BUSINESS COUNCIL OF AUSTRALIA

DUSSELDORP SKILLS FORUM

Young Persons' Education, Training and Employment Outcomes with Special Reference to Early School Leavers

A Report prepared for the Business Council of Australia and Dusseldorp Skills Forum by Applied Economics

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Key Findings

The Business Council of Australia and the Dusseldorp Skills Forum jointly commissioned Applied Economics to report on the education and training outcomes of young people in Australia, with special reference to early school leavers. The term "young people" is used to describe those people between 15 and 19 years of age. The following are the main findings.

Teenagers: an overview

As at May 2002, there were 1,365,400 persons aged 15 to 19 years in Australia. Of these:

- 941,000 were in full time education
- 216,000 were in full time employment (including 4,000 in full-time education)
- 436,000 were in part-time employment (including 340,000 in full-time education)
- 132,000 were unemployed (including 61,000 claiming to be in full-time education)
- 54,000 were not in the labour force or in full time education.

Early School Leavers

About 270,000 students leave school each year. Approximately 85,000 students, one-third of all school leavers, leave before completing Year 12.

The Year 12 completion rates are 60 per cent for males and 73 per cent for females. These completion rates are low by OECD standards (see table 5 page 9 for details. In 1999 only 65% of Australians in the 25-34 age group completed year 12 in school compared with an OECD average of 72%.).

There was no increase in school completion rates in Australia in the 1990s.

Two-thirds of early school leavers in Australia do not enter further education in the following year. Thus each year at least 55,000 students do not complete Year 12 in normal school age.

Low literacy and numeracy is a major factor in early school leaving. A significant number of early school leavers fail to reach Year 10 standards.

Vocational Education and Training

About 370,000 young persons aged 15 to 19 take vocational education and training (VET) courses each year. This represents 20 per cent of the 15 to 19 population. Just over 100,000 VET students are on apprenticeships or traineeships

Two-thirds of VET students have left school before year 12. Many have only Year 10 schooling.

Completion rates for VET courses are low. Thirty per cent of VET students fail to complete half their courses.

Teenage Labour Market

In May 2002, 784,000 persons aged 15 to 19 were in the labour force. This represented 57 per cent of the population in this age group. Australia has the fifth highest labour force participation rate among this age group in the 29 OECD countries.

Of this labour force population, 216,000 were working full-time, 436,000 were working part-time, and 132,000 were unemployed.

However, about three-quarters of part–time workers work less than 15 hours per week. Nearly all part-time workers are casual workers.

The service sector of the economy provides 95 per cent of the jobs for teenage females and 74 per cent of jobs for males. The retail sector provides about half of all jobs for teenagers.

With 132,000 unemployed teenagers in May 2002, the unemployment rate was about 17 per cent.

Teenagers and Welfare Payments

In 1999, 326,000 young people aged 15 to 20 received youth allowance. Of the youth allowance recipients, three-quarters were in full-time education.

About 84,000 young people receiving the youth allowance were not in full-time education.

Early school leavers make up over half these recipients of benefits.

Implications for the Economy

Young persons in the following categories are likely to face difficulties:

- not in the work force and not in education
- unemployed and not in education
- unemployed and in only minor education
- employed part time for less than 35 hours per week and not in education.

Nearly one-half of all early school leavers fall into one of these four groups compared with only a quarter of Year 12 completers who do. In total, about 43,000 early school leavers and 43,000 Year 12 completers are in one of these four most vulnerable groups each year.

Although some persons in these four categories are not at risk, most are. Most part-time workers work less than 15 hours per week and virtually all part-time workers are casual employees.

It is estimated that 40,000 young people are not in some form of education and training, unemployed or working less than 15 hours a week.

There is also evidence that labour force participation, employment prospects and wages rise significantly with length of time in school. For example seven years after Year 12, or what would be Year 12 in school, only 7 per cent of male Year 12 leavers are unemployed, but 21

per cent of Year 9 leavers are unemployed. After a similar seven year period, only 7 per cent of female Year 12 leavers are not in the labour force, but 59 per cent of Year 9 leavers are not in the labour force.

It is clear that the economic and social costs associated with young people who leave school early and do not take up other education and training or sustained employment will be significant.

Whilst this report provides a picture of the current situation it is not designed to recommend policy solutions. Further work is required in that domain.

1 Introduction

The Dusseldorp Skills Forum (DSF) has a prime mission to promote education and training of young people. The Business Council of Australia (BCA) has also identified education as a critical public policy area and is undertaking a range of projects to promote equality of opportunity, efficiency and excellence in education.

As part of these programs, BCA and DSF commissioned this report to examine the education, training and employment outcomes of young people in Australia, with special reference to early school leavers. In particular the report is designed to provide information on:

- School retention patterns including type and size of education and training outcomes;
- The number of young people who do not pursue education, training or employment;
- Unemployment consequences for those not completing education and training and the implications for economic growth and the labour market; and
- The implications of early school leaving for the welfare sector and the budget.

The report is essentially descriptive. It will provide an input to ongoing BCA and DSF programs for education and labour development.

The layout of the report is as follows:

Section 2 describes the main data sources that describe the education, training and employment of young people.

Section 3 focuses on early school leavers. It describes estimated school retention and completion rates, factors associated with early school leaving, and educational and employment outcomes for early leavers.

Section 4 takes up the story by discussing vocational education and training of teenagers.

Section 5 describes the teenage labour market. It provides information on young people in the labour force, working full or part-time or unemployed. Where possible, the information is related to prior or concurrent education and training.

Section 6 provides information on teenagers receiving welfare payments by age and student status.

The last section of the report outlines some implications for the economy and policy options.

2 Main Data Sources

This report draws on two main sources: the Australian Bureau of Statistics (ABS) and the National Centre for Vocational and Educational Research (NCVER).

As shown in Table 1, various ABS surveys provide information on school retention rates, destinations of school leavers, labour market participation and the non-labour workforce.

The major ABS sources are:

- *Schools Australia* Cat. no. 4221.0
- *Education to Work* Cat no. 6337.0
- *Labour Force Australia*, Cat no 6203.0
- *Persons not in the Labour Force*, Cat no.6220.0

Table 1 also shows the population covered by the surveys. For example, the ABS *Labour Force Australia* provides information on all 15-19 year olds. *Education to Work* provides information on all 15-19 years olds who left school in the previous year.

NCVER provides information on vocational and educational training. Here there are two main sources.

- Annual Vocational and Training Statistics
- Annual Apprenticeship Statistics

The first of these sources provides information on participation in vocational and educational training. The second source provides data on teenagers with apprenticeships and traineeships.

The report draws on a number of other sources as described below. These include:

- The Ministerial Council for Employment, Education, Training and Youth Affairs (MCEETYA), which provides estimates of school completion rates and information on long run outcomes for school leavers.

- The Department of Family and Community Services, which provides data on recipients of the Youth Allowance.

- Various work done or commissioned by the Australian Council for Educational Research (ACER), including ACER's *Longitudinal Study of Australian Youths*.

It should be noted that these data sources do not use the same data and populations.

