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# DISCUSSION PAPERS

EMPLOYMENT SUBSIDIES IN THEORY AND  
IN PRACTICE: THE SPECIAL YOUTH  
EMPLOYMENT TRAINING PROGRAM

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EMPLOYMENT SUBSIDIES IN THEORY AND IN PRACTICE:  
THE SPECIAL YOUTH EMPLOYMENT TRAINING PROGRAM

by

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## ABSTRACT

Employment subsidies have been supported by many economists as a means of reducing unemployment without worsening inflation or, at least, of achieving a given decrement in unemployment with less inflation than if it were achieved through general economic expansion. This is sometimes referred to as "cheating the Phillips curve" or reducing the nonaccelerating inflation rate of unemployment (NAIRU) or the natural rate of unemployment. Targeted employment subsidies also provide a means of redistributing jobs.

Australia, in fact, has had an employment subsidy scheme to encourage employers to hire long-duration unemployed youth since 1976. The Special Youth Employment Training Program (SYETP) provides firms with \$75 per week for up to 17 weeks as an inducement for them to hire persons under the age of 25 who have been unemployed for at least four of the preceding twelve months. A larger subsidy is available to firms for hiring youth who have been unemployed at least eight months.

Review of Australia's experience with SYETP illustrates many of the issues involved in converting the theory of employment subsidies into practice and in measuring their effectiveness. The immediate purpose of SYETP is to induce employers to hire a particular group and provide them with work experience that might help them to secure stable employment. Studies of the program participants indicate that this is being accomplished. The issues raised in this paper have to do with the overall impacts of the subsidy scheme on the Australian labour market: Is it redistributing jobs? Is it permitting Australia to have more employment and less unemployment for a given level of inflation than could be achieved otherwise?

Analysis of the available information concerning the impact of SYETP on the Australian economy suggests:

The scheme has operated on a very small scale during most of its life. Even though over 300,000 jobs have been subsidized since SYETP began, there have never been more than 40,000 subsidized jobs at any one time; during most of its life, less than half this number have been subsidized. Most of these jobs have gone to teenagers and many of them probably would otherwise not have existed or would have been filled by more experienced workers. At no time has the program provided enough jobs to reduce the teenage unemployment rate by more than 1.5 percentage points and the total Australian unemployment rate by more than 0.2 percentage points.

The scheme has been successful in redistributing job opportunities in favour of

ii.

long-term unemployed youth. Reduction in the unemployment rate of this group probably put less pressure on wages than would have resulted from an across-the-board reduction of similar magnitude. However, there is no direct evidence with which to test this assumption.

Employers have responded to the incentives provided by the terms of SYETP as economic theory and common sense say they should. Specifically, decisions about whom to hire have been influenced by the terms of the subsidy, as well as the eligibility criteria. The fact that it is a flat rate subsidy appears to have led employers to select from among the youngest of the eligible long-term unemployed youth. Moreover, the scale of the subsidy has influenced their decisions about whether to participate at all. A large reduction in the subsidy between 1978 and 1979 was associated with a sharp reduction in the number of subsidized workers hired.

In sum, SYETP appears to be playing a useful, though not a large, role in the Australian economy. In considering what future role it or other employment subsidies might play, their relationship to other policies needs to be considered. More attention needs to be focused on determining the most cost-effective methods of attracting employer interest while achieving the program's objectives. Employment subsidies are one means of helping people to acquire skills. One option raised in the paper is to use other existing or new programs to prepare unemployed people for jobs and then use employment subsidies as a device to market those who complete these programs. Employment subsidies also redistribute job opportunities. Therefore, it is particularly important to examine the implications of current and alternative eligibility rules. At this point, it is not clear whether the use of unemployment duration as a qualifying criterion is the best approach.

## I. INTRODUCTION

Australia, in common with most modern economies, seems unable to return to the low unemployment rates to which it had grown accustomed without generating unacceptably high rates of inflation. This state of affairs has spawned a number of proposals to change the underlying structure of the economy such that more favourable unemployment-inflation combinations could be attained. Some seek to intervene on the price-setting side, others on the labour market side, and others on both: incomes policies, including the Fraser Government's wage pause, are one approach; labour intensive public works projects are another; and changes in wage-setting structures yet another.

Within this policy debate, here and abroad, one relatively noncontroversial suggestion has been the use of employment subsidies targeted on groups who are having particularly severe problems in the labour market. They are supported by many economists as a means of reducing unemployment without worsening inflation or, at least, of achieving a given decrement in unemployment with less inflation than if it were achieved through general economic expansion. This is sometimes referred to as "cheating the Phillips curve" or shifting the NAIRU or the natural rate of employment. In Australia this approach has been suggested by Corden (1979), Harris (1982), and Withers (1982). Glenn Withers characterised his recent proposal for Australia, which includes targeted marginal employment subsidies and wage inflation taxes, as one with "magic bullet" properties (1982).

Robert Solow, in his review of selective employment policies, including targeted subsidies, came down on the same side, but with somewhat less enthusiasm: (1980, p.141)

"The macroeconomic effects of selective-employment policy and generalized expansion are likely to differ, but only slightly. Selective-employment policy is probably not the answer to a maiden's prayer, if the maiden happens to be suffering from simultaneous unemployment and inflation."

He went on to conclude that the biggest difference between the two was in terms of achieving equity goals.<sup>1</sup>

Australia, in fact, has had subsidies to encourage employers to hire long-duration unemployed youth since 1976, through the Special Youth Employment Training Program (SYETP). From financial years 1976-77 through 1981-82, approximately 300,000 young people were approved for SYETP-subsidized employment, at a cost to the Commonwealth Government of over \$250 million [Kirby (1981) and Minister for Employment and Industrial Relations (1982b)]. The design of the scheme influences employers' decisions concerning whether and how to participate in it. In this paper the incentives provided by SYETP are described and the responses to these incentives analyzed.

1. Solow recognised that his endorsement of selective employment policies might be viewed as underwhelming and concluded: "I realize that if St. Bernard had preached in temperate terms like these, the Crusades might never have captured the imagination of Christendom. But then it is not clear that the Crusades ever accomplished very much good anyway. We could hope to do better."

The policy issues addressed in this paper involve the potential and actual roles of targeted employment subsidies in the Australian economy: Could they reduce national unemployment with less inflationary side-effects than other policies? Could they redistribute job opportunities toward disadvantaged job-seekers? What effect has the Commonwealth's current targeted employment subsidy scheme had on the Australian labour market? What changes in the scheme might improve its performance?

The remainder of the paper is divided into four parts. Part II outlines the economics of targeted employment subsidies, beginning with some definitions of the various types of subsidies and the goals that one might seek to achieve through subsidies. Part III examines the use of targeted employment subsidies in Australia, including a description of the Special Youth Employment Training Program (SYETP) and a review of its impact on the Australian economy and employer behaviour. Evidence is presented that, although the number of people whose employment is subsidized each year is too small to have had any significant impact on aggregate employment and unemployment, it does appear to be influencing the hiring decisions of firms that have participated in the scheme. Part IV identifies and assesses options for changing the present scheme to increase its use and effectiveness. Conclusions are presented in the final part.

2. Targeted employment subsidies also provide on-the-job training. As such, they should be considered as one part of a government's strategy for investing in human capital. Issues involving the cost-effectiveness of subsidized private work experience and on-the-job training vs. education, off-the-job training, public work experience, and other methods of government support for human capital investment will not be directly addressed here.

## II. THE ROLE OF EMPLOYMENT SUBSIDIES IN A NATION'S ECONOMIC AND EMPLOYMENT POLICY MIX

"Employment subsidies" is a term that encompasses a variety of subsidy proposals and programs for a number of different purposes. The commonality is that each type of employment subsidy involves payment to employers to offset some or all of the costs of employing eligible workers. They can be intended and designed to achieve redistributive, efficiency, stabilization, or a combination of goals. The Australian subsidy examined in this paper, SYETP, and its American counterpart, the Targeted Jobs Tax Credit (TJTC), are intended to achieve redistributive and efficiency objectives. This part of the paper begins with a discussion of the major types of subsidies and their uses and then reviews the economics of targeted employment subsidies, the category that includes SYETP.

