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EVALUATION OF EMPLOYMENT PROGRAMMES

A Background Paper

Geoff Bertram

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Introduction

The proposal for this research envisaged a survey of the literature on the evaluation of employment programmes, plus a more detailed consideration of certain specific issues—fiscal impact, full social costs of unemployment, labour-market structure, and hysteresis. This paper reports on the material which could be located and surveyed in the 3 weeks available for the research. Inevitably its coverage is limited, and specific topics are not discussed in as much depth as would be desirable. A feature of the literature is the piecemeal character and patchy quality of the published research on active labour-market policies. Labour markets are daunting in their complexity; there has thus been a tendency for individual authors either to limit themselves to tackling very narrow sets of questions, or to fall back upon general theoretical propositions of untested empirical validity. Especially in New Zealand, there is room for more debate and research into the causes of the present level of unemployment in order to underpin the evaluation of suggested remedies.

The paper is written in 2 parts: first a literature search, and second a more detailed consideration of the 4 specific issues mentioned above.

I The Evaluation Literature

Summary

The evaluation of employment programmes has generated an enormous literature but only limited 'hard' results to date. Labour markets are complex and still poorly understood; this means that it is difficult to specify models which command general professional acceptance, and even more difficult to obtain or generate data which matches the categories specified. A quick review of the literature suggests that there are 3 quite different targets at which 'evaluation' studies may aim, and each of the 3 requires (at the present state of the art) a separate type of approach. The 3 are:

1 *Cost-effectiveness*

Here the question is simply: does a particular labour-market scheme materially assist the identified target group at acceptable cost? In the majority of studies, authors are content merely to ask whether the scheme makes target-group individuals better-off in the sense of raising their post-scheme earnings. In a subset of these studies a control group is used to give a reference-point for the target group's experience; and/or 2 or more simultaneously operating schemes are compared to permit policymakers to identify the most effective options. In a small number of cases there is a further attempt to compare the benefits to the target group with the costs of running the scheme, and a still smaller set try to estimate the net impact on the government's fiscal position (i.e., whether the expenditures on the scheme are clawed back as extra taxes and lower expenditures on unemployment benefit) and use this net fiscal cost as the basis for comparison.

2 *Social Cost-benefit*

Here the question is whether society is made better off by a particular scheme, and the aim is to build up an accounting framework which identifies separately all the various costs and benefits and strikes a final balance. Use of such a framework has heuristic merit (that is, it helps people to think systematically about the effects of a scheme) but in the context of labour-market intervention it has not proved operational in terms of ability to yield reliable quantitative estimates. Several crucial issues are impossible to quantify, and some will remain so. For example, the question of whether jobs

'created' by employment schemes represent net new jobs or reallocation of existing jobs is extremely difficult to answer from the partial-equilibrium perspective of social cost-benefit analysis. The impact of government attitudes and activism on social psychology—hence on worker morale and productivity, business confidence, general expectations about future job opportunities, wages, prices, and so on—is inherently impossible to measure quantitatively, and policymakers will inevitably end up basing their views on judgement and intuition rather than conclusive quantitative research. The pay-off to full cost-benefit evaluation, in other words, is apt to be suspect if such evaluation is carried too far beyond its basic qualitative function of structuring the debate.

3 *Macro-econometric Simulation*

This approach starts from the other end of the problem. Whereas cost-effectiveness and cost-benefit analyses are built up from micro-economic data, the alternative approach starts from macro-economic aggregates such as the degree of excess supply in labour markets, the state of effective demand, and so on. Here the question asked is: does a programme of labour-market intervention improve the macro-economic performance of the economy, thus delivering more employment, output, and real income? Detailed labour-market interventions are thus ranked alongside more familiar macro-economic instruments such as fiscal, monetary and exchange-rate policies as means of pursuing aggregate objectives. The success of such a research programme hinges on the adequacy of the macro-econometric models available; ideally, there should be several such models based on alternative macro-economic theories, and policies should be tested on all of them. The most useful results come from models which disaggregate the labour market sufficiently to distinguish among possible target groups—e.g., primary and secondary employment, or long-term verus short-term unemployed.

In the New Zealand context, it seems likely that there are good grounds both for putting resources into more thorough cost-effectiveness evaluation of particular programmes (while being careful to keep the evaluation objectives subordinate to the primary aim of improving labour-market performance), and for encouraging more macro-econometric modelling research. Particular issues in the social cost-benefit area are worth pursuing statistically (for example, displacement and replacement ratios, investigations of the

relationship between unemployment and other social indicators) but conclusive quantitative cost-benefit results should not be expected, both because of measurement problems and because of the importance of conjuncture—economic, social, historical, political and psychological—in determining the effect of particular policies.

Definitions

The problem which we immediately encounter is to determine what constitutes an 'employment programme', and what alternative sets of objectives may be pursued by means of 'employment programmes'. One possible definition could include as 'employment programmes' any government policy measures whose ostensible objectives include increasing the numbers of people in jobs, or reducing the numbers of people unemployed, or altering the prevailing composition of employment in the economy. This would leave a very broad field to cover, ranging from macro-economic intervention aimed at achieving full employment, to micro-economic measures, e.g., to de-regulate unionised workplaces.

An alternative, narrower definition would focus on what are sometimes described as 'active labour-market policies'. Wilensky (1985, p. 1) limits the field as follows:

> By active labor market policy we mean direct government action to shape the demand for labor by maintaining or creating jobs; to increase the supply of labor via training and rehabilitation, and to encourage labor mobility via placement, counselling, and mobility incentives. It is counterposed to such passive policies as unemployment insurance and public assistance. Excluded by most students are policies that aim merely to redistribute existing work rather than increasing it, such as affirmative action or coercion and bribes to eliminate workers from the labour market (older workers or immigrants). Always excluded are measures that may affect the labour market indirectly: fiscal and monetary policy, regulation or deregulation, incomes policies, or trade and industrial policies. Programs marginal to the definition include worksharing and regional redevelopment, which may or may not increase job or training opportunities . . .

In order to keep the present paper within manageable limits, I shall accept Wilensky's delimitation of the field, and his associated checklist of 21 types of programmes which fit his 'active labour market policy' concept (see Table 1).

TABLE 1: 21 Types of programmes labelled 'Active Labour Market Policies'

Government policies to create or maintain jobs (shape demand for labour)—

Direct provision of work via—

1 sheltered workshops and other job creation measures for handicapped workers
2 employment in regular public service
3 public works projects.

Subsidies to private business to—

4 hire new employees
5 extend seasonal work year-round
6 locate or relocate workplaces in areas of high unemployment and create new jobs.

Laws or subsidies to maintain demand for labour via—

7 short-time work
8 redundancy payment laws that increase the cost to the employer of work-force reductions.

Government policies to increase the labour supply and/or improve its quality by promoting or regulating—

9 apprenticeship training
10 on-the-job training and retraining
11 work-study programmes to ease transition from school to work
12 job transition training for workers threatened with layoffs—training while still working for the employer on the threatened job
13 employability training—remedial programmes to improve basic literacy and improve work habits and attitudes

Government programmes to decrease the labour supply by—

14 lowering the retirement age
15 raising the age for compulsory schooling
16 shortening the working week or reducing overtime
17 reducing immigration of guest workers or encouraging their return (through subsidies or coercion)

Government policies to encourage labour mobility by—

18 placement services—e.g. labour exchanges
19 vocational counselling in school and during working life
20 mobility allowances and relocation advice for displaced workers; 'starting allowance' if search if necessary
21 relocation assistance via housing allowances or rent supplements

Source: Wilensky (1985) p. 2

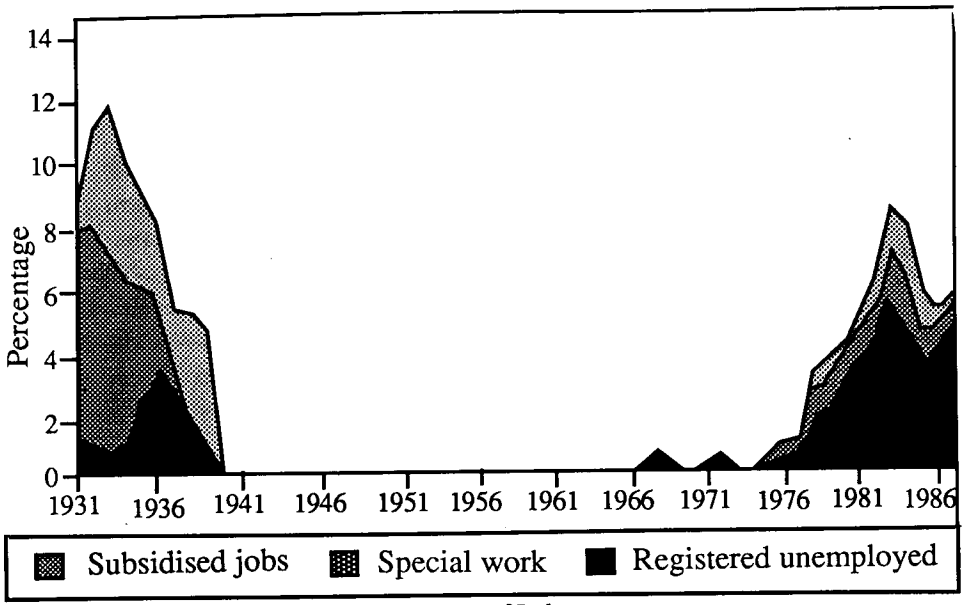
Recent New Zealand Policy

In New Zealand until the 1970s, the main focus of employment policy was macro-economic: the maintenance of a fully-employed high-wage economy by measures which included import and exchange control, the Arbitration Court, some limited investment planning, export-price stabilisation schemes, and cautious use of fiscal and monetary policy. The achievements of the New Zealand economy on the employment front were remarkable by international standards, even given the admitted problems of measurement. (New Zealand statistics of unemployed were less comprehensive in coverage than the figures in some overseas countries which made use of labour-force surveys). Figure 1 shows the two major episodes of mass unemployment this century (1930–1939 and 1976-present) as sharply discontinuous contrasts to the long-run experience of full employment from the 1939 outbreak of war to the impact of the 1975 terms-of-trade slump. During the 1950s and 1960s micro-economic employment policy dealt mainly with (a) the management of assisted immigration programmes to meet labour-market shortages, and (b) the system of award wages that maintained a non-inflationary wage path in the face of a tight labour market.

Under the conditions of the late 1970s and early 1980s, the traditional tools of economic policy proved unable in New Zealand, as elsewhere, to secure continued full employment. It remains an open question whether those tools, as deployed by the Muldoon administration, may nevertheless have contained unemployment in New Zealand below the levels which might otherwise have prevailed. Heavy overseas borrowing and a government-led investment drive in major infrastructural and industrial projects have historically been a familiar New Zealand policy response to faltering export-led growth, and some short-run boost to employment would be expected from such measures despite the well-known failures of planning associated with 'Think Big' projects.