Table 1 Summary of Data Sources

Institution	Survey	Year[a]	Month	Population	No	Relevant information
ABS	*Schools Australia* Cat. No. 4221.0	1981-2001	August	Secondary school students	-	School retention rates
ABS	*Education to Work* Cat no. 6337.0	2001	May	All school leavers in 15-19 age group	270,000	Destinations of school leavers
ABS	*Labour Force Australia*, Cat no 6203	1981-2002	May	All 15-19 year olds	1,365,000 (in 2002)	Labour market information, e.g. participation, full and part time work, unemployment
ABS	*Persons not in the Labour Force*, Cat no.6220	2002	May	15-24 year olds not in labour force	580,000	Activity of persons outside the labour force
NCVER	Annual Vocational and Training Statistics	2000	June	All 15-19 year olds taking VET courses	373,000	VET participants
NCVER	Annual Apprenticeship Statistics	2001	June	All 15-19 year olds undertaking apprenticeships and traineeships	100,000	Data on apprentices and training
MCEEYTA	*Report on Schooling in Australia*	1994-2000		All school students		School completion rates
ACER	*Longitudinal Study of Australian Youths*			Sample of school students		Reasons for leaving school Long run outcomes for school leavers
Department of Family and Community Affairs	Statistical overview of welfare recipients	1999	May	All 15-19 Youth Allowance recipients	300,000	Data on recipients of youth allowance

(a) Year shown refers to year of survey described in this report

3 Early School Leavers

3.1 Overview on School Completion

Table 2 shows the number of students who left school in 2000 and their status at May 2001. A total of 270,000 students left school in 2000. Of these, 86,000 students (32 per cent) left before completing Year 12.

Seventy one per cent of Year 12 completers entered further education and training, but only 37 per cent of early school leavers did so.

Table 2 Overview on students leaving school at end 2000

Student position in May 2001	Early school leavers		Year 12 completers		Total	
	No	%	No	%	No	%
In education or training	31,580	36.9	130,474	70.9	162,055	60.1
Not in education or training	53,990	**63.1**	53,600	**29.1**	107,590	39.9
Total	85,570	100.0	184,074	100.0	269,645	100.0

Source: ABS Education to Work, Cat no.6227.0, unpublished data

As shown in Table 3, there was little change in school completion rates in the 1990s. For most of the decade, the estimated school completion rate was around 66 per cent. Female completion rates are significantly higher than male completion rates.

Table 3 Estimated Year 12 completion rates (%)

Year	Male	Female	Total
1994	63	74	68
1995	61	73	67
1996	60	72	65
1997	58	71	64
1998	60	72	66
1999	61	74	67
2000	61	74	67

Source: MCEETYA, National Report on Schooling in Australia: 2000

Table 4 shows completion rates by state in 1999. ACT and Tasmania have the highest completion rates. WA and Northern Territory have the lowest completion rates. The Northern Territory figures are deflated by student participation in community education, which is not allocated a grade and not included in the Territory's retention rates.

Table 4 Year 12 completion rates by state in 2000 (%)

State	Completion rate
NSW	65
Victoria	68
Queensland	73
Western Australia	63
South Australia	68
Tasmania	74
ACT	81
Northern Territory	28
Australia	67

Source: MCEETYA, National Report on Schooling in Australia: 2000

In terms of international comparisons, Australia has a small proportion of people with at least upper secondary education. In Australia only 65 per cent of the 25-34 year old age group has at least upper secondary education, compared with an OECD average of 72 per cent (see Table 5).

Table 5 Proportion of 25-34 year old age group with at least upper secondary (years 11and 12) education in OECD countries in 1999

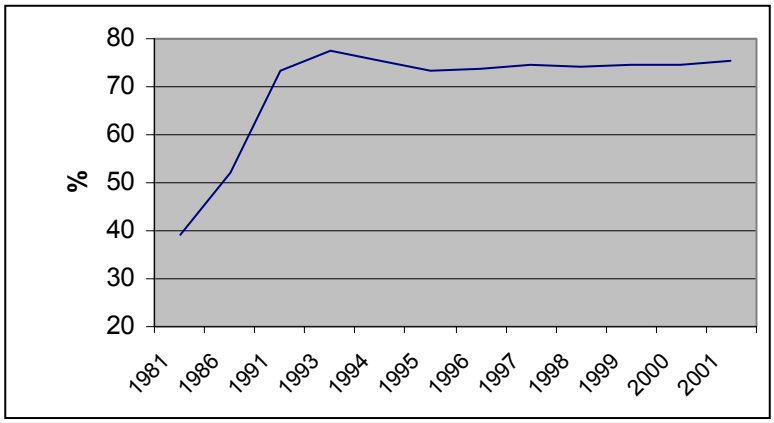
	Percentage
Australia	65
Austria[a]	83
Belgium	73
Canada	87
Czech Republic	93
Denmark	87
Finland	86
France	76
Germany	85
Greece	71
Hungary	80
Iceland	64
Ireland[a]	67
Italy	55
Japan	93
Korea	93
Luxembourg	61
Mexico	25
New Zealand	79
Norway[a]	94
Poland[a]	62
Portugal	30
Spain	55
Sweden	87
Switzerland	89
Turkey	26
United Kingdom	66
United States	88
Country mean	72

(a) Year of reference 1998.
Source: OECD, Education at a Glance 2001

3.2 Estimated Retention Rates from Year 10 to Year 12

The ABS provides more recent information on school retention rates. Estimated retention rates measure participation of a cohort of students in schools. Thus, retention rates from Year 10 to 12 show the estimated number of students who began in Year 10 and continue to Year 12, expressed as a percentage of the number of students who began in Year 10. Estimated retention rates do not account for migration between schools and between states. Also, they measure only those who continue to Year 12 rather than those who complete Year 12. Thus, estimated retention rates show main trends and differences, but do not quantify precisely the number of early school leavers.

Figure 1 Trend in national retention rate, Year 10 to 12



Source: ABS Schools Australia, Cat no. 4221.0

As shown in Figure 1, the national retention rate between Year 10 and Year 12 has risen significantly since 1981, when only 39 per cent of the Year 10 cohort progressed to Year 12. The retention rate doubled in the 1980s and peaked at 78 per cent in 1993. The rate then declined to 1996 but rose marginally to reach 75 per cent in 2001.[1]

ABS *Schools Australia* also provides detailed retention rates by state and gender. These retention rates confirm the findings with respect to both states and gender shown in Section 3.1 and are not described separately here.

However, the ABS provides additional insight into retention rates by type of school. As shown in Table 6, fewer students stay to Year 12 in government schools than in non-government schools. Sixty eight per cent of students in government schools who began in Year 10 continued to Year 12, compared with 84 per cent in non-government schools. However, the figures are influenced by migration from government to non-government schools, which reduces government schools retention rates and lifts non-government school retention rates.

Table 6 Year 10 to Year 12 retention rates by type of school, 2001

	Government	Non-government				All schools
	total	Anglican	Catholic	Other	Total	total
Year 10	96.8	106.5	96.7	105	89.3	94.2
Year 11	83.4	99.8	85.8	103	92.9	86.7
Year 12	67.8	99.9	78.0	92	84.4	73.4

Source: ABS Schools Australia, Cat no. 4221.0, commissioned data

[1] These retention rates are higher than the completion rates in Section 3.2 because they do not include students dropping out before Year 10 or in Year 12.

3.3 Factors Associated with Early School Leaving

Drawing on ACER's *Longitudinal Study of Australian Youths,* Marks and Fleming (1999) report that finding a job or obtaining an apprenticeship is the most important reason students give for leaving school before Year 12. Dislike of school is also an important reason for leaving school early (See Table 7).[2]

Other research has shown that performance at school and socioeconomic status influences early school leaving. Lamb and Rumberger (1998) found a negative relationship between school achievement and non-completion of school. Likewise, Robinson (1999) found that students in the top quartile of school achievement were 7 to 8 times more likely to complete school than those in the lowest quartile.

Literacy and numeracy in Year 9 is also a factor associated with early school leaving. Ball and Lamb (2001) found that those in the lowest quartile of achievement in the literacy and numeracy test in Year 9 are almost 4 times more likely to leave school early than those in highest quartile of achievement.

MCEETYA (2000) reports that 77 per cent of students from high socioeconomic households complete Year 12 compared with only 61 per cent of students from low socioeconomic households.

