

Realising Australia's Commitment to Young People

Scope, Benefits, Cost, Evaluation and Implementation

Prepared for the Dusseldorf Skills Forum

by

Applied Economics

November 2002

Contents

Realising Australia's Commitment to Young People	1
Executive Summary	4
1 Scope of Youth Commitment and Report	10
1.1 Australia's Education and Training Commitment to Young People	10
1.2 A Broader Youth Commitment Including Employment	11
1.3 Failing to Meet the Commitment to Youth	12
1.4 Aims and Layout of Report	13
2 Early School Leavers: Number, Causes and Consequences	14
2.1 Education and Labour Market Status of Young People	14
2.2 The Number of Early School Leavers	14
2.3 Factors Associated with Early School Leaving	16
2.4 Educational and Employment Outcomes for Early School Leavers	17
2.5 Obstacles to Further Education and Training	20
3 Policy Options	22
3.1 Classification of Policy Options	22
3.2 Commonwealth Education to Work Transition Expenditures	24
3.3 State Education to Work Transition Programs	25
4 Approach to Evaluation of Further Education and Training	27
4.1 Main Costs and Benefits of Further Education	27
4.2 Cost-Benefit Analysis: General Issues	28
4.3 Applications of Cost-Benefit Analysis	29
5 Cost-Benefit Analysis of Year 12 Education for One Cohort	30
5.1 Costs of Extra Education and Training	30
5.2 Benefits of Extra Education and Training	31
6 A Cost Model for a Five-Year Cohort	34
6.1 Basis of the Cost Model	34
6.2 Results of the Cost Models for Males and Females	35
7 An Earnings Benefit Model for a Five-Year Cohort	41
8 Cost-benefit Results of the Commitment for a Five-Year Cohort	47
8.1 Cost-Benefit Results	47
8.2 Robustness of Results	48
8.3 Distribution of Costs and Benefits	49
9 Labour Market and Related Programs	49
9.1 Introduction to Labour Market and Related Programs	49
9.2 Safety Nets and Job Pathway Programs	50
9.3 Apprenticeships and Traineeships	51
9.4 Job Search Assistance and Placement Programs	51
9.5 Special Youth Training and Employment Programs	52
9.6 Direct Job Creation	53
9.7 Work for the Dole	54
9.8 Youth Employment Subsidies	54
9.9 Conclusions	55
10 Proposed Education and Labour Market Programs	56
10.1 Meeting the Youth Commitment	56
10.2 Phasing and Costing the Commitment	57
10.3 Funding the Commitment	59
10.4 Benefit-Cost Outcomes	59
11 Management of the Youth Commitment	60
11.1 Managing the Youth Commitment: General Recommendations	60
11.2 Managing the Youth Commitment: Specific Recommendations	62
11.3 Management of Commitment Funds	63
References	64
Annex A Some features of existing transition programs (adapted from Dearn, 2000)	68

Key Acronyms

ACER	Australian Council for Educational Research
ANTA	Australian National Training Authority
AT	Apprenticeship and training (programs)
DEST	Department of Education, Science and Training
DEWR	Department of Employment and Workplace Relations
FACS	Family and Community Services
JN	Job Network
JPET	Job Placement Employment and Training
JPP	Job pathway programs
LANT	Literacy and Numeracy Training
LLEN	Local Learning and Employment Networks
LTU	Long-term unemployed
MCEETYA	Ministerial Council for Employment, Education, Training and Youth Affairs
NCVER	National Council for Vocational and Educational Research
OECD	Organisation for Economic Cooperation and Development
RTO	Registered training organisation
TAFE	Technical and Further Education
WfD	Work for the Dole

Acknowledgments

We wish to thank John Spierings and Eric Sidoti for providing us with a large number of useful references and for many helpful comments on our work. We are also grateful to John Ainley, Gerald Burke, Frances Copolillo, Sally Cowling, Jack Keating, John Pitman and Margaret Vickers, all members of a Reference Group specially convened by the Dusseldorp Skills Forum, for many constructive comments on draft reports. The report has also benefited from many comments from many people in the consultation stage on the draft final report. However, the contents, views expressed, and conclusions of this report are our responsibility.

Dr. Peter Abelson
Director, Applied Economics P/L

Executive Summary

All effective transition systems appear to have one thing in common: underlying them are societies that assume responsibility for young peoples' transition from education to work. (OECD, 2000).

Scope of Youth Commitment and Report

For many years governments in Australia have recognised a twofold commitment to young people that:

- All young people should have the opportunity to complete 12 years of schooling or its vocational equivalent; and
- All young people who have left full-time education and want to participate in the workforce are able to do so.

This report recognises that Australian governments have introduced many initiatives to attempt to meet these commitments. However, governments are not fully meeting this commitment. Each year one in three teenagers leaves school without completing year 12 education. Although some students later complete a year 12 equivalent education, one in five young Australians never complete this level of education. Also unemployment is high among young people.

The failure of many young persons to complete a year 12 level of education and then to transition successfully from education into employment presents problems for the young persons themselves, reduces economic productivity, and creates unhealthy social divisions in society.

This report examines the costs and benefits of meeting Australia's commitments to young people and how this may be achieved.

The main focus of the report is on the commitment to provide a year 12 equivalent education to all young people. However, formal education and training settings may not be an appropriate setting for all young people. It is particularly important to provide those young people who do not complete year 12 with access to employment opportunities. Accordingly this report also surveys labour market programs that assist access to employment.

Early school leavers: number, causes and consequences

About 270,000 teenagers leave school each year. Of these, about 86,000 students leave schools without completing year 12 education. Over 50,000 young people in each cohort never complete year 12 equivalent education. This is a high non-completion rate compared with most OECD countries.

Early school leaving is associated with poor lower school achievements, low income or unskilled socioeconomic background, strong dislike of school, and rural or regional locations.

Early school leavers are less likely to participate in the labour force and more likely to be unemployed than are year 12 leavers. About 42,000 early school leavers in 2000 were in one of the following risk categories in May 2001.

- not in the work force and not in education,
- unemployed and not in education,
- unemployed and in low amounts of education,
- employed part-time usually for less than 15 hours per week and not in education.

In the longer run, early school leavers experience lower labour force participation, higher unemployment rates, and lower incomes than do year 12 students.

Policy options

Although the goals of youth commitment are simple, there are multiple issues to be addressed and many possible pathways and programs. Chapter 3 identifies nine main education and employment strategies.

The focus of this report is on transition strategies that that will encourage young persons to take on further education either in schools or in TAFEs or other registered training providers and on apprenticeships or traineeships that link training with employment. However, schools and TAFEs must also offer more attractive courses or a more attractive environment for study. This report also considers labour market strategies.

Of course both the Commonwealth and State governments already offer a range of education to employment transition programs. The report estimates that Australian governments currently spend about \$1.0 billion a year on youth transition programs, not including youth allowance, of which the Commonwealth spends about two-thirds and the States a third.

Cost-benefit analysis of commitment to youth education

The report analyses the costs and benefits of providing year 12 equivalent education to 50 per cent of the early school leavers in the five-year cohort 2003 to 2007. The education and training services are provided from 2004 to 2010. The 50 per cent take-up figure is adopted because this is considered the upper level of year 12 equivalent education that might be achieved in the near future.

The costs include expenditure on education and training courses in schools or TAFEs, apprenticeships or traineeships for 40 per cent of the students, \$1600 per student for job pathway and case management programs, the private costs of education (books, travel etc.), and incomes foregone during study.

The estimated benefits include the increased net earnings of students (after allowing for foregone earnings), increased profits of employers, and benefits to society as a whole. The latter are estimated conservatively to equal 20 per cent of the earnings gains due to education. On the other hand, the report allows for some displacement of output of existing workforce.

Table S.1 Economic evaluation of further education to the 2003 to 2007 cohort (\$m, 2002 prices)

	2004	2005	2006	2007	2008	2009	2010	Present value in 2001 of incomes from 2011 to 2050
Costs of commitment								
Education and training	240	396	453	456	457	214	57	
Apprenticeships and traineeships	21	35	40	40	41	19	5	
Transition programs	43	61	80	81	81	38	10	
Private student costs	40	66	76	76	76	36	9	
Total cost	344	558	649	653	655	307	81	
Benefits of commitment								
Net earnings of students (a)	-181	-367	-362	-274	-156	150	513	13,578
Benefits to employers	0	0	0	0	0	22	77	2,037
Social benefits (b)	0	0	0	0	0	30	102	2,715
Less displaced output	0	0	0	0	0	-15	-51	-1,358
Total benefit	-181	-367	-362	-274	-156	187	641	16,972
Net benefit (c)	-525	-925	-1011	-927	-811	-120	560	16,972
NPV @ 5 per cent	8,183							
NPV @ 7 per cent (d)	4,575							

Notes

(a) Increase in earnings less earnings foregone during study.

(b) See text for explanation.

(c) Net benefit equals total benefit less total cost.

(d) Discounts all figures in Table by 7 per cent, including benefits from 2011 to 2050.

Accounting for all these benefits and costs, the estimated net present value of the proposed programs is \$8.2 billion with a 5 per cent discount rate and \$4.6 billion with a 7 per cent discount rate (see Table S.1). The net present value is the estimated value of all benefits net of costs from 2004 to 2050 expressed in present day values.

The results are considered robust for two reasons. First, the benefits are several times the costs. Second, there is little uncertainty about the costs. With a 5 per cent discount rate, the estimated ratio of discounted benefits to discounted costs is 3.2:1. With a 7 per cent discount rate, the benefit-cost ratio falls to 2.3:1. This means that even if the benefits were half those estimated, which is not plausible, the program would still generate a positive net present value and a benefit-cost ratio greater than one.

The main direct beneficiaries of the program are student participants, employers, and general members of society.

Government bears a large part of the program costs initially. However, the report estimates that if government recoups by way of taxes 25 per cent of the increased earnings of students and businesses, the present value of its receipts will approximately equal the present value of its outlays. In addition, a five-year program could reduce unemployment benefits by about \$80 million per annum.

Labour market policies

To implement a commitment to jobs for young people, including early school leavers, a package of active labour market programs is required. No one such program is likely to provide jobs for all early school leavers. Thus, even if some labour market programs are more expensive per job created than others, it may be necessary to employ that scheme for some people. The proposals in this report build on and add value to existing initiatives such as the Youth Allowance and Work for the Dole.

Apprenticeship schemes have been the basis of successful education to employment transitions in several countries, such as Germany and Austria. Also labour market outcomes for individuals who complete apprenticeships in Australia are generally good. However, they are not suitable for all young people and should not be seen as the only pathway.

The evaluation literature indicates high returns to job-search assistance programs. These include individual assessments, advising and counselling, job matching, monitoring of job vacancies and individual outcomes, and in some cases intensive assistance. However, Australia has a high resource commitment in this area and deployment of more resources here may not be warranted.

Special purpose training programs may assist specific vulnerable groups of young people. These programs need to be well targeted and should be combined as much as possible with work experience and on-the-job training.

Direct job creation in the public sector is generally necessary to provide employment for some young people who find it difficult to get jobs in the market place. However, because of the short-term nature and lack of training of most such jobs, public sector job creation should generally be targeted to those who have few alternatives.

Subsidies to private sector employers can produce net employment gains, even after allowing for substitution effects. In order to maximise the net employment gain, the subsidies should be targeted and monitored and generally of short duration.

Proposed education and labour market programs

The report proposes that government should aim to increase the completion rate for year 12 equivalent education from less than 80 per cent up to 90 per cent mainly through pathway programs, which would provide a variety of support services to teenagers, and apprenticeships. In full operation the program would target about 100,000 early school leavers and expect to provide further education for half of these. To fulfil a commitment to all young persons, extra labour market programs would provide employment assistance to non-year 12 completers who do not continue with education and cannot find work.

The report recommends that the proposed programs be phased in over five years. The aim would be to serve one-fifth of the target population in 2004 and an additional 20 per cent of the target population in each succeeding year so that the commitment was met fully in 2008. A phased approach facilitates program planning, development and evaluation and facilitates the financing of the program.

The estimated costs of the phased program to meet the national youth commitment are shown by calendar year in Table S.2. Education and training costs start at \$114 million in 2004 and rise to \$560 million in 2008, inclusive of apprenticeships and traineeships and pathway planning.

The cost of extra labour market programs for early school leavers at risk would rise from \$40 million in 2004 to \$200 million in 2008.

Table S.2 Costs to Government of proposed youth commitment programs, in 2002 \$s (a)

	Unit	2004	2005	2006	2007	2008
Early school leavers at risk	No.	50000	50000	50000	50000	50000
Early school leavers: program targets	No.	20000	40000	60000	80000	100000
Education/training programs						
Participants in education programs	No.	10000	20000	30000	40000	50000
Education and training costs	\$m	90	180	270	360	440
Apprenticeships and traineeships	\$m	8	16	24	32	40
Pathway planning costs	\$m	16	32	48	64	80
Total government costs	\$m	114	228	342	456	560
Labour market programs						
Participants in labour programs	No.	8000	16000	24000	32000	40000
Costs of extra labour market programs ^b	\$m	40	80	120	160	200
Office of Education to Employment	\$m	5	5	5	5	5
Total cost of proposed programs	\$m	159	313	467	611	765

(a) All programs and costs in this table are additional to current programs and costs.

(b) Mainly job subsidies and job creation schemes, plus some special training schemes.

Total program cost would rise from \$159 million in 2004 to \$765 million in 2008, of which slightly over half would be spent on education and training. Excluding education and training expenses, new expenses amount to \$325 million per annum in 2008. This would represent only about a one-third increase on the current level of Commonwealth and State expenditures on youth transition programs.

Under current funding arrangements, the Commonwealth would fund about 60 per cent of these programs and the States the rest. However, States with low transition expenditures and high non-completion rates may face higher new expenditures than States with already high transition expenditures and lower non-completion rates

In line with the detailed cost-benefit analysis, the proposed education programs proposed would produce an estimated benefit-cost ratio of 3.2:1 with a discount rate of 5 per cent and a benefit-cost ratio of 2.3:1 with a discount rate of 7 per cent. With a 25 per cent income and GST tax rate on the increased earnings of students and firms, government will break-even in the long run on its financial outlay. In addition, the rise in labour participation rates and the fall in unemployment (saving \$80 million in unemployment benefits per annum) will have long-run intergenerational benefits.

The report has not formally evaluated the labour market programs. However analysis of previous programs suggests that, under neutral assumptions about the effectiveness of labour market programs and the likely displacement effects, projected revenue benefits are likely to match the value of program outlays.

Management of the Youth Commitment

To implement the youth commitment, the report recommends that:

- The Commonwealth and States adopt a Framework Agreement as the basis for a national commitment to youth.
- Existing agencies should implement the programs for which they are currently responsible. The Department of Education Science and Training (DEST) and State educational agencies would be responsible for educational and training programs and additional apprenticeship programs. The Department of Employment and Workplace Relations (DEWR) would deliver and evaluate labour

market programs. The youth commitment requires diverse programs and expertise is required to deliver different programs.

- The role and size of agencies running Job Pathway Programs would be upgraded. These agencies should be viewed as representative local agencies rather than as Commonwealth Government line agencies. It is not possible to prescribe a single structure or location for Job Pathway Programs. In some cases the programs may be best located in schools, in other cases in local municipality offices, and in still other cases separately from schools or the local authority.
- The Commonwealth and States agree to establish an Office for Education to Employment Transition. Establishment of this office would formalise the importance of the education to employment transition and provide an ongoing means of implementing the youth commitment and evaluating the youth commitment programs.

These proposals build on the existing commitments by Australian governments including the recent MCEETYA Declaration *Stepping Forward*. The Office of Education to Employment Transition would be an independent agency overseeing implementation of the above Framework Agreement(s). The guiding characteristics for the proposed Office are:

- Its role is policy development, monitoring and review. It is not an operational or a direct funding body.
- Its mandate is sufficiently broad to encompass relevant education, training and employment programs.
- The Office would prepare an annual report to be tabled in the Commonwealth Parliament and the parliament of the respective State party to the Agreement.
- Its membership reflects the cross-jurisdictional responsibilities for youth transitions.

In establishing the Office it will be necessary to consider Ministerial structures and the relationship of the Office to existing agencies. While the nature of youth transitions requires a response that crosses a number of portfolios (including education, training, employment and youth affairs), a 'lead minister' would be designated to ensure clear lines of responsibility and accountability. This would most likely be a Commonwealth Minister with appropriate endorsement from MCEETYA.

There may be grounds for a change in agency funding processes. There is a case for experimenting with alternative funding options, for example by endowing a JPP with additional funds, or endowing the youth in a particular area with youth accounts, and evaluating the outcomes. However the case for change remains to be made. Accordingly, this report recommends that current funding systems be maintained pending further analysis of funding options and their implications.

The report recommends this organisational framework as a starting point because it establishes the national commitment to youth, it is flexible and practical, and it can deliver the necessary programs. Changes can be introduced as necessary. Attempts to achieve more radical change in the near future are not necessary and could distract attention from the substance of the proposed youth commitment programs.

1 Scope of Youth Commitment and Report

For many years governments in Australia have acknowledged a commitment to provide the youth of the country with secondary schooling to year 12 level and access to employment. However, many young persons are not achieving year 12 level education and not obtaining employment. This chapter identifies the nature of this commitment, summarises how this commitment is not being met, and outlines the aims and layout of this report.

1.1 Australia's Education and Training Commitment to Young People

Australian governments have been committed for over 10 years to provide year 12 level of education and training to all Australians. In 1992, the Commonwealth Government (Prime Minister, *One Nation*, 1992) explicitly endorsed the goal of full secondary education or its equivalent in vocational education and training for all young Australians.