### Types of Subsidies

The particular type of subsidy examined in this paper is a targeted hiring, flat rate subsidy. Targeted means that only a particular class of worker qualifies. In the Australian SYETP, the class is delineated in terms of age and duration of unemployment during the preceding year. In the case of the American TJTC, the class is delineated by age and family income. One could also envision restricting eligibility to people living or working in particular places or having specific characteristics that make them hard to employ.

The fact that a subsidy is a hiring subsidy means that the direct action required of an employer to qualify for the subsidy is to hire an eligible worker, with no credit given for otherwise-eligible workers already employed.<sup>3</sup> The distinction between a hiring subsidy and a regular employment subsidy blurs as the subsidized period lengthens, especially for types of workers and jobs that are normally high turnover. The standard SYETP subsidy period, 4 months, is clearly a hiring subsidy, whereas the TJTC period, 2 years, is less clear.

A flat rate, rather than percentage, subsidy is one in which the amount received by the employer per period does not depend on the amount paid to the eligible worker; that is, it is a per capita amount. The standard SYETP scheme provides employers with \$75 per week of employment of an eligible worker, regardless of the wages actually paid. By contrast, the TJTC provides a specified percentage of the first \$6,000 per year paid to an eligible worker. As will be discussed later in this paper, flat rate subsidies can be particularly attractive for employing low-wage workers.

Another characteristic in which subsidies can differ is in whether they are general or incremental; that is, whether they subsidize the employment of all eligible workers or only those above a specified base. An incremental subsidy is analogous to a hiring subsidy, except that the former can be used to subsidize net changes in employment, whereas the latter subsidizes gross

3. Hamermesh (1978) defines the various types of subsidies in a slightly different manner. He distinguishes between employment subsidies and hiring subsidies, with the former applying to the entire period of a worker's employment.

accessions. It is tempting to think that one would always want to specify a subsidy as incremental, to avoid subsidizing actions that would have occurred without the subsidy. However, particularly in the case of targeted subsidies, this is not always feasible.

Employment subsidies have been advocated for the achievement of all three of the standard goals of economic policy: equity, efficiency, and stabilization. Targeted subsidies obviously are thought of in the context of equity goals: if successful, they redistribute job opportunities in favor of the target group. But they also have the potential to expand total output under conditions to be discussed later in this section. Nontargeted subsidies, especially incremental ones, have been used as anti-recession instruments (such as the American New Jobs Tax Credit); they will not be considered in this paper.

In considering the role of subsidies, it is important to keep in mind which goal is being pursued and what the alternatives are. Thus, analysis of targeted employment subsidies to achieve equity objectives should consider: Is the group whose employment qualifies for the subsidy one that society wishes to redistribute toward? Are job and training opportunities the most appropriate means of redistribution or would simple income transfers be more cost-effective? Targeted employment subsidies to achieve expansion of total output could be compared with general, unrestricted government expenditures: the argument for subsidies is that they can improve the structure of the labour market such that more output can be produced or

jobs provided for a given level of inflation.

To the extent that employment subsidies are being used to gain access to on-the-job training opportunities for people having difficulty in the labour market, the subsidies should also be compared with other ways of providing and financing human capital investment. An important issue here is the delineation of groups with low employment and earnings who could benefit from subsidies. One could picture a continuum or queue of hard-to-employ workers: for the most employable, small subsidies to potential employers might be all that is needed; for the next group it might be more cost-effective to first provide them with remedial education, counselling, institutional training or other assistance; and there might be another group for whom the choice is either very expensive employability assistance or straight income transfers.<sup>4</sup>

#### The Economics of Targeted Employment Subsidies: Summary

The broad outlines of the microeconomic theory underlying employment subsidies are quite simple: Employers will respond to an exogenous reduction in the cost of employing a class of workers by employing more of them. The responses by a firm will depend on the size of the reduction in costs and the elasticity of demand for this type of labour. If, for example, the subsidized labour is perfectly substitutable for other labour, and ignoring transaction costs, then the employer would attempt

4. Nathan (1982) uses a similar categorization, except that he further distinguishes between subsidization of private vs. public employers, with the former assumed to be more selective.

to replace all of the unsubsidized workers with subsidized ones; in this case, whether and to what extent total employment in the firm increased would depend on the responsiveness of the firm's total demand for labour to a reduction in labour costs.

The theory at the macro level is more complicated and varies according to one's view of how the overall economy works. But the potential of certain types of employment subsidies to expand total employment, for a given level of inflation, by more than could be achieved through the use of monetary and fiscal policies alone is generally acknowledged. The efficacy of employment subsidies depends on the state of the economy within which they are to operate, the reasons for difference between groups in their unemployment rates, the nature of the wage-setting mechanisms in the economy, behavioural relationships determining the demand for and supply of labour, and various institutional factors. Essentially, the trick is to subsidize the employment of members of a high-unemployment group whose wages are institutionally determined and maintained above the market-clearing rate. The existence of high youth unemployment and wages that are determined through awards would appear to make Australia a good candidate for employment subsidies targeted on youth.

The state of the art of the economics of subsidies is very well set forth in two Brookings Institution volumes [Palmer (1978) and Haveman and Palmer (1982)]. The former includes a

subsidies. The remainder of this section merely summarizes the major findings from these volumes and other recent studies that are applicable to the Australian subsidy issues. These involve the theoretical basis for anticipating that a targeted employment subsidy could reduce the NAIRU or natural rate of unemployment; the economic and labour market conditions most favourable for subsidies to provide this macro benefit; and the characteristics of subsidies that are required.

First, under the right conditions, targeted employment subsidies can improve the terms of trade between inflation and unemployment available to an economy. It is generally acknowledged that the application of macroeconomic stimulation, alone, to expand employment and reduce unemployment is constrained by inflationary pressures. The constraint is depicted in the Phillips curve literature by a nonlinear tradeoff between inflation and unemployment, at least in the short run. More recent literature depicts the constraint by a nonaccelerating inflation rate of unemployment (NAIRU) or a natural rate of unemployment. All of these models tell a similar story: beyond some point, conventional macroeconomic policies cannot lower unemployment any further (at least without generating politically unacceptable or accelerating rates of inflation); further reductions require changes in the underlying structure of the economy. Targeted employment subsidies are offered as one means of changing the structure.

Second, the mechanism through which targeted employment subsidies operate is by changing the relative costs of labour inputs to employers. This can increase relative employment in the subsidized market at the expense of relative employment in the unsubsidized market. This may be desired to achieve equity goals, even if the terms of trade between aggregate (un)employment and inflation are not improved.

Third, whether subsidies can succeed in improving the terms of trade depends, in part, on the characteristics of the labour market in which it is to operate. Within the Baily-Tobin framework, at least one of the following conditions should exist:

(1) Minimum wages that generate involuntary unemployment in low-wage markets. Their example in the U.S. is minimum wage legislation. In Australia, award wages above those that unemployed persons would be willing to accept could produce the same situation.

(2) Rigidity of relative wages. Even in the absence of formal minimum wages, if relative wages are not responsive to changes in relative demand, a similar problem exists. The concern (obsession?) in Australia with the maintenance of relativities could produce involuntary unemployment in certain sectors.

(3) Even if relative wages are not rigid, targeted employment subsidies could work if sectoral wage rate increases depend, in part, on relative wage rates.

Fourth, whether subsidies can succeed in improving the terms of trade also depends on their specific characteristics. In particular, the delineation of the eligible group is crucial. The group must be one whose labour market is characterized by one of the preceding conditions. Further, the group defined as eligible must closely match the group one wants to target on (whether for equity or efficiency reasons): if the eligible group is too narrow, the subsidy scheme could result in employers substituting members of the eligible target group for members of the ineligible target group, with no net gain in either noninflationary employment or equity; if the eligible group is too broad, employers could hire from the eligible nontarget group only, again with no net gain. Obviously, there will always be borderline problems (unless the size of the subsidy itself can vary). For example, when age is a criterion, as it is in the Australian and American schemes, one day a person is eligible and the next day he or she is not. Similar problems arise with a duration of unemployment criterion (the Australian case), an income criterion (the American case), or any other criterion that involves a continuous variable.