Table 8 provides more detail. It shows that early school leavers are more likely to have parents in low skilled jobs or with little formal education. Students with parents in manual employment are almost twice as likely to leave school early as students with parents from a professional background. Eleven per cent of students whose parents have an education level that is more than 1 standard deviation below the mean left school early. This compares with 3 per cent of students whose parents have an education level than is one standard deviation above the mean.

In addition, teenagers are more likely to leave school early if they have an ASTI or non-English speaking background. Moreover, those residing in regional or rural areas display a higher incidence of early school leaving.

Table 7 Most important reason for leaving school before Year 12

Reason for leaving school	Male N=467 %	Female N=328 %	All N=795 %
I wanted to get a job/apprenticeship	64	40	54
I was not doing well as school	4	7	5
I wanted to do job training that wasn't available at school	3	8	5
I didn't like school	11	15	13
Financially it was hard to stay at school	0	3	1
Teachers thought I should	3	2	2
To earn my own money	7	5	6
The school didn't offer the subjects/courses I wanted to do	3	8	5
Other reasons	7	14	10
Total	100	100	100

Source: Mark & Fleming, 1999.

[2] In the consultant's fieldwork on a related job, dislike of school appeared to be a stronger motive for early school leaving than might be inferred from Table 7.

Table 8 Early school leavers by social group

	All %	Male %	Females %
Total cohort population	9	10	7
Parents Occupation			
Professional/Managerial	6	7	5
Clerical/Personal Service	6	7	5
Skilled Manual	11	13	9
Unskilled Manual	12	17	9
Parental Education Level			
More than 1 SD above mean	3	4	2
Mean to 1 SD above mean	8	9	7
1 SD below mean	10	12	7
More than 1 SD below mean	11	13	9
Aboriginal or Torres Strait Islander			
ATSI background	21	22	20
Non-ATSI background	8	10	7
Language Background			
Non-English speaking background	6	7	4
English speaking background	9	10	8
Region			
Metropolitan(>100,000)	6	7	6
Regional (1,000-99,000)	10	12	8
Rural/remote(<1,000)	14	17	10

SD = Standard Deviation
Source: Marks & Fleming (1999, Table 1)

3.4 Short-term Outcomes for Early School Leavers

Table 9 shows the short-term educational outcomes for year 2000 school leavers. As at May 2001, only 35 per cent of early school leavers were in further eduction or training, mainly in TAFES. Over 60 per cent were not participating in training or education.

In Section 7.1, we examine the short-term employment outcomes for early school leavers. Just over half were in employment. However, 28 per cent of early school leavers were unemployed and 20 per cent were not participating in the labour force.

Outcomes for early school leavers also vary with the level of schooling obtained. As shown in Table A1 in the Appendix, 23 per cent of Year 9 leavers who are not in education or training are unemployed. The corresponding figure for Year 11 leavers is 14 per cent.

On the other hand, 71 per cent of Year 12 completers were undertaking training and education (71 per cent), mostly at university level. Year 12 completers are also more likely to participate in the labour force and less likely to be unemployed.

Table 9 Short-term outcomes for year 2000 school leavers, May 2001

	Early school leavers		Year 12 completers		Total	
	No	%	No	%	No	%
In education or training						
TAFE	26,024	30.4	46,252	22.4	67,276	24.9
University	1,096	1.3	83,291	45.2	84,387	31.3
Other education or training	4,460	5.2	5,932	3.2	10,392	3.0
Total	31,580	36.9	130,475	70.9	162,055	60.1
Not in education or training						
Employed	27,878	**32.5**	40,239	**21.9**	68,117	25.3
Unemployed	15,204	**17.8**	8,744	**4.8**	23,948	8.9
Not in labour force	10,908	**12.7**	4,617	**2.5**	15,525	5.8
Total	53,990	**63.1**	53,510	**29.1**	107,590	39.9
Total	85,570	100.0	184,075	100.0	269,645	100.0

Source: ABS Education to Work, Cat no.6227.0, unpublished data

Differences in destinations by gender

Males represent two-thirds of early school leavers. In 2001, over 58,000 male 15-19 year olds left school before completing year 12, compared with 27,000 female early school leavers.

However, in percentage terms, the destinations of male and female early leavers are similar. Females are marginally more likely to take up further education.

Table 10 Destination of early school leavers by gender, 2001 (%)

	Early School Leavers		School Completers	
	Males	Females	Males	Females
In training/education				
TAFE	22.7	28.2	29.1	21.6
University	0.0	0.0	37.5	46.0
Other	10.8	10.2	5.4	2.4
Total	33.5	38.4	72.0	70.0
Not in training/education				
Employed	33.4	32.2	20.6	23.0
Unemployed	17.0	18.1	4.5	4.9
Not in Labour Force	16.1	11.3	2.9	2.1
Total	66.5	61.6	28.0	30.0
Grand total	100.0	100.0	100.0	100.0
Numbers	58,532	27,126	86,864	97,120

Source: ABS Education to Work, Cat no.6227.0, unpublished data

3.5 Longer Run Prospects of Early School Leavers

The evidence suggests that the disadvantages experienced by early school leavers persist. Lamb and McKensie (2001) describe the outcomes of students seven years after they completed Year 12 or, if they were early leavers, seven years after they would have completed Year 12. The results are shown in Table 11. It will be noted that people may fall into more than one category over a year, e.g. training and work.

Table 11 shows that:

- Unemployment rates for males fall as the leaving school age rises. Seven years after Year 12, or what would be Year 12, 21 per cent of male Year 9 leavers are unemployed. Only 7 per cent of male Year 12 leavers are unemployed.

- Early school leaving is strongly correlated with participation in the workforce. Seven years after Year 12, or what would be Year 12, 59 per cent of female Year 9 leavers are not in the labour force. Only 7 per cent of female Year 12 leavers are not in the labour force.

Of course, conclusions must be drawn cautiously from such correlations. Students who leave school early will not necessarily achieve the same level of employment as Year 12 completers simply by completing further courses. Also, students may leave school early in part because they do not plan to enter the workforce.

Table 11 Outcomes of school leavers seven years after they were, or would have been, in Year 12 (%)

	Highest School Level			
	Year 9	Year 10	Year 11	Year 12
Males				
Full-time work	21	19	14	18
Training/work	14	31	34	16
Further study/work	0	2	4	17
Brief interruption/work	25	20	26	24
Extended interruption/work	14	11	6	14
Mainly part-time work	4	4	3	3
Mainly unemployment	21	12	12	7
Mainly not-in-labour-force	0	2	2	1
Females				
Full-time work	5	20	24	25
Training/work	0	4	4	4
Further study/work	0	1	2	14
Brief interruption/work	11	25	29	24
Extended interruption/work	16	13	16	15
Mainly part-time work	5	7	7	6
Mainly unemployment	5	6	5	6
Mainly not-in-labour-force	58	25	14	7
All persons				
Full-time work	15	20	18	21
Training/work	9	19	20	10
Further study/work	0	2	4	18
Brief interruption/work	19	22	27	23
Extended interruption/work	15	12	11	14
Mainly part-time work	4	5	5	5
Mainly unemployment	15	9	8	6
Mainly not-in-labour-force	23	12	8	3

Source: Lamb and McKensie (2001, Table 5.1)

4 Vocational Education and Training of Teenagers

During the 1990s, about 20 per cent of teenagers participated in vocational education and training (VET). The proportion in VET remained fairly constant despite increased government expenditure in the sector.

In 2000, 373,000 15-19 year olds undertook vocational training in TAFEs, other registered training organisations, and schools (see Table 12).[3] Slightly over half of VET participants were male.

VET has become an important source of education and training for early school leavers. Two-thirds of the VET clients left school before Year 12. Most of these have only Year 10 schooling.

