first qualification was vocational:

- ✧ level of highest non-school qualification completed
- ✧ level of second highest non-school qualification completed
- ✧ level of third highest non-school qualification completed.

Step 3: Determining the year completed the first qualification

For people whose first qualification was vocational, we calculated when the first VET qualification was completed using one of the following variables (depending on whether the first qualification was the highest, second highest or third highest qualification).

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

The year completed variables are categorical with the following levels:

- ✧ completed before 1980
- ✧ completed 1980–1984
- ✧ completed 1985–1989
- ✧ completed 1990–1994
- ✧ completed 1995–1999
- ✧ completed 2000 to survey date during the period of the end of April to the start of August 2001 (which we treat as mid-2001).

Step 4: Determining whether the first qualification was completed within the last five years

The major difficulty in determining the number of people who, in the last five years, completed a VET qualification as their first qualification is that we can not clearly identify when qualifications were obtained because the survey restricts us to five-year age groups and ranges of years in which qualifications were completed. These ranges in years are inconsistent in length of time.

The difficulties are approached by taking the last five years as 1995 to survey date (2001). The number of people completing within this range was multiplied by 5/6.5.

The estimate is also modified for 25 to 29-year-olds completing a VET qualification within the last five years, due to the last five years potentially covering ages 20 to 29 years, which does not meet our definition of second-chance VET (no qualification prior to 25 years of age). As qualifications are more likely to have been completed at the early part of this age bracket, it is estimated that two-thirds of the population who have accessed VET would have done so before 25 years of age. Therefore, one-third of the estimate is taken for 25 to 29-year-olds.

Appendix J

Methodology: Completed a VET qualification as their first qualification by age of completion for 45 to 49-year-old group

This appendix describes the method used to derive the age of 45 to 49-year-olds when they completed their first qualification—if this qualification was vocational. The methodology was undertaken for table 15. The same methodology was followed for table 16, except that we were determining the age of 45 to 49-year-olds when they completed their first qualification—if this qualification was a certificate III to advanced diploma qualification. Data were sourced from the ABS Survey of Education and Training, 2001.

Step 1: Determining which non-school qualification was the first qualification completed

For the 45 to 49-year-old population with one qualification, the highest qualification was taken as the first qualification completed.

For the 45 to 49-year-old population with two qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification.

For the 45 to 49-year-old population with three or more qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

From the above analysis, we determined which qualification was completed first. Where there were two or more qualifications completed at the same time, the lowest qualification was categorised as the first qualification. This was based on the assumption that most people will complete a lower qualification first and use this as a pathway to study at a higher level.

Step 2: Determining if the first qualification was vocational

The qualification was classified as VET if it was advanced diploma and below, or in level not determined. Depending on whether the first qualification was the highest, second highest or third highest qualification, the following variables were used to determine whether the first qualification was vocational:

- ✧ level of highest non-school qualification completed
- ✧ level of second highest non-school qualification completed
- ✧ level of third highest non-school qualification completed.

Step 3: Determining the year completed the first qualification

For 45 to 49-year-olds whose first qualification was vocational, we calculated when the first qualification was completed using one of the following variables (depending on whether the first qualification was the highest, second highest or third highest qualification).

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

The year completed variables are categorical with the following levels:

- ✧ completed before 1980
- ✧ completed 1980–1984
- ✧ completed 1985–1989
- ✧ completed 1990–1994
- ✧ completed 1995–1999
- ✧ completed 2000 to survey date during the period of the end of April to the start of August 2001 (which we treat as mid-2001).

Step 4: Determining the age in which qualifications were completed

Table J1 shows the age of the 45 to 49-year-old cohort by the year in which qualifications were completed. The table shows that:

- ✧ people who completed a VET qualification as their first qualification between 1995 and the survey date in mid-2001 were categorised as completing the qualification when they were aged between 38.5 and 49 years
- ✧ people who completed their first VET qualification between 1990 and 1994 were categorised as completing the qualification when they were aged between 33.5 and 41.5 years
- ✧ people who completed their first VET qualification between 1985 and 1989 were categorised as completing the qualification when they were aged between 28.5 and 36.5 years.
- ✧ people who completed their first VET qualification between 1980 and 1984 were categorised as completing the qualification when they were aged between 23.5 and 31.5 years.
 - ◆ As those who obtain a VET qualification at an age less than 25 years do not meet our definition of second chance, a third of the estimate was taken for this group. This modification was based on the assumption that qualifications are more likely to be obtained in the early twenties than the late twenties.