In 2001, *Footprints to the Future*, the Report from the Prime Minister's Youth Pathways Action Plan Taskforce calls specifically for 'a national commitment to all young people' (Eldridge, 2001, p.12). The Report proposed that all young people would have the opportunity to:

- complete 12 years of schooling or its vocational equivalent;
- undertake vocational education and training programmes and structured workplace learning while at school and beyond;
- acquire employability and life skills which enable them to be independent, confident and active members of the community;
- engage with a professional career and transition support system;
- return to affordable and relevant education and training programmes, in a range of community settings before completing their 12 years of schooling;
- access a continuum of support in their local community which offers early intervention, crisis and appropriate long-term assistance; and
- participate in local cultural , recreational sporting and community service activities.

To implement these proposals, *Footprints to the Future* makes 24 main recommendations, each with sub-recommendations. These recommendations range from urging schools to be more responsive to student demands and employment needs to greater integration of Job Network services with local youth support strategies, more apprenticeships, and an enhanced Work for the Dole program.

At its meeting in July 2002, the Ministerial Council for Education, Employment Training and Youth Affairs (MCEETYA, 2002) responded to the Footprints Report with a Ministerial Declaration, *Stepping Forward – improving pathways for all young people*. MCEETYA (2002) explicitly accepted the premise of *Footprints to the Future* and ways to address Recommendations 16 to 23. In particular, MCEETYA established a Transition from School Taskforce with a brief to develop an Integrated Action Plan as an effective means of actioning the Ministerial Declaration, including an effective national approach to youth transitions.

1.2 A Broader Youth Commitment Including Employment

Many countries are committed to providing youth with employment as well as to education and training. Indeed, the OECD (2000) recommends that transition programs should include a commitment to a high level of youth employment as well as to post-secondary education (see Box 1.1). However, job guarantees are rarely unconditional and the difference between a guaranteed job and directive policies that require youth to work is not always clear.

The Nordic countries are generally credited with first introducing youth guarantees that included a place in an education, training or work program, in Sweden in 1984 and in Norway in 1985. However both countries found it difficult to implement these policies without a directive element. Sweden's 1997 *Act on Municipal Responsibility for Young People* requires municipalities to offer young people training or employment opportunities within 90 days, but empowered the municipalities to lower or refuse assistance if the individual did not participate.

In the Netherlands, the *Youth Guarantee Act* of 1992 guaranteed all young people under age 21 a job for up to two years. In 1998, the guarantee was assimilated into a general labour market activation scheme under the *Jobseekers Employment Act*, which required local authorities to cooperate with employment services to provide a program tailored to individual needs, for youth aged up to 23.

The United Kingdom's *New Deal Program* requires youth aged 18 to 24 who are unemployed for six months to participate in a specified educational or employment program if no other options can be found. Under its *National Action Plan*, Ireland requires people aged 18 or 19 who are unemployed for more than six months to take up a job or training or risk loss of benefit.

Many other countries, for example Belgium and France, have active labour market policies that strongly support youth employment (see Section 9.6). These policies do not guarantee jobs for youth, but implicitly recognise a national commitment to encourage youth employment.

Box 1.1 OECD goals for transition policies

In *Making Transitions Work*, the OECD (2000) recommends that all transition policies should include the following goals:

- High proportions of young people completing a full upper secondary education;
- High levels of knowledge and skill among young people at the end of the transition phase;
- A low proportion of teenagers being at one time not in education or unemployed;
- A high proportion of young adults who have left education having a job;
- Stable and positive employment and educational histories in the years after leaving upper secondary education; and
- An equitable distribution of outcomes by gender, social background and region.

Australian governments have also been committed to assisting youth to obtain employment through various labour market programs, although this assistance has usually fallen short of a formal commitment to guaranteeing a job. In *Working Nation* in 1994, the government committed to a high level of youth employment via the Youth Training Initiative (which helped young people train and search for work), a public employment program (Landcare and Environment Action), job subsidies, and support for apprentices. The current government, through its *Mutual Obligation* policy has also adopted a full youth employment policy, but this is a more directive remedial strategy based on Work for the Dole.

1.3 Failing to Meet the Commitment to Youth

Each year about 270,000 teenagers leave school in Australia. One-third of these school leavers (about 86,000 teenagers) leaves school before completing year 12.

Males especially leave school early. Only 60 per cent of males and 78 per cent of females currently complete year 12. These completion rates are low by OECD standards. Moreover, many students do not complete year 10.

Although some early school leavers enter immediately into further education and others do so later on, over 50,000 young people in each cohort of school leavers fail to complete year 12 equivalent qualifications at any time.

Evidently what the governments of Australia are offering to young people does not fit their aspirations and does not deliver on their commitment to young people. Given that in any year some 100,000 young people in the year 11 and 12 cohorts are not obtaining post-year 10 education, at about \$9000 per student year, Australian governments are saving nearly \$1.0 billion a year by not delivering on this commitment.

As shown in this report, labour force participation, employment prospects and wages rise significantly with length of time in school. Early school leavers are much more likely not to participate in the workforce, or to participate and be unemployed, both in the short and long run. Within the workforce, early school leavers are less productive than are Year 12 leavers.

With over 50,000 persons from each cohort failing ever to attain year 12 qualifications, cumulatively large numbers of the Australian population are poorly qualified for working in modern labour market conditions or indeed for handling many of the complex issues of modern life.

There are nearly 1.37 million persons aged 15 to 19 years in Australia. In mid-2002, 132,000 young persons were unemployed (including 61,000 who were in full-time education). Another 54,000 were not in the labour force or in full-time education. A further 96,000 were in part-time employment (generally less than 15 hours of work per week) and not in full-time education. Many of these have poor long-term employment prospects. In addition, many 15-16 year old persons are currently in full-time education, but will shortly leave school early with inadequate education and poor employment prospects.

The failure of a significant number of young persons first to complete a reasonable level of education and then to transition successfully from education into employment presents problems for the young persons themselves, reduces the level of productivity in the economy and creates unhealthy social divisions in society.

1.4 Aims and Layout of Report

This report examines the scope, the costs and benefits, and the implementation of Australia's commitments to young people.

The main focus of the report is on the commitment to provide a year 12 equivalent education to all young people. The report examines in some detail how this commitment may be achieved and the costs and benefits of meeting this commitment.

However, formal education and training settings may not be an appropriate or desired setting for all young people. It is particularly important to provide those young people who do not complete year 12 with access to employment opportunities. Accordingly this report also surveys labour market programs that assist access to employment.

Chapter 2 describes the main concerns associated with early school leaving. It describes the numbers of early school leavers, the main factors associated with early school leaving, and the main education and employment outcomes.

Chapter 3 discusses the main policy options. It is stressed that because the problems of early school leaving are multi-dimensional, a package of solutions is likely to be required to deal with the range of problems identified.

Chapters 4 to 8 discuss the costs and benefits of meeting the national commitment to provide year 12 equivalent education or training. Chapter 4 provides the evaluation framework. Chapter 5 provides a simple model of the costs and benefits of meeting the commitment for one student cohort. Chapters 6 to 8 develop a more detailed cost, benefit and evaluation model for meeting the commitment over a five-year period.

Chapter 9 surveys the main labour market options.

Chapter 10 recommends a practical program for meeting the national commitment to young people. It indicates a prospective phasing for the proposed programs, describes their cost implications, and indicates the kinds of benefits that can be expected.

The final chapter discusses how these commitments may be implemented.

2 Early School Leavers: Number, Causes and Consequences

This chapter describes the main outcomes associated with early school leaving. It describes the numbers of early school leavers, the main factors associated with early school leaving, and the main education and employment outcomes. It also outlines some implications for meeting the government's commitment to year 12 equivalent education or to an employment alternative.

2.1 Education and Labour Market Status of Young People

As at May 2002, there were 1,365,000 persons aged 15 to 19 years in Australia. Their education and labour market status is shown in Table 2.1. In summary, of these young people:

- 942,000 were in full time education,
- 212,000 were in full time employment,
- 436,000 were in part-time employment (including 340,000 in full-time education),
- 132,000 were unemployed (including 61,000 in full-time education),
- 54,000 were not in the labour force or in full-time education.

Many of these young people were in a vulnerable position. At risk young persons include those who are not in the labour force or in full-time education, those who are unemployed and not in full-time education, and many who are employed part-time and are not in full-time education. Three-quarters of those in part-time employment work less than 15 hours per week.

In addition, as shown below, one-third of those in full-time education aged 15 or 16 are currently not completing year 12 in school and many of these never complete a year 12 equivalent education.

2.2 The Number of Early School Leavers

About 270,000 teenagers leave school each year. Of these, 86,000 students leave school before completing year 12. Table 2.2 shows the number of students who left school in 2000 and their status at May 2001.

There was little change in school completion rates in the 1990s (see Table 2.3). The estimated school completion rate was around 66 per cent. Female completion rates are significantly higher than male completion rates.

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 and Work*, Cat no.6227.0, unpublished data.

Table 2.1 Education and labour market status of youth aged 15-19 years, May 2002

	In full-time education					Not in full time education					Total
	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	
Numbers '000											
Males	3	141	38	282	463	138	40	32	24	234	698
Females	1	199	33	244	478	74	56	28	31	189	667
Total	4	340	71	526	941	212	96	60	55	423	1365
Percentages											
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: ABS, *Labour Force Australia*, May 2002, Cat no. 6203.0.

Table 2.3 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 2.4 Year 12 completion rates by state in 2000 (%)

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

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

Table 2.4 shows completion rates by state in 2000. ACT and Tasmania have the highest completion rates. WA and Northern Territory have the lowest completion rates. The latter figures are deflated by student participation in community education, which is not allocated a grade and not included in the Territory's retention rates.

In terms of international comparisons, Australia has a small proportion of people with at least upper secondary education. In 1988, only 65 per cent of the 25-34 year old age group in Australia had at least upper secondary education, compared with the OECD average of 72 per cent (OECD, 2001a).

2.3 Factors Associated with Early School Leaving

Following Teese (2002) it is useful, though slightly arbitrary, to distinguish between students who leave school early in order to take up other forms of education or training, or to obtain employment, and those who leave school because of a low interest in school or for other negative reasons. Teese reports on an ANTA survey that indicates slightly over half of early school leavers are in the former category.

Drawing on ACER's *Longitudinal Study of Australian Youth*, Marks and Fleming (1999) also 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 2.5).¹

¹ In the consultant's fieldwork, dislike of school appeared to be a stronger motive for early school leaving than might be inferred from Table 2.5.

Table 2.5 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: Marks & Fleming, 1999.

Other research (for example Lamb and Rumberger, 1998) has shown that early school leaving is strongly related to previous performance at school. 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. Ball and Lamb (2001) found that students 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. Teese (2002) reports that 38 per cent of the earliest leavers say they are not doing well enough to continue at school. He also reports that low achievers are particularly likely to view school as a prison.

Socioeconomic background is also a factor in school completion rates.² MCEETYA (2000) reports that 78 per cent of students from high socioeconomic households complete Year 12 compared with only 61 per cent of students from low socioeconomic households. Teese (2002) also found a strong relationship between school completions and socioeconomic class. Marks and Fleming (1999) report 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.

Geography also affects school-leaving rates. Students in regional or rural areas display a higher incidence of early school leaving (Teese, 2002).

2.4 Educational and Employment Outcomes for Early School Leavers

1 Education outcomes

The short-term educational outcomes for year 2000 school leavers are shown in Table 2.6. As at May 2001, only a third of the 86,000 early school leavers were in further education or training. Some 54,000 were not participating in training or education.

Of course, some of the 54,000 early leavers who do not immediately enter into some further education do so later on. Rumberger and Lamb (1998) estimate that about half of all early school leavers return to some form of education or training at some time.

² Sorting out the separate effects of poor early school results and socioeconomic background on early school leaving is complicated because of the correlation between early school results and background.

This suggests that some 43,000 of the 86,000 early school leavers participate at some time in further education and training, compared with the 30,000 school leavers shown in Table 2.6.

However, participation does not indicate completion. Completion rates for vocational and education courses at TAFEs are low. Unpublished NCVET data indicate that less than half of those who take up vocational courses complete a year 12 equivalent outcome. Fourteen per cent of teenagers undertaking VET courses do not successfully complete any module. Thirty per cent fail to complete half their modules.

If we add the half (43,000) who apparently do not participate in any further education with say one-third of those who participate but complete less than half their modules (about 14,000), we obtain a figure of 57,000 young persons who fall substantially short of completing year 12 equivalent education.

Clearly these figures are necessarily not precise. In this report we adopt the conservative position that at least 50,000 young people in each cohort are falling significantly short of achieving year 12 level education. The figure is quite likely higher than this.

Table 2.6 Short-term educational 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	42,252	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	3.9
Total	31,580	36.9	130,475	70.9	162,055	60.1
Not in education or training						
Employed	27,878	32.6	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 and Work*, Cat no.6227.0, unpublished data

2 Short-term employment outcomes

Early school leavers are also less likely to participate in the labour force and more likely to be unemployed than are year 12 leavers (see Table 2.7).

The most vulnerable young persons are those who are:

- not in the work force and not in education,
- unemployed and not in education,
- unemployed and in low amounts of education,
- employed part-time for less than 30 hours per week and not in education.

As shown in Table 2.7, about 42,000 early school leavers in 2000 fell into one of these four categories in May 2001.

Of course, not everyone in these categories is 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 (ABS, *Labour Force Survey*, Cat. no. 6203.0). Also,

nearly all part-time workers are in casual employment (Applied Economics, 2002). Realistically, most persons in these four groups are vulnerable.

Table 2.7 Short-term employment 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	10.6	46,746	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 and Work, Cat no.6227.0, unpublished data.

Longer run prospects of early school leavers

There is also evidence that labour force participation, employment prospects and wages all rise significantly in the medium term with length of time in school.

Lamb and McKenzie (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. They show 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 9 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 for non work-related reasons.

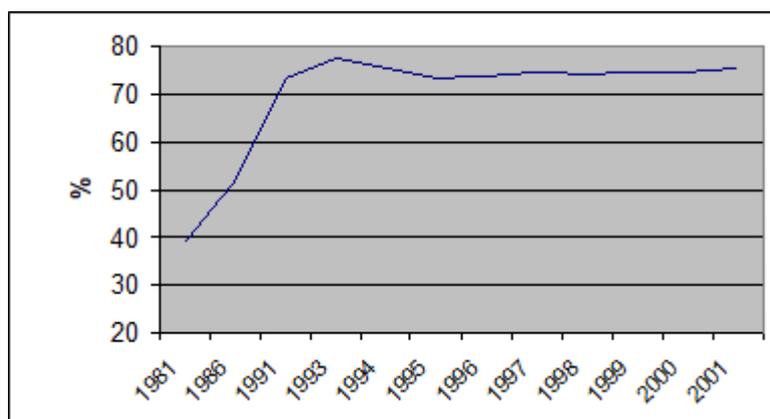
Income differentials associated with education levels are described in Chapter 5.

2.5 Obstacles to Further Education and Training

Current low completion rates are chronic features of secondary education. Despite considerable efforts to increase completion rates in the 1990s, completion rates today are no higher now than in the early 1990s.

Figure 2.1 shows the national retention rate between year 10 and year 12 over the last 20 years. In 1981, 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 retention rate declined to 73.6 per cent in 1996 and then rose marginally to reach 75.4 per cent in 2001.

Figure 2.1 Trend in national retention rate from year 10 to 12



Source: ABS, *Schools Australia*, Cat no. 4221.

If governments are to meet its education commitment to young people, an understanding of the ineffectiveness of present policies is required. Drawing on the relevant literature and the views of the Reference Group of Experts for this report, there appear to be several major obstacles to achieving increased education and training.

- Students are often lost to the formal education system by year 7 or 8. The failure of students to effectively reach year 10 is critical to the decisions and pathways of many early school leavers.
- Many early school leavers have a strong dislike of school. They dislike the culture and see little purpose in the education.
- Many early school leavers do not have the skills for TAFE and either cannot gain entry or drop out of TAFE.
- Many TAFEs do not have the infrastructure or inclination to deal with very poorly educated and motivated students. Non-completion rates in TAFE are high.
- There is a shortage of TAFE places in some subjects.
- Many students cannot afford private training colleges.
- Apprenticeships and traineeships are not always available to young people who might benefit from them. Employers often have a wide choice of participants in the apprenticeship and traineeship market. Some employers are reluctant to take on apprentices at current subsidy levels.

- Early school leaving does not always create problems. Many students leave school with positive intentions to find work and succeed in doing so. This may be the best outcome for some students.

Some strong implications for effective delivery of a youth commitment, especially a national year 12 level of education, emerge from these observations:

- Appropriate incentives have to be established. On the one hand, early school leavers must experience an incentive to undertake further education. The Youth Allowance provides an incentive for some students. On the other hand, educational agencies must have an incentive to take on less well educated and in some cases less well-motivated students.
- Achieving an effective year 10 level of education is the critical necessary basis for a national commitment to year 12 education to be a meaningful objective. This has to be achieved by and within schools.
- To be effective, schools and TAFEs must supply courses that appeal to early school leavers.
- In areas where the demand for courses exceeds supply and admissions are rationed, consideration should be given to increasing the supply of courses, subject to a public interest test.
- Pathways programs, including case management, mentoring and vocational guidance, are essential to encourage early school leavers to undertake more education and training. Increasing the supply of TAFE places or educational facilities will not in itself be sufficient to deliver the youth commitment.
- For some early school leavers, labour market programs may provide a viable and appropriate alternative pathway into employment rather than further institution-based learning.

3 Policy Options

This chapter summarises the main policy options for encouraging students to complete year 12 equivalent education and for providing employment. This provides a framework for developing policies for the youth commitment. Some estimates of the costs of current youth transition programs are also provided.