Table 12 Young persons aged 15 to 19 in all VET courses in 2000 by highest school level ('000)

	Year 9 Or lower	Year 10	Year 11	Year 12	Not known	Total
Male	23.3	53.7	39.1	52.8	37.9	206.8
Female	17.7	34.8	31.1	50.6	31.5	165.7
Total	41.0	88.8	70.2	103.5	69.7	373.2
% of all clients	11.0	23.8	18.8	27.7	18.7	100.0
% of 'known' clients	13.5	29.2	23.1	34.1		100

Source: NCVER annual statistics, unpublished data.

Also in 2000, there were 103,000 15-19 year olds in apprenticeships and traineeships (see Table 13).

Again, two-thirds of apprentices and trainees left school before completing Year 12. Most of these were Year 10 students.

Table 13 Apprentices and trainees in 2000

School level	No	%
Year 9 or lower	6,910	6.7
Year 10	39,510	38.4
Year 11	19,860	19.3
Year 12	34,290	33.3
Unknown	2,280	2.2
Total	102,850	100

Source: NCVER Annual Apprenticeship and Trainee Statistics, 2001.

[3] The 2001 estimates are available at the end of July, 2002.

Qualification level

The qualifications of all VET clients aged 15-19 are shown in Table 14. Over three-quarters of these clients have obtained at least a Certificate II, which is the level the OECD considers to be equivalent to Year 12. However the outcomes of Certificate II programs vary and within Australia there is debate as to whether they have a year 12 equivalence.

Table 14 Qualification level of VET clients aged 15-19, 2000

	Female	Male	Total
AQF diploma or higher	11.8	9.4	10.4
AQF certificate IV or equivalent	6.2	5.5	5.8
AQF certificate III or equivalent	21.7	33.0	27.9
AQF – level unknown	1.9	1.7	1.8
AQF certificate II	32.2	24.2	27.7
AQF certificate I	6.1	8.3	7.3
AQF senior secondary	0.5	0.3	0.4
Sub-total	80.3	82.2	81.4
Other recognised courses	4.1	5.3	4.8
Non award courses	13.6	11.1	12.2
Module Only	2.0	1.4	1.7
Total all clients	100.0	100.0	100

Source: NCVER annual statistics, unpublished data.

However, completion rates for VET courses are low. Table 15 shows completion rates in VET courses by students aged 15 to 19 years. Fourteen per cent of teenagers undertaking VET courses did not successfully complete any module. Thirty per cent failed to complete half their modules.

Table 15 VET modules completed by clients aged 15-19, 2000

Per cent of modules completed	Per cent of students
0%	14.0
1%-25%	6.2
26%-50%	9.6
51%-75%	9.9
76%-99%	12.4
100%	47.6
Sub-total	99.7
All activity RPL/CT	0.3
Total	100.0

Source: NCVER annual statistics, unpublished data.

5 The Teenage Labour Market

5.1 Teenage Labour Market: Overview

The labour force status of the civilian population aged 15 to 19 in May 2002 is shown in Table 16. These figures, from ABS *Labour Force Australia*, include all teenagers and refer to 2002. The numbers are higher than in Section 3, which draws on the *Education to Work* survey and includes only those who left school in 2001. However, a similar pattern emerges— early school leavers are disadvantaged in the labour market by comparison with non-early school leavers.

In May 2002, 784,000 persons aged 15 to 19 were in the labour force (57 per cent of the population in this age group). With this level of participation, Australia has the fifth highest labour force participation rates among this age group in the 29 OECD countries (OECD, 2000).

Of this labour force population, 216,000 were working full-time, 436,000 were working part-time, and 132,000 were unemployed.

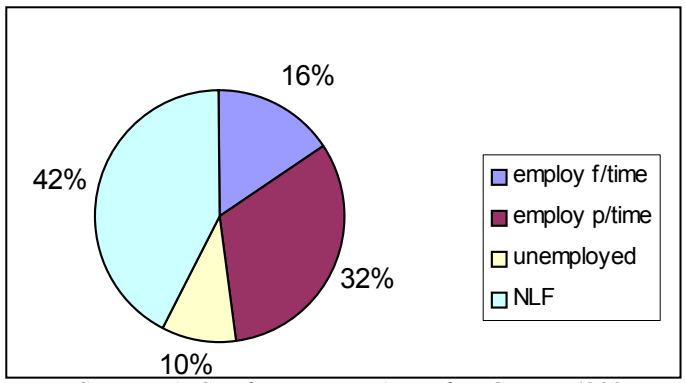
Table 17 breaks down the labour force figures shown in Table 16 by education status and sex. Not surprisingly, hardly any in full-time work were in full-time education. However, over three-quarters of those in part-time work were in full-time education.

Table 16
Labour force status of population aged 15 to 19, May 2002

Labour force status	No	%
Employed		
Full time	216,400	15.8
Part time	436,300	31.9
Total	652,700	47.8
Unemployed	131,700	9.6
Labour force	784,400	57.4
Not in labour force	581,000	42.6
Total civilian population	1,365,400	100.0

Source: ABS Labour Force Australia, Cat No 6203.0

Figure 2 Labour market status of 15-19 year olds, 2002



Source: ABS Labour Force Australia, Cat No 6203

Table 17 Education and labour market status of youth aged 15-19 years, May 2002, per cent

	In full-time education					Not in full time education					Total
Age group Work 15-19 yrs	Full-time Work	Part-time work	Unemployed	Not in the Labour Force	Sub-total	Full-time work	Part-time work	Unemployed	Not in the Labour Force	Sub-total	
Males	0.4	20.2	5.4	40.5	66.4	19.8	5.7	4.6	3.4	33.6	100.0
Females	0.2	29.9	5.0	36.7	71.7	11.0	8.5	4.2	4.6	28.3	100.0
Total	0.3	24.9	5.2	38.6	69.0	15.5	7.0	4.4	4.0	31.0	100.0

Source: Labour Force Australia, May 2002, Cat no. 6203.0.

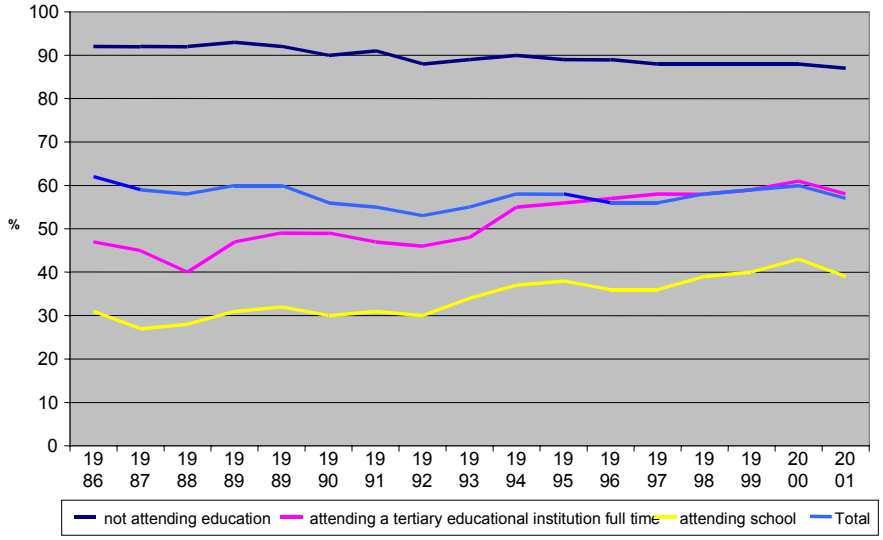
5.2 Employment of Teenagers

A feature of the teenage labour market is the large (and increasing) number of students who combine work with study.