It is of some interest to note the far greater proportion of registered unemployed in the current recession, as compared to the 1930s Depression experience. In the 1930s the Forbes-Coates government placed heavy reliance on special work schemes to support the unemployed, and registered unemployed never rose to 4 percent of the labour force, even after the first Labour government cut back the special work schemes and put unemployed men on the

FIGURE 1: Official unemployment figures, 1931-1987: percentages of total labour force

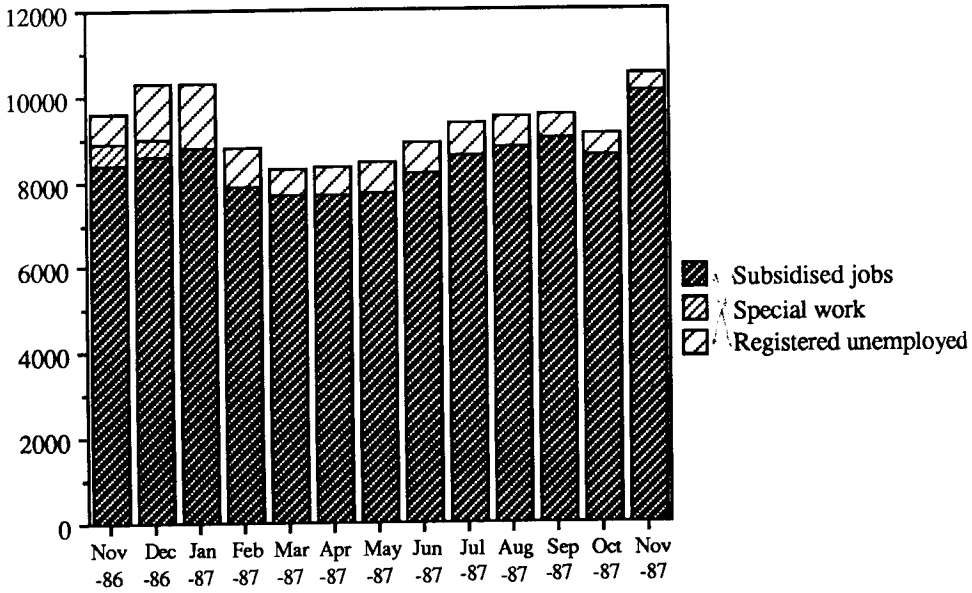


Source: Official Yearbooks and Department of Labour

dole instead. In the second half of the 1970s, the rapid expansion of unemployment in 1977–78 was initially split fairly evenly between registered unemployed and subsidised work schemes (Forer 1980, p. 33), but the subsequent increase fell almost entirely on the registered unemployed. The 1986–87 increase in unemployment has been accompanied by a phasing-out of special work and a cutback in subsidised private-sector jobs, leaving the graph now dominated by the registered unemployed (see Figure 2 below for the recent monthly figures). (In the current jargon, 'special work' means 100 percent subsidised work, largely with local authorities, while 'subsidised jobs' means partly subsidised work, largely in the private sector.)

In the face of rising unemployment, a number of 'active labour-market policy' measures have been tried in the period since 1975, particularly subsidised work schemes and job training programmes. The change of government in 1984 was acompanied by a sharp change of focus in the design of such schemes, from a concern mainly to keep people in jobs, to a desire to restructure the labour market and improve the level of vocational training. The shift

FIGURE 2: Unemployment by Category, November 1986-November 1987



Source: Department of Labour Monthly Employment Operations

from PEP (Project Employment Programme) to ACCESS epitomised the shift on goals.

'Active labour-market policies' as defined above have thus been a development of the past decade or so, and have often been designed by imitating schemes in other parts of the world. Running an eye down Wilensky's checklist (Table 1) at least 9 of his 21 policies are easily identifiable in New Zealand since 1973. Nos 2 and 3—government employment and public works—were important until 1984 but have been abandoned as serious options since. No 4—subsidised private-sector work (in which we should probably include local-authority employment)—was epitomised in the Temporary Employment and PEP schemes of the 1970s and early 1980s, and remains in the form of the Job Opportunities programme. No 6—regional development—was pursued by the third Labour government of 1973–75. No 13—remedial training—is currently in vogue in the form of the ACCESS scheme. No 14—lowering the retirement age—was approximated in 1976 by making National Superannuation eligibility start at age 60. No 17–repatriation/emigration—has been implemented directly by expulsion of Pacific Island 'guest-workers' in 1975–76, and indirectly by

tacit governmental acceptance of (and even support for?) mass emigration to Australia in periods of labour-market slack such as 1979 and 1987. Nos 18 and 19, finally—labour exchanges and vocational counselling—are well established parts of the New Zealand labour-market scene. In addition, redundancy provisions (No 8) are a common element in New Zealand awards, albeit not directly established by legislation.

The current official stance on active labour-market intervention is probably best described as non-committal. The Treasury (1984 Chapter 11, especially pp. 245–247) mounted a sweeping attack on such policies, on familiar neoclassical/new classical grounds, conceding their usefulness only in redistributing jobs in favour of particularly disadvantaged workers. The Treasury identified 3 goals at which labour market programmes could aim: increasing the labour-intensity of production, increasing aggregate employment, and targeting assistance to disadvantaged workers in finding jobs. The first of these, the Treasury claimed, had been vitiated by the countervailing impact of subsidies on capital costs, which removed any relative price incentives to increase labour intensity of production. (The Treasury did not go on to consider whether this goal might be successfuly pursued in a more consistent policy framework.)

The second goal—additional jobs—the Treasury claimed to be unattainable because of displacement of unsubsidised workers by subsidised ones. The Treasury pointed to Labour Department research on the Private Sector Additional Jobs Programme which showed that only 35 percent of the subsidised jobs would not have existed without the subsidy, asserted that since 'this estimate is based only on first round effects' it was 'likely to overstate overall employment gains', and concluded that 'the primary effect of the programmes was to redistribute employment opportunities.' (1984, p. 245). As with many aspects of the 1984 Treasury critique of existing policies, this view of labour market policies was very model-dependent—that is, it flowed more from the Treasury's adherence to a particular set of *a priori* theoretical beliefs, than from a careful scrutiny of empirical evidence. Earlier in Chapter 11 the Treasury had committed itself to the view that unemployment was to be understood as an adjustment problem originating on the supply side of the labour market, and exacerbated by 'rigidities' such as occupationally based union coverage and award wages. It had suggested (p. 237) that unemployment had an inherent tendency to

fall back towards some natural rate, and had asserted (p. 241) that 'in the present circumstances it is clear that the unemployment problem cannot be addressed by engineering an expansion of demand'. It was only natural, therefore, for the Treasury to take it for granted that the second-round effects of wage subsidies must be negative rather than positive for economy-wide employment, and to focus on a zero-sum view of labour-market expenditure (Treasury 1984, p. 245):

> Firms and public agencies using subsidised labour will produce goods and services which compete with other producers in the field and reduce the latter's employment opportunities. . . . [E]ven though there may be some positive short-term employment response, the expansion of labour market programmes must eventually involve a reduction in other government expenditure, or increased taxation or borrowing from the private sector. Each of these displaces production and employment elsewhere in the economy. Alternatively, if the expansion of programmes is financed by accommodating monetary policies, the resulting domestic inflation will reduce New Zealand's competitiveness and employment in sectors exposed to international competition.

The third goal—targeting employment assistance to the disadvantaged—e.g., the long-term unemployed—emerged as the only policy approach the legitimacy of which the Treasury conceded. The criteria for evaluation followed naturally enough (p. 246): labour market programmes should be tightly targeted to clearly-deserving individuals, should be 'cost-efficient in reintegrating these people into the workforce', and should be 'consistent with flexibility in labour markets'.

The Treasury view does not seem to have been much criticised by other government departments such as the Department of Labour; indeed, the latter department's own economists seem to have shared the Treasury's view that the deadweight effects of subsidy programmes are so high as to make such policies unattractive. This presumably accounts for the virtual phasing-out of marginal wage subsidies in the past year, and the placing of very heavy emphasis on the ACCESS training programme. The Treasury view that government intervention merely shuffles people's places in the queue, and that the necessary and sufficient condition for a return to to full employment is a fall in the real wage (Treasury 1984, pp. 239, 241–242, 246–247), seems to have won the day in government circles. (The strength of support in the overseas evaluation literature for the US residential-training Job Corps programme may also have influential in the switch to ACCESS.)

In early 1988, as unemployment continues to mount and as the overseas literature reveals supply-side explanations of mass unemployment in retreat, the New Zealand Government is thus rather ill prepared for any activist frontal assault on unemployment, despite growing political pressure over the issue. In this context, a re-reading of the existing literature on employment programmes, and a commitment to thorough empirical research on the New Zealand labour market, may be timely.

Preliminary Classification of Employment Programmes

Robertson (1986) has identified 4 'models of labour-market policy in advanced industrial democracies' in the matrix reproduced in Figure 3. He suggests that policy packages can usefully be classified in terms of underlying principles and degree of governmental activism. Robertson's 'principles' (1986, p. 278):

> distinguish between 'liberal' strategy that explicitly aims to maintain or improve free market conditions, and a 'social democratic' strategy that aims at protection and equity for wage earners. Strategies premised on social democratic principles emphasize the importance of income and job security over the free market. Neo-liberal principles, by contrast, subordinate individual security and emphasize the values of free enterprise. Viewed another way, neo-liberal strategies embrace the free market and unregulated capitalism, while social democratic strategies manifest demands for protection from the effects of capitalism . . .

His 'means' category distinguishes on an ad hoc basis between governments which devote little, and those which devote much, effort and resources to their labour-market interventions. Robertson's two indicators of activism are, first, government expenditure on labour-market measures as a percentage of GDP (Gross Domestic Product); and second, the ratio of expenditure on 'active' measures (employment and training services) to 'passive' measures (transfer payments). As a rough rule of thumb, Roberston suggests that 'active' policy involves expenditure of more than 0.5 percent of GDP on active measures, together with a rising ratio of active to passive expenditures.

Obviously, the main rationale for the matrix was to provide a framework for discussing the strategic switch which took place in Britain with the election of the Thatcher government in 1979. In the 1970s, Robertson considers Britain to have pursued a 'guardian'

FIGURE 3: Robertson's policy matrix

Means	Principles: Social-Democratic	Principles: Neo-Liberal
Passive	Guardian (Britain, 1970s)	Business-centred (USA)
Active	Egalitarian (Sweden)	Market-centred (Britain, 1980s)

Source: Robertson (1986) p. 278

strategy—one which 'seeks to insure a job or surrogate income as a right of citizenship' (1986, p. 278). In the 1980s the focus switched to a 'market-centred' model which:

> combines neo-liberal goals with the active use of state power to remake the labour market. . . . A market-centred policy is indicated by policies that weaken existing protections for unions and wages, that reduce the availability and attractiveness of universal income maintenance programs and increase the attractiveness of work under any circumstances, and that increase business proprietorship of jobs programs. (Robertson 1986, pp. 279–280.)

As Robertson goes on to note (1986, p. 281):

> Thatcherism in practice required a shift and not a reduction in the boundaries of the state. . . . The creation of free markets in late twentieth-century Britain required no small measure of active effort and state-enforced discipline.

Is Programme Evaluation Really a Good Idea?