3.1 Classification of Policy Options

As we have seen, there are many issues associated with teenagers and education, including but not limited to:

- Failure effectively to reach year 10 literacy and numeracy levels;
- Non-completion of upper secondary schooling;
- Non-take up of vocational training opportunities;
- Non-completion of vocational training courses;
- Non-participation in the workforce;
- Unemployment.

In this section, we identify nine strategies that may address one or more of the issues identified above. These are:

1. Improvements to, and changes in, school programs at all levels that will make schools more attractive and relevant to young people and increase retention rates.
2. Improvements in vocational training courses provided by TAFEs or other registered training organisations (RTOs) to encourage more people to study in RTOs.
3. Augment school to work transition programs by increasing educational and employment planning and counselling services.
4. Augment job placement services.
5. Provide special training and employment programs targeted to young at risk and unemployed.
6. Increase job apprenticeship and traineeship programs, in conjunction with RTO courses or sometimes without them.
7. Augment other active labour market programs, including subsidised public or private programs, or both.
8. Provide special services for severely disadvantaged young persons.
9. Fiscal policies that encourage workforce participation and employment (or that discourage non-participation).

Table 3.1 Strategies to achieve higher education qualifications and employment

Strategy	Aim of strategy	Examples of strategy
1. Schools: increase school retention rates	Continue to strengthen curricula options for students preparing for TAFE or workplace after school. Offer part-time and flexible schedules for senior secondary students combining student and part-time work.	Commonwealth Full Service Schools program Enterprise & Career Education Foundation Mentor Marketplace Qld/Vic., Full Service Schools Programs VET in VCE Vic., School Focused Youth Service NSW, Enterprise Education Qld., Vocational Placement program
2. TAFEs / private RTOs: increase participation and completion in RTOs	Establish special support services within TAFE colleges to 'case manage' the youngest and most vulnerable students.	
3. Augment school to work transition programs by increasing educational and employment planning and counselling services	Provide better case management and transition brokerage for students moving between, work and TAFE.	Commonwealth Job Pathways program Commonwealth Mentor Marketplace Victoria Pathways Project Victoria Managed Individual Pathways Victoria Community and Business and Employment program Indigenous School to Work Transition Programs
4. Augment job placement services	To facilitate access to jobs via individual assessments, Job Matching, Job Search Training, and Intensive Assistance	Centrelink and Job Network Local Learning and Employment Networks (Victoria)
5. Special training and employment programs targeted to young at risk and unemployed	To develop pre-vocational and employability skills	Commonwealth Job Placement, Employment and Training Commonwealth Community Support Program Commonwealth Reconnect program New Apprenticeships Access Program Literacy and Numeracy Programs Qld. Community Employment Assistance Program
6. Increase job apprenticeship and traineeship programs	Develop more on-the-job training with or without TAFE/RTO training	Commonwealth apprenticeship and traineeship programs Group Training Schemes State apprenticeship schemes
7. Augment active labour market programs	To increase youth employment through subsidised private employment or public employment programs	Commonwealth Work for the Dole Commonwealth Green Corps Community Development Employment projects Qld. Breaking the Unemployment Cycle Vic. Youth Employment Incentive
8. Measures for the disabled	Vocational rehabilitation training and sheltered work programs	Disabled Apprentice Wage Support Disability Employment Assistance Program
9. Fiscal policies	Tax policies /credit schemes that encourage work/education.	Youth Allowance / Mutual Obligation Initiative

Table 3.1 describes the aims of these strategies and gives examples of Commonwealth and State programs. In this report we focus mainly on policies or programs that will encourage students to obtain year 12 equivalent qualifications, which is a recognised national youth commitment. In terms of Table 3.1, this includes strategy 1, 2, 3 and 6. The report also considers labour market options for providing jobs to most young Australians (strategy 4, 5 and 7).

3.2 Commonwealth Education to Work Transition Expenditures

To provide a perspective on possible education, job pathways and employment programs associated with implementing a youth commitment, the main Commonwealth expenditures on education to work transition programs by DEST and DEWR are shown in Tables 3.2 and 3.3.

Table 3.2 DEST expenditure on all programs (\$m)

Program	2000-01	2001-02	2002-03
School systems			
Careers transitions and partnerships (eg. ECEF)	21	22	24
Enterprise education in schools	6	6	6
Total (including all other expenditures)	5,534	5,881	6,266
Post-school education and training			
Higher education	3,999	4,074	4,244
Vocational education and training	991	1,072	1,126
Cross sectoral (almost all ABSTUDY)	79	80	82
New Apprentices	428	459	491
Skill Development and transition support			
Job Placement and Employment Program	19	18	18
Workplace English Language and Literacy	11	12	12
Job Pathways Program	26	25	23
Literacy and Numeracy Program	26	35	38
Other	4	2	3
Total skill development and transition support	88	91	95
Engaging young people in community activities	21	22	23
Total	5,606	5,800	6,063
Institutional funding	227	258	282
Grand total	11,367	11,939	12,611

Source: www.dest.gov.au

Table 3.3 DEWR expenditure on labour market programs

Program	2001-02	2002-03
Job network	826	913
Community support programs	18	0
Regional Assistance program	11	0
Work for the Dole	101	147
Transition to work	5	10
Indigenous employment	51	58
Other	1	0
Total	1,013	1,127

Source: www.dewr.gov.au

Table 3.4 Major Commonwealth programs with strong youth component

Program	\$m in 2001-02
DEST	
New apprentices ^a	460
Skill development and transition support programs	91
DEWR job programs	
Job Network ^a	826
Work for the Dole ^a	101
Other programs	86
Centrelink	
Assessment of job seekers (Job Seeker Classification)	Na
Estimated total expenditure supporting young persons ^b	660

(a) Also provide many services to non-young persons.

(b) See text for assumptions.

Table 3.4 highlights the main Commonwealth expenditures that assist the education to work experience. However, the New Apprentice (NA), Work for the Dole (WD) and Job Network (JN) programs service all working aged persons. Allowing approximately that one half of the NA and WD program expenditures assist young people and that a quarter of the JN program assists young people, Commonwealth expenditure on education to work transition programs would total about \$660 million.

This figure does not include the Commonwealth's expenditure of over \$2.0 billion on Youth Allowance or Centrelink expenditure on assessment of young unemployed job seekers.

3.3 State Education to Work Transition Programs

Lists of state education to work transition programs are not readily available, partly because these programs are not easily defined. Tables 3.5 and 3.6 provide a current list of main education to work transition programs in Victoria and Queensland. Commonwealth and State youth transition programs in 2000, including in NSW, are shown in Annex A.

Victoria is particularly active in youth transition programs. From Table 3.5 it can be seen that the Victorian Government annual outlays on education programs average \$52 million and outlays on labour market programs average \$36 million.

Queensland Government annual outlays on education programs average \$13 million and outlays on labour market programs average \$40 million.

Extrapolating from the figures for these states, it may be inferred that total state expenditure on youth transition programs across Australia is in the order of \$300 million per annum inclusive of education and labour market programs.

Taken together with the Commonwealth youth transition programs, total expenditure on youth transition programs across Australia is in the order of \$1000 million per annum. This does not include expenditure on educational and training courses in schools, TAFEs, or other RTOs. The Commonwealth currently spends about \$11 billion on all levels of education and training. The States spend about \$18 billion on education and training. Family and Community Services expenditures are also additional.

Table 3.5 Victorian expenditures on youth commitment programs 2001-5

Programs	Comments	Expenditure
Education initiatives		
Managed Individual Pathways; Local Learning and Employment Networks	Post compulsory education reforms	\$65m over 4 years
Access to Excellence Program	Additional teachers and other resources to improve retention and completion rates	\$81.6m over 4 years
Victorian Certificate of Applied Learning	New senior secondary certificate to encourage improved participation	\$47.7m over 3 years
Labour market initiatives		
Employment assistance for LTU youth	Wage subsidies for youth traineeship program	\$12.5m over 4 years
Public Sector Traineeship Program	Wage subsidies and support for employment in the Victorian public sector	\$72.2m over 4 years
Community Jobs Program	Targeted work based training program including young people	\$60m over 4 years

Source: Victorian State Budget papers.

Table 3.6 Queensland expenditures on youth commitment programs 2002-5

Programs	Comments	Expenditure
Education initiatives		
Retention & reform strategy	Case management & community partnership support for local initiatives	\$40.3m over 3 years
Labour market initiatives		
Youth Access Program	Support for potential early school leavers seeking to enter the labour market	\$5m over 2 years
LTU Youth Program	Re-entry opportunities for long term unemployed young people	\$2.5m over 1 year
Environment and Community Youth Program	Traineeship subsidy program focused on young people	\$10m over 1 year
School based traineeships	Support for schools and employers	\$1m over 1 year
Community Employment Assistance Program	Broad based job search assistance for the long term unemployed including young people	\$25.4m over 1 year

Source: Queensland State Budget papers.

4 Approach to Evaluation of Further Education and Training

This chapter describes the main costs and benefits of further education and the cost-benefit method of evaluation. It then outlines how this method is applied to the provision of further education to early school leavers in Australia. Further details are given in Chapters 5 to 8.

4.1 Main Costs and Benefits of Further Education

The main costs and benefits of further education are given in Table 4.1. This table also shows the impacts on government, participants in education, and other private agents. The final column shows the net impact on society, which is the sum of the other impacts. For transfer payments, the cost and benefit offset each other, and there is no net social effect.

Governments bear many of the costs of further education, including the costs of the education and training courses, apprenticeships and traineeships (AT), and pathway programs. Investment in AT and pathway programs is seen as necessary to encourage participation in further education. If AT expenditure is simply a financial incentive to encourage employers to take on apprentices, it is a transfer payment rather than a real economic cost. If AT expenditure compensates employers for loss of productive time of employees, AT expenditure is a proxy for a real economic cost.

Participants in further education may also bear significant costs. These costs may include the costs of study materials, transport and childcare and income foregone during study. This cost may be considerable. If government compensates the individual through the Youth Allowance, government is bearing part of the cost. There is still a real economic cost associated with the value of output lost.

Table 4.1 Main costs and benefits of further education

Type of effect	Public	Participant	Other private	Society(a)
Costs				
Provision of education and training courses	–			–
Apprenticeships and traineeships	–			–
Pathways programs	–			–
Private costs: materials, child care, transport etc		–		–
Private income foregone	–	–		–
Displacement of existing workers			–	–
Benefits				
Increased productivity in the workforce	+	++	+	+
Increased productivity in the household		+		+
Contributions to social capital	+		+	+
Reduction in social costs (crime etc.)	+		+	+
Consumption benefits, self-esteem etc.		+		+
Transfer payments				
Reductions in welfare payments	+	–		0
Increases in tax revenues	+	–		0
Lower wages for existing workers			–/+	0

(a) The social impact is the sum of the impacts on the government, participants and other private agents.

Another potential cost of further education is the displacement of *output* of existing workers. This report considers that displaced output is likely to be small for several reasons. First, the number of extra workers with Year 12 qualifications is relatively small, about 100,000 extra such workers after five years in a total workforce in excess of eight million. Second in a completely open small economy, there would be zero displacement effect as there would be a perfectly elastic demand for more skilled Australian workers – and the Australian economy is small and quite open. Third, the increase in earning of the newly skilled workers will increase the demand for services by existing workers. However, in the full

evaluation of benefits in Chapter 8, the report allows the output of existing workers will fall by an amount equivalent to 10 per cent of the increased earnings of students completing year 12 education.

The major gain from further education is increased workforce productivity. The main gainers are of course education participants, who achieve higher earnings in the labour force and higher productivity in the home.

Higher workforce earnings may be achieved by higher wages, reduction in unemployment, and increased participation in the workforce. Only the last way is a 100 per cent welfare gain to the participant. The other increases in earnings are achieved at some sacrifice of household activities or leisure. In these cases, estimated earning increments overestimate the welfare gain. On the other hand, productivity increases in the household may be underestimated or even ignored completely because there is no ready market measure of the gains.

In addition to labour income gains from increased productivity, employers in both the public and private sector may gain from the increased productivity of employees.

There is also considerable evidence that education contributes to the effectiveness of social relations in society (known as social capital) and that this contributes additionally to the economic performance and well-being of society (OECD, 2001b). Conversely, low levels of education and training are linked to anti-social behaviour, crime, black market activities, homelessness and so on. Wolfe and Haveman (2001) have attempted to quantify these benefits.

Education and training may also increase consumption enjoyment of various activities and goods and increase self-esteem. However, placing a value on these effects is difficult.

The last part of Table 4.1 shows some transfer payments. Government may gain by reductions in welfare payments and increases in taxes. However, these financial gains to government are offset by losses to participants.³

Some existing workers may experience a fall in wages due to increased workforce competition. This impact is likely to be minor in a small and open economy. Moreover, any such reduction in wages is different from a fall in productivity. A fall in such wages would generally be offset by higher returns to employers or by lower prices to consumers, or both. Thus, a fall in wages, unlike a fall in output, can be regarded as a transfer impact rather than a net welfare loss.

4.2 Cost-Benefit Analysis: General Issues

Once the costs and benefits have been estimated in dollar terms, they are added together to provide an estimate of the net benefit (or cost) to society. When the estimated total benefit exceeds the estimated total cost, there is said to be a net benefit to society.

When costs or benefits occur in some future year, as occurs with most education benefits, they are weighted (discounted) to give an equivalent present day value. The question of weighting is complex mainly because the weighting has to reflect two different concepts: the value of the investment in alternatives opportunities (the opportunity cost of capital) and the value of the outcomes to beneficiaries (the private rate of time discount). The opportunity cost of capital is typically perceived to be about 7 per cent whereas the private rate of time discount is usually considered to be 3 to 5 per cent (in both cases ignoring inflation). This report shows results using 5 and 7 per cent discount rates.

³ Reductions in taxes may also reduce the deadweight cost of taxes, but this is a second order and generally minor effect.

In practice, CBA almost always has limitations. One is the measurability of the impacts. In this study it is easier to quantify the costs than the benefits, for example the benefits of higher productivity in the home. A core issue is the impact of education on income. It is sometimes difficult to determine whether more-educated individuals earn more because of their education or whether individuals with more earning capacity have chosen to take on more education. The education / earnings relationship is discussed further in the Chapter 5.

Secondly, in CBA, a dollar of gain or loss has the same value to whomsoever it accrues. However, the distribution of costs and benefits generally matters. The estimated net benefit is not necessarily the best measure of social welfare because a dollar may have more value to one person than to another. More generally, estimated net benefit is not necessarily an indicator of social justice. Social justice may suggest that all young persons should have an equal share of the national resources devoted to education and training even if investment in their education and training is relatively less productive than other investments.

4.3 Applications of Cost-Benefit Analysis

To show the implications of a full commitment to year 12 education, this report provides two models: a simple one-cohort model and a more complex five-year cohort simulation.

The one-cohort model, which is described in Chapter 5, is based on the typical cost of supplying a year 10 school leaver with two extra years of education and the typical wage gains from that education. These results are factored up to show the annual costs and benefits of providing year 12 education to half the cohort of early leavers. Given the observed resistance to institutional learning, it is unrealistic to expect more than 50 per cent of those who now do not complete year 12 education to do so, even with additional transition programs. This approach shows clearly and with minimum assumptions the possible costs and benefits of year 12 education. It also introduces some key parameters, which underlie a more complex model.

Chapters 6 to 8 simulate the costs, benefits and net outcome of a five-year cohort model, which attempts to take more of the costs and benefits shown in Table 4.1 into account and which simulates an annual schedule of costs and benefits. The analysis assumes that, in setting their 2003-04 budgets, the Commonwealth and State governments agree to introduce sufficient incentives to induce half those students who do not complete year 12 equivalent education to do so. Thus half the students leaving school early in 2003 would now receive further education in either school or a registered training organisation in the following years or years. To simplify the simulation, all take-ups are exercised by full-time study in one to three years, depending on how early the student would otherwise leave school. Thus all entitlements are exercised by year 2010. The costs are therefore calculated for the period 2004-10. Because the benefits may last a lifetime, the benefits are calculated to 2050. They are of course discounted to present values.

5 Cost-Benefit Analysis of Year 12 Education for One Cohort

Chapter 5 presents an analysis of provision of year 12 equivalent education to one cohort of early leavers. It shows the main costs, the earnings benefit, and the overall economic result for the cohort.

5.1 Costs of Extra Education and Training

Table 5.1 shows typical costs of education for a year 11 or 12 student in 2002 dollars. In round figures the cost is about \$25,000 per full-time student per year or \$50,000 for two years. The foregone gross earnings of students make up half of these costs.

The following is the basis of these costs.

School or TAFE costs. MCEETYA (2000) estimates that the average cost of secondary school education was \$7416 per student in 1999/2000. However, Burke (1998) estimates that the cost of senior secondary school education is 1.22 times the average cost, which would take the cost of a senior secondary place to about \$9000 per student. ANTA (2000) estimates that the average cost of a TAFE place is \$12.67 per student hour. Allowing a full time load of 720 hours per student per annum, the average annual cost would also be \$9000 per student year.

Pathway program costs. To estimate the cost of individual case management, mentoring etc., we allow a cost of \$80,000 per pathway worker (including \$40,000 for salary and \$40,000 for all on-costs of offices, long service leave, program overheads etc.) and 50 effective students per pathway worker per annum.

Private student costs. Drawing on Saunders et al (1998), students spend on average about \$800 per annum on books, materials, general fees, school related activities etc. However, this does not include any transport costs, which can be substantial, especially for TAFEs. Therefore \$1500 per student is allowed for this analysis.