Fifth, even under the most favourable circumstances, targeted employment subsidies are not likely to be able to shift the natural rate of unemployment or NAIRU very far. (This is not a criticism, only a recognition of their limitations; the decision about whether or not to have a subsidy scheme should be based on its cost-effectiveness compared with other means of achieving the intended goals.) For example, an empirical study of the U.S. labour market by Nichols (1982), using the Baily-Tobin

framework, concluded that a subsidy targeted on low-skill workers could reduce the national unemployment rate by between one-half and two-thirds of a percentage point without increasing inflation: the estimated government budget cost per net job created was between \$10,000 and 25,000, a range below the amount required to create one by an across-the-board expenditure. His particular estimates are based on a narrow set of assumptions and should only be taken as illustrative; in any event, they are for the U.S. economy and for a hypothetical subsidy in which eligibility was delineated by occupation.

## III. TARGETED EMPLOYMENT SUBSIDIES IN AUSTRALIA

Subsidization of employers to induce them to hire and train workers is a major instrument of Australian employment and training policy. In the last completed financial year, 1981-82, the two largest employment and training programs administered by the Department of Employment and Industrial Relations were subsidies: \$78.7 million for the Commonwealth Rebate for Apprentice Full-time Training (CRAFT) and \$53.7 million for the Special Youth Employment Training Program (SYETP). Together, they accounted for almost two-thirds of the Department's employment and training expenditures.<sup>5</sup> Plans for 1982-83 by the former Government included a \$20 million expansion of SYETP and the introduction of subsidy schemes for older persons as well; the latter began in March 1983.<sup>6</sup>

CRAFT is intended to increase the supply of skilled workers by subsidizing some of the costs employers incur in taking on apprentices. Since this is not a targeted scheme, it will not be considered here. SYETP, on the other hand, is specifically intended to expand opportunities for long-term unemployed youth. It is the type of scheme that the literature reviewed earlier suggests could be effective in redistributing the incidence of

5. Program expenditure statistics are from Minister for Employment and Industrial Relations (1982b). Some of the other programs, such as the Special Apprentice Training and the Skills in Demand programs, also include subsidies to employers to provide training.

6. One new scheme provides employers with subsidies for up to 34 weeks of employment for persons age 25 and over who have been unemployed at least 8 of the past 12 months; another provides a more generous subsidy for up to one year of employment for persons age 45 and over who have been continuously unemployed for the preceding year [Minister for Employment and Industrial Relations, (1982a)].

unemployment, and in reducing unemployment, for a given level of inflation, below what could be attained through conventional government expenditures.

Although this paper is only concerned with targeted employment subsidies, it is important to note that the Commonwealth provides a number of other programs that assist young people to prepare for and find employment and provide support for them while they are unemployed. These include education-based assistance, such as the Education Program for Unemployed Youth, and labour market information and job search assistance through the Commonwealth Employment Service. There are also special employment and training programs for Aboriginals, disabled persons, and other groups; the majority of participants in these programs are under age 25 [Hoy and Paterson (1983)]. Unemployment benefits are another substantial component of Australia's assistance to unemployed youth; the majority of unemployment beneficiaries are young people.<sup>7</sup>

This part of the paper begins with a description of SYETP. Next, the available evidence concerning the impact of SYETP on the Australian labour market will be presented. This will be followed by an examination of employer responses to the existence of the scheme. In particular, we will consider whether, and to what extent, employers have responded to the particular incentives provided by the scheme in ways consistent with economic theory.

7. In May 1982, 11.5 percent were under 18 years; 22.4 percent were 18-20 years; and 19.9 percent were aged 21-24 [Department of Social Security (1982), p.112].

The Special Youth Employment Training Program (SYETP)

SYETP was begun in November 1976 as a means of helping school leavers obtain work experience. Essentially, it is a hiring subsidy to induce employers to provide work experience and training to long-term unemployed youth. During the six-year life of SYETP, the major changes in the program elements have been in the duration of unemployment required to qualify for the subsidy, the weekly payment, and the duration of the payment.<sup>8</sup>

SYETP currently includes three schemes: (1) "standard SYETP" for subsidizing firms to employ young people who have been unemployed at least four months; (2) "extended SYETP" for young people who have been unemployed at least eight months; and (3) "Commonwealth SYETP" for subsidizing Commonwealth departments and instrumentalities. The Commonwealth SYETP scheme is quite small, accounting for about seven percent of participants, and differs from the others in that it reimburses employers for 100 percent of the participants' wages during the subsidy period. This paper examines the schemes for private employers and will consider the Commonwealth employer scheme only tangentially.<sup>9</sup>

The main elements of the program, as it currently exists, are outlined in Table 1, along with the corresponding elements of the American Targeted Jobs Tax Credit for comparison. The most important one is that the group for whom employers can obtain a

8. These are described by Hoy and Paterson (1983).

9. the Commonwealth employer subsidy is examined in Department of Employment and Youth Affairs (1980c).

TABLE 1

Major Provisions of Targeted Employment Subsidies in Australia and the U.S.

Program Element	Special Youth Employment Training Program (SYETP)	Targeted Jobs Tax Credit (TJTC)
<b>Eligible Workers</b>		
Standard	ages 15-24, who have been unemployed and away from full-time education at least 4 of the last 12 months	ages 18-24, with low family income during preceding 6 months, and certain other persons from low-income families
Extended	ages 18-24, who have been unemployed and away from full-time education at least 8 of the last 12 months	
<b>Amount and maximum duration of subsidy</b>		
Standard	\$75 per week for up to 17 weeks	50 percent of first \$6,000 of wages paid during first year of employment and 25 percent of first \$6,000 during second year
Extended	\$100 per week for first 17 weeks and \$75 per week for second 17 weeks	
<b>Maximum potential subsidy</b>		
Standard	\$1,275	\$4,500
Extended	\$2,975	
Method of payment	employer claim	tax credit
Special conditions	training plan, award wages, some limits on number and type of jobs	limited to for-profit employers
Administrative agency	Commonwealth Employment Service	U.S. Employment Service, Internal Revenue Service
Expiry	Indefinite	September 1984

subsidy is limited to young people who have been looking for work for at least four months. The terms of the subsidy are more generous to employers for hiring young people who have been unemployed for at least eight months.

The subsidy, itself, is a flat rate: \$75 per week for up to 17 weeks for the standard SYETP; \$100 per week for up to 17 weeks and then \$75 per week for up to an additional 17 weeks for the extended scheme. Employers are required to pay award or prevailing wage rates. Preliminary estimates by BLMR staff indicate that, since 1979, the standard SYETP rate has been between 35 and 44 percent of average junior wages.

The maximum subsidy that an employer can receive for each covered worker is \$1,275 under the standard scheme and \$2,975 under the extended scheme. There is no minimum duration required for an employer to receive the weekly subsidy. The employer receives the money by filing claims with the administrative agency.

Another important aspect of SYETP is that participation by employers is not automatic; that is, they cannot merely file a claim with the government after the fact. Instead, an agreement must be reached with the Commonwealth Employment Service (CES) in which the CES has certified that the young person meets the age and unemployment duration requirements and the employer has agreed to provide work experience and training to the new employee. The requirements for the employer include that the employer and/or the CES develop an individual training plan for the new employee. In practice, since "training" can include

normal orientation and the "plan" can be quite simple, neither the preparation of the plan nor its implementation need be very costly to the employer. Likewise, the CES must approve the particular type of job for which the employer proposes to use the eligible worker. This, too, does not appear to be very restrictive. For example, the guidelines exclude use of the subsidy for skilled occupations, presumably because other schemes (CRAFT) are available for them.