Table J1 Age of the 45 to 49-year-old cohort during years in which qualifications were completed

Year qualification was completed	Minimum age	Maximum age
Before 1980	22.5	26.5
1980	23.5	27.5
1981	24.5	28.5
1982	25.5	29.5
1983	26.5	30.5
1984	27.5	31.5
1985	28.5	32.5
1986	29.5	33.5
1987	30.5	34.5
1988	31.5	35.5
1989	32.5	36.5
1990	33.5	37.5
1991	34.5	38.5
1992	35.5	39.5
1993	36.5	40.5
1994	37.5	41.5
1995	38.5	42.5
1996	39.5	43.5
1997	40.5	44.5
1998	41.5	45.5
1999	42.5	46.5
2000	43.5	47.5
2001	44.5	48.5
Mid-2001	45.0	49.0
2002	45.5	49.5
2003	46.5	50.5
2004	47.5	51.5

Note: Row in bold represents the time the survey was conducted.

Appendix K

Methodology: 45 to 49-year-olds eligible for a second chance in education

This appendix describes the method used to derive the number people aged 45 to 49 years of age who were without a non-school qualification at 25 years of age (persons eligible for a second chance in education). This calculation was required for tables 15 and 16. Data were sourced from the ABS Survey of Education and Training, 2001.

Step 1: Determining which non-school was the first qualification completed

For people aged 45 to 49 years with one qualification, the highest qualification was taken as the first qualification completed.

For people aged 45 to 49 years with two qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification.

For people aged 45 to 49 years with three or more qualifications, the following variables were used to determine which qualification was completed first:

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

From the above analysis, we determined which qualification was completed first. Where there were two or more qualifications completed at the same time, the lowest qualification was categorised as the first qualification. This was based on the assumption that most people will complete a lower qualification first and use this as a pathway to study at a higher level.

Step 2: Determining the year completed the first non-school qualification

To determine if people met the criteria of without a non-school qualification at 25 years of age, the following variables were used (depending on whether the first qualification was the highest, second highest or third highest qualification):

- ✧ year completed study for the highest non-school qualification
- ✧ year completed study for the second highest non-school qualification
- ✧ year completed study for the third highest non-school qualification.

The year completed variables involve categorical data. The categories are:

- ✧ completed before 1980
- ✧ completed 1980–1984

- ✧ completed 1985–1989
- ✧ completed 1990–1994
- ✧ completed 1995–1999
- ✧ completed 2000 to survey date during the period of the end of April to the start of August 2001 (which we treat as mid-2001).

Step 3: Determining the number of people without a non-school qualification by 25 years of age

The number of people aged 45 to 49 years who were without a non-school qualification by 25 years of age was defined as the sum of the number of people who:

- ✧ completed their first non-school qualification between 1980 and 1984
- ✧ completed their first non-school qualification between 1985 and 1989
- ✧ completed their first non-school qualification between 1990 and 1994
- ✧ completed their non-school qualification between 1995 and 2001, multiplied by 5/6.5¹⁶
- ✧ were without a non-school qualification.

Limitation of the methodology

This methodology will slightly overestimate 45 to 49-year-olds who completed a VET qualification before 25 years of age, if they completed the qualification in 1980 or 1981. This is because these people could potentially be aged 45 years in mid-2001, making them aged less than 25 years in 1980 and 1981, which does not meet our definition of second-chance VET (no qualification prior to 25 years of age).

¹⁶ The analysis was complicated by the year completed categories being inconsistent in length of time. Due to this complication, the last five years was treated as between 1995 and 2001, multiplied by 5/6.5.



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