Foregone gross earnings (or output). This analysis assumes that, to undertake year 11 or 12 education full-time, students give up an average of 20 hours work a week at \$12-50 per hour, equal to \$250 per week or \$12,500 per year. This figure is consistent with the wages earned by young persons with year 10 or below education (see Table 5.2). In practice, foregone earnings may be closer to \$6000 per annum over four years, but would still total about \$25,000. Of course, some earnings would be taxed. The loss of tax revenue would be borne by government.

Table 5.1 Typical costs of extra education per full-time student (2002 \$s)

Cost item	No. of years	\$
School or TAFE (FT) costs	1	9000
Pathway program costs	1	1600
Private student costs	1	1500
Foregone gross earnings of student	1	12500
Total cost for one year	1	24600
Total cost for two years	2	49200

Sources: see text.

5.2 Benefits of Extra Education and Training

The estimated benefits of additional education are based below on the estimated gain in income associated with year 12 education.

Table 5.2 shows average weekly earnings by highest educational attainment in Australia in 2000. Note that the average income earned by workers with year 12 education does not include income earned by workers with higher levels of education. Initially, between the ages of 20 and 24, the extra education has little effect on average earnings, presumably because the extra work experience of year 10 school leavers offset their lower education. Between ages 25 and 34, males with year 12 education earned 17.9 per cent more than males with year 10 or below education. Females with year 12 education earned 9.4 per cent more than females with year 10 or below education. This represents about a 9.0 per cent and 4.7 per cent increase in earnings for each year of additional education for males and females respectively. The earnings increase for each year of education rose to about 12 per cent for males and females in the 45-54 age group.

These rates of return to education are consistent with both earlier Australian results (NATSEM, 1999; Ryan, 2002) and international results. Drawing on a detailed analysis of the returns to vocational education and training qualifications, Ryan concludes that individuals with year 12 equivalent qualifications are paid about 10 per cent more than individuals who do not complete the highest level of schooling. This wage premium does not depreciate over time.

Card (2001) surveys many studies that show earnings rising by between 6 and 15 per cent for each year of education. Denny and Harmon (2000) estimate that obtaining the year 12 leaving certificate adds 14 per cent (7 per cent per year of education) to income. OECD (2001b) indicates slightly lower rates with an average return of about 9 per cent to upper secondary education across nine OECD countries, or 4.5 per cent per year of upper secondary education.

Table 5.2 Average weekly earnings by highest level of education in 2000 (\$)

	Full time work				Part-time work			
	Year 12	Year 10 ^a	Difference		Year 12	Year 10 ^a	Difference	
			(\$)	(%)			(\$)	(%)
Males								
15-19	406.0	393.9	12.1	3.1	175.6	232.9	-57.3	
20-24	571.9	547.6	24.3	4.4	289.3	412.5	-123.2	
25-34	784.1	665.1	119.0	17.9	527.5	340.7	186.8	
35-44	983.3	765.4	217.9	26.5	644.2	304.9	339.3	
45-54	1159.7	846.3	313.4	37.0	371.5	326.8	44.7	
55-64	1077.4	773.2	304.2	39.3	361.2	259.5	101.7	
Females								
15-19	383.2	344.4	38.8	11.2	168.1	170.1	-2.0	
20-24	537.1	523.3	13.8	2.6	231.1	208.8	22.3	
25-34	704.9	644.4	60.5	9.4	346.8	286.0	50.8	
35-44	766.6	618.9	147.7	23.9	345.8	293.1	52.7	
45-54	703.1	614.1	89.0	14.5	319.0	295.9	23.1	
55-64	704.7	600.0	104.7	17.5	429.5	291.4	138.1	

(a) Year 10 or below.

(b) Source: ABS, *Survey of Education and Training*, 2001, commissioned data.

Table 5.3 Present value of incomes for ages 18 to 60 (\$)

	Discount rate	
	5%	7%
Males		
Leavers at year 10	580,797	432,632
Leavers at year 12	738,439	542,376
Increase in PV of income	157,642	109,744
Females		
Leavers at year 10	524,884	396,331
Leavers at year 12	588,300	444,542
Increase in PV of income	64,000	48,211

Card's survey of the literature produces other important findings. First, he finds that the earnings/education relationship is broadly linear. This implies that each year of education produces earnings benefits. Credentials do not have a decisive effect on the relationship between education and earnings. This is confirmed by the Australian data in Table 5.2. The earnings gap rises over time when credentials may be expected to be less important than performance.

Second, Card finds that the marginal return to education is close to the average return. He interprets this to imply that raising school levels among less-educated subgroups is at least as high, or higher, than the average rate of return to education.

Table 5.3 shows the present value of incomes for year 10 and year 12 school leavers, for males and females, from age 18 to 60 assuming continuous full-time employment and no increases in real income, with discount rates of 5 and 7 per cent. In present value terms, year 12 males earn between \$110,000 and \$158,000 more than year 10 males. In present value terms, year 12 females earn between \$48,000 and \$64,000 more than year 10 females.

Of course, it is possible that only part of this increase in earnings is due to year 11 and 12 schooling. As we saw in Chapter 2, year 12 completers tend to have higher educational standards at year 10 than do year 10 leavers. Also an increased supply of year 12 completers could reduce the average year 12 wage (and the differential between year 10 and year 12).

On the other hand, year 12 completers not only obtain increased earnings but also achieve higher workforce participation and experience less unemployment. This evaluation here allows for the full

earnings differential shown in Table 5.2, but make no allowance for income differentials associated with labour force participation and unemployment rates. The benefit model in Chapter 7 allows for an income differential discount but also allows for employment and participation differentials.

5.3 Cost-benefit Results for a Single Cohort

The results for a single cohort are presented in Table 5.4. Drawing on the costs and benefits estimated above, the net benefit for investing in two years of education from year 10 to year 12 is between \$44,000 and \$90,000 for males and between -\$6000 and +\$9000 for females. The lower values for females reflect the lower earnings benefit associated with the extra two years of education.

Table 5.4 Cost-benefit analysis for individual students (\$2002 prices)

Year	Males with discount rates		Females with discount rates	
	5%	7%	5%	7%
1. Education and training costs	-25,000	-25,000	-25,000	-25,000
2. Education and training costs	-25,000	-25,000	-25,000	-25,000
3. PV of lifetime benefits	158,000	110,000	64,000	48,000
Net present value	90,000	44,500	8,800	-6,000

Table 5.5 presents rough estimates of annual aggregate costs and benefits of a whole cohort in present value terms. As discussed in Chapter 2, at least 50,000 students in a cohort fail to complete year 12 equivalent qualifications. To estimate aggregate costs and benefits, we allow that, with adequate incentives and encouragement, half of these non-completers may take up an educational entitlement.

Thus the total social cost for taking half the non-completers of a cohort through to year 12, inclusive of foregone income, would be about \$1250 million (50,000 students \times 0.5 \times 2 years \times \$25,000 per year). The total benefit would be \$2250 million per annum (25,000 completers \times an average present value of future earnings for males and females of \$90,000). The net annual benefit in present value terms would be \$1000 million.

Note that on these cost figures, providing that students completing year 12 can obtain even 60 per cent of the average wage differential between year 12 and year 10 completers, the earnings benefits would exceed the costs of the programs.

In order to estimate the impacts on government and participants, taxation has to be taken into account. Government would forego tax revenue on the foregone earnings of students and gain revenue on the increased earnings. We allow an average tax rate of 10 per cent on the foregone gross earnings of students (who have low incomes) and an average tax rate of 25 per cent on the increased marginal earnings. The former assumption implies that government and participants would roughly share the total cost of the investment in education. However, participants would gain 75 per cent of the benefits. On this basis government would have an equivalent net annual cost of \$75 million. Of course this is the present value equivalent. In the short run the net cost to government would be larger than this. On the other hand participants would have a net annual benefit of \$1075 million in present value terms.

Table 5.5 Cost-benefit analysis of year 12 education for one cohort (\$m)

	Public	Private	Total
Costs (a)	625	625	1250
Benefits (a)	550	1700	2250
Net benefit	-75	1075	1000

(a) For tax assumptions, see text.

6 A Cost Model for a Five-Year Cohort

Chapter 6 estimates the costs of providing year 12 education to teenagers who would normally leave school early between 2003 to 2007, but who would now access further educational services between 2004 and 2010.

6.1 Basis of the Cost Model

The cost model assumes that the Commonwealth and state governments would commit to providing extra education in the 2003-04 budgets. Early school leavers in 2003 would obtain extra education in 2004 and so on.

To keep the cost model concise, full-time study is assumed. Thus the model finishes in 2010. This is because someone who leaves school in year 9 in 2007 would complete their three extra years from 2008 to 2010. The assumption of full-time study brings forward some costs and benefits and may marginally affect the ratio of discounted costs and benefits because it brings forward the lifetime stream of benefits. However, these effects are not significant.

The cost model has two main components and is estimated separately for males and females.

1 Forecasts of total early school leavers who would be subject to the government's commitment from 2003 to 2007 and the total committed years that this would imply on a full-time study basis.

2 Forecasts of the actual committed study years taken up and of the costs of these study years from 2004 to 2010.

Forecasts of total possible extra school years

- Projected numbers of secondary school students are based on ABS medium population forecasts for 15-19 year old males and females.
- Projected early school leavers are based on 2001 experience. In any year, 8.7 per cent of male secondary school students and 4.1 per cent of female students are expected to leave school early. Of the male early leavers, 19 per cent leave in year 9, 48 per cent in year 10, and 34 per cent in year 11. Corresponding numbers for females as 21 per cent, 39 per cent and 40 per cent respectively.
- Based on 2001 experience, 26 per cent of male early leavers and 21 per cent of female early leavers take up further education and training in the year after leaving school. Of the males who do, 8 per cent were year 9 leavers, 58 per cent year 10 leavers, and 34 per cent year 11 leavers. Corresponding numbers for females were 23 per cent, 34 per cent and 43 per cent respectively.
- An estimated further 35 per cent of male early leavers and 20 per cent of female early leavers take up further education or training in later years. Thus, overall, 61 per cent of male early leavers and 41 per cent of female early leavers are expected to engage in some further education after leaving school early.
- Students subject to the commitment are those who enter no further education after leaving school early **plus** those who enter further education and training but do not complete it. An estimated 30 per cent of those who engage in further education do not complete.
- The total number of committed years is the product of the students subject to the commitment and the number of years by which they fall short of year 12 education.

Forecasts of the costs of the commitment from 2004 to 2010

To estimate commitment years taken up, total commitment years are translated into effective commitment years. For example a year 9 leaver in 2003 is granted three more student years in 2003 and assumed to take them up from 2004 to 2006.

The take-up rate will depend on many factors, including the resources allocated to pathway planning, the availability and value of apprenticeships, and so on. As discussed above, it is assumed that 50 per cent of the commitment will be taken up. Because the costs of schools and TAFEs are similar, it is not necessary to forecast where the places will be taken up.

The main cost parameters are similar to those in Chapter 5.

- Education and training costs (\$9000 per student year).⁴
- Pathway planning and management costs (\$1600 per student year).
- Private student costs (\$1500 per student year).
- In addition, the cost model here allows that employers receive an average of \$2000 per annum in apprenticeship or traineeship schemes for 40 per cent of students and that this represents a real resource cost. This amount is slightly higher than at present.

Two further points should be noted. Education costs per student year are based on current average costs. These costs may have to be increased to allow for education for more disadvantaged teenagers. On the other hand, there may be offsetting economies of scale in provision of educational services, with the marginal cost per student year less than average costs. Second, foregone student earnings are included in the earnings model in Chapter 7 rather than in the cost model here.

6.2 Results of the Cost Models for Males and Females

Tables 6.1 and 6.2 show the student implications of the education commitment for males and females. Tables 6.3 and Table 6.4 show the cost implications.

As Tables 6.1 and 6.2 show, about 34,000 males and 20,000 females would be entitled to further education. However, the model assumes that only half of these places will be taken up. Tables 6.3 and 6.4 show that the total cost of the commitment would be about \$420 million per annum for males and \$230 million per annum for females when the commitment is being fully implemented in years 2006 to 2008. These numbers are of course consistent with those in Chapter 5.

⁴ This is an average cost. Costs may be lower where there is spare educational capacity, but higher for disadvantaged groups.

Table 6.1 Male students: actual and forecast numbers of students, 2001-07

	2001	2002	2003	2004	2005	2006	2007
1. Secondary school students							
Year 7 (a)	81,996	81,192	81,504	81,816	82,130	82,444	82,782
Year 8	131,507	133,012	133,522	134,034	134,548	135,063	135,617
Year 9	130,152	132,468	132,975	133,485	133,997	134,510	135,062
Year 10	127,712	129,002	129,497	129,993	130,491	130,992	131,529
Year 11	109,264	108,135	108,550	108,966	109,383	109,803	110,253
Year 12	89,240	88,629	88,968	89,309	89,652	89,995	90,364
Total	669,871	672,439	675,016	677,603	680,200	682,807	685,607
Year 12 completers	86,864	86,831	86,236	86,566	86,898	87,231	87,566
2. Early school leavers (ELs)							
Year 9 or below	10234	10,273	10,313	10,352	10,392	10,432	10,474
Year 10 (b)	28345	28,454	28,563	28,672	28,782	28,892	29,011
Year 11 (b)	19953	20,029	20,106	20,183	20,261	20,338	20,422
Total	58532	58,756	58,982	59,208	59,435	59,662	59,907
3. ELs training potentially to Y12 in next year							
Year 9 or below	1,161	1,165	1,170	1,174	1,179	1,183	1,188
Year 10	8,696	8,729	8,763	8,796	8,830	8,864	8,900
Year 11	5,152	5,172	5,192	5,211	5,231	5,251	5,273
Total	15,009	15,067	15,124	15,182	15,240	15,299	15,362
4. ELs undertaking any further education and training in later years							
Year 9 or below	1,585	1,591	1,597	1,603	1,609	1,615	1,622
Year 10	11,869	11,915	11,961	12,006	12,052	12,099	12,148
Year 11	7,032	7,059	7,086	7,113	7,141	7,168	7,197
Total	20,486	20,565	20,644	20,723	20,802	20,882	20,967
5. ELs with no extra training							
Year 9 or below	7,488	7,517	7,546	7,575	7,604	7,633	7,664
Year 10	7,780	7,809	7,839	7,869	7,900	7,930	7,962
Year 11	7,769	7,799	7,829	7,859	7,889	7,919	7,951
Total	23,037	23,125	23,214	23,303	23,392	23,482	23,578
6. ELs subject to commitment (c)							
Year 9 or below	8,312	8,344	8,376	8,408	8,440	8,473	8,507
Year 10	13,949	14,003	14,056	14,110	14,164	14,219	14,277
Year 11	11,424	11,468	11,512	11,556	11,600	11,645	11,692
Total	33,685	33,814	33,944	34,074	34,205	34,336	34,477

7. Total commitment years (d)

Year 9 orbelow	24,936	25,032	25,128	25,224	25,321	25,418	25,522
Year 10	27,898	28,005	28,113	28,220	28,329	28,437	28,554
Year 11	11,424	11,468	11,512	11,556	11,600	11,645	11,692
Total	64,259	64,505	64,752	65,000	65,249	65,500	65,768

Notes

(a) Year 7 secondary school students in NSW, Victoria, Tasmania and ACT. Year 7 students in other states and NT are in primary schools.

(b) In or at end of Year 10 and in or at end of Year 11 respectively.

(c) Early school leavers with no extra education or training plus estimated 30 per cent of those who start further training but do not complete.

(d) Allows 3 years for Year 9 Els subject to entitlement and 2 years for Year 10 Els . But makes NO allowance for timing of the entitlement.

Table 6.2 Female students: actual and forecast numbers of students, 2001-07

	2001	2002	2003	2004	2005	2006	2007
1. Secondary school students							
Year 7(a)	78,498	77,882	78,172	78,462	78,754	79,047	79,316
Year 8	126,484	126,076	126,545	127,016	127,488	127,962	128,398
Year 9	124,741	126,870	127,342	127,815	128,291	128,768	129,207
Year 10	124,082	125,773	126,241	126,710	127,181	127,654	128,090
Year 11	114,161	113,122	113,543	113,965	114,389	114,814	115,206
Year 12	98,870	99,591	99,961	100,333	100,706	101,080	101,425
Total	666,836	669,315	671,803	674,301	676,808	679,324	681,642
Year 12 completers	97,120	97,828	98,192	98,557	98,923	99,291	99,630
2. Early school leavers (ELs)							
Year 9 orbelow	5,789	5,811	5,832	5,854	5,876	5,897	5,918
Year 10 (b)	10,616	10,655	10,695	10,735	10,775	10,815	10,852
Year 11 (b)	10,721	10,761	10,801	10,841	10,881	10,922	10,959
Total	27,126	27,227	27,328	27,430	27,532	27,634	27,728
3. ELs training in next year (potentially to Year 12)							
Year 9 orbelow	1,279	1,284	1,289	1,293	1,298	1,303	1,307
Year 10	1,924	1,931	1,938	1,946	1,953	1,960	1,967
Year 11	2,444	2,453	2,462	2,471	2,481	2,490	2,498
Total	5,647	5,668	5,689	5,710	5,731	5,753	5,772
4. ELs undertaking any further education and training in later years							
Year 9 orbelow	1,229	1,233	1,238	1,243	1,247	1,252	1,256
Year 10	1,848	1,855	1,862	1,869	1,876	1,883	1,889
Year 11	2,348	2,357	2,365	2,374	2,383	2,392	2,400
Total	5,425	5,445	5,466	5,486	5,506	5,527	5,546
5. ELs with no extra training							
Year 9 orbelow	3,281	3,293	3,306	3,318	3,330	3,343	3,354
Year 10	6,844	6,869	6,895	6,920	6,946	6,972	6,996
Year 11	5,929	5,951	5,973	5,995	6,018	6,040	6,061
Total	16,054	16,113	16,173	16,234	16,294	16,354	16,410
6. ELs subject to commitment (c)							
Year 9 orbelow	4,034	4,049	4,064	4,079	4,094	4,109	4,123
Year 10	7,975	8,005	8,035	8,065	8,095	8,125	8,152
Year 11	7,367	7,394	7,421	7,449	7,477	7,505	7,530

Total	19,375	19,447	19,520	19,592	19,665	19,738	19,806
7. Total commitment years (d)							
Year 9 or below	12,101	12,146	12,191	12,236	12,282	12,327	12,369
Year 10 or below	15,951	16,010	16,069	16,129	16,189	16,249	16,305
Year 11 or below	7,367	7,394	7,421	7,449	7,477	7,505	7,530
Total	35,418	35,550	35,682	35,814	35,948	36,081	36,204

Notes

(a) Year 7 secondary school students in NSW, Victoria, Tasmania and ACT. Year 7 students in other states and NT are in primary schools.