A potentially more important condition is that the employer must agree to pay award wages or prevailing wages. For employers that do so anyway, this is not restrictive. But for those who would employ youth at lower wages, the scheme would only be useful if the subsidy were sufficient to compensate the employer for the higher wages.

Finally, although the scheme has undergone a number of changes since it was introduced in late-1976, it has no fixed date of expiration. This is important in that, if employers are convinced that the scheme is reasonably permanent, they would be more likely to arrange their staffing patterns in ways that take into account its existence. Likewise, if the program is successful, its usage by employers will increase over time, both because information about the scheme will spread and because of repeat business. A program to alter the structure of the labour market, as opposed to a counter-cyclical program, should be a long-term one.

What Impact Is SYETP Having on Australian Employment and Unemployment?

Earlier in this paper the proposition was presented that a targeted employment subsidy could be more effective than general macroeconomic stimulation in increasing employment (and reducing unemployment) for a given level of inflation. Under the right conditions, it could reduce the NAIRU or the natural rate of unemployment. A targeted employment subsidy, in theory, could also redistribute employment and unemployment in favor of the target group. This section considers whether SYETP is, in fact, doing so.

The short answer is that the scheme has been too small to have had much of an impact on the national statistics. The most likely measurable impact would have been on the distribution of youth unemployment by duration: SYETP appears to be reducing the proportion of unemployed teenagers who are long-term unemployed; it is not clear whether it is also reducing total teenage unemployment, or simply redistributing it.<sup>10</sup>

Each year the seasonal peak participation in SYETP-subsidized employment is in August. BLMR has extracted participation by age going back to 1978 [Hoy and Paterson (1983)]. These data, along with ABS statistics on employment,

10. These findings do not indicate whether SYETP has been cost-effective. They only indicate that it has operated on a small scale. Moreover, its stated objectives have not included macroeconomic ones as such. Also, only the impacts of SYETP are considered in this paper. As of August 1982, approximately 6,000 persons under age 25 were enrolled in education-based programs also intended to improve their job prospects and 3,000 youth were receiving specialized assistance through other Commonwealth programs [Hoy and Paterson (1983)].

unemployment and unemployment duration [ABS, (monthly)], are reported in Table 2. For reasons to be examined later, there was a policy-induced drastic reduction in the level of SYETP participation between August 1978 and August 1979, from 33.7 thousand to 10.4 thousand teenagers and from 6.4 thousand 1.7 thousand older youth. Between 1979 and 1981 there was a building up in participation and then a substantial decline by 1982. Meanwhile, for the labour market as a whole, unemployment fell from August 1978 to 1979, remained fairly stable to 1981, and then rose sharply by August 1982.

The first question which can be answered from this table is: Under the most generous assumptions about windfall and substitution, how much impact could SYETP have had on Australian unemployment during this period? To answer this, I have recomputed the ABS employment and unemployment statistics by subtracting SYETP-subsidized employment from the former and adding it to the latter. The differences between these hypothetical statistics and the actual statistics provide estimates of the impact of SYETP if all subsidized employment had been net additions from the age group's stock of unemployed and there had been no secondary effects. Table 3 reports the results of this exercise.

Under the stated assumptions, the existence of SYETP would have reduced the aggregate Australian unemployment rate in the peak month (August 1978) by 0.6 percentage points and in the other months by only 0.2 or 0.3 percentage points. The impacts on the unemployment rate of the age 20-24 group were of similar

TABLE 2  
SYETP Participation and Selected Employment Statistics, 1978-82

Group	August 1978	August 1979	August 1980	August 1981	August 1982
Age 15-19					
SYETP Participant	33,741	10,376	13,432	14,372	10,778
Employed	630,800	617,700	650,900	652,000	625,400
Unemployed	127,600	129,700	130,700	105,600	125,400
Under 13 weeks	61,400	56,200	55,100	48,200	57,600
13-25 weeks	24,100	22,700	21,300	18,200	19,300
26 weeks-plus	42,100	50,800	54,300	39,200	48,500
rate (%)	16.8	17.4	16.7	13.9	16.7
Age 20-24					
SYETP Participant	6,420	1,681	2,249	4,594	2,934
Employed	845,000	885,200	914,300	943,300	934,600
Unemployed	85,200	78,800	88,000	87,700	106,100
Under 13 weeks	42,700	36,700	42,000	46,200	54,000
13-25 weeks	16,300	14,100	16,200	11,100	15,100
26 weeks-plus	26,200	28,000	29,800	30,400	37,000
rate (%)	9.2	8.2	8.8	8.5	10.2
Age 25 and over					
Employed	4,493,700	4,538,600	4,681,500	4,760,700	4,787,600
Unemployed	182,900	165,200	173,600	183,800	227,000
Age 15 and over					
Employed	5,969,600	6,041,500	6,246,700	6,356,000	6,347,600
Unemployed	395,700	373,800	392,300	377,100	458,500
rate (%)	6.2	5.8	5.9	5.6	6.7

TABLE 3

Maximum Impact of SYETP on Selected Employment Statistics, 1978-82

Group	August 1978	August 1979	August 1980	August 1981	August 1982
Age 15-19					
Employed	597,100	607,300	637,500	637,600	614,600
Unemployed	161,300	140,100	144,100	120,000	136,200
rate (%)	21.3	18.7	18.4	15.8	18.1
Age 20-24					
Employed	838,600	883,500	912,100	938,700	931,700
Unemployed	91,600	80,500	90,200	92,300	109,000
rate (%)	9.8	8.4	9.0	9.0	10.5
Age 15 and over					
Employed	5,929,400	6,029,400	6,231,000	6,337,000	6,333,900
Unemployed	435,900	385,900	408,000	396,100	472,200
rate (%)	6.8	6.0	6.1	5.9	6.9
Maximum impact of SYETP on unemployment rates (%)					
Age 15-19	4.5	1.3	1.7	1.9	1.4
Age 20-24	0.6	0.2	0.2	0.5	0.3
Age 15 and over	0.6	0.2	0.2	0.3	0.2

magnitudes. The major impacts, of course, were for teenagers. If all of the SYETP-subsidized employment translated into one-for-one reduced unemployment, the impact on the teenage unemployment rate in August 1978 would have been 4.5 percentage points and in the other months between 1.3 and 1.9 points.<sup>11</sup>

Employment subsidy schemes, regardless of how they are structured, must, to some extent, subsidize firms for employment that would have occurred anyway. (The same point holds for subsidies to stimulate other activities, such as investment and job creation in the public sector.) The only available estimates of the extent to which subsidized employment actually expanded total employment are from surveys of participating employers. These, at best, provide some indication of whether the employers, themselves, viewed the employees hired under the scheme as net additions or substitutes for workers who would have been hired in any event. Their responses indicate that only about one-third of the subsidized employees were net additions.<sup>12</sup>

11. Among teenagers, persons under age 18 account for at least two-thirds of the SYETP-subsidized employees, though less than half of the teenage labour force. Therefore, the maximum potential impact on this group's unemployment rate is larger.
12. In late-1979 approximately 20 percent of employers who had hired SYETP employees in April 1979 were asked how the vacancy arose (extra workers needed for business expansion, replacement of another SYETP worker, or replacement of a non-SYETP worker who left) and whether, in the absence of the scheme, they would have filled the position with a worker who was more experienced, older, or not have offered the position. Thirty-three percent responded that they would only have hired a subsidized worker; about half of these were for expansion and the rest were for replacement or specially created for the scheme [DEYA (1980b)]. A survey of 1981 SYETP placements provided similar estimates [Hoy and Paterson (1983)].

The extent to which these were also net additions to total employment in Australia depends on the employment that could have been generated through alternative uses of the expenditures and on the impacts of the expansion of the subsidized firms' activities on other firms' activities. Moreover, the net impact on unemployment depends also on the labour supply response generated by the increased employment induced by the scheme. Since teenager participation rates are influenced by job availability (the "hidden unemployment" phenomenon), the translation from employment impact to unemployment impact is certainly less than one-to-one.