Figure 3 shows the proportion of 15 to 19 years olds in various groups who are in the labour force. As we have seen, in May 2002, over 57 per cent of this age group were in the labour force. This included:

- 87 per cent of teenagers who were not attending education;
- 59 per cent of teenagers in tertiary education; and
- 39 per cent of teenagers attending school

Figure 3 Participation of teenagers in labour force



Source: ABS Labour Force, Cat no.6203

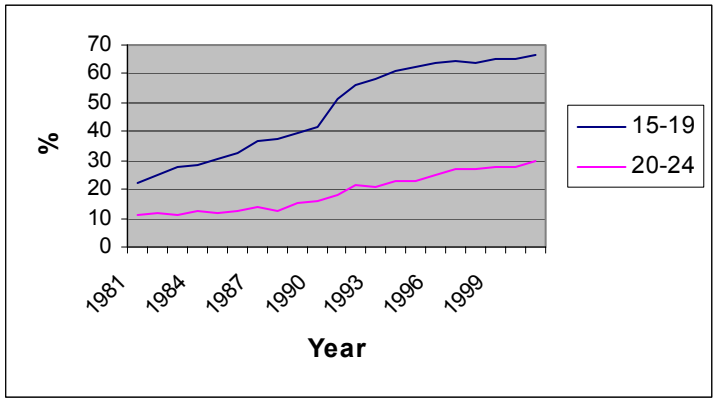
Part and full-time work

Two-thirds of teenagers (aged 15 –19 years) work part-time. The proportion of teenage workers in part-time employment has increased exponentially from 22 per cent in 1981 to 66 per cent in 2001 (see Figure 4).

By comparison, 30 per cent of 20-24 year olds and 25 per cent of those aged over 25 work part-time.

The rise in part-time work partly reflects the increased participation in education. However, many part-time workers in the 15-19 age category do not attend education, Almost a third of young people in this age group not attending an educational institute full-time are working part-time.

Figure 4 Part-time share of employment for 15-19 and 20-24 year olds



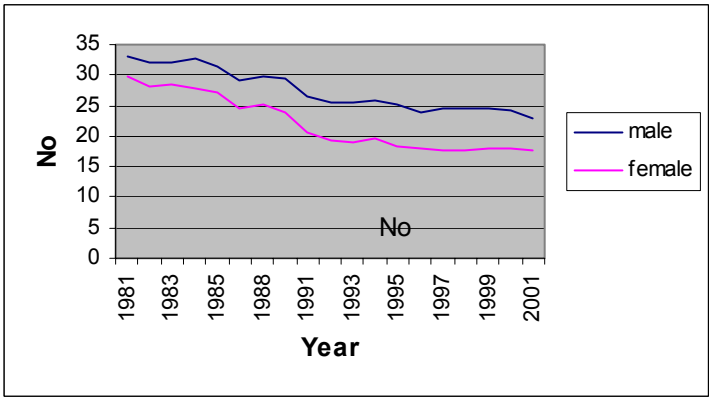
Source: ABS Labour Force, Cat no.6203

Hours of work

Teenagers work on average about 20 hours per week compared with an average of 35 hours for 20-24 year olds and 42 hours for those over 25. Hours worked by 15 – 19 year olds (have fallen steadily since 1981 with the rise in part-time work (see Figure 5).

Because more males work full-time, males tend to work longer hours than females. In 2001, male teenagers worked an average 23 hours per week while females averaged 18 hours.

Figure 5 Trend in hours worked by 15-19 year olds



Source: ABS Labour Force, Cat no.6203, unpublished data

Table 18 Hours of work by 15-19 year olds in part-time work, 2001

Sex	Hours of work per week			
	1-15	16-29	30-34	Total
Males	73.3	21.7	5.0	100.0
Females	73.1	22.2	4.7	100.0

Source: ABS Labour Force, Cat no.6203

In 2001, three-quarters of part-time workers aged 15 to 19 worked less than 15 hours a week. A further 33 per cent worked between 16 and 30 hours (see Table 18).

However, teenagers work less than their preferred number of hours. According to the ABS, 22 per cent of males and 14 per cent of females who work part-time want to work more hours. The average duration of insufficient work is 18 hours per week.[4]

Industry distribution of 15-19 year olds

The industry distribution of teenagers is shown in Table 19. By 2001, the service sector in all its forms provided 95 per cent of the jobs for females and 74 per cent of jobs for males. Males are more likely than females to work in the construction and manufacturing sector.

By itself, the retail sector accounted for about half of all teenage employment. This sector provides opportunities for part-time work but possibly less opportunities for training and education than other sectors.

Table 19 Industry distribution of teenagers, 1991 and 2001 (%)

	1991		2001	
	Males	Females	Males	Females
Agriculture, Forestry and Fishing	6.3	1.8	5.7	0.9
Manufacturing	15.1	4.4	9.0	2.2
Construction	10.5	0.6	11.4	0.6
Wholesale Trade	6.3	2.9	3.3	0.9
Retail	38.5	51	41.9	57.1
Accommodation, Cafes and Restaurants	6.5	8.1	9.3	12.3
Property and Business Services	3.6	5.6	4.5	5.9
Finance and Insurance	2	4.8	1.2	6.2
Health and Community Services	1.2	6.6	4.2	2.5
Cultural and Recreational Services	2	2.9	3.0	5.9
Personal and Other Services	2.2	5.8	6.3	5.6
Other	6	5.5	1.8	1.7
Total	100	100	100	100

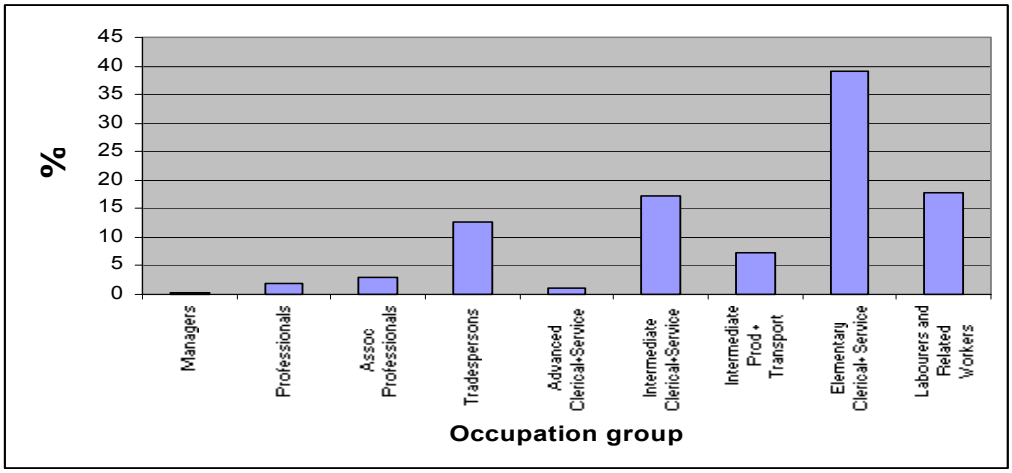
Source: ABS Labour Force, Cat no.6203.0, unpublished data

According to the Australian Standard Classification of Occupations the lowest occupational skill level includes the elementary and service workers and labourers and related workers while the highest skilled occupations are that of managers, tradespersons and advanced clerical service.

Figure 6 shows the dominance of these low skilled occupations among teenagers where again there are fewer opportunities for further education and training.

[4] ABS, *Underemployed Workers in Australia*, Cat no. 6265.0.