While simple, Robertson's matrix already identifies a problem in evaluating the costs and benefits of employment programmes. Any evaluation premised on his 'social-democratic principles' is apt to score 'neo-liberal' programmes low, and vice versa. In order to avoid getting lost in merely ideological confrontations, it may

therefore be helpful to take the evaluation in 2 steps: first to consider the effectiveness of particular programmes as means to the immediate ends being pursued; and secondly to consider the relationship of these immediate ends to the wider goals of human betterment. The first of these proves tractable; the second less so.

Wilensky (1985) directly draws attention to possible drawbacks of using cost-benefit evaluation techniques on employment programmes. By making the (often concentrated) costs transparent in a situation where benefits are diffuse, such evaluations may render even successful programmes politically vulnerable. Wilensky (1985, p. 3) notes that in the United States 'the Job Corps is among several programs whose budgets declined while evidence of their success piled up', and he accounts for this by 'Wilensky's Law' (1985, p. 9): 'the more evaluation, the less program development; the more demonstration projects, the less follow-through'. With evident approval, he recounts that 'an early head of the Swedish Labor Market Board said, when confronted with the suggestion that he undertake extensive program evaluation, 'No, let's get something done instead'' (Wilensky 1985, p. 14).

A second point made by Wilensky follows closely from the first: project evaluation techniques are by their very nature piecemeal, taking the particular project in isolation from its wider political context, even when sophisticated attempts are then made to account for various 'social' costs and benefits. He notes (1985, p. 8) that:

> Haveman and Saks are struck with the contrast between the American penchant for careful evaluation research and the European habit of acting on many fronts without much systematic assessment of outcomes. . . . 'Good evaluation research can save good programs as well as destroy bad ones', they say. . . . Agreed. But that formulation is a bit overrationalistic. In my view, the character of evaluation research and its effect on labor market policy (or public policy generally) depend upon the context in which it is financed and used: fragmented and decentralised political economies such as the United States foster isolated, single-issue research, typically focussed on short-run effects and used for political ammunition rather than policy planning; more 'corporatist' systems such as those of Sweden, Norway, Austria, and perhaps Germany foster dialogue between researchers, bureaucrats, and politicians in which a wider range of issues are connected, longer-range effects are more often considered, and research findings are more often used for policy planning and implementation as well as budget justification. Larger contexts for bargaining—especially among labor, management, and government —

> mean larger contexts for policy analysis, with or without rigorous evaluation research.

The point is well made, and echoes comments in a somewhat different context by Sinfield, who, having pointed out the difficulty of actually measuring the social costs of unemployment, goes on to note that the impact of unemployment on the unemployed 'is very much influenced by the way in which the rest of society responds to the problem'. (Sinfield 1984, p. 39.) He goes on to note that (1984, p. 39):

> The response of government does much to create the public climate in which the problems of the unemployed are viewed. What priority it gives to preventing any increase in the numbers out of work and what measures it brings in or expands to help those already unemployed and the others suffering from the impact of the recession are clearly extremely important. The adoption of policies to promote demand or respond to technological change encourages a very different perception of the causation of unemployment, and so the merits and needs of the unemployed, from policies aiming to reduce public expenditure, or contain it, and bring down real wages by reinforcing the incentive to seek work.
>
> A government wishing to gain support for the first strategy may emphasize the social costs of unemployment and the need to help people out of work through no fault of their own. The second strategy is more likely to link reductions in benefit and tighter controls on its receipt with tacit or even explicit support for the view that much unemployment is voluntary or self-induced . . .

In this setting, a preoccupation with detailed programme evaluation may go hand-in-hand with 'supply-side' explanations for the existence of unemployment, which in turn create a climate in which the costs of unemployment are greater than they would otherwise have been (and the potential benefits from employment programmes consequently greater also) but in which the probability of success for such programmes may be less. Preoccupation with detailed costs and benefits of particular programmes follows naturally from the view that society (or at least, taxpayers) are being forced to divert scarce resources from alternative uses, in order to make up for the failure of the unemployed properly to prepare themselves to participate successfully in the job search process. The onus of proof is placed on any proposed programme and its sponsors.

Governments which adhere to a different conception of the origins of unemployment, and/or accept a duty to ensure for all citizens the right to work (or at least participate fully in economic

life), are less likely to undertake detailed evaluation of particular programmes: first, because those individual programmes are usually part of a complex and integrated package including macro as well as micro policy elements (which undercuts the partial-equilibrium assumptions on which most cost-benefit techniques rely); and second, because the commitment to active labour-market policies is undertaken as a social duty, not on the basis of a purely economic calculus. In such a context, a large part of the perceived pay-off from labour-market activism is political and ideological—the maintenance and reinforcement of a climate of opinion which protects the unemployed from relegation to second-class citizen status, and which affirms the community's continuing concern for their welfare and participation in economic life. This creation of a political environment is quite intractable for the cost-benefit practitioner.

As Henning and Richardson (1984, pp. 4–5) have remarked:

> . . . one might argue that the unemployment problem particularly demands placebo policies because it is especially difficult to solve in reality. . . .

The same point is made in Moon and Richardson (1985, p. 182):

> The direct responses to unemployment are rather like placebos, possibly having no long-term curative properties but performing the essential function of enabling the patient to come to terms with what could turn out to be an incurable disease.

Whether or not the national government conveys a sense of powerlessness in the face of unemployment will obviously affect public attitudes and morale. (Sweden, for example, appears to have done a good deal to maintain morale and commitment to social-democratic ideals by 'carrying' its unemployed in public-sector jobs or on forms of support that are not identified as unemployment benefit.)

In the hands of those who see unemployment as a Keynesian rather than a supply-side phenomenon, cost-benefit ideas tend to be deployed (if at all) in a way somewhat different from the detailed evaluations criticised by Wilensky (above). Rather than evaluating the impact of employment programmes *per se,* the approach is to estimate the costs of unemployment, and thus make a compelling case for committing substantial resources to ameliorating it, whether by macro management, 'passive' income transfers, or 'active labour-market policies'. In the United States this line of argument was associated with the Joint Economic Committee of Congress, especially in the 1970s and early 1980s (see below). In

the context of the Organisation for Economic Co-operation and Development (OECD) the argument is epitomised by Sørenson (1984) and is assailed in the same OECD symposium (on the grounds of the assumptions about the actual causes of unemployment) by Byatt (1984), who reasonably enough points out that the costs of unemployment *per se* are relevant only insofar as they are avoidable—that is, insofar as we can be confident that effective policies to reduce unemployment exist.

The most recent round in the ongoing debate in the United States over the usefulness of cost-benefit evaluation of employment programmes has brought to light the remarkable case of the Youth Employment and Demonstration Projects Act 1978 (YEDPA). Under this Act some $8 billion was spent from 1977 to 1981, of which no less than $500 million was earmarked for research into the effectiveness of the scheme (Briggs 1987, p. 138). This, the largest research undertaking ever attempted by the United States Department of Labor, resulted in the completion of 428 separate studies, many by independent consultants hired for the purpose. Of these studies, only 28 exhibited sufficient 'scientific merit' to be included in the extensive post-mortem report by Hollister, *et al.* (National Research Council 1985; Hollister 1987, p. 143), which in the end reached agnostic conclusions on the key question of whether the scheme's expenditures had achieved anything.

Criticising this exercise, Briggs comments (1987, p. 137):

> Over its brief life . . . YEDPA served both as a massive delivery system for new programs and as an extensive social laboratory for social experimentation. As such, an assessment of its activities and accomplishments must inevitably become intertwined with the suspicions that exist between those primarily interested in meeting needs and those largely concerned with evaluating the effectiveness of these ventures. These two groups have been cast into the same arena as the result of the congressional tendency to link public funding for social experiments with the requirement that they be evaluated to see if promises are consistent with performance.
>
> If it were simply a matter of implementing programs and then attempting to assess their results, there would be little room for disagreement. But, increasingly, the credo is developing that the design of the programs must be such that it facilitates the evaluation process. In a phrase, the tail is attempting to wag the dog . . . Unlike all other major industrial nations, which have been content to initiate labor market interventions and be satisfied with the intuitive belief that what seems logical to do must be so, the United States has taken the opposite tack. Policy interventions must prove themselves before they can be deemed worthy.

> Public policy makers have been mesmerized by the claims of many social scientists that they actually know how to assess the effectiveness of policy interventions if only given the opportunity . . . Congress has bitten at the bait and a political corrollary has evolved that any hesitancy in endorsing efforts to evaluate a program implies somehow that someone has something to fear.

Hollister, in reply, claimed that 'what seems logical to do' is not always productive in fact, and cited the familiar claim that additional resources devoted to education have not been shown to produce results in terms of improved education status (Hollister 1987, p. 141; on the education literature see Hamishek 1986). (Whether education is a useful parallel to the labour market is unclear, and Hollister does not attempt to establish this.) Many other writers (e.g., Casey and Bruche 1985, p. 55) have agreed that evaluation research has been the rule in the United States but the exception in other countries, and have pointed to the risks as well as benefits of relying upon political judgement rather than systematically-designed social research. Haveman and Saks (1985, p. 36) concluded that:

> In lurching from one direction to another, the United States has developed some high-quality programs and many low-quality programs. It has also assembled a fair set of careful evaluation results. European policy has been more stable, less experimental, more professional. However, the outcomes have not been evaluated and the overall appraisal is less conclusive. What is needed now is a merger of these approaches.

The above discussion, then, points to a continuing role for cost-effectiveness and (to a lesser extent) cost-benefit analysis as a useful tool to guide policymakers, especially when choices can be made among alternative specific courses of action directed to the chosen goal. The point is, though, that too much should not be expected of such analysis. The assumptions and procedures which are needed to render cost-benefit analysis operational are potentially subversive of the social-democratic frame of mind, and potentially supportive of the neo-liberal frame. The first of these sees single projects as organic parts in a larger whole, the success or failure of which is to be judged ultimately by the general state of the world attained. The second regards particular projects as individual entities, each of which must pass a success-or-failure test in order to qualify for inclusion in the overall policy stance, which itself is no more than an aggregation of 'successful' programmes.

Cost-benefit analysis of employment programmes undertaken from a social-democrat perspective, in particular, tends to include a

much wider variety of non-quantifiable elements, with the result that no conclusive numerical answer is likely to be attainable. The technique may render policy choices more transparent, but ultimately it cannot substitute for the exercise of political judgement.

Some Recent Overseas Programme Evaluation Results

As has already been noted, the bulk of the programme evaluation literature relates to experience in the United States, where there has been a great range of employment programmes and plenty of research funding for would-be evaluators. The findings are far from uniform, leading to the rather unhelpful result that some programmes yield net benefits for their target groups and some programmes do not. There are, however, some pointers. The Job Corps, for example, is generally agreed to have passed the cost-benefit test with flying colours (see, e.g., Long, *et al.*, 1981; Wilensky 1985, pp. 12–13; Committee on Government Operations 1985; Mallar, *et. al.*, 1982; Hollister 1986, pp. 42–47). Hollister comments (1987, p. 143):

> Ever since its inception in the 1960s, the Job Corps has continuously been under attack as a very expensive training program for disadvantaged youth. ('We could send a kid to Harvard for that amount.') Each Congress has had to deal with attempts of various parties to terminate this program, but these efforts have been regularly turned back in part because supporters of the Job Corps were able to point to well-substantiated findings from evaluation efforts that indicated that the social benefits from the program considerably outweighed the costs.