(b) In or at end of Year 10 and in or at end of Year 11 respectively.

(c) Early school leavers with no extra education or training plus estimated 30 per cent of those who start further training but do not complete.

(d) Allows 3 years for Year 9 Els subject to entitlement and 2 years for Year 10 Els . But makes NO allowance for timing of the entitlement.

Table 6.3 Male students: costs of further education for 2003-2007 early school leavers \$m (2002 prices)

	2003	2004	2005	2006	2007	2008	2009	2010
Education years								
Total committed education years (a)	64,752	65,000	65,249	65,500	65,768	0	0	0
Effective FT committed years (b)	0	33,860	56,339	64,847	65,095	65,354	31,087	8,422
Committed years taken up (c)	0	16,930	28,169	32,423	32,548	32,677	15,543	4,211
Costs of program (\$m)								
Education and training (d)	0	152.4	253.5	291.8	292.9	294.1	139.9	37.9
Apprenticeship and traineeships	0	13.5	22.5	25.9	26.0	26.1	12.4	3.4
Pathway planning / management	0	27.1	45.1	51.9	52.1	52.3	24.9	6.7
Private student costs (e)	0	25.4	42.3	48.6	48.8	49.0	23.3	6.3
Total costs		218.4	363.4	418.3	419.9	421.5	200.5	54.3

Table 6.4 Female students: costs of further education for 2003-2007 early school leavers \$m (2002 prices)

	2003	2004	2005	2006	2007	2008	2009	2010
Education years								
Total committed education years (a)	35,682	35,814	35,948	36,081	36,204			
Effective FT committed years (b)		19,520	31,691	35,872	36,005	36,133	16,385	4,123
Committed years taken up (c)		9,760	15,845	17,936	18,003	18,067	8,192	2,062
Costs of program (\$m)								
Education and training (d)		87.8	142.6	161.4	162.0	162.6	73.7	18.6
Apprenticeship and traineeships		7.8	12.7	14.3	14.4	14.5	6.6	1.6
Pathway planning / management		15.6	25.4	28.7	28.8	28.9	13.1	3.3
Private student costs (e)		14.6	23.8	26.9	27.0	27.1	12.3	3.1
Total costs		125.9	204.4	231.4	232.4	233.1	105.7	26.6

Notes for Tables 6.3 and 6.4

(a) Commitments to male or female students from 2003 to 2007, from Table 6.2.

(b) If taken up full time, the commitments are from 1 to 3 years additional education or training

(c) Assumes that half the commitments are taken up.

(d) For study in schools or registered training organisations.

(e) Out of pocket costs. Foregone earnings estimated as part of wages model in Chapter 7.

7 An Earnings Benefit Model for a Five-Year Cohort

This chapter develops an earnings benefit model for the five-year cohort of early school leavers from 2004 to 2008. Earnings increase because the extra two years of education increase labour force participation, lower unemployment, and increase earnings. The model is based on current experience of year 10 and year 12 school leavers. Estimates are made separately for males and females each year from 2004 to 2010 and for the present value of subsequent incomes from 2011 to 2050.

The model first estimates the income of current non-completers. This income is a product of the number of non-completers who find work and their average earnings.

In any year, the number of new non-completers who are employed equals non-completers in the previous year less those who do not enter the workforce and those who are unemployed.

Forecast labour force participation and employment rates for non-completers are based on 2001 participation and employment rates. Estimated male participation and unemployment rates are 90 per cent and 23 per cent respectively. Female participation and unemployment rates are 75 per cent and 22 per cent respectively.

Earnings are based on year 2000 data from the ABS Survey of Education and Training 2001 – see Table 5.2. Allowing for a mixture of part and full-time work, average male earnings are \$326 per week for ages 15 to 19 and \$497 per week for ages 20 to 24. Comparable female earnings are \$271 and \$460 per week.

Tables 7.1 and 7.2 show the estimated earnings for each cohort of non-completers for males and females for each year from 2004 to 2010.

Drawing on the current income profile summarised in Table 5.2, we also estimate the earnings of each non-completer from 2011 to 2050 and the present value in 2011 of these earnings. Using a discount rate of 5 per cent per annum, the present values averages about \$550,000 for male non-completer and \$500,000 for female non-completers in the workforce. A discount rate of 5 per cent is used as a compromise rate between a commonly used opportunity cost of capital of 7 per cent and a consumer rate of discount that may be only 3 per cent.

The tables also show the earnings for 50 per cent of non-completers because this is the proportion assumed to take up the educational commitment.

The second half of the earnings model simulates the earnings of students who participate in a further extra two years of education.

Labour participation and employment rates are based on year 2002 data for year 12 completers. Wages are based on year 2000 data (see Table 5.2 for differences in average earnings associated with year 12 education).

This model also allows for foregone income as students taking up their entitlement take on less labour force work. While taking on the extra study workforce participation drops by about 50 per cent and earnings drop to \$176 and \$168 per week for males and females respectively.

Following completion of the two years of education, estimated male participation rates rise to from 90 to 93 per cent and youth unemployment falls from 23 per cent to 11 per cent. Estimated female participation rate rises to from 75 per cent to 85 per cent and unemployment falls from 22 per cent to 6 per cent.

In estimating the lifetime income effects it is assumed that non-completers who take up the extra education will achieve only 80 per cent of the income differential between average year 12 and year 10 incomes. This reflects the possible educational or other disadvantages that the non-completers face.

The results of these assumptions are shown at the bottom of Tables 7.1 and 7.2. In the short run, both employment and earnings fall as young people take up the extra education. Indeed, it is not till 2009 that employment and earnings are positive.

By 2010, the extra education for the five-year (2003-08) cohort would generate about 18,000 more people in employment. About two-thirds of these are due to reduced unemployment and one-third to higher workforce participation. The extra education generates an estimated extra \$550 million a year in earnings. Two-thirds of the benefits accrue to males because the impact is greater on male employment and earnings.

The annual earnings benefit increases over the next 10–20 years because the earnings differential is greatest for males between 45 and 54 years of age and for females between 35 and 44 years of age.

Table 7.1 Incomes of early school leavers without and with additional education or training: Males

		2004	2005	2006	2007	2008	2009	Present value in 2010 2011 of incomes from 2011 to 2050	
Non Y12 completers (NCs) pre-commitment									
Total NCs (a)	No.	33,944	34,074	34,205	34,336	34,477	na	na	na
NCs in labour force	No.	30,550	30,667	30,784	30,902	31,029	na	na	na
NCs unemployed	No.	7,026	7,053	7,080	7,108	7,137	na	na	na
NCs employed	No.	23,523	23,613	23,704	23,795	23,892	na	na	na
Cumulative total employed	No.	23,523	47,137	70,841	94,635	118,528	118,528	118,528	
Total wages of 2004 NCs	\$m	399	399	399	399	608	608	608	15,510
Total wages of 2005 NCs	\$m	0.0	400	400	400	400	610	610	15,531
Total wages of 2006 NCs	\$m	0.0	0.0	402	402	402	402	613	15,554
Total wages of 2007 NCs	\$m	0.0	0.0	0.0	403	403	403	403	15,519
Total wages of 2008 NCs	\$m	0.0	0.0	0.0	0.0	405	405	405	15,281
Total wages of NCs	\$m	399	799	1,201	1,604	2,218	2,428	2,639	77,395
Outcomes for 50% of NCs pre-commitment									
Half of all NCs	No.	16,972	17,037	17,102	17,168	17,238	na	na	Na
In labour force (b)	No.	15,275	15,333	15,392	15,451	15,514	na	na	Na
Unemployed (c)	No.	3,513	3,527	3,540	3,554	3,568	na	na	Na
Employed	No.	11,762	11,807	11,852	11,897	11,946	na	na	Na
Cumulative total employed	No.	11,762	23,568	35,420	47,318	59,264	59,264	59,264	Na
Wages of 2004 NCs	\$m	199	199	199	199	304	304	304	7,755
Wages of 2005 NCs	\$m	0	200	200	200	200	305	305	7,766
Wages of 2006 NCs	\$m	0	0	201	201	201	201	306	7,777
Wages of 2007 NCs	\$m	0	0	0	202	202	202	202	7,760
Wages of 2008 NCs	\$m	0	0	0	0	203	203	203	7,640
Total wages	\$m	199	400	600	802	1,109	1,214	1,320	38,698
Outcomes with 50% commitment take-up									
Employment of 2004 NCs	No.	6,789	6,789	14,087	14,087	14,087	14,087	14,087	
Employment of 2005 NCs	No.		6,815	6,815	14,141	14,141	15,163	14,141	15,163
Employment of 2006 NCs	No.			6,841	6,841	14,195	14,195	14,195	
Employment of 2007 NCs	No.				6,867	6,867	14,249	14,249	
Employment of 2008 NCs	No.					6,895	6,895	14,308	
Cumulative total employed	No.	6,789	13,604	27,743	41,936	56,185	63,567	70,980	
Wages of 2004 NCs	\$m	62	62	227	227	396	396	396	10,000
Wages of 2005 NCs	\$m		62	62	228	228	397	397	10,038
Wages of 2006 NCs	\$m		63	63	228	228	399	10,077	

Wages of 2007 NCs	\$m				63	63	228	228	10,115
Wages of 2008 NCs	\$m					63	63	230	10,157
Total wages	\$m	62	125	352	580	977	1313	1651	50,387
Net outcomes of 50% commitment take up									
Employed	No.	-4,973	-9,965	-7,678	-5,382	-3,079	4,303	11,716	
Total wages	\$m	-137	-275	-249	-223	-132	99	331	11,689

Notes:

- (a) Early school leavers in previous year who would obtain entitlement. E.g. non-completers in 2004 are the early leavers who in 2003 who do not enter into further education.
- (b) In year after leaving school, 77 per cent of male early leavers enter the labour force.
- (c) In year after leaving school, 23 per cent of male early leavers in the labour force are unemployed.

Table 7.2 Incomes of early school leavers without and with additional education or training: Females

Non Y12 completers (NCs) pre-commitment

		2004	2005	2006	2007	2008	2009	2010	Present value in 2011 of incomes from 2011 to 2050
Total NCs (a)	No.	19,447	19,520	19,592	19,665	19,738	na	Na	na
NCs in labour force	No.	15,450	14,594	14,648	14,703	14,757	na	Na	na
NCs unemployed	No.	3,185	3,197	3,209	3,221	3,233	na	Na	na
NCs employed	No.	11,354	11,397	11,439	11,482	11,524	na	Na	na
Cumulative total employed	No.	11,354	22,751	34,190	45,672	57,196	57,196	57,196	
Total wages of 2004 NCs	\$m	160	160	160	160	272	272	272	5,768
Total wages of 2005 NCs	\$m	0	161	161	161	161	273	273	5,914
Total wages of 2006 NCs	\$m	0	0	161	161	161	161	161	5,952
Total wages of 2007 NCs	\$m	0	0	0	162	162	162	162	5,990
Total wages of 2008 NCs	\$m	0	0	0	0	162	162	162	6,030
Total wages of NCs	\$m	160	321	482	643	918	1030	1030	29,654
Outcomes for 50% of NCs pre-commitment									
Half of all NCs	No.	9,724	9,760	9,796	9,833	9,869	na	Na	na
In labour force (b)	No.	8,270	7,297	7,324	7,351	7,369	na	Na	na
Unemployed (c)	No.	1,593	1,599	1,605	1,611	1,616	na	na	na
Employed	No.	5,677	5,698	5,719	5,741	5,762	na	na	na
Cumulative total employed	No.	5,677	11,376	17,095	22,836	28,598	28,598	28,598	0
Wages of 2004 NCs	\$m	80	80	80	80	136	136	136	2,884
Wages of 2005 NCs	\$m	0	80	80	80	80	136	136	2,957
Wages of 2006 NCs	\$m	0	0	81	81	81	81	81	2,976
Wages of 2007 NCs	\$m	0	0	0	81	81	81	81	2,995
Wages of 2008 NCs	\$m	0	0	0	0	81	81	81	3,015
Total wages	\$m	80	160	241	322	459	515	515	14,827
Outcomes with 50% commitment take-up									
Employment of 2004 NCs	No.	3889	3889	6612	6612	6612	6612	6612	
Employment of 2005 NCs	No.		3904	3904	6637	6637	6637	6637	
Employment of 2006 NCs	No.			3918	3918	6661	6661	6661	
Employment of 2007 NCs	No.				3933	3933	6686	6686	
Employment of 2008 NCs	No.					3948	3948	6711	
Cumulative total employed	No.	3,889	7,793	14,435	21,100	27,791	30,544	33,307	
Wages of 2004 NCs	\$m	34	34	59	101	164	164	164	3,326

Wages of 2005 NCs	\$m		34	34	101	101	164	164	3,321
Wages of 2006 NCs	\$m			34	34	101	101	165	3,353
Wages of 2007 NCs	\$m				34	34	101	102	3,386
Wages of 2008 NCs	\$m					34	34	102	3,420
Total wages	\$m	34	68	128	270	435	566	697	16,716
Net outcomes of 50% entitlement take up									
Employed	No.	-1,788	-3,582	-2,660	-1,735	-807	1,946	4,710	
Total wages	\$m	-46	-92	-113	-51	-24	51	182	1889

Notes

(a) Early school leavers in previous year who would obtain entitlement. E.g. non-completers in 2004 are the early leavers who in 2003 who do not enter into further education.

(b) In year after leaving school, 77 per cent of male early leavers enter the labour force.

(c) In year after leaving school, 23 per cent of male early leavers in the labour force are unemployed.

8 Cost-benefit Results of the Commitment for a Five-Year Cohort

This chapter provides cost-benefit results for a five-year cohort. It is based on the estimated costs and benefits in the last two chapters and also includes estimates of the benefits of education and training to employers and to society. The estimated net benefit is high and, providing that the program can be achieved, the results are not sensitive to plausible changes in assumptions. The last part of the chapter describes the main distributional impacts.

8.1 Cost-Benefit Results

The results of the cost-benefit analysis for the five-year cohort are shown in Table 8.1. The costs, as estimated in Chapter 6, are broken down into education and training, apprenticeships and traineeships, management and pathway programs, and the direct private costs of education and training (books, travel etc.). Incomes foregone are modelled with the changes in earnings.

When the scheme is in full operation from 2006 to 2008, costs total about \$650 million per annum, of which government would outlay about \$570 million and students \$80 million. This assumes a 50 per cent take up rate of the education on offer with all those doing so full time.

The benefits in this evaluation include the net earnings of students plus benefits to employers and to society as a whole, less the value of displaced output. Net earnings were estimated in Chapter 7. The aggregate estimate of net earnings includes earnings foregone while studying. These foregone earnings total about 360 million a year when the scheme is in full operation.

Table 8.1 Economic evaluation of further education for the 2003 to 2007 cohort (\$m, 2002 prices)

	2004	2005	2006	2007	2008	2009	2010	Present value in 2001 of incomes from 2011 to 2050
Costs of commitment								
Education and training	240	396	453	456	457	214	57	
Apprenticeships and traineeships	21	35	40	40	41	19	5	
Management and pathways	43	61	80	81	81	38	10	
Private student costs	40	66	76	76	76	36	9	
Total cost	344	558	649	653	655	307	81	
Benefits of commitment								
Net earnings of students (a)	-181	-367	-362	-274	-156	150	513	13,578
Benefits to employers	0	0	0	0	0	22	77	2,037
Social benefits (b)	0	0	0	0	0	30	102	2,715
Less displaced output	0	0	0	0	0	-15	-51	-1,358
Total benefit (b)	-181	-367	-362	-274	-156	187	641	16,972
Net benefit (c)	-525	-925	-1011	-927	-811	-120	560	16,972
NPV @ 5 per cent	8,183							
NPV @ 7 per cent (d)	4,575							

2. Notes

(a) Increase in earnings less earnings foregone during study.

(b) See text for explanation.

(c) Net benefit equals total benefit less total cost.

(d) Discounts all figures in table by 7 per cent, including benefits from 2011 to 2050.

Employers will almost certainly gain from the improved productivity of workers. Employees receive the full value of their marginal product only in a perfectly competitive economy. In a major study of the gains of training to employers, Dearden et al. (2000) estimate that increased wages account for less than

half of the effects of training on industrial productivity. Raising the proportion of workers trained in an industry by five percentage points increased the estimated value added per worker by 4 per cent and wages per worker by 1.6 per cent. In the absence of evidence related to the program under evaluation here, we make the conservative assumption that employers will receive a return on education in the form of increased profit equivalent to 15 per cent of the gain in wages.

Evidence is accumulating that education contributes to the social capital (or social relations) of a society and that this in turn has many positive welfare and economic impacts. OECD (2001a) and Wolfe and Haveman (2001) report that an increase in schooling achievements:

- Raises the schooling received by one's children;
- Improves one's own health status;
- Improves the health status of one's family members;
- Raises the efficiency of one's consumer choices;
- Reduces crime (see also Chapman et al. 2001, for Australia);
- Generally increases social interactions and contributions to the community.