Some indication of the extent to which the subsidized employment might have represented net additions to employment can also be seen by closer examination of the changes that occurred in the teenage statistics between August 1978 and 1979, when SYETP participation fell by 23,000 teenagers. The aggregate employment and unemployment statistics indicate that this was a period of improvement in the labour market: employment rose by about 70,000, unemployment fell by 20,000 and the unemployment rate fell by 0.4 percentage points. Yet this was not reflected in the ABS statistics for teenagers. Instead, employment fell by 13,000, unemployment rose by 2,000 and the unemployment rate rose by 0.6 percentage points. Since we do not know the impact of other factors at this time, the impact, if any, of the SYETP reduction cannot be estimated. But this does provide circumstantial evidence that at least some of the SYETP employment had been net additions to teenage employment.

The same 1978-1979 event also provides circumstantial evidence in support of the hypothesis that some of the impact of SYETP is simply to redistribute unemployment among teenagers, such that long-term unemployment is lower and short-term unemployment is higher. Recall that eligibility for the program included unemployment during four of the past twelve months (i.e. 17 weeks). The unemployment duration statistics in Table 2 refer to the duration of the current spell of unemployment, not the amount of unemployment over the preceding twelve months. Nonetheless, they indicate that the sharp reduction in SYETP employment was accompanied by an increase in long-term unemployment and a reduction in short-term unemployment. The same pattern occurred, but to a lesser extent, in the unemployment duration statistics for the age 20-24 group, which had a smaller reduction in the number of SYETP participants. And, to provide further circumstantial support, there was a decline in the number of long-term unemployed in the oldest group - the group not directly effected by SYETP. Again, in the absence of a model that is capable of accounting for fluctuations in age-duration unemployment levels, one should not push these numbers too far - they are suggestive only.

SYETP could also increase aggregate economic output and employment and redistribute income and employment opportunities to the extent that human capital is developed through the subsidized work experience. As with any training program, this macroeconomic benefit would occur through the increased productive capacity of the work force. A necessary condition for this to occur is that the post-program earnings of the

participants themselves exceed what they would have earned in the absence of the program. BLMR staff are attempting to estimate these direct impacts, although the absence of adequate comparison groups makes it impossible to estimate these impacts accurately [Stretton (1982)]. Whether the gains to the individual participants translate into overall gains for the economy depends on whether the on-the-job training opportunities would have otherwise gone to persons who would have benefited to the same extent. No attempt will be made in this paper to assess these human capital effects.

#### Are Australian Employers Responding to the SYETP Incentives?

The specific characteristics of SYETP - flat-rate subsidy, short duration, targeted, and requirement to pay award wages - provide specific incentives to employers to behave in certain ways. As per the goal of the scheme, they are encouraged to hire long-term unemployed youth. In addition (whether intended by the developers of the scheme or not), the incentive structure might influence more precisely who they chose to hire from among the eligible unemployed and what they do with them. It is important to determine whether employers are, in fact, responding to the specific incentives for two reasons. First, this provides some indication of whether the subsidies taken by employers are anything other than pure windfall. Second, if employers are found to be responding to specific elements of SYETP, this provides some basis for expecting that changes in these elements could change their behaviour. Support for the proposition that Australian employers are behaving as economic theory and common

sense suggest they should be found in: (1) the age distribution of the subsidized workers and (2) the reduction in participation following a large reduction in the size of the subsidy.

The clearest indication that employers are taking account of specific terms of the subsidy scheme comes from the age distribution of the workers whose wages were subsidized. In 1980-81, 59 percent of the subsidized youth in the standard SYETP scheme were between the ages of 15 and 17; 28 percent were ages 18 or 19; and the remaining 13 percent were ages 20 through 24.<sup>13</sup> The oldest age group is distinctly underrepresented in the scheme, relative to the group's percentage of the eligible population and relative to its share of total youth employment. In this period, approximately 40 percent of the long-term unemployed between the ages of 15 and 24 were in the ages 20-24 group.<sup>14</sup> Thus their representation in the standard SYETP scheme was approximately one-third their representation in the eligible pool of the unemployed.<sup>15</sup> This skewing of the age distribution toward the youngest workers may be explained by the nature of the

13. These are for first assistance under the non-Commonwealth scheme. The source of all 1980-81 program participant data in this section, unless otherwise cited, is Hoy and Paterson (1983).

14. During the year ending 1981, 120,000 of the 282,000 (43 percent) persons under age 25 who were unemployed 13 weeks or more were between the ages of 20 and 24; 74,000 of the 176,000 (42 percent) of those with 26 weeks or more of unemployment were in the older group [ABS (1982b), p.17]. During the same period, 1,064,700 of the 1,911,400 (56%) persons under age 25 who were employed were between the ages of 20 and 24 (p.13).

15. The comparison is not exactly the right one in that the time periods and eligibility rules are slightly different and the ABS unemployment statistics themselves would be affected by the program.

subsidy, along with the customary positive age-earnings relationship: the flat-rate subsidy covers a smaller percentage of weekly earnings of the oldest eligible group.<sup>16</sup>

One way of estimating employer responsiveness to other terms of the scheme would be to construct time series on the subsidy terms and employer participation in the scheme. However, the program has only been in operation since late-1976 and there were enough other variables that could have influenced participation that it is not practical. One bit of circumstantial evidence is worth examining. In August 1978 there was a sharp reduction in the weekly subsidy rate and in the maximum number of weeks subsidized. Information on the subsequent reduction in employer participation suggests a rather large elasticity in demand for subsidized workers.

In August 1978, there were 33,741 teenagers whose employment was being subsidized through a SYETP scheme.<sup>17</sup> An additional

16. Further evidence that the structure of the subsidy may influence hiring decisions comes from comparisons between the age composition in the standard SYETP scheme and in the Commonwealth scheme. The latter has the same eligibility rules, but provides a 100 percent, rather than a flat-rate, subsidy to participating employers. As expected, a much larger percentage of the subsidized government jobs went to the older youth: 43 percent were age 20-24, compared with only 13 percent of those in the standard scheme. Direct comparisons are difficult, since the Commonwealth government, in general, employs fewer teenagers and more older youth. For example, in 1981, 81 percent of the permanent staff and 56 percent of the recruits under age 25 were from the age 20-24 group [Public Service Board (1982), pp.40, 68]. Thus, it is not clear to what extent the greater use of the SYETP scheme to hire older youth is a reaction to the incentive structure vs. a reflection of normal employment patterns.
17. All program data reported in this section are from Hoy and Paterson (1983). August is the peak month in participation every year.

6,559 older youth were also being subsidized. Under the agreements between employers and the CES when these youth would have been hired, the subsidy was \$67 per week for 6 months, for a total potential subsidy of \$1,742. From the scheme's inception, the subsidy rate had been set at 45 percent of the male adult average award wage for 6 months. In the August 1978 budget it was announced that henceforth new hires would be subsidized at \$45 per week (30 percent of the male award wage) for 4 months. Thus the total subsidy per worker that an employer could receive was reduced from \$1,742 to \$765, only 44 percent of the previous amount.

By the same month a year later, after hiring decisions would have adjusted to the new incentive structure, only 10,376 teenagers and 1,701 older youth were in the scheme. As pointed out in a BLMR report [Hoy and Paterson (1983)], some of this reduction can be explained mechanically: if employer behaviour had not changed, a reduction in the potential duration of the subsidy to two-thirds of its former number would result in a reduction in the number of participants at any given time of the same magnitude.<sup>18</sup> This effect can be adjusted for by reducing the August 1978 subsidized employment level to two-thirds its actual size. Even with this adjustment, the reduction in employer participation is dramatic: from 22,494 subsidized teenagers to 10,376, only 46 percent of the adjusted initial level.