In contrast, the YEDSA evaluations described earlier yielded inconclusive findings, neither endorsing nor condemning the scheme (National Research Council 1985).

Dickinson, *et al.*, (1987) asked whether programmes under the Comprehensive Employment and Training Act 1973 (CETA) had raised or lowered the long-run earnings of programme participants. A series of previous evaluations of CETA had concluded that there were positive benefits for women but uncertain effects for men, on the basis mainly of Social Security Administration data which showed the level of money earnings but not the number of weeks worked per year or the stability of employment found by participants after leaving their programme. By using interview techniques and matching their sample with a control group, Dickinson, *et al.*, confirmed the previous finding that women benefited from

CETA (mainly through securing more, and more stable, work), but came up with significant negative effects for men. Men who had passed through CETA programmes were less successful in obtaining stable employment at good wages than similar men who had not been through CETA. No clear explanation emerged; Dickinson, *et al.*, speculate that CETA may have interrupted other more effective male strategies for career development. One obvious point is the similarity between the CETA evaluation results and the well established stylised fact that 'female labor supply . . . is considerably more wage and property income elastic than male labor supply' (Killingsworth 1983, p. 432), and the common explanation of this observation in terms of the rising participation rate of women in recent decades. A group (women) which is engaged in colonizing new niches in the labour market may well be able to make more constructive use of CETA-type programmes than a group (men) which has stable or falling participation rates.

Casey and Bruche (1985), in a wide-ranging survey of European and United States programmes, reached conclusions which seem to be the present conventional wisdom on supply-side labour market activism. Job-maintenance schemes (such as work-sharing, reduced working weeks, early retirement or repatriation) make sense, they claim, only as short-run buffers in the face of crises which are expected to pass quickly. From a longer-run perspective such programmes may hinder needed structural changes, and may lead to heavy future losses of potential production if the prematurely retired or repatriated workers withdraw permanently from productive activity (Casey and Bruche 1985, p. 56).

Marginal wage-subsidy programmes, while theoretically attractive, are widely considered to have generated large 'windfalls' for employers as the counterpart of relatively modest expension in actual employment offered. Casey and Bruche (1985, pp. 42–43) cite a number of studies from the late 1970s and early 1980s as showing that in both the United States and Europe, only about 10 percent of subsidised jobs were actually attributable to the existence of the subsidies. The highest estimate they find is 25 percent for the German job-subsidy scheme of 1974–75, which figure they compare to 'the approximately 45 percent 'net employment effect' estimated to have been necessary for that particular program to have been fiscally neutral' (Casey and Bruche 1985, p. 43). Similarly, youth employment programmes involving subsidies 'have tended to displace traditional 'entry' jobs, thereby substantially

reducing their net employment effect' (Casey and Bruche 1985, p. 48). The major problem with this part of Casey and Bruche's survey is that they were either lazy, or selective, in their gathering of research results on windfall effects. While it is certainly possible to locate studies of schemes which generated only 1 genuinely new job for every 10 subsidised, there are other case studies with figures as high as 70 percent, and a wide-ranging survey of OECD government schemes was available in OECD (1982) (which Casey and Bruche seem to have overlooked, despite its inclusion in their bibliography).

Casey and Bruche therefore came to a general view in favour of job training schemes rather than wage subsidies, combined with measures to smooth the transition from school to work (Casey and Bruche 1985, p. 57). They note (p. 55) the onset of a new 'realism' in OECD commentaries regarding the likely achievements of active labour market policies, but they concede (p. 56) that:

> active labor market policy also serves symbolic purposes, enabling governments to demonstrate a response to politically unacceptable levels of joblessness.

Burtless (1985) reports on one of the few systematic controlled experiments undertaken to date on an employment programme. The experiment was conducted by the United States Department of Labor, in association with the consultancy firm Mathematica Policy Research, in Dayton, Ohio, in 1980–81. The expense of this programme (a common feature of experiment-type evaluations) led to its premature cancellation by the Reagan administration in mid-1981, so that its findings were incomplete, and the work experience of scheme participants was not not traced through time as had been intended. The experiment nevertheless produced 1 striking result on the viability of voucher-based subsidised-job programmes in the climate of early-1980s United States. The issue was the effectiveness of Federal marginal-wage-subsidy programmes in creating jobs. The finding was that 'workers known to be eligible for targeted wage subsidies were significantly less likely to find jobs than were otherwise identical workers whose eligibility for subsidies was not advertised.' (Burtless 1985, p. 106). The subsidies on offer were substantial—50 percent of the wage bill in the first year and 25 percent in the second year, payable either as a tax credit or as a cash rebate.

Burtless describes the significance of this result as follows (1985, pp. 112–113):

> An implication is that employers used the vouchers to discriminate against target-group workers . . . This result is consistent with the hypothesis that employers used vouchers primarily as a labor market signal indicating potentially poor job performance . . . The same document that described the government's offer to pay up to one-half of the applicant's first-year wages and one-quarter of his or her second-year wages also informed employers that the applicant was a welfare recipient. Although the vouchered worker was offered at a steep discount, employers appeared to interpret the voucher as implying 'damaged goods'. . . . [S]ome participants in the experimental voucher plans reportedly refused to use their vouchers out of fear the vouchers would have a stigmatizing effect. The results imply that this fear was justified.

Burtless notes that in addition to the low acceptability of vouchered workers, only a small proportion of the vouchers accepted by employers were actually cashed. He points to previous evidence of low take-up rates of targeted wage subsidies such as the JOBS (Job Opportunities in the Business Sector), WIN (Work Incentive Program) and TJTC (Targeted Jobs Tax Credit) schemes of c., 1970, 1971, and 1978 respectively. He remarks that (1985, p. 106):

> Faith in wage subsidies is based on the belief that employers must find the offer of subsidised workers irresistable. This faith is difficult to reconcile with the low take-up rates that have historically plagued targeted subsidy programs. Only a small fraction of potentially subsidized job seekers typically finds employment under these programs; in fact, many more job seekers find work with employers who do not bother to file for subsidy payments
>
> The apparent unpopularity of subsidies among employers is often attributed to ignorance of the programs, high costs of participation, or fear of paperwork burden.

Woodbury and Spiegelman (1987) similarly found low levels of uptake by both employers and workers, even for a scheme which successfully reduced the net cost of unemployment insurance payouts by offering financial inducements, to both unemployed individuals and employers, for the latter to hire the former.

The Dayton experiment, however, draws attention to the obvious point that job applicants are not a homogeneous group, and that employers are likely to be more interested in securing reliable and productive workers, than in receiving monetary assistance in meeting their wage bill. From this it probably follows that marginal wage subsidies need to be tied to jobs, or to general categories of worker, rather than to individual workers, if they are to be effective in expanding employment. It is 'stock-subsidy' programmes of

this 'untied' variety that have been the subject of the macro-econometric debate in Britain (Layard and Nickell 1980, 1983; Whitley and Wilson 1983; Turner, *et al.,* 1987).

Haveman and Saks (1985) argue in favour of marginal job subsidies (in contrast to Casey and Bruche's paper in the same symposium) but otherwise strike much the same themes (p. 35):

> Lessons regarding the effective design of employment and training programs have come from both sides of the Atlantic. These lessons are complex, reflecting the fact that good policy requires appropriate matches of programs and problems and the creation of effective institutions to deliver such programs. . . .
>
> Are any generalizations possible? First, it appears that both good evaluations and good institutions form necessary elements of the best employment and training policies, though we rarely see their confluence. Second, intensive residential training for distressed youth seems to be an effective strategy. Third, general and vocational training and job search assistance for poor women entering or re-entering the labor market as adults also seem effective. Fourth, no set of programs works well for seriously disadvantaged adult males, but those that might have been effective have not been well-evaluated. Fifth, marginal employment subsidies with simple structures, outreach efforts, and minimal interference appear to be a cost-effective active labor market policy to reduce counter-cyclical unemployment. Sixth, all interventions increase their effectiveness if accompanied by strong growth in effective demand in the economy. Seventh, in a period of long-term labor market slack, intensive programs combined with targeted reductions in labor supply and measures to increase labor market mobility appear to have substantial potential. Eighth, careful program coordination with full participation in policy decisions by unions, employees [sic] and government policymakers forms a desirable institutional arrangement if it can be achieved. Ninth, explicit work-sharing arrangements appear to have substantial adjustment costs and tend to be difficult to revise when once put into place. Tenth, if programs are to be targeted on industries, they will be better and there will be less chance of money being wasted on them if the industrial beneficiaries ultimately have to pay for them.

Stretton (1984) presents an analysis of survey data on 1,500 participants in youth employment and training programs in Australia in 1981. Five programmes were covered. Four of these involved on-the-job training, organised either by hiring long-term unemployed youth into Commonwealth jobs, or by subsidising employers to hire unemployed youth and 'train the young person up to the standard required by the vacancy' (1984, p. 77). The remaining programme, EPUY (Education Program for Unemployed Youth),

involved course training followed by job search. There was no control group in the survey; consequently the multiple-regression analysis was used mainly to test the relative effectiveness of the five programmes. The job-based programmes turned out to be more successful than the course-based programme in raising the probability of an individual's being in full-time employment 6 months after completing the programme. The main reason appeared to be the advantages conferred on individuals seeking jobs from a situation where they were already in employment, both because of the chance of being retained by the trainer-employer after the subsidy was withdrawn, and because of the general observation that already employed job seekers tend to have a better success rate than unemployed ones. This appears to provide a strong argument for marginal employment subsidies. On the other hand, the content and quality of the actual training provided appeared to be higher in the course-based programme, illustrating a lack of fit between the specific skills possessed by job seekers and their probability of securing a job.

The study did not address the issue of whether the improved employment prospects of scheme participants were secured at the expense of other, competing job seekers, or represented a net gain to aggregate employment.

A recent alternative style of evaluation of employment programmes relies on simulations using macro-econometric models. In the past five years a series of studies of this kind have been conducted for the United Kingdom economy, and have been related to proposals such as that of Layard (1986) for the careful targeting of employment-creating programmes. An example of this work is Turner *et al.* (1987), which used the British Treasury and London Business School models to simulate the comparative effects of a general increase in government spending and targeted employment measures. The simulation results support the view that employment measures targeted at the long-term unemployed have lower impacts on inflation, real wages, and the government's deficit (Public Sector Borrowing Requirement (PBSR)) for each job created than does an increase in general government expenditure. These results are, however, obtained by imposing on the models assumptions about several key relationships—for example, the view that measures targeted at the long-term unemployed will leave the economy-wide real wage unaffected. The models disagree on the issue of whether targeted employment measures are fiscally

self-financing—the London Business School model showed a net reduction in the PSBR starting in the fourth year after introduction of targeted employment measures, while the Treasury model showed an increase in the PSBR for all packages tested over the full 5-year period of the runs.