Wolfe and Haveman (1984) suggest that the non-market benefits of one more year of schooling may be of the same order of magnitude as estimates of the earnings-based effects. In this study we make the conservative assumption that the non-market social benefits of the type listed above will equal only 20 per cent of the estimated increase in market earnings.⁵

On the other hand, following the discussion on possible displacement of output of existing workers in Chapter 4, the evaluation here allows that displaced output will equal 10 per cent of the estimated increase in labour earnings.

Accounting for all these benefits and costs from 2004 to 2050, the estimated net present value of the proposed programs is \$8.2 billion with a 5 per cent discount rate and \$4.6 billion with a 7 per cent discount rate.

Given that this evaluation covers a five-year cohort, the results are consistent with those estimated for a simple one-year model. The estimated net value was \$1.0 billion per annum for the simple model (see Section 5.5). Here we find an annual equivalent of between \$0.9 billion and \$1.6 billion. These latter figures include some additional benefits to employers and society, but also some displacement effects and AT costs, as well as many other small differences between the two models, for example differential participation and employment as a function of extra education.

8.2 Robustness of Results

The results are robust. The benefits are several times the costs. Also, there is little uncertainty about the costs. With a 5 per cent discount rate, the ratio of discounted benefits to discounted costs is 3.2:1. With a 7 per cent discount rate, the benefit-cost ratio falls to 2.3:1. This means that even if the benefits were half those estimated, which is not very plausible, the program would still generate a positive net present value and a benefit-cost ratio greater than one.

Factors that could reduce the net benefit would be lower earnings (or output) gains for new students achieving year 12 equivalent, higher costs of education for disadvantaged or remote students, and low returns to partial course completion. The evaluation assumes that all students participating in further education will complete. This is not realistic. The implicit assumption is that the costs and benefits of

⁵ Several commentators on the draft report considered that this underestimated the social contributions of more secondary education.

partial completion would be proportionate to full completion, eg. the cost and benefit of one extra year's education will be half the cost and benefit of two years. There is some evidence that educational returns are proportional to length of education (see Card, 1999). However, if this does not hold, and it may not for some participants who do not engage seriously in the program, the net benefits will be over-estimated.

On the other hand, it is arguable that the social benefits are underestimated, that some AT expenses are not resource costs, and that the marginal cost of training more people to Year 12 is below average cost, even allowing for disadvantaged students.

Another important issue is whether the transition incentives (pathway programs and apprenticeships and traineeships) will achieve a 50 per cent take up of further education by current non-completers, especially by those who cannot afford the foregone income. If the incentives are not sufficient, transition program expenditures can be increased without risking the basic benefit-cost equation. Alternatively, the program may be phased in. The recommended program in Chapter 10 is a phased strategy, which allows for evaluation of transition programs.

8.3 Distribution of Costs and Benefits

As shown in Table 8.1, the main direct beneficiaries of the program are student participants, employers, and general members of society. The present value of student benefits is sensitive to their personal discount rate and to their eligibility for Youth Allowance, as many students bear significant costs before they achieve their gains and, from an individual perspective, the gains are not certain. They will also be taxed on their gains. Employers may also have to share some of their gains with consumers, as a result of industrial competition, and with government via increased taxes.

Government bears a large part of the program costs initially. On an undiscounted basis, government would pay \$2.8 billion for the programs shown in Table 8.1 and lose some tax on foregone earnings. However, if by way of income tax and GST government receives 25 per cent of the increased earnings of students and businesses, it would receive back about 3.5 billion in present values in 2011. This should ensure that total government receipts approximate outlays in present value terms in 2002.⁶ In addition, the Commonwealth government will save an estimated \$8000 per annum in unemployment benefits for 10,000 to 12,000 persons from year 6 onward, which is a total savings of \$80 million or more per annum.

As noted, existing low skilled workers may suffer lower wages or employment from increased competition in the long run (though not initially).

9 Labour Market and Related Programs

Australia's commitment to youth is unlikely to be met entirely through education programs. This chapter provides a qualitative review of the main labour market programs that may complement the education programs. The proposed programs build on and add value to current initiatives such as the Youth Allowance and Work for the Dole.

9.1 Introduction to Labour Market and Related Programs

⁶ In Chapter 10, the report considers the impact of the proposed phase program on the Commonwealth and State governments separately.

The evaluation of the education programs in Chapters 6 to 8 included major transition programs designed to encourage participation in further education and training to year 12 equivalent level, including job pathway programs (JPP) and apprenticeship and training (AT) programs. The JPP and AT programs are part of a total strategy to achieve year 12 equivalent qualifications, which is justified in aggregate on cost-benefit terms. Some micro evidence on the return to vocational education was cited above. For completeness, brief comments on the effectiveness of JPP and AT programs are provided below.

This chapter then discusses major labour market programs that were not included in the evaluation of a year 12 equivalent education. These include:

- Job search assistance and placement programs
- Special youth training and employment programs
- Direct job creation
- Work for the dole
- Youth employment subsidies

The evaluation literature on labour market programs is large. This report does not provide a comprehensive assessment of these programs, but rather suggests how these programs may contribute individually and collectively to a national commitment to provide youth with short and long run employment prospects.

Nor does this report review regulations of youth labour markets. Some regulations, for example minimum wage regulations or retrenchment provisions, may deter youth employment. Conversely, exempting young persons from payroll taxes may encourage youth employment (though possibly at the expense of other workers). Clearly labour market programs should be implemented within a regulatory framework that encourages, or at least does not discourage, employment of young workers. However, the regulation of youth employment markets raises issues that are outside the scope of this report.

9.2 Safety Nets and Job Pathway Programs

Most countries have safety net programs that aim to identify recent school leavers who have left education with few qualifications and are inactive in the labour market. These agencies often expand into related areas, including identifying school students with difficulties, counselling services, encouraging students to undertake more education or training courses, assisting with job finding and so on. Examples of wide- ranging safety net programs are Youthreach in Ireland and TRACE in France, both of which provide multiple services to young persons in the education to work transition. OECD (2002) remarks that, for people who do not register with official employment agencies, these programs are an important complement to conventional transition programs and have achieved some success for the under 20's.

In Australia, the Youth Allowance helps young people who are studying, training looking for work or sick. It encourages the development of agreements as a way to increase participation and emphasises mutual obligation.

The Job Pathway Programs also help 15 to 19 years olds to transition from school to work, and the Job Placement, Employment and Training Program provides assistance to 15 to 21 year olds who are at risk of homelessness and ex-offenders. JPP providers may assist almost any young person who has difficulties with the education to work transition. Assistance can include literacy/numeracy assessment, counselling, referral to pre-vocational training, and advice on apprenticeships and jobs. Outcomes may be more schooling as well as capacity to compete in the labour market and employment.

Kellock (with Bruce, 2000) found that JPP is an important model for helping young people because it combines preventive services delivered within schools with a case management safety net services once students have left school, whereas most other services focus either on school or on post-school experience. However the success of a JPP provider depends on its development of a good relationship with local schools.

Currently the Commonwealth budget for JPP is about \$25 million. This provides services to some 80,000 young persons annually from over 1600 schools across Australia, which averages about \$300 per person served, though there is much variation. In our evaluation of the youth commitment in Chapters 5 to 8 and in our proposals below, we allow a considerably larger allocation (\$1600) per student counselled into year 12 equivalent education and training. This appears a more realistic budget to raise year 12 equivalent completion to 90 per cent of students.

9.3 Apprenticeships and Traineeships

OECD (2000) documents a sizeable body of evidence to show that an extensive and relevant apprenticeship system is associated with good transition outcomes.

In Australia, about 360,000 individuals hold apprenticeships or traineeships, of which half are under 20 years of age. Apprenticeships typically involve off-the-job training for a day a week for 3-4 years duration. Traineeships typically involve two days a week off the job for 1-2 years. Commonwealth incentive payments to employers vary, but total \$4,400 for a standard full-length apprenticeship. This works out at 6-7 per cent of a typical apprentice wage.

NCVER (2001a, 2001b) reports excellent employment outcomes for individuals who complete an apprenticeship or traineeship. Over 90 per cent of New Apprentices who successfully completed the off-the-job component in 1999 were in employment in May 2000. Ninety-three per cent of those who completed a New Apprenticeship in 2000 were in an unsubsidised job three months later. These data led OECD (2001d) to conclude that overall the 'New Apprenticeships have been extremely successful in bringing state-supervised forms of employment-based training into a wider range of industries and non-trade occupations – ranging from labourers to managers and professionals – where it was previously very largely absent'.

On the other hand, Toner (2002) reports that a high proportion of traineeships is in low-skill areas (elementary clerical, sales and services, and labouring). Firms may engage trainees principally to obtain the subsidy and this may represent subsidised employment rather than training. Drop out rates for some of the newer and shorter traineeships have been high, due to trainee dissatisfaction with low wages, training content and workplace relations. Less than three in five people who start traineeships complete them. This may indicate a need to increase the training subsidies as well as to improve training content.

9.4 Job Search Assistance and Placement Programs

Job search assistance comprises many services, including initial interviews and assessment, in-depth counselling, assistance with job searches, training in job search techniques, and possibly intensive assistance. In Australia, job placement programs include Centrelink's job seeker assessment (using the Job Seeker Classification Instrument) and the three main services of Job Network (Job Matching, Job Search Training and Intensive Assistance). The OECD (2001d) estimates that Centrelink, DEWR and JN providers employ a total of about 16 000 staff in these services. In the JN program, over 200 providers offer services from over 2000 sites in Australia.

Martin and Grubb (2001) report that job assistance schemes are generally cost-effective. They are one of the least cost active labour market programs. Evaluations of social experiments in several countries (Canada, Sweden, the United Kingdom and the United States) show positive outcomes for job assistance schemes. For example, Meyer (1995) found that job search schemes in the U.S. shortened unemployment times and increased earnings. On the other hand, Van den Berg and Van der Klaauw (2001) found no significant impact of such programs in the Netherlands.

Martin and Grubb conclude that overall investment in active placement efforts is worthwhile in terms of getting people into, or back into, the workforce. However, job placement services should combine with monitoring of the job-search behaviour of the unemployed and enforcement of work tests.

In Australia, surveys indicate that most surveyed clients in the three main JN services were satisfied with the services they received (OECD 2001d). Most job matching and job search training clients considered that the JN provider had improved their job prospects. Employers also assessed the JN network favourably. However, OECD (2001d) reports that employment outcomes under the JN program are similar to those under Working Nation (see Table 9.1 for job search assistance outcomes under Working Nation) or the average of other OECD countries. The Productivity Commission (2002) also notes that the net employment effects of JN appear small, but that JN is less expensive than comparable Working Nation programs.

Table 9.1 Estimated impacts of Working Nation labour market programs (%)^a

Program	Net unit cost (\$)	Net impact				
		1995/1	1995/2	1996/1	1996/2	1997
Wage subsidy	1,263	11.8	-0.3	38.3	42.8	44.3
Job creation	7105-10000	8.5	13.6	15.3	13.7	19.0
Training	970-1170	3.7	1.3	2.9	3.6	1.4
Job search	625	8.7	1.4	4.5	7.7	8.0

(a) Percent increase in unassisted employment 3 months after exit from program, cf. control group. Source: Stromback and Dockery, 2000.

In summary, many studies have found that job assistance programs, such as the JN program, are an effective instrument as part of a package of programs to meet a country's commitment to young people as well as to all unemployed people. On the other hand, compared with other OECD countries, the resources employed in Australian job placement systems are high relative to both the numbers unemployed and to other types of labour market spending (OECD, 2001c). This may indicate that the policy emphasis should be on improving the current JN system within current resource levels rather than increasing the resource commitment.

9.5 Special Youth Training and Employment Programs

Most OECD countries run special training and employment programs targeted to young persons at risk and unemployed (see strategy 5 in Table 3.1 above). The aim is to provide pre-vocational and employability skills for those who cannot graduate through normal school or vocational pathways without extra assistance. In Australia, the Commonwealth's Job Placement, Employment and Training (JPET) Scheme and Literacy and Numeracy Training (LANT) programs are examples of these programs.

Unfortunately the evaluation literature on these programs is not very positive. After a major review of U.S. and European studies, Heckman et al (1999) concluded that there was little evidence that such programs had a positive effect on youth employment, especially for more disadvantaged youth, in either the United States or Europe. Larsson (2000) reached similar conclusions for Sweden.

From a review of the evidence, Martin and Grubb (2001) conclude that early and sustained interventions are critical for disadvantaged youths. They argue that labour market training courses have little benefit for young people who leave the schooling system without qualifications and an adequate grounding in reading, writing and numeracy. They also note that training programs often fail because of poor attitudes to work amongst disadvantaged youth. Mentoring is therefore an essential adjunct to training. Also, to be effective, training programs need to be integrated with occupational skills and work-based learning.

It is not clear whether Australian training schemes for disadvantaged youth, such as JPET and LANT, have similar weak outcomes as overseas programs. The OECD (2001c) reports an unpublished 1995 review of JPET which concluded that the scheme was successful because it was both holistic and flexible. However, the DEST website does not contain any public evaluation of JPET. OECD (2001c) also reports that the voluntary take up rate and the completion rate in LANT programs are low. A review of Working Nation training programs by Stromberg and Dockery (2000) also suggests training programs have a small net impact on employment (see Table 9.1)

In summary, special training programs appear to have only modest economic return. However, on social grounds government must surely commit significant training resources to try to alleviate the educational limitations of severely disadvantaged youth and the social consequences. To be even part successful, work experience and real employment prospects should complement these programs.

9.6 Direct Job Creation

Spending on direct public sector job creation typically accounts for about 15 per cent of spending on active labour market measures in OECD countries. The proportion is often higher in Scandinavian countries with a commitment to a high level of youth employment. France and Germany also have large public sector schemes (OECD, 2002). Publicly funded jobs directly create jobs, but are expensive.

In Australia, job creation was a large part of active labour market programs in the mid-1990s under Working Nation. In 1995/96, the Commonwealth Government spent \$1.1 billion on direct job creation for general all-age employment. This included \$273 million on JobSkills (which combined work experience with job training), \$498 million for New Work Opportunities (mainly in the environmental, age care and community sectors), and \$310 million for measures for indigenous Australians. The Government also spent \$89 million on the Landcare and Environmental Action Program, which provided jobs for youth aged 15 to 20 years, mainly on community and local government organisations. However the Coalition Government stopped job creation programs except measures to support indigenous Australians, though it has introduced a close substitute (Work for the Dole – see below).

International reviews of job creation schemes have not been very favourable. According to Martin and Grubb (2002), most studies converge on the conclusion that ‘this measure has been of little success in helping unemployed people get permanent jobs in the open labour market’. Job creation schemes usually have low productivity and often do not create marketable skills. Carling and Larsson (2002) conclude that short-term employment jobs in Sweden did not significantly improve an individual’s labour market prospects in the following 18 months.

On the other hand, job creation schemes under Working Nation appear to have been quite effective in employment generation (see Table 9.1). An estimated 30 per cent of participants were in unassisted employment 3 months after exit from the job creation program compared with 15 per cent of the control group (Stromback and Dockery, 2000). The positive net impact was 15 per cent after a year. Also the displacement effects are lower than with job subsidies (Piggott and Chapman, 1995). However, the net unit cost (the gross cost less the reduction in income support payments) of \$7000 to \$10,000 per job was quite high.

In conclusion, many OECD countries use public sector job generation programs to help the more disadvantaged unemployed and as a work test for unemployment. This helps to create jobs directly. Such programs may help to generate a work-oriented attitude. However, they tend to be low productivity and learning jobs. Most commentators conclude that this strategy should be used for particular purposes rather than as a general solution to youth or general unemployment

9.7 Work for the Dole

Work for the Dole (WfD) is in some ways similar to public job creation, but with additional elements of compulsion. The main stated objectives of WfD are to develop generic work skills and habits, to involve the local community in projects that assist the unemployed, and to provide those communities with activities of value to them. Training is not a formal objective. One reason is that persons on WfD may leave at any time, and indeed are encouraged to leave, to take up other work.

In these circumstances, it would be unrealistic to expect better outcomes than for job generation schemes with a higher voluntary component. There is considerable anecdotal evidence that people take many actions to avoid WfD (OECD, 2001c). Given the lack of medium term employment aim and lack of training, WfD might be expected to have poor employment outcomes. In financial year 2000/01, of the 39,000 exits from WfD, over 20 per cent were later provided with intensive assistance through JN.

DEWR has reported more optimistic outcomes. DEWR (1999) found that 85 per cent of participants surveyed three months after WfD said that it had increased their desire to find a job. And, following a survey of 2100 WfD participants with a matched comparison group, DEWR (2000) found that WfD participants were significantly more likely to leave income support than similar job seekers. The WfD off-benefit outcome was 30 per cent for WfD participants compared with 17 per cent for the control group, with most of these 30 per cent leaving benefits for a job or education and training. The study also found that job seekers who were referred to WfD but who did not commence a placement achieved similar outcome levels to those who participated in a project.

However, the OECD (2001c) suggests that the inference that WfD encourages work is invalid. When the comparison is applied to programs from which people can exit at any time (as is encouraged by the design of WfD) a positive net impact may be reported for a program that does not positively influence outcomes at all. The OECD argues that conclusions on the employment impacts of WfD need to be based on longer tracking periods than three months.

9.8 Youth Employment Subsidies

Employment subsidies, usually paid to the employer, currently account for about 15 per cent of total spending on active labour market measures in OECD countries, compared with just over 5 per cent in 1985 (Martin and Grubb, 2001). Several hundred thousands of young people are employed with youth subsidies in Canada, Germany, France, Italy and Spain (OECD, 2002).