18. The relationship isn't exact because many employees do not stay with the employer for the maximum duration.

The response by employers to the reduction in the SYETP terms provides a vivid illustration of the extent to which their participation in the scheme could be influenced by changes in its terms. However, lest the reader translate the similarity between the magnitudes of the employment reduction and the subsidy reduction into a unity elasticity estimate, it must be noted that it isn't that simple. For example, when the amount and duration of the subsidy were changed, the agency staff were given new instructions which emphasized the training objective of the scheme. To the extent that this was enforced, the potential benefit to employers was further reduced. Moreover, some of the reduction could have been due to less aggressive marketing by the CES. However, a survey of employer attitudes to the changes in terms found that over 40 percent claimed they would reduce or terminate their participation.<sup>19</sup>

It is necessary to emphasise that these individual bits of evidence about employer responsiveness are, at best, suggestive. Adequate information simply does not exist at this time. In particular, the key issue of the extent to which the subsidy is changing the level and composition of national employment cannot be determined, given the absence of information about elasticities of demand for the eligible group and substitution between this group and other youth and adults. Nonetheless, as

19. In early-1979 over 1,000 employers who had participated in SYETP in 1978 or 1979 completed a questionnaire that included questions concerning their reactions to subsidy reductions announced in August 1978. Twenty-five percent indicated that they would no longer participate; 17 percent said they would reduce their level of participation; 37 percent indicated that they would participate at the same level; and the remaining 21 percent either didn't respond or didn't know [DEYA (1980a), p. 45].

shown earlier, the scale of the program, thus far, has been so small that - under the most generous assumptions - it could not have reduced Australia's unemployment rate by very much.

A thorough economic analysis of SYETP would require estimates of the elasticity of demand for SYETP-eligible employees and elasticities of substitution between this group, other youth, and adults. A recent study by Lewis (1983) suggests that demand elasticities for young people in Australia might be quite large; that young males (age 21 and under) are most substitutable with females; and that young females are most substitutable with adult females. His specific estimates are for full-time employees only and are much larger than corresponding estimates in the U.S.<sup>20</sup> For example, he estimates that a one percent increase in the weekly earnings of young females would be associated with a 4.6 percent decrease in their employment; the estimate for young males is 1.8 percent. His estimates imply that an across-the-board reduction in the wages of youth relative to adults of one percent would increase the relative employment of young people by about three percent. As is stated in that paper, such estimates should not be interpreted literally; they suggest that changes in the relative wages of young people could increase their employment, but not necessarily by these amounts.

SYETP, of course, is not a general youth wage subsidy. It differs in several critical respects: (1) it only covers a subgroup of young people; (2) the subsidy per worker has a limited duration; (3) and there are a number of conditions

20. See Miller (1983) and Hamermesh and Grant (1979) for reviews of the U.S. studies.

attached to it, making it more a hiring and training subsidy. Conceptually, it is difficult to even define the factor of production that is being subsidized through SYETP, since an individual's eligibility changes as his or her duration of unemployment changes. One would expect that, at least at around the 17-week cutoff point, subsidized and unsubsidized youth would be highly substitutable. If so, then the most obvious impact on the unemployment statistics would be a change in the composition of youth unemployment by duration. Whether the scheme also increased total youth employment (and reduced youth unemployment) and the extent to which this was associated with a reduction in adult employment would then depend on the relevant demand elasticities.

A further complication is that there is very little information available on the percentage of employment costs that is being subsidized - a critical element for estimating demand elasticities. We know the size of the subsidy, but do not know: (1) the wages paid to the subsidized employees; (2) other costs incurred by employers during the subsidy period; and (3) expected tenure of the subsidized employees.

The studies of SYETP that have been completed to date indicate that employers who use the subsidy are behaving in ways consistent with assumptions commonly used in economic models about rational, profit-maximizing economic agents.<sup>21</sup> The cost

21. BLMR studies have also found, for example, that the industries in which disproportionate numbers of SYETP-subsidized workers are located tend to be ones with low wages and high turnover, such as manufacturing and retail industries; this is consistent with the incentives provided by a flat-rate, fixed-term subsidy [Hoy (forthcoming)].

of employing certain types of labour has been reduced by the subsidy, but this does not suspend the rules of the market. Thus, some of the eligible pool are made more attractive than others and they are the ones most likely to be hired under the scheme. And some employers can benefit more from the scheme than others and they appear to be the ones most likely to participate in the scheme. Surveys of employers who have participated in the scheme also provide some information concerning the extent to which they have expanded total employment as a result of the scheme, although responses to this sort of survey are difficult to interpret. A serious limitation in the information being developed about employer behaviour is that information about employers who have not opted to participate is lacking. Another deficiency is that evaluations of the experiences of the subsidized workers themselves do not contain control groups that would enable estimation of net program impacts. Nonetheless, the studies reviewed do provide considerable opportunities to learn about the operation of SYETP.

#### Summary of Findings Regarding SYETP

From this brief review of SYETP, support for the following propositions concerning the impact of the scheme on the Australian economy and Australian employers was found:

1. SYETP influences the hiring decisions made by some Australian employers, although the number of enrollments has been too small to have had much impact on overall employment and unemployment statistics. Under the most generous assumptions, at

the time of its peak enrollments (August 1978), SYETP could not have reduced the Australian unemployment rate by more than 0.6 percentage points; since then, the maximum impact could not have been more than 0.2 or 0.3 points. More likely, the net impacts were less than one-third of these maximums.

2. SYETP does appear to have a measurable impact on the age composition of Australian employment and on the duration composition of teenage unemployment. Support for this proposition comes mainly from changes in the employment and unemployment levels between August 1978 and August 1979, a period in which overall unemployment and SYETP participation were both falling: teenage employment fell and teenage unemployment and the percentage of the teenage unemployment who were unemployed at least six months rose.

3. Employer decisions about whom to hire are influenced by both the eligibility criteria and the terms of the subsidy. The fact that the subsidy is a flat rate one appears to have led employers to select from among the youngest of the eligible long-term unemployed youth.

4. The generosity of the terms of the scheme also influences the number of subsidized workers hired. The large reduction in the maximum subsidy between 1978 and 1979 was associated with a similar reduction in the number of subsidized workers hired.

These findings have implications for possible changes in SYETP. The next part of this paper considers several options.

## IV. OPTIONS FOR CHANGE

The literature cited in Part II provided theoretical support for the use of targeted employment subsidies to redistribute employment and to increase the total employment possible for a given level of inflation. The subsidy scheme described in Part III is intended to achieve both objectives. The available evidence suggests that it may be doing so, but the participant numbers are too small to be able to detect their impact on national employment and unemployment statistics. No attempt was made to determine whether the small changes in employment were cost-effective nor whether they were accomplished in a less inflationary way than could have been achieved with other methods. Insufficient information exists to even hazard an educated guess.

This part of the paper is intended to raise some policy issues and identify some changes that should be considered in SYETP if it is to play a larger role in national economic policy. For this discussion, it is assumed that the goals of SYETP will continue to be structural rather than counter-cyclical. The achievements of counter-cyclical goals with an employment subsidy would require quite different elements. The issues are: (1) What changes in the elements of the subsidy scheme could be made that would increase subsidized employment levels and, among these options, which appear most promising in terms of achieving efficiency and equity objectives? (2) Whether or not the scheme is to be expanded, are there change in its elements that would improve its capability to serve efficiency and equity objectives?

Particular attention is paid to the delineation of the group eligible for the scheme: Does it make sense to target on long-term unemployed youth?

The question of what it would take to increase subsidized employment levels arises because employment subsidy schemes (at least those involving employers outside of the direct control of the government) require the cooperation of employers. It is not easy to expand employment subsidies. The level and composition of subsidized employment, and the net impacts on the economy that might result from the program, are the product of: (1) the program rules, (2) the interpretation and implementation of these rules by the government agency responsible for administering the scheme, (3) the pool of eligible workers and their behaviour, and (4) the behaviour of prospective employers. Only if there is a constraint on subsidy expenditures and that constraint is being hit (that is, an excess demand for subsidized workers under the existing terms) would it be possible to simply throw more money in. This was never the case in the U.S. with the Targeted Jobs Tax Credit, which is open-ended. And, as far as can be determined, this has not been the case with the Australian scheme either; instead, the usual situation has been that Commonwealth Employment Service officers are given minimum targets, not maximums, and work hard to achieve them.