Figure 6 Occupations of 15-19 year olds, 2001



Source: Source: ABS Labour Force, Cat no, 6203, unpublished data

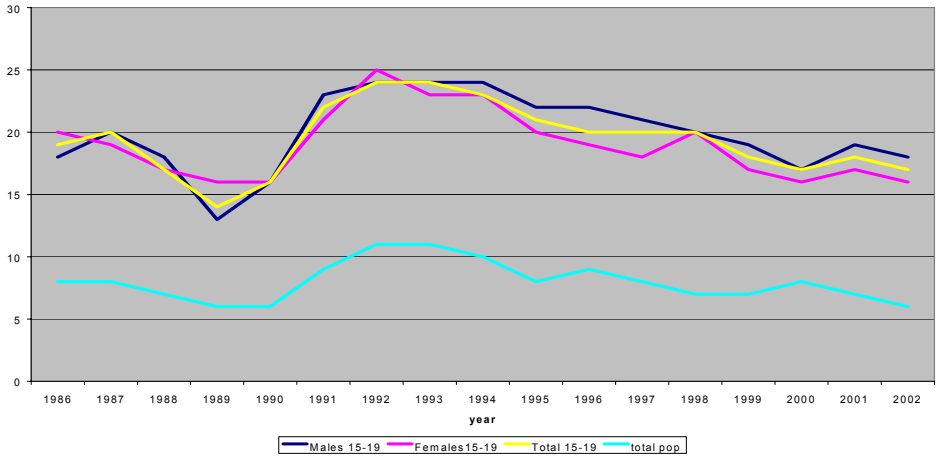
5.3 Unemployment of Teenagers

There are 132,000 unemployed teenagers in Australia in 2002. The teenager unemployment rate peaked at 24 per cent in 1993, but fell to 17 per cent in 2002. The corresponding figure for 20-24 year olds in 2002 is 9 per cent.

The teenage unemployment rate is significantly higher than the adult rate. However, the teenage and total population unemployment rates move closely together (see Figure 7). This suggests the overall labour market influences teenage unemployment.

The male teenager unemployment rate has been higher than the female rate. Currently, 18 per cent of males are unemployed compared to 16 per cent of females.

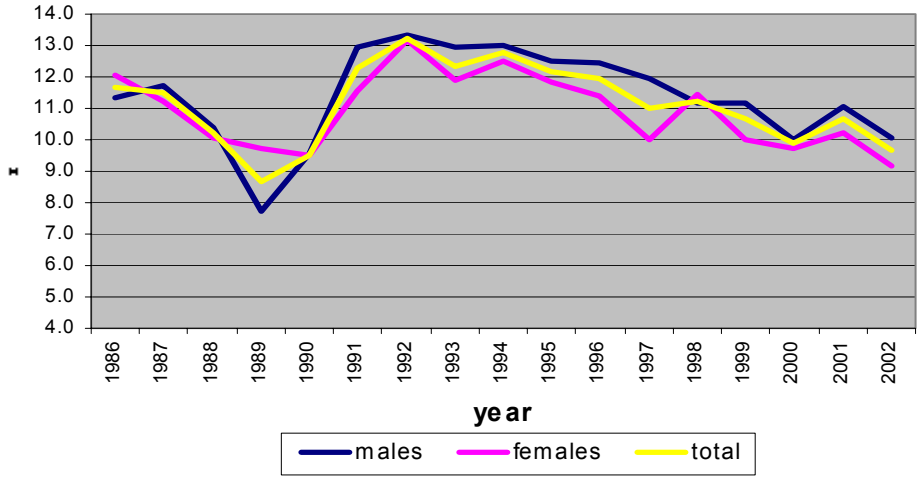
Figure 7 Trends in unemployment of 15-19 year olds (%)



Source: ABS Labour Force, Cat no, 6203.0

Because many young people participate in education, it is sometimes argued that teenage unemployment should be seen in relation to total teenage population. Figure 8 shows the unemployment to population ratio for teenagers. Using this measure, only about 10 per cent of teenagers are unemployed. Figure 8 also shows that the unemployment to population ratio has been fallen in the 1990s.

Figure 8 Unemployment to population ratios for teenagers

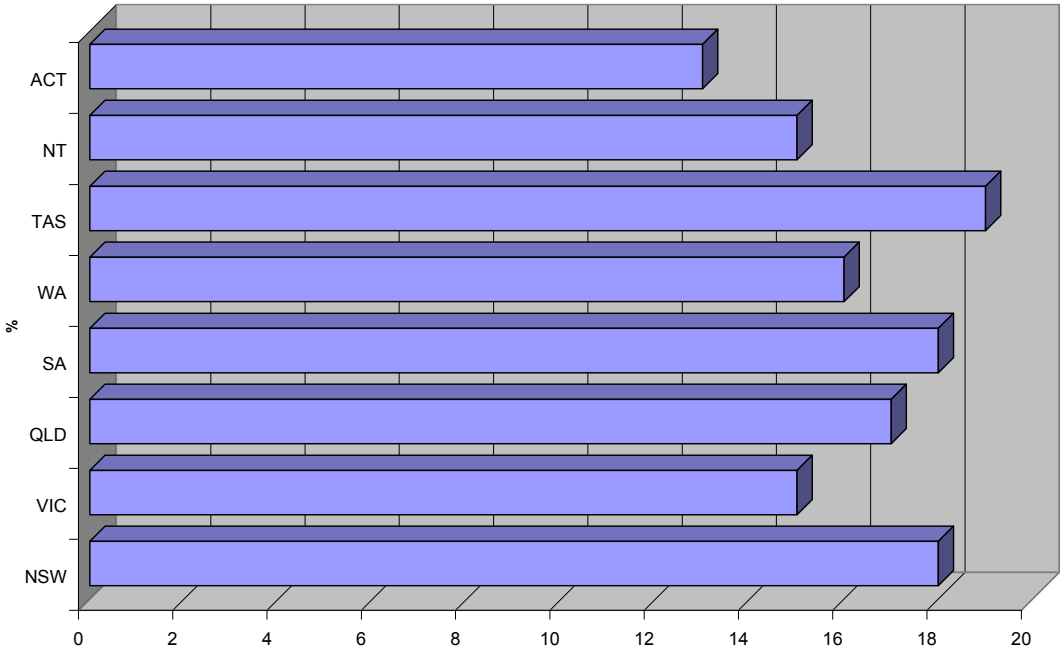


Source: ABS Labour Force, Cat no, 6203.0

Differences in unemployment by State

There is considerable variation in the unemployment rate by State and Territories. Tasmania and NSW have the highest unemployment rates among teenagers, while ACT has the lowest. The unemployment rate in Tasmania is 19 per cent. The corresponding figure for ACT is 13 per cent. (See Figure 9)

Figure 9 State breakdown of unemployment rates for 15-19 year olds, 2002



Source: ABS Labour Force, Cat no, 6203.0

Unemployment and early school leavers

As seen in Section 3, early school leavers are more likely to be unemployed than are Year 12 completers.

Table 20 shows the unemployment rate by age for teenagers who have left school. The unemployment rate is twice as high for 15 or 16 year olds not attending education as it is for 19 years olds not attending education.

Table 20 Unemployment rates for 15-19 year olds not attending education, 2002.

Age	Unemployment rate
15	32.2
16	28.3
17	17.3
18	17.7
19	12.1

Source: ABS Labour Force, Cat no, 6203.0

Duration of unemployment

The average period of unemployment of 15-19 year olds is 20 weeks. This is much less that the average period of unemployment of 43 weeks for 20-24 year olds. The lower duration of unemployment reflects the higher proportion of part-time work among the younger age group.

Table 21 Average weeks of unemployment for 15-19 year olds, 2002

	Average weeks of unemployment
Female	19.5
Male	20.2
Persons	19.9
Looking for part-time work	16.3
Looking for full-time work	22.7

Source: ABS Labour Force, Cat no, 6202.0

5.4 Teenagers not in the Labour Force

An estimated 581,000 teenagers are not participating in the labour force in 2002. Of course, many of these are in education. However, 13 per cent of teenagers (54,000 young people) are not in full time education or in the labour force.