Recent New Zealand Evaluations

There has been a limited amount of evaluation done of New Zealand employment programmes. The most systematic set of studies to date appears to be the 7 prepared by or for the Department of Labour in 1984–85 (Employment Promotion Conference 1985). All of these were in effect cost-effectiveness studies; as the 'Introduction' noted:

> . . . each study was undertaken to examine specific issues of current interest to policy makers. . . . [N]one of the studies intended to be a comprehensive evaluation of any particular programme.

The first of the 7, on the Project Employment Programme (Gray and Neale 1984) reported on a sequence of cross-section interview surveys of a sample of scheme participants and employers, with interviews conducted early in the PEP placement, then at the end of the placement, and finally 3 months after the end of placement. There was no control group, and the study's conclusions were agnostic: 'Overall we are left with an unclear picture of what the PEP scheme achieves for its participants' (Gray and Neale 1984, p. 84). The main contribution of the survey results was descriptive—identifying which types of individuals participated in the scheme, and tracking the determinants of relative successs in finding permanent jobs after scheme participation. Participants and employers were supportive of the scheme, mainly on the short-run grounds of giving otherwise-unemployed individuals something to do, and getting jobs done that would otherwise not have been done, respectively.

In terms of wider evaluation issues, 2 significant points which did emerge from this study were signs of a low 'deadweight' or 'windfall' ratio, and some evidence that temporary job placement could prevent the qualitative transition of individuals from short-term to long-term unemployed. On the first of these, Gray and Neale reported (1984, p. 55) that:

> Half [of the employers interviewed] could not have got the job done any other way; this was true for 7 out of 10 Wellington employers. A quarter

were getting extra work done and 1 in 8 would have managed some of the work some other way.

In comparison with the European 'deadweight' estimates of over 75 percent cited by Casey and Bruche (above) and even the 60 percent ratio found by Layard (1979) for the Small Firms Employment Subsidy in the United Kingdom (see below), the implied 30–50 percent deadweight element in the Wellington area PEP scheme shows up very favourably (similar figures do occur in some overseas studies). Undoubtedly the restricted (and generally marginal) nature of the work made available under the scheme contributed to this result, and would have meant low displacement of unsubsidised workers. (Forer (1980) makes similar comments on the 1970s Temporary Employment Scheme.)

The second finding, that 'those who had been unemployed a shorter period of time were more likely to find permanent work, suggesting that intervention at an early stage to maintain work habits and job skills does pay off' (Gray and Neale 1984, p. 85), cannot be given much statistical weight in the absence of a control group, but does point to an important possible line of defence for PEP-type programmes (see below for a discussion of the 'hysteresis' issue).

Thus, while PEP does not seem to have done much for the longer-run employment prospects or work orientation of participants, it probably yielded net benefits for employers and workers. Gray and Neale make no attempt to assess the ratio between these benefits and the cost of the scheme to taxpayers in general.

The second scheme covered by the 1984 studies was the Work Skill Development Programme (Training Policy Division 1984). The aim was to 'assess the effectiveness of the programme in meeting its prime objective of providing training and work experience to assist participants to move into employment' (Training Policy Division 1984, p. 92). The sample was confined to scheme participants (there was no control group) and relied on participants' ability to assess for themselves the effectiveness of the scheme. The response rate was low and the sample was not random. The value of the information was therefore really descriptive, and the study became in effect an efficiency audit of the training process itself, and not an evaluation of its effects. The main point to emerge about effectiveness seems to have been a conflict of views between staff and trainees on the ideal length of training (p. 104). Staff argued for longer training periods, whereas trainees found much of

the subject material unhelpful and 15 percent left the scheme 'because they had been there too long or their time was up' (p. 102).

The third of the 1984 studies covered the STEPS (School-leavers' Training and Employment Preparation Scheme) (Training Policy Division 1985a). For this study, a sample of 392 current participants and 413 ex-participants was drawn, and over 90 percent responded. There was no control group 'because of the undesirability of denying people access to a training programme' (p. 143), and the focus of the questionnaire was on participants' own perceptions of the benefits of the scheme. Generally the responses were supportive, but provided no quantification of either the costs or the benefits of the scheme. In effect this survey amounted to a vote of confidence rather than a cost-effectiveness evaluation.

Much the same comment applies to the companion study of the Young Persons Training Programme (YPTP) (Training Policy Divison 1985b), although this survey made a slightly more serious attempt to determine whether participation in the scheme raised the probability of finding a permanent job. The approach was impressionistic, however: trainees, employers and vocational guidance counsellors were asked whether they felt the scheme improved employment prospects. Employers and counsellors generally felt that ex-trainees were more job-ready (p. 157) and the study claimed that 'the job placement rate of ex-trainees . . . was higher than expected from previous statistics on job placement of YPTP trainees' (p. 148). Similarly, 81 percent of trainees felt that the scheme had helped them get a job (though only 57 percent thought the training itself was useful) (p. 156).

More systematic and tightly focused was the review of subsidised private-sector employment schemes (Employment Policy Division 1984a), which clearly based its design on overseas (particularly OECD) findings on displacement and deadweight effects. Data was obtained from files on scheme participants, and from a sample survey of employers. Only anecdotal material on displacement was obtained, and the key finding of the survey was therefore in the area of 'additionality' (i.e., the extent of deadweight or windfall effects). Thirty-five percent of the employers surveyed indicated that a new job had been created as a result of the subsidy, and a further 6 percent stated that a new job was created initially but later withdrawn. Roughly 60 percent of the subsidies were therefore

windfalls to employers. There was also strong evidence (p. 175) that the availability of subsidies led employers to bring forward their recruitment of extra workers. The study commented that (p. 175):

> The ratio of 'true' jobs created . . . is generally in line with overseas research findings. Reference 'OECD—Marginal Employment Subsidies 1982.'

The OECD survey is discussed, and its data on windfall ratios summarised, below. A 41 percent ratio of initial job creation and a 35 percent rate of sustained job creation are indeed roughly median figures in relation to the OECD findings—but it should be noted that the spread of the OECD estimates of net incremental job creation from subsidies was extremely wide—from under 10 percent to over 70 percent— which makes it difficult to speak of any 'typical' overseas research result. The impression from the OECD data is that the only firm conclusion is that subsidies do have some effect on total employment. How much seems to depend critically on scheme design and the local economic environment.

Indirect displacement and other economy-wide effects were not tackled by the Employment Policy Division study, and cost-effectiveness was addressed only in the form of a question asking employers whether the level of subsidy was too high, too low, or 'about right'. (Most employers thought it about right.)

The Employment Policy Division also conducted studies of public sector employers of PEP workers (1985) and of the long-term unemployed (1984b). The first study was based on a small (13 percent) sample of PEP workers in September 1984 and was merely an exploratory exercise to determine what types of work were being offered under PEP.

The second was a major exercise comparing statistical characteristics of a sample of the registered long-term unemployed with data for the population as a whole. Data came both from registration cards and from interviews with a sub-sample of long-term unemployed. The central findings were that the 3 key characteristics predisposing individuals towards becoming long-term unemployed were low skill, low educational qualifications, and being aged 30–59 (in contrast to the unemployed in general, 58 percent of whom were under 24) (p. 225). The fact of being long-term unemployed clearly lowered the probability of re-employment, and the study concluded (p. 228) that 'Unemployment appears to be progressive in its effect on the individual—the longer a person is

unemployed, the less the likelihood of leaving the register' due to loss of confidence and skills.

Design of Evaluation Studies

'Evaluation' means different things to different people, and this is reflected in the variety of questions asked in the evaluation literature. Some studies have sought to determine whether employment programmes such as training or job creation have benefited the individuals participating in the programmes—e.g., by raising their average earnings, or improving the quality or stability of work they are able to secure. Others have been concerned with the question of 'fiscal neutrality'—whether the gains to the government's budget from reduced unemployment benefits, and lower expenditures in other areas indirectly affected by alleviation of unemployment, suffice to outweigh the direct financial costs of running the programmes. Others have sought a balance of social costs and benefits, widely defined. Still others have been concerned with the macro-economic issue of whether there is a 'natural rate of unemployment' or 'NAIRU' (non-accelerating-inflation-rate of unemployment) which is impervious to labour-market intervention.

The 1982 OECD survey of marginal employment subsidy programmes commented (OECD 1982, p. 9):

> There are basically two employment objectives at which marginal employment subsidies can be aimed: a counter-cyclical one of increasing or protecting aggregate employment during a recession, and a structural one of promoting more equal access to employment opportunities and improving the functioning of the labour market. The great majority of countries have adopted subsidy schemes which represent a mixture of anticyclical and structural elements. This double policy objective has considerably complicated and blurred the discussion on the possible and actual impact of these schemes and their evaluation. For the sake of clarity . . . it is useful to make a distinction between the two objectives and to discuss the potential employment impact of anticyclical and structural subsidy schemes separately.

The OECD then goes on to describe the design and impact of marginal subsidies aimed at the aggregate employment target in terms very similar to the discussion of Layard and Nickell (1980), emphasizing the superiority of marginal 'stock' subsidies to expanding firms (that is, subsidies paid on increases in the number of employees, without specifying exactly which individuals are employed) over redundancy-deferring schemes to retain employment in declining sectors.

For the pursuit of structural objectives, the OECD favoured a 'targeted recruitment subsidy' (1982, p. 11) which is targeted to particular workers rather than to jobs as such. Possible problems—displacement of non-subsidised workers and 'churning' (turnover of subsidised workers as their subsidies expire)—are recognised but considered not to be critical.

This neat distinction between clearly specified alternative objectives would be appropriate in circumstances where governments faced either a purely macro-economic unemployment problem with no structural difficulties, or purely structural unemployment with no macro-economic demand deficiency. In most real-world cases, the objectives of employment problems are multiple because aggregate and structural problems present themselves in tandem rather than separately. Indeed, the rationale for using marginal stock subsidies to lower unemployment in an economy with no structural constraints in the labour market is hard to establish, since such an economy would be relatively easy to reflate with, say, tax cuts, rather than an active employment policy. (Cf. the debate amongst Layard and Nickell 1980, 1983; Whitley, *et al.,* 1983; Turner, *et al.,* 1987.) Indeed, in the same OECD volume from which the above quotation was drawn, Haveman (1982, pp. 26–29) quickly returns to discussing aggregate employment and structural problems as a joint issue.

The proposition that policies are best designed to mount simultaneous, rather than separate, assaults on macro-economic and structural fronts has recently been stated forcefully by Layard (1986) in a book which argues for a package comprising targeted marginal subsidies, training programmes aimed at labour-market bottlenecks, incomes policy using penal taxes targeted at above-award wage settlements, and management of the exchange rate to avoid inflationary pressures from import prices. This package is designed explicitly to act as a substitute for general fiscal/monetary reflation in a setting where untargeted expansionary policies are considered to carry an unacceptably high inflation risk. Layard's view is that carefully targeted subsidies and training may be able to mop up the long-term unemployed without producing the sort of labour-market 'tightness' associated with inflationary wage claims.

The relevance of the above points for evaluation design lies in the fact that any supposedly 'structural' measures which succeed on a large enough scale to make a visible dent in the unemployment

problem must be expected to have some macro-economic consequences, which should not be ignored by evaluators. Similarly, aggregate policies which succeed are likely to have structural effects. The neat matching of 'instruments' and 'targets' for which the OECD (1982) seemed to be searching is therefore especially difficult, and quite possibly misguided, in the labour-market context.