Several studies have found that subsidies have produced positive results for youth employment at economic rates. Denny et al (2000) reports that employer wage subsidies produced positive results for youth in Ireland. Van Reenan (2001) reports that the employer wage subsidy, together with enhanced job search, resulted in significant outflows of young males to employment in the United Kingdom. Gerfin and Lechner (2000) and Carling and Richardson (2001) found that subsidised employment increased employment in Switzerland and Sweden respectively.

Subsidies may also be paid as bonuses to unemployed youth that take up employment. Meyer (1995) found that payment of cash bonuses to individuals on unemployment benefits encouraged an earlier

entry or re-entry into the workforce, but that the savings in unemployment insurance were slightly less than the bonuses.

However, most evaluations have also found that subsidies to private sector employment create both large deadweight costs and substitution effects. A deadweight cost occurs when the marginal payment per hour to an employee exceeds the value of her marginal product and it would be more efficient to employ someone else with a higher level of productivity for the same wage. A substitution effect occurs when a subsidised worker simply substitutes for an existing worker. Evaluations in Belgium, Ireland and the Netherlands have found that for every 100 jobs subsidised only ten were net gains in employment (Martin and Grubb, 2001).

Strombeck and Dockery (2000) estimate that the wage subsidy program (Job Start) in Working Nation had a high net job impact at a low cost per job created (see Table 9.1). An estimated 60 per cent of participants in wage subsidy programs were in unassisted employment three months after leaving the program compared with under 20 per cent in the control group. However, the OECD (2001c) notes that the results may be biased because in the period subject to the evaluation employers were required to retain the employee for at least three months after the end of the subsidy period. Also they received a further small subsidy a year after the JobStart commencement.

In summary, wage subsidies appear to encourage the employment of individuals who would find it difficult to obtain work. However, these subsidies often determine who is employed rather than how many people are employed. They lead to high levels of substitution and the net employment gain is low. It may be possible to raise the size of the net employment gains by targeting the subsidy at particular groups among the unemployed and making it less broadly available. The Productivity Commission (2002) concludes a generally cautious review of wage subsidies with the observations that more needs to be known about their likely effects before they are implemented and that, if such a program were implemented, an effective evaluation program should be incorporated into its design.

9.9 Conclusions

To implement a commitment to jobs for most young people, including most early school leavers, a package of active labour market programs is required. No one labour market program is likely to provide jobs for all early school leavers. Thus, even if some labour market programs are more expensive per job created than others, costing \$10,000 or more per job created, it may still be necessary to employ that scheme for some people.

Apprenticeship schemes have been the basis of successful education to employment transitions in several countries, such as Germany and Austria. Also labour market outcomes for individuals who complete apprenticeships in Australia are generally good. However, even in Germany and Austria, they are not suitable for all young people and should not be seen as the only pathway.

The evaluation literature indicates high returns to job-search assistance programs. These include individual assessments, advising and counselling, job matching, monitoring of job vacancies and individual outcomes, and in some cases intensive assistance. However, Australia has a high resource commitment in this area and more resources here may not be warranted.

Special purpose training programs may assist specific groups of young people. They need to be well targeted and should be combined as much as possible with work experience and on-the-job training.

Direct job creation in the public sector is generally necessary to provide employment for some young people who find it difficult to get jobs in the market place. However, because of the short-term nature and lack of training of most such jobs, public sector job creation should generally be targeted to those who have few alternatives.

Wage subsidies tend to create large substitution effects, but can produce net employment gains. In order to maximise the net employment gain, the subsidies should be targeted and monitored and generally of short duration.

Finally, such programs should be administered within a complementary regulatory labour market framework that encourages, or at least does not discourage, employment of young workers.

10 Proposed Education and Labour Market Programs

Chapter 10 outlines proposed phased education and labour market programs to meet the national commitment to young people. Program costs rise from an estimated \$159 million in 2004 to \$765 million in 2008, with the Commonwealth bearing about 60 per cent of the cost and the States the rest. However government will recoup most if not all costs in the form of increased income tax and GST revenues and lower unemployment benefits.

10.1 Meeting the Youth Commitment

A commitment to youth education and employment has to address multiple issues and embrace a variety of possible solutions. But even among early school leavers, who are the main subject of this report, there are multiple target groups, issues and solutions. Early school leavers include:

- Teenagers who would be willing to take up further education or training in a formal setting and who would benefit from it.
- Teenagers who actively prefer to seek employment and related training skills, but who are not very interested in formal education.
- Teenagers who are highly resistant to any further formal education or training and who may have developed negative attitudes towards employment and to society.
- Teenagers who have left school early without developing basic year 10 skills in reading, writing and numeracy.
- Teenagers with a physical or mental handicap

The appropriate policy response may differ in each case. A teenager in the first group may be well advised and willing to stay in school or to take up a TAFE course, perhaps with part-time employment. In the second and third groups, the best strategy may be full time employment along with relevant in-work and out-of-work training courses, but not necessarily full year 12 certificates. Academic solutions are not always the most appropriate way to develop the skills necessary for a particular career, such as some craft or manual activities. Indeed, academic pressure can be counter-productive. Teenagers with more negative attitudes require greater support and encouragement and employers may need inducements to employ them. Teenagers lacking basic education skills require special education and training courses. Handicapped persons may also need quite different interventions.

As the OECD (2000) observed in *Making Transitions Work*, successful transition programs have two main features—a high use of apprenticeships and *a wide variety of pathways*. This report builds on this observation. Indicators of unsatisfactory transition outcomes are higher in countries that rely heavily on

general education school programs. A full transition strategy would be based on a more detailed classification of target groups and issues than is presented here.

This report has estimated the costs and benefits of providing year 12 equivalent education and training to half of all young people who do not complete year 12. This means in effect increasing the completion rate for year 12 equivalent education from about 75 per cent of young persons to nearly 90 per cent. The major public costs involved are additional pathway planning costs and extra apprenticeships and traineeships that encourage young people to participate in education and the provision of the school and vocational courses. To fulfil a commitment to all youth, extra labour market programs would provide access to employment to other non-year 12 completers who cannot find employment through normal market processes.

Participation in further education or training would be voluntary. A coerced obligation is less productive. This does not rule out fiscal incentives or penalties. However, it is essential that people who leave school at age 16 are not cut off from educational support. On the other hand, the provision of educational and training resources to students should be conditional on their commitment to study or a measure of satisfactory progress in their study. In essence, all students would be entitled to access to resources equivalent to a year 12 education, subject to some educational quality control and commitment to study.

Extra resources, possibly in the form of special training courses, are required for severely disadvantaged persons. This resource commitment may provide a formal net benefit to resource use, but is essentially a social justice issue rather than an efficiency issue. This study has not attempted to define the nature of severe disadvantage or to determine the number of severely disadvantaged students, their educational standards, or their educational needs. When, as is often the case, severely disadvantaged students fail to reach year 10 literacy and numeracy standards, the policy issue is how to provide adequate schooling to year 10 rather than how to provide a year 12 entitlement.

Evidently, the diversity of issues and solutions complicates implementation of a youth commitment. The appropriate method of implementation may vary with the group to be assisted and the policy response. For example a school-based service may be appropriate for the first group of teenagers but not for the second and third groups. New apprenticeship centres help to provide guidance and support for the second group and sometimes for the third. Job pathways programs may assist individuals in the second and third groups but not have the specialist skills to deal with the fourth and fifth groups.

Likewise, a variety of labour market programs will be required to meet the employment commitment. This is the case in most developed countries, where a suite of employment policies is used.

10.2 Phasing and Costing the Commitment

In order to provide for the youth commitment, this report proposes that the programs be phased in over a five-year period. The aim would be to serve one-fifth of the target population in 2004 and an additional 20 per cent of the target population in each succeeding year so that the commitment was met fully in 2008.

A phased approach will facilitate program planning, development and evaluation. Given the inevitable uncertainty of outcomes from job pathway programs, apprenticeships, labour market schemes, or any other transition schemes, phasing allows for evaluations to be developed concurrently with programs and for programs to be reviewed regularly. Second, phasing facilitates program financing.

As has been noted, over 50,000 young people in each cohort fail to complete year 12 equivalent education each year. Given that the average schooling shortfall per student is about two years, full

resourcing of the youth commitment would provide for at least an extra 100,000 student years in any calendar year.

Our costing assumes that half of the non-completing students will take further education and training courses, mainly vocational, which would last for an average of two full time year equivalents. The evaluation also allows that 40 per cent of these students would receive apprenticeships and traineeships. This would increase apprenticeships and traineeships for young persons by 20,000 in 2008, which would be a modest 20 per cent increase.

However, not all the remaining non-completing students would require labour market assistance. Some find employment through commercial channels. As discussed in Chapter 2, it appears that about 40,000 young persons in each cohort find employment difficult to achieve. Therefore, our estimates in Table 10.1 allow for labour market programs, mainly employer subsidies or job creation as well as special training courses, to be made available to 80 per cent of the remaining non-completing students.

All the proposed programs would be phased in over five years, starting with 20 per cent coverage and finishing with 100 per cent coverage at the end of five years

The cost parameters are \$9000 per education or training year, \$2000 per apprenticeship or traineeship for a full-time year, and \$1600 for pathway planning per student. Although the marginal cost of a school or TAFE place may be lower than the average cost, especially with a phased program, some programs for disadvantaged young may be more expensive. The figure for pathway planning allows \$80,000 per pathway planner inclusive of overheads and 50 students per planner. This compares with 100-200 unemployed persons per caseworker under Working Nation. These cost figures are set high in order to attract young people into some form of education and training. They are also broadly consistent with the 40:1 participant to planner ratio in successful Swedish JPP programs (Piggott and Chapman, 1995).

The costs of labour market programs vary from \$1000 up to \$10000 per participant year. We allow \$5000 per participant per year. Given that this is assumed to be available for two years, it is worth \$10,000 per participant, which is at the higher end of the usual range of labour market subsidies per person. Equivalently, in any year, members of two cohorts would be entitled to access the \$5000 labour market subsidy.

In addition, \$5 million per year is allowed for an Office of Education to Employment Transition. Chapter 11 discusses the rationale and role of this Office.

The estimated costs of the phased program to meet the national youth commitment are shown by calendar year in Table 10.1. Education and training costs start at \$114 million in 2004 and rise to \$560 million in 2008, inclusive of apprenticeships and traineeships and pathway planning.

The cost of extra labour market programs for early school leavers at risk would rise from \$40 million in 2004 to \$200 million in 2008.

Table 10.1 Costs to Government of proposed youth commitment programs, in 2002 \$s (a)

	Unit	2004	2005	2006	2007	2008
Early school leavers at risk	No.	50000	50000	50000	50000	50000
Early school leavers: program targets	No.	20000	40000	60000	80000	100000
Education/training programs						
Participants in education programs	No.	10000	20000	30000	40000	50000
Education and training costs	\$m	90	180	270	360	440
Apprenticeships and traineeships	\$m	8	16	24	32	40
Pathway planning costs	\$m	16	32	48	64	80
Total government costs	\$m	114	228	342	456	560

Labour market programs						
Participants in labour programs	No.	8000	16000	24000	32000	40000
Costs of extra labour market programs ^b	\$m	40	80	120	160	200
Office of Education to Employment	\$m	5	5	5	5	5
Total cost of proposed programs	\$m	159	313	467	611	765

(a) All programs and costs in this table are additional to current programs and costs.

(b) Mainly job subsidies and job creation schemes, plus some special training schemes.

Total program cost would rise from \$159 million in 2004 to \$765 million in 2008. Of this, slightly over half would be spent on education and training. Excluding education and training expenses, new expenses amount to \$325 million per annum in 2008. This would represent only about a one-third increase on the current level of Commonwealth and state expenditures on youth transition programs (see Chapter 3).

10.3 Funding the Commitment

The proposed programs could be funded in various ways: by revenue raising measures, by increased efficiencies in the education and training system, by reduction in other expenditure programs, or possibly through current ANTA growth funding. Here the report considers briefly some implications for the Commonwealth and States.

The Commonwealth and the States are both actively involved in transition programs (see Chapter 3 and Annex A). The Commonwealth provides a quarter of the public funds for vocational and educational training. It is also responsible for most labour market programs, including job pathway programs, apprenticeships and traineeships. The States and Territories are responsible for most school education, about 75 per cent of vocational training for young persons, and for various youth-related education and employment initiatives.

Under current funding arrangements, the States would be responsible for about 75 per cent of the extra education and vocational training costs shown in Table 10.1 and the Commonwealth would be responsible for most of the other costs. This would mean that the States would fund about 40 per cent of the total program cost and the Commonwealth would fund 60 per cent.

The breakdown of new expenditure between Commonwealth and State will depend in part on the level of current State expenditure on youth transition programs and the size of the transition problem in each state. States with low transition expenditures and high non-completion rates may face higher expenditures than States with already high transition expenditures and lower non-completion rates

The potential for cost shifting under the scheme is high. Whereas the States would be responsible for extra school students, the Commonwealth and States would share funding of TAFE programs, and the Commonwealth would be mainly responsible for the labour market programs. Some formalisation of responsibilities would be required to reduce cost shifting activities.

10.4 Benefit-Cost Outcomes

As shown in Chapter 8, a full five-year set of the proposed education and training programs produces a benefit-cost ratio of 3.2:1 with a discount rate of 5 per cent and a benefit-cost ratio of 2.3:1 with a discount rate of 7 per cent. Although this report has not formally evaluated the program as phased, the

proposed phased in education-related programs would achieve similar cost-benefit ratios and a significant net social benefit.

Chapter 8 also showed that providing government recoups only 25 per cent of the increased earnings of students and firms, that it will break-even in the long run on its financial outlay and taxes lost on foregone earnings. In addition a full five-year program would increase employment by an estimated 18,000 people, including increased workforce participation, and save about \$80 million per annum on unemployment benefits.

The report has not formally evaluated the full social benefits and costs of labour market programs. Piggott and Chapman (1995) show that, under neutral assumptions about the effectiveness of labour market programs and the likely displacement effects, there is a fair chance that the return to government would be positive with the present value of projected fiscal savings will exceed the present value of program outlays.

11 Management of the Youth Commitment

In this chapter we recommend that the Commonwealth and States adopt a Framework Agreement as the basis for a national commitment to youth. The proposed programs would be implemented in the first instance by the government agencies currently responsible for them. Local agencies for Job Pathway Programs would be given increased responsibility and funding for delivery of youth transition programs. An Office of Education to Employment Transition would be established with responsibility for overseeing the Commonwealth-State Framework Agreement.

11.1 Managing the Youth Commitment: General Recommendations

Many agencies provide youth transition programs. At Commonwealth level, FACS, DEST and DEWR provide education to employment transition services.

In FACS, Centrelink is the principal service delivery agency. Centrelink's 400 plus agencies are the initial point of contact for jobseekers to access federally funded services. The agencies assess job seekers and determine their eligibility for Job Network services.

DEST funds vocational education and training, runs the New Apprenticeship Centres, and provides various programs to assist school to work transitions, including numeracy and literacy programs. Government-financed New Apprenticeship Centres administer the incentive payments, market the program locally to employers and advise and assist with all stages in process of hiring an apprentice. DEST is also responsible for some counselling in schools, the Job Pathways Program and the Job Placement and Employment Program.

DEWR runs the Job Network. JN consists of over 200 providers trying to attract job seekers to their services at over 2000 sites throughout Australia. Altogether, DEWR, Centrelink and JN providers employ over 16000 staff providing employment services. These staffers have a wide variety of experience and skills, including industrial psychologists and recruitment consultants.

Within some States, separate educational and employment agencies also provide education to work transition programs. State educational agencies are traditionally large and often have separate Schools and Adult and Community Education Divisions. The States also have constitutional control over the regulation of apprenticeships.

In some States, local employment networks have been established. For example, in Victoria, Local Learning and Employment Networks have been established to promote transitions.

How then should the proposed additional youth commitment programs be implemented? This report proposes a threefold basis.

- Most programs should be implemented by the existing agencies responsible for them on an incremental basis. DEST and State educational agencies would be responsible for the educational and training programs. DEST and the relevant State agencies would be responsible for the additional apprenticeship programs through the New Apprenticeship Centres. DEWR would be responsible for delivering and evaluating labour market programs. This approach recognises that the youth commitment requires a diversity of programs and that expertise is required to deliver different programs.
- The role and size of agencies running Job Pathway Programs would be upgraded. These agencies should be viewed as representative local agencies rather than as Commonwealth Government line agencies. They should be as representative as possible of local interests and experts. However it is not possible to prescribe a single structure or location for Job Pathway Programs. In some cases these programs may be best located in schools, in other cases in local municipality offices, and in still other cases separately from either schools or the local authority.
- The Commonwealth and States would agree to establish an Office for Education to Employment Transition. Establishment of this office would formalise the importance of the education to employment transition and provide an ongoing means of implementing the youth commitment and evaluating the youth commitment programs. Further details are given in Section 11.2.

There are of course alternative transition delivery models. One model in particular (the Scandinavian model) has much merit and has been favourably reviewed by many commentators. This model combines central funding with local stewardship for managing entitlement and transition process. The OECD (2000) review of youth transitions cited Norway and Denmark as particularly successful examples. In Norway the participation rate was 95 per cent. The follow up service was established over a two-year period. Of 52,510 students who left lower secondary education in the summer of 1994, only 1050 were without education or employment a year later.

The Boston Consulting Group (BCG, 2000) recommended a similar model for Australia. BCG recommended the appointment of a Local Director of Youth Futures with responsibility for a school cluster or local authority area reporting to a Community Board. People would be tracked until 20. Some existing funds, including apprenticeships, would be channelled to the new group.