#### Eligibility Criteria

The criteria currently used for SYETP are based on age and duration of unemployment. To receive a standard subsidy, an employer must choose from among persons between the ages of 15

and 24 who have been unemployed and away from full-time education for at least four of the last 12 months; for a larger subsidy, the pool consist of persons between the ages of 18 and 24 who have been unemployed and out of school for at least eight of the last 12 months. The Liberal Government in December 1982 announced its intention to introduce subsidy schemes along similar lines that would be targeted on adults with long-term unemployment. One new scheme appears to be a direct expansion of the age group for the extended SYETP scheme: the eligible group is persons age 25 and over who have been unemployed at least eight of the past 12 months; the terms of the subsidy are identical. The other is a more generous subsidy (\$125 per week for up to one year) for employing persons age 45 and over who have been continuously unemployed for at least one year. These schemes began in March 1983.

Whether or not one wanted to increase the number of subsidized workers, are age and duration of unemployment the best criteria for maximising noninflationary employment and redistributing employment opportunities? Should the age criterion be relaxed or eliminated. Is duration of unemployment the best indicator of either being in a market in which stimulation would have relatively little impact on inflation or in a situation in which redistribution is warranted? To answer these crucial questions requires much more information than is now available about the characteristics of the Australian labour market and, in particular, the determinants of the Australian unemployment-inflation problem. However, existing analyses do provide some leads.

This section considers changes that could be made in the eligibility criteria for Australia's targeted employment subsidy scheme. The changes to be considered include: (1) relaxing the age restriction and (2) replacing or supplementing the unemployment duration criterion with a family income criterion (as is done in the American Targeted Jobs Tax Credit). Each option is examined in terms of its likely effects on the ability of the resulting subsidy scheme to attract employer participation and to achieve macroeconomic and redistributive objectives.

#### 1. Age

SYETP, from its inception, has been targeted on young people. As long as it remains a flat rate subsidy, it is doubtful that relaxing the age restriction would have much effect on the level and age composition of subsidized employment. This is evident from the small numbers of eligible job-seekers between ages of 20 and 24 who have been hired by employers under the existing scheme. Thus, if the intent is to increase subsidized employment and to help long-term unemployed adults, other changes (such as making the subsidy a percentage of wages paid or

increasing the amount of the subsidy) would be required.<sup>22</sup>

If changes were introduced that did result in the subsidization of older long-term unemployed workers, one likely effect would be to dilute the impact of the program on the employment of the young job-seekers currently eligible. The current scheme probably increases the employment of long-term unemployed youth (mainly teenagers) partly at the expense of other youth and, to a lesser extent, adults (especially adult females). A scheme that subsidized the employment of long-term unemployed persons regardless of age would reduce the inter-age substitution incentive; the incentive would be to give preference to job-seekers with long-term unemployment. Whether this would be a plus or a minus in terms of redistributive objectives depends, of course, on what those objectives are. Arguments about whether long-term unemployed youth are more deserving of preference than long-term unemployed adults cannot be resolved analytically. If it were a zero-sum game, would the Australian population really prefer more youth employment and less adult employment? If the labour-labour substitution estimates for Australia reported earlier (Lewis) were correct, the lost adult employment would be mainly among women. Would this make a difference and, if so, in which direction?

22. The scheme for long-term unemployed workers age 45-plus does so by providing a larger weekly amount and for a longer period than for SYETP. The other new scheme offers the same terms as the current extended SYETP and therefore may not attract much interest.

On efficiency grounds, there are at least two arguments in favor of continuing to target on youth. First, their labour market is more likely to satisfy the Baily-Tobin conditions for achieving relatively noninflationary employment expansion: teenagers, especially, have the highest unemployment rate and sticky wages above market-clearing may well be one cause. Second, to the extent that the subsidy scheme provides informal on-the-job training as an introduction to the world of work and prevents job-seekers from being "scarred" through lack of work experience, young people without work experience are most likely to gain. On the other hand, it could also be argued that subsidized work experience could provide a means for displaced older workers to maintain their skills.

## 2. Unemployment Duration

SYETP currently targets on youth who have experienced long-term unemployment during the preceding year, with the extent of unemployment also determining whether they are eligible for the standard or extended scheme. This section considers the use of this criterion as a means of selecting among youth. Although one can envision several alternative criteria (e.g., location, educational attainment), the one that unemployment duration will be compared with here is family income. The latter is the basis for defining eligibility among youth in the Targeted Jobs Tax Credit and other U.S. employment and training programs and is an obvious criterion for a program that is intended, in part, to serve equity objectives.

In terms of designing a scheme that will attract employer participation, it shouldn't make any difference whether the eligible group is delineated by duration of unemployment or family income. In each case, the size of the eligible pool can be increased merely by lowering the cutoff point. One objection that has been raised to an income criterion, however, is relevant here. It has been argued [e.g., Hamermesh (1978)] that this criterion stigmatizes job-seekers who admit to being eligible, thereby discouraging members of the eligible group from participating and potential employers from hiring them. Whether this substantially reduces participation in TJTC in the United States or would be a problem in Australia is not known. Moreover, the same argument could be made about unemployment duration. In the former case, the job-seeker is admitting that he or she is from a poor family; in the latter, the admission is inability to find a job for a long period.

On equity grounds, there could be a considerable difference between the two criteria. Here, again, the choice is largely a value judgment, although some information and analysis could aid in making this judgment. One critical point that is often overlooked in such discussions is that being unemployed, even for a long time, and being poor are by no means the same thing. Especially for young people still living at home, it is easy to envision circumstances in which the job-seeker is not poor. Likewise, with the growth of married women in the labour force, the linkage between unemployment (of the husband or wife) and poverty is not as strong as it once was.

Unfortunately, no information about the income of SYETP participants is collected. Statistics from the U.S. illustrate the loose connection between unemployment duration and family income [NCMP, (1978), p.86]. In 1975, 8.9 percent of the total U.S. population lived in families with income below the poverty line; 15.2 percent of persons who had been unemployed up to 4 weeks were in poor families; the poverty rate for persons unemployed 5-14 weeks was 12.5 percent; for those unemployed 15-26 weeks it was 14.0 percent; and for those unemployed at least 27 weeks it was 23.7 percent. Clearly being unemployed, especially for a long period, increased one's odds of being poor, but unemployment and unemployment duration would have been very weak proxies of poverty.

There is a real difference, then, between targeting on long-term unemployed youth and poor youth. One equity reason for defining eligibility by duration of unemployment is that this helps to reduce the extent to which unemployment is concentrated among a small proportion of the unemployed.<sup>23</sup> One can take the position that, regardless of whether a person is poor or anything else about them, it is unfair for someone to be unemployed for a long period and that it would be more equitable to spread the employment (or unemployment) among a larger number of people.

23. The degree of concentration of unemployment among the long-term unemployed is well-documented by ABS statistics (calculated from ABS (1982b), Table 22). For example, in the year ending in February 1981, 655,000 persons under age 25 spent one or more weeks unemployed; 175,000 of them spent at least six months unemployed. These long-term unemployed youth, though only 27 percent of all youth who experienced unemployment in that period, account for about 63 percent of the total number of weeks of youth unemployment. The slight change in the duration composition of teenage unemployment that occurred when SYETP participation was sharply reduced in 1978-1979 suggests that the scheme may have been achieving some redistribution by duration.

This argument is most persuasive in situations in which the long-term unemployed have been involuntarily unemployed.