At all levels of analysis, there is perennial and inescapable tension between purely quantitative analysis (which is of necessity restricted to those costs and benefits which can be measured in terms of financial equivalents) and qualitative or descriptive analysis, which gives weight to intangible but important matters such as the general climate of opinion, expectations, business confidence, individual morale, and the like. Many studies have commented on the probability that unemployment has higher costs for individuals in periods of severe recession than in periods of relative prosperity, because of the general weakening of support networks and lessening of social tolerance during recessions. However, it is precisely in severe recessions that policymakers are most likely to doubt the effectiveness of employment programmes, and that fiscal stringency is most likely to cut their budgets.

A number of works appeared during the early 1970s on the application of cost-benefit and other economic techniques to the evaluation of labour-market intervention. Typical examples are Hardin and Borus (1971), Hamermesh (1971), and Barsby (1972).

Hardin and Borus (1971) report on an ambitious research programme conducted in Michigan during the 1960s on the effects of the Manpower Development and Training Act (MDTA) of 1962. The procedure was a sample interview survey of programme participants and a matching control group. The 3 'criteria of economic success' were:

> . . . the effects of training on (1) national product, (2) disposable income of trainees, and (3) government outlays and receipts . .
>
> *Hardin and Borus 1971, p. 11*

And they sought also 'to estimate the variations in impact associated with various course, trainee and labor market characteristics' (1971, p. 12). They found that participation in training programmes was effective in raising participants' average earnings, but that the gain from training decreased with the length of the course (i.e., short courses had a bigger pay-off for participants than longer ones) (Hardin and Borus 1971, Chapter 4). Taking into account

the reductions in unemployment benefit, welfare payments, net earnings foregone during the course, and allowances paid to trainees, they found that during the course period trainees enjoyed higher disposable incomes but unemployment and welfare benefits were reduced. (Chapters 5–8). Taking account further of the costs of running the courses (Chapters 9 and 10) and of increased tax revenues from higher incomes of trainees (Chapter 11), Hardin and Borus were able to estimate the private net benefit from participating in a training programme ($889 per participant—1971, p. 160) and the impact of the programmes on the government budget (negative for longer courses, since initial outlays on the training were not recouped from later gains in net revenue; positive for short courses—1971, pp. 182–184). Not surprisingly, Hardin and Borus concluded that the programme should be redesigned away from long-duration training, and toward short courses, albeit they recognised the need for more research into the reasons for their correlations on the effects of course length.

This leaves, of course, their first issue of the effects on national product. Here Hardin and Borus record a situation which has remained little changed in the subsequent two decades of research (1971, p. 18):

> . . . we were unable to devise a research design which permitted us to measure directly the annual national product gained after training or the trainee output lost during training. Instead, the national product effects were assessed by inference from the estimated effects of training upon trainee earnings.

That is, if trainees were made better-off, it was assumed that the nation as a whole was made better-off. Hardin and Borus recognised that this raised a host of issues relating to the displacement of other workers, relaxation or tightening of specific labour-market bottlenecks, changes in productivity, allowance for unemployment disequilibrium, and wider effects on crime and health. Their brief discussion of these matters concludes (1971, p. 19):

> These external economic benefits and costs may be very important, but they are also very difficult to measure. We reluctantly disregarded them in our analysis.

A companion study by Hamermesh (1971), also dealing with MDTA, took up this problem where Hardin and Borus left off. Hamermesh began from the proposition that (1971, p. xv):

> Manpower policy seems to be aimed increasingly toward providing direct help for disadvantaged workers, a purpose which, I feel, can only

> in the long run be wasteful, increase social conflict, and hurt the disadvantaged themselves. In the area of research the large majority of work has been performed using institutional analysis rather than the framework of standard economic analysis. I feel that economic theory has a substantial role to play in both the definition of what manpower policy should be and evaluation of existing policy.

While recognising the usefulness of specific 'cost-benefit' studies, Hamermesh was more concerned to identify wider principles from economic theory on the issue of 'what constitutes appropriate and efficient government intervention' (1971, p. 4). In particular he noted the important indirect effects that manpower programmes could have on general labour-market efficiency, monetary and fiscal policy, international competitiveness, and the balance of payments. Where Hardin and Borus were deterred by lack of hard data, Hamermesh adopted an alternative research strategy (1971, pp. 7–8):

> Because there is a lack of data on the effects of training on the supply of labor for specific jobs, and because it is impossible to measure the costs of training, most of our analysis uses pure theory and simulation studies rather than direct empirical work. Each of the four studies is designed either to show possible efficient ways of achieving each goal or to illustrate a particular economic problem that might arise out of attempts to use manpower training to achieve the goal in question.

Each of the 4 exercises conducted by Hamermesh involves construction of an *a priori* neoclassical model, the use of available empirical data to guess plausible parameters, and then the simulation of the effects of manpower programmes using the model. He begins with the issue of 'displacement' of non-subsidized workers by subsidized workers, noting that programmes that 'reshuffle' a given set of jobs from one group of workers to another will yield no net gain. Several initial assumptions are made at the outset (1971, pp. 17–18). These are:

1. Displacement occurs only at the margin of a firm's hiring behaviour—i.e., a subsidised unemployed worker will be hired in preference to an unsubsidised one but would not be hired in order to enable the firm to lay off already-employed but unsubsidised labour.
2. The subsidy affects all firms equally—there is no 'composition-of-output' effect leading labour intensive firms to expand at the expense of capital intensive ones.
3. There is no effect on aggregate demand, and hence on demand for the output of target sectors.

4 There are no bottlenecks which are relaxed by training.

The effect is to focus the analysis on a particular issue where neoclassical economic theory can be brought to bear, at the expense of most of the interesting structural detail of real-world labour markets. A sophisticated use of neoclassical production-function theory then leads, not surprisingly, to simulations which give very high displacement ratios—near enough to 100 percent. The conclusion Hamermesh draws (1971, p. 39) is that subsidies have to be targeted to be effective; in particular, subsidies should go to labour intensive firms or sectors such as manufacturing and government services, in order to increase the economy's aggregate labour absorption by shifting the composition of output towards labour intensive goods. His political conclusion is that displacement effects are potentially explosive because of the resentment they cause among workers displaced.

Hamermesh then turns (Chapter 3) to a chapter ostensibly on depressed areas, but which is really a comparison of the relative merits of training subsidies versus wage subsidies in a market with homogeneous labour and neoclassical firms. His conclusion is that training subsidies improve long-run employment prospects more than wage subsidies, but give firms an incentive to unload their training costs onto the government. If the aim is to force firms to carry a larger share of their own training costs, then a wage subsidy is preferable but does not provide a basis for long-run employment. The chapter adds only a few minor points relating to depressed areas *per se,* and again many of the key issues—such as labour mobility between regions—are taken out by assumption.

The third issue tackled is that of shifting the short-run Phillips Curve by manpower training. Whatever the shape of the long-run Phillips Curve, Hamermesh assumes the existence of a short-run trade-off due to labour-market bottlenecks (1971, p. 63). If these can be reduced by government helping workers to shift from declining to expanding occupations, the inflation-unemployment tradeoff should be improved. A 2-sector macro-model is constructed and simulated which suggests that the cost of shifting the Phillips Curve is likely to be extremely high in terms of government expenditure on training programmes, and that such an expanded programme of expenditure cannot be properly targeted without a lot more econometric work on labour supply elasticities and the location of bottlenecks (if any). Hamermesh concludes (largely on political economy grounds) that upgrading existing

employees is a more efficient way to target subsidies than provision of entry level jobs.

Finally Hamermesh turns to the issue of using manpower programmes to deal with 'urban problems', but this section (Chapter 5) yields only the insight that not enough is known about ghetto residents' response to training.

Overall, Hamermesh's book is disappointingly narrow in its theoretical scope, and ultimately runs into the same data constraints that had stumped Hardin and Borus. Its insights are really micro-economic, and the promised excursions into macro simulation are not forthcoming. Its main interest lies in its methodology, which pointed the way forward to 2 subsequent research programmes. One of these, the purely *a priori* approach, settles for the conclusions available from pure theory models resting on strong initial assumptions; these conclusions are then used to shape policy recommendations without much (or any) reference to real-world data. The other line of attack pursues the simulation approach, first building a plausible model (embodying real-world insights where possible) with parameters drawn from econometric work; and then using the model to simulate the effect of policy packages. The most interesting recent work along these lines has involved the use of macro-econometric models in the United Kingdom (see above).

A third example of work from the early 1970s is Barsby (1972), whose book is mainly concerned with surveying and comparing a number of studies of United States training programmes of the 1960s (all of which showed positive benefit-cost ratios). In his concluding chapter, Barsby drew attention to what he saw as the assymetric nature of the problems with cost-benefit analysis of manpower programmes (1972, p. 154):

> Complaints revolving around cost errors tend more to be methodological (such as poor accounting data) whereas those relating to benefits are more conceptual. In fact, most complaints center, in one way or another, on the use of earnings as the measure of benefits.

Without mentioning any of the macro-economic issues, Barsby lists 10 types of hard-to-measure benefits, ranging from crime reduction to the 'benefit to society of improved citizenship' (Barsby 1972, p. 154). He goes on to assert that most of these unmeasured benefits are of second-order magnitude, so that they do not seriously affect the results of cost-benefit work. Crime, health, intergenerational gains, improved income distribution, non-wage job benefits, increased productivity and wider options all fall under

this heading. Barsby draws the conclusion that cost-benefit studies which ignore unmeasurables will probably produce the right sort of answers, and that if we are seriously worried about unmeasurables we can restrict the use of cost-benefit techniques to choosing among competing programmes. (Barsby 1972, pp. 156–157).

This conclusion, however, turns out on inspection to be suspect. Barsby's study simply brushes aside several of the crucial cost-side problems such as the displacement ratio, and limits the applicability of cost-benefit techniques to policies which are small enough relative to the total economy to have no measurable macro impact on aggregate demand, wage levels, balance of payments or other macro-scale variable. At the level of partial analysis he shows that cost-benefit studies can deliver 'hard' answers in choosing among individual small programmes—but he also implicitly admits that they cannot establish whether labour-market interventions are effective in improving the overall labour-market outcome.

Ziderman (1978, Chapter 6) provides a useful introduction to the design of evaluation studies, and a survey of the most significant pieces of research conducted to that date on the impact of government training programmes. The great bulk of actual evaluation studies, particularly in the United States, he identifies as having been concerned simply with the impact of training programmes on the fortunes of individual participants—that is, the implicit question has been whether programmes are effective in providing benefits to the narrowly defined target group. Ziderman distinguishes (1978, pp. 61–63) between cross-sectional and longitudinal studies of the net direct benefits for participants in training programmes, and notes key problems with each approach.