A unified, locally empowered model is attractive. It would avoid doubling up of transition services, for example testing for skills and provision of advice. It would reduce service fragmentation and facilitate monitoring. Also, the basis for such a service exists in Australia in the Job Pathway Program, which could be a significant component in developing locally nuanced and responsive services. Community partnerships, sometimes called Employment Commitment Networks or in Victoria Local Learning and Employment Networks, can be effective platforms.

However, it is not clear that models based on unitary government systems are suitable for a federal system. Moreover, in order to make such an organisational framework effective, it would presumably be necessary to incorporate Job Network and possibly other services such as Centrelink assessment services, with JPPs. The local JPP agency would presumably also manage and allocate funds to labour market programs. This report believes that such a radical change is unnecessary, difficult to achieve, and unlikely to occur in Australia. JN has a different culture and financial structure to JPPs and amalgamation could create difficulties. Also New Apprenticeships Centres have recently been separated from JN. It is

not clear that these centres should be amalgamated with JPPs. Some amalgamations of functions may occur in due course, but they are not seen as necessary at the outset.

Another model is a schools-based approach. Administration of the entitlement would be concentrated in the schools, with schools managing Commonwealth and State funds. This appears to be the present Queensland model. This approach facilitates tracking and monitoring the progress of early school leavers. However, many leave school early because they are disenchanted with the institution of school and may not take part in a school-based implementation system. Thus, it appears appropriate to supplement a schools-based program with an independent job pathways program. Also labour market programs do not fit easily under the school umbrella.

Overall, the approach outlined above is preferred because it establishes the national commitment to youth and can deliver the necessary programs. Attempts to achieve radical change could distract attention from the substance of the proposed youth commitment programs.

However a framework is needed to ensure that the Commonwealth and States and their respective agencies collaborate with common objectives, resources, goals and focus. Although most States are developing youth commitment responses to suit their own circumstances, most would benefit from a stronger national framework without loss of autonomy. Section 11.2 proposes some mechanisms to achieve this.

11.2 Managing the Youth Commitment: Specific Recommendations

These proposed arrangements are intended to build on the existing commitments made by Australian governments including the recent MCEETYA Declaration *Stepping Forward*. The proposals recognise that several States have established, or are in the process of establishing, community-based regional structures as vehicle for delivering improved and better-integrated transition arrangements.

The basis for implementing the proposed entitlement would be a Commonwealth-State Framework Agreement. This could be between the Commonwealth and individual States or under MCEETYA.

The Framework Agreement would specify:

- Agreed purpose.
- Objectives and benchmarks.
- Commitments (including funding) by the respective parties.
- Recognition of the variations between States with provision for implementation through relevant regional partnership structures where established by a State Government (eg LLEN; EVE).
- Duration – possibly 5 years in line with the recommended time for phasing in the proposed programs.
- Monitoring and review, including provision for data sharing and independent review. Specific provision should also be included for public release of all reports and collected data, subject only to privacy conditions.
- Establishment of the Office of Education to Employment Transition.
- That the Office prepare an annual report to be tabled in the Commonwealth Parliament and the parliament of the respective State party to the Agreement.

The Office of Education to Employment Transition would be an independent agency overseeing implementation of the above Framework Agreement/s. The guiding characteristics for the proposed Office of Education to Employment Transition are:

- Its role is policy development, monitoring and review of measures to achieve successful youth transition. It is not an operational or a direct funding body.
- Its mandate is sufficiently broad to encompass relevant education, training and employment programs.
- Its membership reflects the cross-jurisdictional responsibilities for youth transitions.
- It is able to operate independently- free of a primary allegiance to any one stakeholder.

In establishing the Office it will be necessary to give full consideration to Ministerial structures and the relationship of the Office to existing agencies. While the nature of youth transitions requires a response that crosses a number of portfolios (including education, training, employment and youth affairs), a 'lead minister' would be designated to ensure clear lines of responsibility and accountability. This would most likely be a Commonwealth Minister with appropriate endorsement from MCEETYA.

The Framework Agreement(s) would provide authority for the Office to operate on State/Territory jurisdictions. Cooperative arrangements with other relevant agencies such as ANTA and ECEF could most usefully be delegated to the Board and management of the Office itself.

11.3 Management of Commitment Funds

Similar arguments for the maintenance of the present funding systems apply to the management of funds to meet the youth commitment.

Funds for the commitment could be directed to broad-based local or regional authorities, which would act as both job pathway planners and fund holders. This structure may encourage cooperation at community level. Also, because it splits the roles of purchasers and providers of services, this demand driven model encourages competition in supply. It encourages a diversity of approaches that can be tailored to local needs.

A more radical proposal would see the establishment of youth accounts. Young people would be granted accounts equivalent to the resources provided per student at upper secondary level. This would ensure that non-completers had fair access to resources and they could chose how to use this account subject to various criteria. This empowers youth and provides youth with an incentive to make informed decisions. It would also encourage responsive supply of services.

However, if large amounts of funds were directed either to JPPs, case managers or to the young persons directly, there would be a substantial shift of power away from service agencies, which they would almost certainly resist. There are also practical problems. If all young persons have this account, many of those who currently stay at school might leave school. Targeting the account to some young persons may also set up perverse incentives. Nor is it practical to fund some TAFE services directly and others indirectly via a case manager. If the price per student place varies, the TAFE would have an incentive to recruit from one source rather than another. If the price does not vary, little would be achieved by varying the funding source.

This report considers that there may be grounds for a significant shift in funding processes. There is certainly a case for experimenting with alternative funding options, for example by endowing a JPP with additional funds, or endowing the youth in a particular area with youth accounts, and evaluating the outcomes.

However, this report has not established, or sought to establish, a strong case for a change in funding methods. Accordingly, this report recommends that current funding systems be maintained pending further analysis of funding options and their implications.

References

- Applied Economics, 2002, *Young Persons Education and Training Outcomes, With Special Reference to Early School Leavers*, report prepared for the Business Council of Australia and Dusseldorp Skills Forum.
- Australian Bureau of Statistics(ABS), *Schools Australia*, various years, Cat. No. 4221.
- Ball, K., and Lamb, S., 2001, Participation and Achievement in VET of non-completers of school, ACER..
- Borland, J., 1999, '*Education and the Structure of Earnings in Australia*', Economic Record, Dec 1996 vol. 72, no. 219, pp 370-381.
- Boston Consulting Group, 2000, *Pathways to Work: Tackling Long-term Unemployment*, prepared for the Business Council of Australia.
- Borthwick, S.,1999, '*Overview of Student Costs and Government Funding in Post Compulsory Education and Training*', Department of Education, Training and Youth Affairs. REB Report 4/99.
- Burke, G., 1998, 'Expenditure on education and training: estimates by sector and course', in *Australian Youth: Reality and Risk*, Dusseldorp Skills Forum, Sydney.
- Card, D., 1999, 'The causal effect of education on earnings', pp.1801-1864 in *Handbook of Labor Economics*, Volume 3A, eds: O.Ashenfelter and D.Card, Elsevier, Amsterdam.
- Carling, K., and L.Larsson, 2001, *Does early intervention help the unemployed youth*, Working Paper 2002;10, Institute for Labour Market Policy Evaluation, Uppsala, Sweden,.
- Carling, K. and K.Richardson 2001, *The relative efficiency of labour market programs: Swedish experience from the 1990s*, IFAU – Office of Labour Market Policy Evaluation, Working Paper 2001:2.
- Chapman, B., Weatherburn, D., Kapuscinskiu, C., Chilvers, M., and S.Roussel, 2001, 'Unemployment Duration, Schooling and Property Crime', 30th Conference of Australian Economics, Perth, WA.
- Curtain, R., 2001, An Entitlement to Post-Compulsory Education: International Practice and Policy Implications, Australian National Training Authority.
- Dearden, L., Reed, H., and Van Reenan, J., 2000, 'Who gains when workers train?', Working Paper 00/04, Institute for Fiscal Studies, London.
- Dearn, L., 2001, 'Negotiating the maze: An analysis of employment assistance for young People', Brotherhood of St. Laurence.
- Denny, K. and Harmon, C., 2000, *The impact of education and training on labour market experiences of young adults*, Working Paper 00/08, Institute of Fiscal Studies, London.
- Department of Employment, Workplace Relations and Small Business, 1999, *Evaluation of the Work for the Dole Pilot Program*, DEWR, Canberra.
- Department of Employment, Workplace Relations and Small Business, 2000, *Work for the Dole, a net impact study*, DEWR, Canberra.
- Dumbrell, T.,2000, '*Measuring the Outcome of Vocational Education and Training*', Australian National Training Authority.

Eldridge, D, (Chair of Youth Pathways Action Plan Taskforce), 2001, *Footprints to the Future*, Report from the Prime Minister's Youth Pathways Action Plan Taskforce, AusInfo, Canberra.

Haveman, R. and B.Wolfe, 1984, 'Schooling and economic well-being: the role of non-market effects', *Journal of Human Resources*, 19, 377-407.

Heckman, J.J., Lalonde, R.J., and J.A.Smith, 1999, 'The economics and econometrics of active labour market programs', in O.Ashenfelter and D.Card (eds.), *Handbook of Labour Economics*, Vol. 3A, North Holland, Amsterdam.

Kellock, P. with C.Bruce, 2000, *A Window into the Future: Lessons from the Jobs Pathway Program*, a Report to the Dusseldorp Skills Forum, Sydney.

Kemp, D., 2001, 'Reshaping the way for young people: media release 49'.
www.DEST.gov.au/ministers/kemp/mar01/k49_140301.htm

Lamb, S., and McKenzie, P. 2001, 'Patterns of Success and Failure in the Transition from School to Work in Australia', ACER.

Lamb, S and Rumberger, R. 1998, *The Early Work and Education Experiences of High School Dropouts: A Comparative Study of the United States and Australia*. Longitudinal Surveys of Australian Youth Research Report, ACER.

Larsson, L., 2000, *Evaluation of Swedish youth labour market programmes*, IFAU, Office of Labour Market Policy Evaluation, Working Paper 2000.1.

Marks, G. and Fleming, N., 1999, *Early School Leaving in Australia: Findings from the 1995 Year LSAY Cohort*, Research report no.11, ACER.

Martin, J.P., and D.Grubb, 2001, *What works and for whom: a review of OECD countries' experiences with active labour market policies*, Working Paper 2001:14, OCED, Paris.

MCEETYA, 2000, *National Report on Schooling in Australia: 2000*.

MCEETYA, 2002, *Stepping Forward – improving pathways for all young people*, A Joint Declaration by Commonwealth, State and Territory Ministers for Education, Training, Employment, Youth and Community Services.

Meyer, 1995, 'Lessons from the U.S. Unemployment Insurance Experiments', *Journal of Economic Literature*, XXXIII, 91-131.

National Centre for Social and Economic Modelling (NATSEM), 1999, *The Cost to Australian of Early School Leaving*, NATSEM, University of Canberra.

National Centre for Vocational Education Research, 2000, *Australian Vocational Education and Training Statistics*, ANTA.

National Centre for Vocational Education Research, 2001a, *Australian Apprenticeships: Facts, Fiction and Future*, NCVET, Canberra.

National Centre for Vocational Education Research, 2001b, *Australian Apprenticeships: Research at a Glance*, NCVET, Canberra.

- OECD, 1997, Thematic Review of the Transition from Initial Education to Working Life, Australia, OECD, Paris.
- OECD, 2000, From Initial Education to Working Life: Making Transitions Work, OECD, Paris.
- OECD, 2001a, *Education at a Glance*, OECD, Paris.
- OECD, 2001b, The Well-being of Nations, The Role of Human and Social Capital, OECD, Paris.
- OECD, 2001c, 'Investment in Human Capital through Post-Compulsory Education and Training', Chapter 5 in *OECD Economic Outlook, 70*, OECD, Paris.
- OECD, 2001d, Innovations in Labour Market Policies: The Australian Way, OECD, Paris.
- OECD, 2002, *OECD Employment Outlook*, OECD, Paris.
- Piggott, J. and B. Chapman, 1995, 'Costing the Job Compact', *Economic Record*, 71, 313-28,
- Prime Minister, 1992, *One Nation*, Statement by the Prime Minister (P.J. Keating), AGPS, Canberra.
- Productivity Commission, 2001, 'School Education', Chapter 3 in 'Report on Government Services 2002', Steering Committee for the Review of Commonwealth/State Service Provision, Steering Committee for the Review of Commonwealth/State Service Provision Reports, <http://www.pc.gov.au/gsp/2002/index.html>
- Productivity Commission, 2002, *Independent Review of Job Network: Draft Report*, Productivity Commission, Canberra.
- Quiggin, J., 1999, 'Human Capital Theory and Education Policy in Australia', *Australian Economic Review*, 32, 130-44.
- Robinson, L., 1999, The effects of Part-time Work on School Students. *Longitudinal Surveys of Australian Youth Research*, Report No. 9, ACER.
- Ryan, C., 2002, 'Individual Returns to Vocational Education and Training Qualifications', Australian National Training Authority.
- Saunders, P., Chalmers, J., McHugh, M., Murray, C., Bittman, M., and Bradbury, B., 1998, *Development of Indicative Budget Standards for Australia*, Policy Research Paper No. 74, Department of Social Security, Canberra.
- Standing Committee on Employment Education and Training (June 1999), *Youth employment: A working solution*, Parliament of Australia, Canberra.
- Stromback, M., and A. Dockery, 2000, Labour Market Programs, Unemployment and Employment Hazards: an Application Using the 1994-97 Survey of Employment and Unemployment Patterns, ABS Occasional Paper, Catalogue No. 6293.0.00.002, Australian Bureau of Statistics Canberra.
- Teese, R., with A. Walstab, 2002, *Early Leaving in Victoria: Geographical Patterns, Origins and Strategic Issues*, Educational Outcomes Research Unit, University of Melbourne.
- Toner, P., 2002, *The Occupational and Skill Structure of New Apprenticeships: A Commentary*, mimeo, Australian Expert Group in Industry Studies, University of Western Sydney.

Van den Berg, G. and B. Van der Klaauw, 2001, *Counselling and Monitoring of Unemployed Workers: Theory and Evidence from a Controlled Social Experiment*, Free University of Amsterdam, (www.tinbergen.nl/~klaauw/CM.pdf)

Van Reenan, J., 2001, *No more skivvy schemes? Active labour Market Policies and the British Deal for young unemployed in context*, Institute of Fiscal Studies, Working paper 01/09, IFS, London.

Wolfe, B. and R. Haveman, (2001), 'Accounting for the Social and Non-market Benefits of Education', in J.F. Helliwell (ed.), *The Contribution of Human and Social Capital to Sustained Growth and Well-Being: International Symposium Report*, Human Resources Development Canada and OECD.

Annex A Some features of existing transition programs (adapted from Dearn, 2000)

Program	Age	Geographic Coverage	Main Activity	Budget	Source of Funding	Fund Holder	Service Supplier
Commonwealth Programs							
Job Network	15-64	National	Finding jobs and intensive assistance for the unemployed		DEWR		
Jobs Pathway program	15-19	National but not universal	Providing education and training suitable for job market	>\$95m over 4 years	DEST	Schools, RTOs, community org and non-profit orgs	Fund holder
Job Placement and Training Program	15-21	National but not universal	Provision of range of support services e.g. financial asst, mentoring, training and placements for homeless people	\$74m over 4 years	DEST	Schools, RTOs, community org and non-profit orgs	Fund holder
New Apprenticeships	15-64	National	Provision of structured work with training	\$2 bill	DEST	New Apprenticeship Centre	Fund holder
VET in Schools	Secondary school students	National	Provide vocational training		DEST	Schools/TAFE	Fund holder
Programs in Victoria							
Local Learning and Employment Networks		Whole of State by 2003	Identify education and employment and support needs of young people	\$4.25m in 2001	DEET	Local Network	Service providers
Pathways Project	15-19	Various regions within state	Develop pathways	\$500,000 in first phase	DEET	Schools, TAFE, ACE and local govt	Fund Holder
Managed Individual Pathways	School age youth	Whole of State by 2003	Develop Pathways	\$16.5m over 2001-03	DEET	Schools, TAFE, ACE	Fund Holder
Program	Age	Geographic Coverage	Main Activity	Budget	Source of Funding	Fund Holder	Service Supplier
Community Business and Employment program	15-24		Assists young people in getting a job who cannot gain employment in job network		DEET	Community and private orgs	Fund Holder
TAFE Voucher System	16-17	State-wide	Training entitlement		DEET	Entitled person	TAFE, ACE, private providers
School Focused Youth Service	10-18	41 centres	Brokerage service to identify needs of at risk youths	\$120,000 per service	DEET +Dept of Human services	Schools	Support service providers

NSW							
Links to Learning	12-24	NSW	Provide education and training	\$6m 2001	DET	Local Council	Local service providers
Queensland							
Full Service Schools	Under 18	Statewide	Provide specific courses e.g. literacy and numeracy for 'at risk' students	\$23m but now defunded	Education Queensland	Schools	Schools
Vocational Placement program		Statewide	Provision of practical training and work experience		Education Queensland	RTOs	Fund holder
Breaking the Unemployment Cycle		Statewide	Provide jobs	\$4.7m 1998-2004	Dept of Employment and Training	Local govt and community orgs	Fund holder

Acronyms

DEET	Victorian Department of Employment, Education and Training
DEST	Commonwealth Department of Education, Science and Training
DET	NSW Department of Education and Training
DEST	Commonwealth Department of Education, Science and Training
DEWR	Department of Employment and Workplace Relations
JPET	Job Placement Employment and Training
JPP	Jobs Pathway Program
LLEN	Local Learning and Employment Networks