Table 22 Activity of 15-24 years olds not in education or labour force, 2002 (%)

Activity	Males	Females	Total
Retired or voluntary inactive	6.8	1.3	2.7
Home Duties	6.0	80.9	60.2
Own disability or handicap	17.3	5.0	8.5
Own illness or injury	21.3	4.9	9.4
Looking after ill or disabled person	3.1	0.2	1.0
Travel, holiday or leisure activity	23.0	6.1	10.8
Working in unpaid voluntary job	12.2	0.0	3.4
Other	10.2	1.6	4.0
Total	100	100	100

Source: ABS Persons not in the Labour Force, Cat no. 6220

Table 22 shows the main activity of persons in the 15-24 age groups who are in neither the labour force nor education. The current main activity of 15-19 year olds can not be shown separately because of the small numbers involved per category.

The main activity of females not participating in the labour force is childcare and home duties. The main activity of males is travel or leisure activity. Men also claim to suffer more illness or injury than females.

6 Teenagers and Welfare Payments

Youth Allowance (YA) is the main income support for unemployed young persons between 16 and 20 years of age and for full-time students in the 16-24 age group with low incomes. In order to receive YA, people under 18 who are not in full time education are required to enter activity agreements with Centrelink that will enhance their long term employment prospects.

YA for the unemployed and for full-time students is subject to income and asset tests. Also, the amount of the allowance depends on whether the person is single or partnered, has children, and lives at home or away from home.

In 1999, 326,000 young people aged 15 to 20 received YA. Of these, about three-quarters were in full-time education. About a quarter of YA recipients were not in full-time education. Almost 90 per cent of the latter group were looking for a job, a further 5 per cent were incapacitated and another 3 per cent were in training.

Table 23 YA recipients, 1999

Age	Full-time students	Not full time students	Total
15	962	546	1,508
16	71,115	6,210	77,325
17	63,384	12,309	75,692
18	42,557	24,573	67,130
19	34,196	21,446	55,642
20	30,318	18,708	49,026
Total	242,532	83,792	326,323

Source: Department of Family and Community Service, Statistical Overview, 1999

Early school leavers form over half of the recipients of benefits of non-full time students (Table 24). Note that this table includes persons to 24 years of age and more benefit categories than are shown in Table 23.

Table 24 Non full-time students aged 15-24 in receipt of YA, Newstart and special benefits, May 2002

Highest level of education	No	%
Year 10 or below	81,699	41
Year 11	20,396	10
Year 12	44,466	22
TAFE	6,034	3
University	2,071	1
Unknown	46,790	23
Total	201,456	100

Source: Centrelink

Section 3 provides socioeconomic information on early school leavers. The brief seeks similar information on teenagers receiving welfare benefits. The Department of Family and Community Affairs appears to be the only source that could provide socioeconomic data on teenage welfare recipients. The Department lays down strict conditions for access to this data, which effectively require a dedicated computer and storage of the data in a locked up room, and which may take several weeks to negotiate. These conditions could not be met in the time and scope of this study.

7 Overview and Implications for Economy and Policy

7.1 Overview of Outcomes for Early Leavers

Section 3.4 described the short-term educational outcomes for early school leavers and Section 3.5 described the longer term educational and employment prospects for early school leavers. Table 25 fills out the picture by showing the short-term labour force outcomes for early leavers compared with Year 12 completers at May 2001. The figures are consistent with the short-term educational outcomes shown in Table 9.

The young persons likely to have difficulties in sustaining long term employment and placing greater pressures on the welfare system over time are those who are:

- not in the work force and not in education
- unemployed and not in education
- unemployed and in only minor education
- employed part-time for less than 35 hours per week and not in education

Of course, not all persons in these categories are at risk. Some people who are not in the workforce or in education may be in temporary leisure activity and not at risk. Others may be working part-time say between 20 and 30 hours a week and receiving useful on the job training. However, three-quarters of part-time workers work less than 15 hours per week (see Table 18). Virtually all these part-time workers are in casual employment (see Table 25 and comment over page). It is therefore realistic to expect that most persons in these four groups are vulnerable.

In each of these four categories there are proportionately significantly more early leavers than there are non-Year 12 completers. Fifty one per cent of early leavers fall into one of these four groups compared with 24 per cent of Year 12 completers. At May 2001, 43,300 early school leavers and 43,400 Year 12 completers were in one of these four most vulnerable groups.

Table 25 Short-term outcomes for year 2000 school leavers, May 2001

Outcome category	Non-Year 12 completers		Year 12 completers		Total	
	No.	%	No.	%	No.	%
In labour force						
Employed f/t and in education	11,412	13.3	12,497	6.8	23,909	8.9
Employed p/t and in education	6,597	7.7	60,665	33.0	67,262	24.9
Employed f/t and not in education	15,251	17.8	20,687	11.2	35,938	13.3
Employed p/t and not in education	12,627	**14.7**	19,552	**10.6**	32,179	11.9
Unemployed and in some education[a]	4,519	**5.3**	10,568	**5.7**	15,087	5.6
Unemployed and not in education	15,204	**17.7**	8,744	**4.8**	23,946	8.8
Total (subtotal)	65,610	76.6	132,712	72.1	198,322	73.5
Not in labour force						
In education	9,052	12.8	46,747	25.4	55,798	20.7
Not in education	10,908	**12.7**	4,617	**2.5**	15,525	5.8
Total (subtotal)	19,960	23.4	51,363	27.9	71,324	26.5
Grand Total	85,570	100	184,075	100	269,645	100

(a) A significant proportion of the non Year 12 completers in this category participate in education that is undetermined and may not lead to a qualification.
Source: ABS Education to Work, Cat no. Cat no.6227.0, unpublished data

Table 26 Workers 15-19 years old with and without leave entitlements, May 2001

	Leave entitlements (no)	No leave entitlement (no)	Total (no)	No leave entitlement (%)
Agriculture, forestry and fishing	6.8	10.0	16.8	59.5
Mining	1.1	0.2	1.3	15.4
Manufacturing	23.7	12.6	36.3	34.7
Electricity, gas and water supply	0.4	0.0	0.4	0.0
Construction	26.3	12.2	38.5	31.7
Wholesale trade	8.3	5.9	14.2	41.5
Retail trade	76.1	246.8	323.0	76.4
Accommodation, cafes / restaurants	14.8	54.4	69.2	78.6
Transport and storage	5.5	4.0	9.5	42.1
Communication services	3.6	1.8	5.4	33.3
Finance and insurance	5.0	1.1	6.0	18.3
Property and business services	15.1	16.1	31.2	51.6
Government administration /defence	3.3	2.2	5.5	40.0
Education	5.0	8.1	13.1	61.8
Health and community services	9.5	12.3	21.8	56.4
Cultural and recreational services	5.1	16.0	21.1	75.8
Personal and other services	9.4	14.8	24.2	61.2
Total	219.0	418.5	637.5	65.6

Source: ABS, Labour Force and Supplementary Survey Section, unpublished data.

Table 26 shows the numbers of teenagers employed by industry and according to their leave entitlement. Those with no leave entitlement are usually regarded as casual workers. The number of workers without leave entitlements (418,500) is almost the same as the number of teenage (436,000) who work part-time (see Section 5.1)

7.2 Overview of Implications for Economy

There are two primary implications of early school leaving for the economy. They are (i) lower employment for early leavers and (ii) lower productivity (and incomes) for the early leavers who do gain employment.

As shown in Table 24, nearly 34 per cent of early school leavers were either unemployed or were not participating in the labour force or in education, compared with 13 per cent of Year 12 school leavers who were in these groups.

Borland (1996) estimates that male Year 12 completers are paid on average 7 per cent more than early completers. For females, the corresponding premium is 5 per cent.