In cross-section studies there is great difficulty in establishing a satisfactory control group, and snapshots fail to identify changes through time which may be all important (see Figure 4, which reproduces Ziderman's 4 alternative hypotheses regarding the post-training path of earnings for programme participants relative to the control group). Longitudinal studies of earnings and employment history are more satisfactory means of establishing the direct effects of a programme, but face severe limitations of data, and are usually conducted retrospectively. Ideally, what is required is for each programme to be set up as a controlled experiment and monitored over a long period of time. Crucial problems with this are, first, the very high cost of experimental studies compared to retrospective

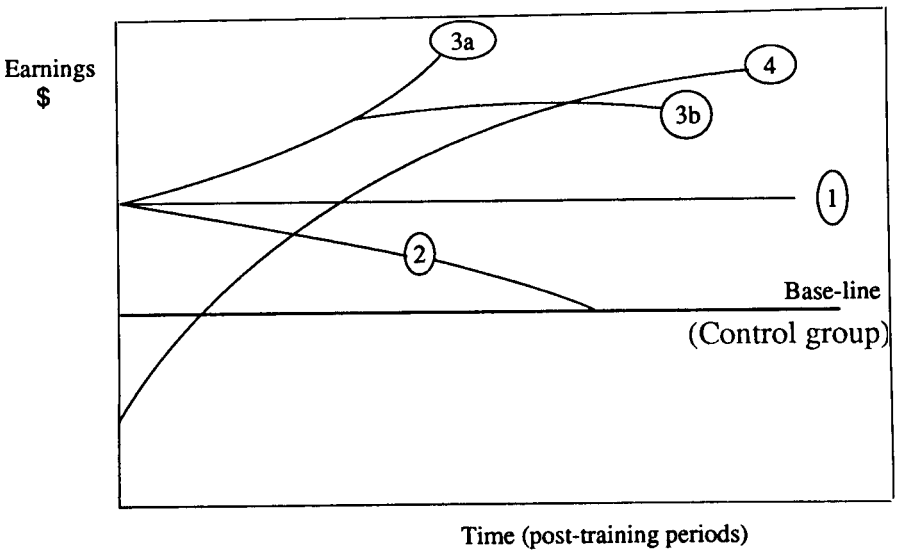
time-series analysis (cf. Ashenfelter 1975); second the ethical issues raised by excluding from participation in a training programme a control group of otherwise qualified individuals (cf. the uneasy footnote on ethics in Burtless 1985); and third, the usual difficulties of securing a statistically clean control group and correcting the data for the impact of exogenous events during the period of the experiment.

A more recent, and far more econometrically sophisticated, discussion of these methodological issues is Heckman and Robb (1986), which concludes (p. 238) that 'the benefits of longitudinal data have been overstated in the recent econometric literature' and that repeated cross-section studies are more feasible and at least as efficient in answering questions about the direct impact on participants. Heckman and Robb explore (1986, pp. 175–183 and 233) the implications of asking the impact question in alternative ways: first 'the impact of training on earnings if people are randomly assigned to training programmes' and second 'the impact of training on the earnings of the trained'. The second of these, they claim, is of more relevance in designing real-world programmes, because in practice enrolment of individuals into training schemes will be non-random.

Turning to the wider issues of the social (as distinct from private) costs and benefits, Ziderman (1978, pp. 68–76) identifies 3 indirect effects which are likely to flow from employment programmes in the context of an economy with some slack in at least part of its labour market. The 3 externalities are induced output, replacement, and displacement.

Induced output is to be distinguished from the mere operation of an aggregate Keynesian multiplier, the use of which by Borus (1964) is rejected by Ziderman, on the ground that the initiating expenditure injection which triggers the multiplier process need not be related in any way to employment programmes *per se*. Induced-output effects which flow from a training scheme occur when scarcity of individuals with the appropriate skills constitutes a bottleneck in the labour market, so that raising the supply of trained individuals makes possible the employment of a number of unskilled individuals who would not otherwise have been hired. Quantification, obviously, is difficult; and assumptions of inelastic demand and low substitutability of types of labour are required to render the story plausible. Ziderman (1978, p. 69) largely discounts these effects.

FIGURE 4: Hypothetical possible paths of post-training earnings for programme participants



Source: after Ziderman 1978 p. 66

'Replacement' and 'displacement' are often mentioned but seldom, Ziderman claims, incorporated into formal evaluation analysis (1978, p. 70):

> Replacement occurs when the jobs that would have been held by trainees, had they not joined the training course, are now filled either directly by the unemployed or are taken by other employed workers whose vacated jobs create in turn a chain reaction through the labour market, leading, eventually, to the employment of hitherto-unemployed workers. Put another way, full replacement implies that the net contribution that trainees would have made to output, had they not joined a course, is made instead by other workers who would have remained unemployed otherwise. . . . The effect of replacement is to raise benefits and lower costs.
>
> . . . [T]o the extent that on completing their courses trainees are placed in jobs that would have been filled by others in the absence of training, then a displacement effect occurs, resulting in lower aggregate benefits from training. Full displacement has the implication that training, rather than resulting in an increase in output, leads simply to a change of faces at the unemployment exchanges.

> . . . Since these two effects work in opposite directions, some difficulty may arise in interpreting the over-all influence of these externality effects on the societal profitability of training, when similar labour-market conditions prevail in both the relevant unskilled and skilled labour markets. In generally tight labour-market conditions, relatively low replacement . . . coexists with low displacement . . . While from the demand side employers may desire to replace workers lost to training, in these labour-shortage situations it is most unlikely that they will succeed in doing so. . . .
>
> What now of generally slack labour market conditions? Most plausible situations lead to both high displacement . . . and, effectively, somewhat high replacement. Employers seeking to replace workers joining training courses should encounter no difficulty given the excess supplies of labour . . . [E]ven where trainees come direct from unemployment, no output is likely to be lost—hence replacement is, effectively, large. Displacement too is sizable, as newly trained workers may compete successfully with older workers in skilled jobs, or those with somewhat outmoded skills.
>
> More realistically, however, contrasting labour-market situations are likely to prevail . . . [L]arge net benefits may be available to society from a training programme if labour-market imbalances exist such that unskilled unemployment coexists with a marked shortage of workers with particular skills. Then, by concentrating training on these scarce-skill occupations, not only is production foregone during training low (because of high replacement), but also the benefits are large (as displacement is minimal)—and, possibly, induced output effects are also present. . . .
>
> Recent simulation studies on the effect of different replacement and displacement rates show societal net benefit of training to be extremely sensitive to the actual level of replacement and displacement assumed . . . However, no empirical studies measuring the size of replacement and displacement in various labour-market situations have as yet been carried out, indicating the existence of both a considerable gap in the literature and an important research priority in the field.
>
> *Ziderman 1978, pp. 70–73.*

Ziderman goes on to point out that in 'flexible' labour markets, replacement and displacement effects would wash out quickly, rendering them merely short-run phenomena. But 'flexible' labour markets in this sense would equally yield rapid adjustment to full-employment equlibrium. Thus insofar as unemployment itself is a persistent problem in the real world, so too will replacement and displacement effects be persistent rather than merely transitional. (The issue is discussed in Blaug 1975.)

Because of the extreme difficulty of measurement, and the uncertain effects of programme expansion on programme 'profitability', Ziderman concludes that the need is for evaluation based on continuous monitoring, not 'occasional ad hoc studies' (Ziderman 1978, p. 74).

One of the most systematic attempts to push the cost-benefit approach into 'the slough that lies between macro- and micro-economics' (Layard 1979, p. 187) is Layard's analysis of special employment and training measures in the United Kingdom in the late 1970s. Layard starts with the assumption that the key problem is high unemployment, and that the choice faced by government is whether to engage in general macro-economic reflation, or to use selctive labour-market measures. If selective measures are preferred, then there are further choices to be made: between the supply side and the demand side of the labour market; and on the demand side, between public-sector and private-sector job creation. This starting-point gives Layard's work a very different flavour from the United States literature of the 1970s (with its tight focus on the use of manpower policies to improve the position of target groups of disadvantaged workers, or to improve the functioning of labour markets as allocative devices). The different aims also mean different research design: Layard does not resort to the micro-economists' research tool of interview surveys of programme participants and a control group. Instead, he works (like Hamermesh) from an economist's model of the working of the economy, with real-world values inserted where possible. Layard's model is, of course, rather different from Hamermesh's United States neoclassicism. His instincts are towards neo-Keynesian macro, and he starts from the view that despite the familiar inflationary problems with reflationary demand-management as a solution to unemployment, it is possible to achieve lasting real effects with devices such as general tax cuts.

Selective labour-market interventions are therefore to be ranked against a credible alternative of generalised use of fiscal and monetary policy. Their advantage, if any, arises from their ability to 'flatten' the short-run Phillips Curve—that is, to gain a reduction in unemployment at less cost in terms of extra inflation than if the government used general reflationary policies. To obtain a simple framework for his analysis, Layard identifies the marginal costs of employment policies as the increase in inflationary pressure which they generate per unit fall in unemployment achieved, and the

marginal benefits as the increase in real income (adjusted for equality) per unit fall in unemployment. (Layard 1979, p. 188).

The first of these ratios depends upon the impact of the particular programme on the government's budget surplus and the economy's balance-of-payments surplus since budgetary deficits are assumed to be inflationary via their impact on the money supply, while balance-of-payments deficits are inflationary via the domestic-price effect of exchange-rate depreciation (if the currency is floating). There is also a third transmission mechanism from reduced unemployment to increased wage presure in the labour market. On the benefit side, the key issues are the increase in output per unit fall in unemployment, and the increase in equality per unit fall in unemployment.

TABLE 2: Layard's view of the effects of selective labour market measures on 4 key variables, relative to the effect of tax cuts generating the same fall in unemployment.

Measure	Relative Effect of Measure On: Budget surplus	Balance of payments	Net output	Equality
Marginal wage subsidy	+	+	−	+
Selective Public Employment	+	+	−	+
Training	+	+	?	+
Supply-side measures:				
Replacement rate = 1	+	+	−	0
Replacement rate low:				
Increased hours	+	+	+	−
Increased productivity	−	?	+	0

Source: Layard (1979) p. 189

On the basis of his analysis of United Kingdom policies between 1975 and 1978, Layard constructs the table reproduced as Table 2 above, ranking 4 types of labour-market intervention against general tax cuts in terms of his benefit/cost ratio as defined above. By thus specifying his costs and benefits in terms of measurable macroeconomic variables rather than trying to build them up from micro-level accounting procedures, Layard manages to get a grip on issues which elude the more conventional cost-benefit approach. By asking his questions in relation to a particular macro-

economic model, he is able to bring to bear econometric findings on various relationships such as demand elasticities, elasticities of substitution, real-wage resistance, functional income distribution, and so on. And by presenting his findings in terms of ordinal comparisons amongst alternative policies, rather than numerical estimates of the impact of individual policies, he manages to produce hard policy recommendations, which he then buttresses with numerical estimates when possible, but which do not depend upon those estimates. The rankings shown in Table 2 are obtained on the basis of empirical data wherever it is available, but on the basis of model-guided judgement where data do not exist.

In the case of marginal employment subsidies, for example, the rankings shown in Table 2 are obtained entirely by *a priori* reasoning. Being targeted, the subsidies should give a better budgetary payback than general fiscal stimulus. Because their main effect in an open economy is to render traded-goods producers more internationally competitive, they should strengthen the balance of payments. Because subsidised workers will be employed in jobs with marginal product below the prevailing real wage, the extra jobs will add less to output than jobs created at full wage cost by general reflation. And provided the subsidies are flat-rate they should give greatest benefit to low-wage workers, hence improving equality (Layard 1979, p. 190). The macro model and analysis underpinning these claims are set out in more detail in Layard and Nickell (1980).