Alternatively, one could argue that employment subsidies that are used to change people's positions in hiring queues should be viewed as a means of redistributing income and are best considered part of a nation's anti-poverty strategy. They differ from pure income transfers in that, if successful, they lead to self-sufficiency for those who would otherwise be poor and/or dependent on public welfare. This is the rationale underlying many of the American programs, including TJTC. From this perspective, it makes little sense to subsidize employers to hire youth from middle class families, possibly at the expense of poor job-seekers.

On efficiency grounds, one clear advantage that a family income criterion has over an unemployment duration one is that it eliminates (or at least minimizes) the possibility that the subsidy would result in employers delaying hiring someone until they pass the duration test. As presently structured, SYETP does have this perverse incentive structure, although there is no evidence one way or another as to whether the problem exists in practice.

Otherwise, the efficiency issue is which criterion is more cost-effective in producing net employment expansion without generating inflation. Neither criterion fits neatly into the Baily-Tobin framework in that it is difficult to define a type of labour in terms of either duration of unemployment or income. Superficially, at least, long-term unemployment is appealing in

that it seems unlikely that the employment of these job-seekers would put much pressure on wages. But this goes back to the question of why they have been unemployed so long. For example, if their inability to find a job results from substantial employability deficiencies, the subsidy is not likely to be sufficient unless it is very large; remedial education, training and counseling might be more cost-effective. For those who are sufficiently close to employers' needs that the subsidy can make the difference, are there ways of identifying them so that they need not be put through four months of unproductive job search before being given this assistance? For those who are voluntarily unemployed, in the sense that they could get jobs at the going wage but prefer to keep looking (or not looking), subsidies would only be attractive to the extent that employers use them to increase their offering wages.

In sum, there is little basis for stating whether unemployment duration or family income is a superior criterion in terms of either attracting employer interest or expanding employment in the least inflationary way. The main difference is in terms of the distributional implications. The duration criterion is intended to reduce the concentration of unemployment, whereas the income criterion is intended to reduce poverty and dependency. One option would be to base eligibility on duration of unemployment and family income. The cutoffs for each criterion could be set such that they need not necessarily reduce the size of the eligible pool from which employers could draw nor reduce participation. For example, the criteria for eligibility could be that the individual be out of school and out

of work for at least one month and have a family income below a particular amount. Another option would be to base eligibility on unemployment duration or family income, thereby permitting low-income unemployed youth to qualify without waiting for four months; this would expand the eligible pool, since no one eligible under existing criteria would be disqualified.

The inclusion of an income test in the eligibility criteria, whether in addition to or in place of unemployment duration, might introduce substantial administrative difficulties. Procedures would need to be developed, for example, to verify the income information and to determine the circumstances under which parental income should be counted. Before any such change in eligibility criteria could be seriously considered, more information about the actual characteristics of SYETP participants under existing rules and about the long-term unemployed should be gathered and analysed. In particular, it would be useful to know whether many of the long-term unemployed whose employment is currently being subsidized are from upper income families; it may turn out that, in practice, the existing rules result in mainly economically disadvantaged youth being helped anyway.

#### Subsidy Terms

Similar scale, efficiency, and distributional issues arise in the design of other aspects of a targeted employment subsidy. All else equal, of course, a more generous subsidy would attract more employer interest. The converse was demonstrated when the

weekly amount and maximum duration of SYETP were cut in 1978. The more interesting and difficult questions involve trying to predict the effects of changes in the subsidy package that would not involve change in the total amount spent. The remainder of this section merely lists several options that warrant consideration and raises some issues about each of them.

The standard SYETP scheme provides a hiring subsidy to firms, regardless of whether their total employment is increased. One option is to convert the scheme into a marginal employment subsidy, whereby only net additions to employment are subsidized. This might reduce the degree to which program funds provide windfall gains to employers. The main problem - possibly an insurmountable one - is that it is difficult to have a subsidy that is both marginal and targeted. Usually, marginal subsidies are used to achieve counter-cyclical, rather than structural, objectives and, therefore, targeting is not required.

A second option is to alter the duration and weekly benefit terms. The present standard SYETP terms provide firms with \$75 per week per worker for 17 weeks, for a total potential payment of \$1,275. It might be more attractive to employers to provide a larger amount in the beginning of the subsidized period and then gradually phase it out over a 17-week or longer period. (The extended SYETP scheme and the American TJTC come closer to providing a gradual phaseout of the subsidy by having a lower subsidy rate in the second half of the eligible period of employment.) the advantage of doing this would be that it might compensate employers for the initial risks and hiring costs.

Moreover, a gradually declining weekly subsidy, rather than the present abrupt termination of the subsidy, might better mirror a new employee's productivity growth. A disadvantage would be that the higher initial payments to employers might provide further encouragement to them to use the scheme to subsidize casual, short-term positions. Also, the scheme would be more difficult to explain to potential users and might be more difficult to administer.

A third option is to convert SYETP from a flat rate subsidy to one based on the wages paid to the eligible workers. For example, instead of paying \$75 per week, the scheme could provide 50 percent of the wages paid up to a weekly maximum. (The SYETP scheme for Commonwealth employment, in effect, is already a percentage-of-wages subsidy, with the percentage set at 100 percent.) Converting the subsidy terms would mean that employers would no longer have an incentive to concentrate their subsidized employment on the lowest paid (youngest) eligible workers. It might also encourage employers to broaden the range of subsidized positions and, possibly, provide more training to the subsidized workers. The latter effect would be more likely to occur if the length of the subsidy period were expanded as well.

A fourth option is to improve the integration of SYETP with other programs to prepare people for employment. Currently, SYETP is supposed to be a training subsidy, as well as a hiring subsidy. It might be preferable to use other existing or new programs to prepare unemployed people for jobs and then use SYETP as a device to market those who have completed these programs.

For example, the Education Program for Unemployed Youth (EPUY) provides education-based preparation to young people who have been unemployed and out of school for at least four of the previous 12 months. One way of integrating the two programs would be to relax the duration requirement in EPUY and then make successful completers of EPUY course automatically eligible for the employment subsidy. An advantage of this approach is that it provides help to unemployed youth whom employers wouldn't hire even with the subsidy until they improve their skills or attitudes. A disadvantage is that it would be more costly per participant.

## V. CONCLUSION

Review of Australia's Special Youth Employment Training Program illustrates many of the issues involved in converting the theory of employment subsidies into practice and in measuring their effectiveness. The immediate purpose of SYETP is to induce employers to hire long-term unemployed young people and provide them with work experience that might help them to secure stable employment. Studies of the program participants indicate that this is being accomplished. The issues raised in this paper have to do with the overall impacts of SYETP on the Australian labour market: Is it redistributing jobs? Is it permitting Australia to have more employment and less unemployment for a given level of inflation than could be achieved otherwise?

The program is too small to expect to be able to estimate its impact on the labour market from time series analyses of national statistics. Since it began in 1976, there were never more than 40,000 subsidized workers at any one time. During most of the period, less than half this number participated. Given reasonable assumptions about the extent to which participation represented net additional employment and about labour force responses, the program at its peak enrollment would not have reduced the teenage unemployment rate by more than 1.5 percentage points and the aggregate unemployment rate by more than 0.2 percentage points.

The available evidence suggests that employers are responding to the SYETP incentives as theory and common sense say they should. The size of the subsidy appears to influence their

level of participation and the form of the subsidy appears to influence who among the eligible pool they hire. The number of long-term unemployed youth in Australia is probably lower than it would be in the absence of the program. It is a reasonable assumption that a reduction in the unemployment of this group has put less pressure on wages than would have resulted from an across-the-board unemployment reduction of similar magnitude; however, there is no direct evidence with which to test this assumption.

In sum, SYETP appears to be playing a useful, though not a large, role in the Australian economy. In considering what future role it or other employment subsidies might play, its relationship to other policies needs to be considered. More attention needs to be focused on determining the most cost-effective methods of attracting employer interest while achieving the program's objectives. To the extent that targeted employment subsidies redistribute job opportunities, it is particularly important to examine the implications of the current and alternative eligibility rules. At this point, it is not clear whether the use of unemployment duration as a qualifying criterion is the best approach.

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