Of course, it cannot be assumed that completing Year 12 would reduce the proportion of leavers who are unemployed or outside the workforce from 34 per cent to 13 per cent. Early school leavers may suffer from other disadvantages such as poor learning abilities and a less supportive household (see Section 3.3).

To show the *potential order of magnitude gain* from further education and training, suppose that the proportion of leavers who are unemployed or outside the workforce could fall from 34 per cent to 20 per cent. This would represent employment for an extra

11,000 young persons per annum who are now unemployed or not in the labour force. Allowing a modest average income of $17,500 per annum, a little more than the minimum annual wage, the extra schooling would generate about $190 million in extra incomes per annum.[5]

Of course, this amount would be cumulative as *each* annual cohort earned an *additional* $190 million per annum. Thus national income would increase by $380 million in year 3, $540 million in year 3, and so on.

In addition, further education could raise the productivity of early school leavers who are in employment but not in further education or training. There are approximately 28,000 young persons in this category. If their productivity and incomes increased by say 5 per cent, by an average $1000 per annum, their incomes would rise in total by $28 million per annum. Again, the gain would be cumulative, $56 million in year 2 and so on. This would be *additional* to the gain due to increased employment. It must be stressed, however, that these figures are only indicative and they must be subject to further analysis before they can be used for policy purposes.

7.3 Policy Options

The aim of this paper is to provide detailed basic information on teenage education, training and employment and some costing implications. Policy analysis is a separate issue. However, some points are clear.

Achievement of a target of increased education and training outcomes at the equivalence of year 12 would require a more integrated approach to the final years in secondary schools and recognition that a Year 12 Certificate is not suitable for everyone. Successful transition in other OECD countries includes a high degree of vocational and apprenticeship training and pathway planning programs. Despite increased expenditure in such programs in Australian area over the last decade, there has been little increase in the numbers in the 15-19 age groups participating in these programs. Another area of concern is the low level of completion in VET programs.

Young people experience many problems and many issues arise. A major problem area is the number of early school leavers who do not enter further education and training. Another problem area is that many students experience significant learning problems in Years 7 to 10. Many students perform poorly or strongly dislike school, and sometimes both. On the other hand, some students completing Year 12 may gain little in their last two years of study. Also, many young persons who enter further education complete only a small proportion of modules.

Overall, there are five main strategies for tackling problems of early school leaving and related low education and training and low employment and productivity.

1. Improved schooling programs
2. Investment in pathway programs, including case management and mentoring to assist young people to further education and training or employment
3. Greater provision of education and training through TAFEs and other registered training providers, including more apprenticeships and traineeships

[5] This assumes that the new entrants to the labour market will not affect the wages of existing unskilled workers.

4. Development of a wider suite of labour market programs, possibly including selective use of labour market subsidies
5. Use of the welfare benefits system to encourage more education and training

These programs are not mutually exclusive. Rather the best package of programs is required. The best strategy is likely a mixture of penalties and incentives approach rather than all stick or all carrot. Too harsh a policy will turn young people to black market activities and anti-social behaviour. Too soft a policy creates welfare dependence.

Clearly, policy initiatives must be based on programs that will motivate young people. The client group will decline initiatives that do not appeal to them. Policy initiatives are likely to include both pathway programs that encourage young people to engage more with education and more attractive educational and training packages.

Almost certainly an effective package of programs will require more resources allocated to training and education. These programs may be expensive and must be cost-effective. Applied Economics is currently evaluating a youth skills entitlement (based on strategies 2 and 3 above, though not limited to these) for the Dusseldorp Skills Forum. This study is due for completion in about two months.

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Appendix

Table A1 Short-term destinations of all year 2000 school leavers, May 2001

	Year 9 or below		Year 10 or below		Year 11		Early school leavers		Year 12		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
In education or training												
TAFE	2,942	18.4	11,835	30.4	7,884	25.7	22,661	26.5	46,205	25.1	68,866	25.5
University	0	0	0	0	0	0	0	0.0	77,265	42.0	77,265	28.6
Other education and training	2,936	18.3	1,638	4.2	4,343	14.2	8,917	10.4	7,004	3.8	15,921	5.9
Total	5,878	36.7	13,473	34.6	12,227	39.9	31,578	36.9	130,474	70.9	162,052	60.1
Not in education or training												
Employed	3,840	24.0	13,655	35.0	10,383	33.8	27,878	32.5	40,239	21.9	68,117	25.3
Unemployed	3,635	22.7	7,415	19.0	4,154	13.5	15,204	17.7	8,744	4.8	23,948	8.9
Not in labour force	2,670	16.7	4,420	11.3	3,909	12.7	10,999	12.8	4,527	2.5	15,526	5.8
Total	10,145	63.3	25,490	65.4	18,446	60.1	54,081	63.1	53,510	29.1	107,591	39.9
Total	16,023	100.0	38,963	100.0	30,673	100.0	85,659	100.0	183,984	100.0	269,644	100.0

Source: ABS Education to Work, Cat no.6227.0, unpublished data

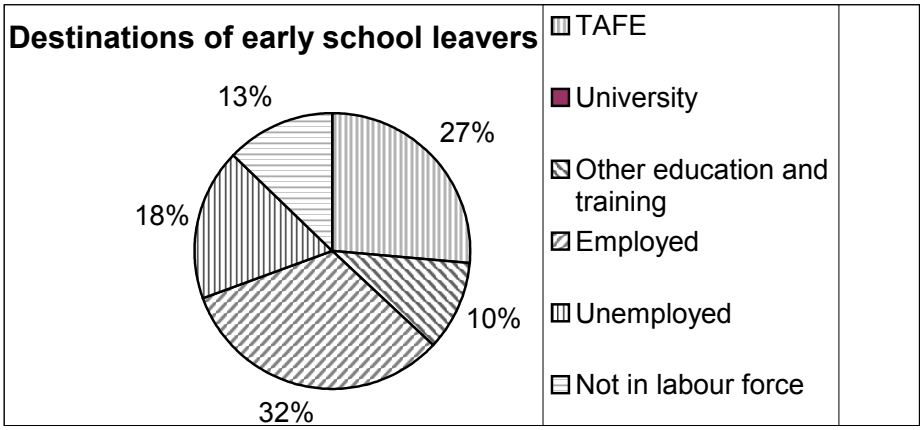

Figure A.1 Destinations of early school leavers

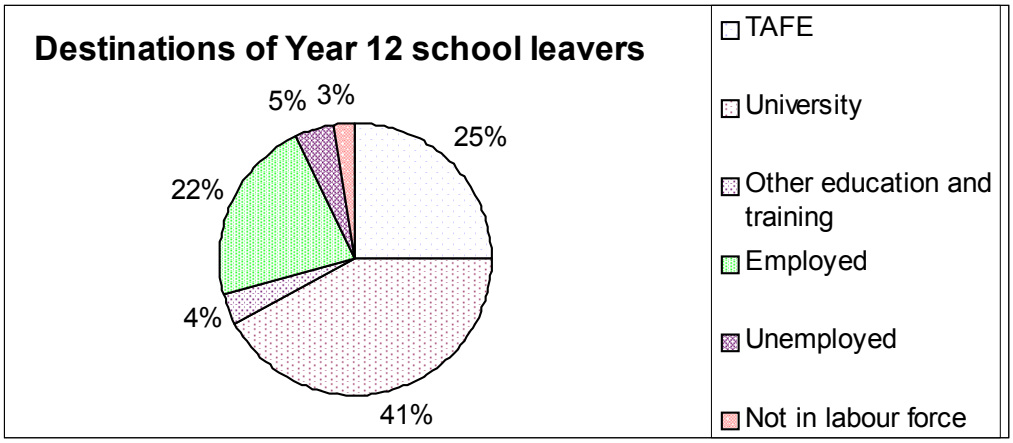

Figure A.2 Destinations of Year 12 school leavers