Department of Employment survey data on 2 British schemes—the Temporary Employment Subsidy (TES) and the Small Firms Employment Subsidy (SFES)—are then used to show that Layard's intuitive results are plausible. The TES, for example, turned out to have a large percentage (51 percent) of its total take-up in 2 sectors, textiles and clothing, and footwear, characterised by relatively low wage levels, relatively high demand elasticities for their products in international markets, high labour share in total cost, and high supply elasticities for non-labour inputs. Most of the output of subsidised workers was reported to be for final sales rather than stockbuilding, and employers claimed to be increasing their sales at competitors' expense. Layard concludes (p. 191) that this programme successfully exported British unemployment by boosting the competitive performance of labour intensive sectors.

The TES, however, was an attempt to reduce redundancies in sunset industries, whereas Layard's main recommendations relate

to boosting employment in growth industries. The Small Firms Employment Subsidy was an experiment in this direction beginning in 1977, which was evaluated by the Department of Employment using both sample interview surveys with a control group, and direct interviews with employers. The evaluations suggested that roughly 40 percent of the jobs subsidised were attributable to the subsidy, while 60 percent of the jobs would have been provided in any case (Layard 1979, p. 193). (This 40 percent figure is substantially above the 25 percent cited in Casey and Bruche (1985) p. 43, as the highest estimate they could find for net job creation by subsidy in European studies in the late 1970s—see above.) Net budgetary cost was estimated to be low, and most subsidised workers were at the low-wage end of the income distribution.

Displacement rates and multiplier effects could in principle be estimated econometrically, but Layard contents himself with pointing this out (1979, Appendix II) rather than actually carrying out the exercise.

A third marginal subsidy scheme discussed by Layard is the Youth Employment Subsidy (YES), paid to employers who hired people under 20 years of age. This scheme, Layard points out (1979, p. 195) involved subsidies on the flow of hiring decisions rather than the stock of jobs provided, and not surprisingly encountered heavier deadweight losses than the other two schemes (TES and SFES). Roughly three-quarters of the firms claiming the YES subsidy indicated that they were substituting young people for other workers at the margin, rather than creating new jobs in response to the subsidy.

Layard's treatment of the other programmes he discusses can be summarised more briefly. Selective temporary public-sector employment programmes such as Britain's Job Creation Programme and Special Temporary Employment Programme (and New Zealand's imitative Project Employment Programme and Temporary Employment Programme) are cost-effective in a budgetary sense but tend to generate output of dubious value and do not lead on to sustained employment via retention and on-the-job training. Publicly funded training schemes have similar budgetary and balance-of-payments implications (1979, p. 197) but more uncertain distributive implications. If operated countercyclically their inflationary cost should be minimised, and they can compensate (in human-capital terms) for the fall in physical investment during recessions, thus boosting productive capacity in the

longer run. The actual output effects of training schemes, however, are extremely difficult to measure. Finally, measures to reduce labour supply raise serious questions about replacement rates; if employers use the schemes to secure costless redundancies, and then opt not to replace the departing workers, the net budgetary cost per unit reduction in registered unemployment may turn out very high. In general, supply-reducing measures aim to transform hours of unemployment into leisure (by persuading people to leave the labour force) rather than into output (which is the aim of job subsidies and training schemes).

Layard's clear conclusion from his style of evaluation work is his advocacy of marginal stock subsidies on jobs provided—the theme of Layard and Nickell (1980) and (1983). Taking the German reflationary 'Papen Plan' of 1932 as their model, Layard and Nickell (1980) argue that a marginal employment subsidy is the best means of minimising the inflationary effects of employment expansion. Their proposal sparked off a series of experiments using macro-econometric models of the British economy to simulate the relative performance of various employment programmes (Whitley, *et al.*, 1983; Turner, *et al.*, 1987) but the alleged advantages of the marginal-subsidy approach relative to non-marginal packages remains in dispute, because of problems with the design of the existing models (none of which were originally constructed for this particular purpose) (cf. Layard and Nickell 1983).

In 1982 the OECD surveyed the operation of marginal employment subsidies in member countries, and identified 28 schemes in operation during the 1970s (OECD 1982, Annex, pp. 88–97). Looking at the available scheme evaluations, the OECD found the following distribution:

Survey	12
Judgemental	9
Survey + econometric work	5
No evaluation available	4
Total	28

Of the 28 schemes, thus, 21 had been evaluated either by surveys of participants/employers, or by qualitative assessment by officials. Thorough quantitative assessments which tried to go beyond survey data were a small minority, and none of the evaluations is reported as having produced a full cost-effectiveness analysis, let

alone a social cost-benefit conclusion. Of the 2 important 'problems' with subsidy programmes (displacement and windfalls) displacement did not appear to have been quantitatively estimated by any of the evaluations covered, but several had attempted 'windfall' estimates, resulting in the following ratios of net incremental employment to the total number of jobs subsidised:

	Percentage
Canada (Employment Tax Credit)	60
France (Social Security contributions exemption)	7–30
Ireland (Premium Employment Programme) ..	17–54
Sweden (Employment Premium to Industrial Enterprises)	'low'
Sweden (Temporary Recruitment Grant) ..	20–30
UK (Small Firms Employment Subsidy)	40
UK (Temporary Employment Subsidy)	70

This is actually an extremely wide range of findings, which represents a 'consensus' only in agreeing that the windfall rate is less than 100 percent. There is clearly a great deal of room for scheme design and implementation to affect the amount of leverage gained on aggregate employment. It is noticeable that the highest figure (70 percent) relates to a programme which was primarily concerned to prevent redundancies in declining industries rather than to expand employment in growing industries; hence it presumably reflects 'net jobs not axed' rather than 'net jobs created' (cf. discussion of SFES and TES in Layard 1979, pp. 190–196).

Recently, evaluation in the United Kingdom of the Young Workers Scheme (YWS) (Bushell 1986, p. 149) has come up with evidence of a falling time trend for the deadweight ratio. In 1982 during the scheme's first few months, survey data suggested that only 6 percent of subsidised jobs were additional, with 94 percent deadweight or 'substitution' (young workers hired ahead of non-subsidised workers). The 1983 survey showed the deadweight/substitution ratio down to 76–82 percent, and by 1985 it had fallen to 73 percent (63 percent deadweight and 10 percent substitution). Bushell comments that this trend points to 'the creation of more jobs for young people as the scheme matures' (1986, pp. 149–151). While the figures reported for YWS are towards the high end of the deadweight spectrum, the tendency for the scheme to exert growing leverage on job creation over time raises clearly the question of the stage at which other schemes such as those

reported in OECD (1982) were evaluated. It may well be the case that particularly unfavourable results for deadweight and substitution effects reflect premature evaluation, and could hence be a poor guide. At the very least, Bushell's result shows the advantages of maintaining a scheme in place for a reasonable period, without too much chopping and changing.

One other recent United Kingdom evaluation (Sako and Dore 1986) has produced the lowest deadweight/substitution ratio located in this literature survey—17 percent for the Youth Training Scheme in late 1984, when the scheme had been running for just over a year. On the face of it, thus, 83 percent of subsidised positions under this scheme were additional.

Of all the evaluation studies conducted to date, the one which seems to receive most universal professional acclaim is the 'cost-benefit' assessment of the Job Corps programme in the United States by Mathematica Policy Research (Long, *et al.*, 1981; Mallar, *et al.*, 1982). The core of this study was a sample survey of 2,800 scheme participants and a control group of 1,100 non-participants, with follow-up interviews continuing for 4 years after participation in the scheme.

The survey results were supplemented by an attempt to take full account of the full social costs and benefits of the programme in terms of an accounting matrix (Long *et al.*, pp. 60 and 70–71) which gave qualitative weight to non-quantifiable benefits such as changes in attitudes towards work and utility gained from reduced drug dependence. The analytical framework aimed to test for a Pareto improvement resulting from the Job Corps: that is, the researchers itemised separately the net benefits to Corps-members, to society-at-large, and to non-Corps members ('taxpayers'). Their general conclusion was that society-at-large and Corps-members were better off at minimal (if any) net cost to 'taxpayers'. This result rested rather heavily on the benefit to 'taxpayers' of suffering less criminal assault and robbery from disadvantaged youth.

The Job Corps unequivocally succeeded in improving the long-term employment prospects for participants: three-and-a-half years after completing their training, Job Corps participants had 13 percent more working hours per year and 28 percent higher earnings than the non-participant control group. Educational and health status were higher for ex-participants, and criminal activity was lower. The net present value of benefits to the individual participant (in 1977 dollars) was $2,485, while the net social benefit was

estimated as $2,271 per enrollee (a 'net social profit' of 45 cents on each dollar spent) (Long, *et al.,* 1981, p. 71). Of this net social benefit, nearly $2,000 was attributable to the estimates of reduction in the crime rate, which must be open to some doubt (particularly in the light of subsequent work on the relationship between unemployment and crime). (It is not obvious that the reduced criminal activity reported by former Job Corps participants represented a net reduction in the total crime rate for the economy as a whole.) Even without the crime-related figures, however, the programme still came out in the black.

Inspection of the list of costs and benefits itemised by Mathematica shows that they repeated the assumption already noted in the discussion of Hardin and Borus (1971) above, that gains for Corps-members were net gains for society. No displacement effect was assumed, and the research programme made no attempt to determine this and other economy-wide effects. The evaluation was based on the partial-equilibrium assumption that the Job Corps had no measurable economy-wide implications (expressed obliquely in the statement 'in general, unmeasured costs appear to be less important than unmeasured benefits'—Long, *et al.,* 1981, p. 73). The researchers thus used a *ceteris paribus* assumption, that nothing else changed while the Corps-members gained their higher incomes and more stable employment, to secure their finding of a Pareto gain.

From the point of view of policymakers, this was a highly useful evaluation, since the quantifiable elements of the programme turned out positive, and the non-quantifiable aspects (reduced drug dependence, psychological gains, provision by Job Corps members of role models for deprived youth) were generally agreed to be positive. It is perhaps unfortunate that Mathematica Policy, who seem to have been an extremely competent group of evaluators, did not have to tackle the cost-benefit analysis of a programme with less clear quantifiable net benefits; their Job Corps study has probably had the effect of creating unrealistic expectations about what cost-benefit techniques can achieve in general in the direction of providing 'hard' numbers for policy-makers to work from.

A special table prepared by Craig Thornton (of Mathematica) for the Committee on Government Operations (1985, p. 13) presented the 'fiscal clawback' implications of the Mathematica study. These calculations indicated that the federal fiscal benefits of the Job Corps were 36 percent of the federal fiscal costs, so that a

$1 cut in the programme's budget would reduce the federal government deficit by only 63 cents. At first sight this seems a low ratio, until it is realised that there are very substantial net fiscal gains to state governments, which pick up 40 percent of the additional tax revenue on Corps members' earnings, and accrue most of the health and criminal justice savings. A consolidated fiscal balance sheet for state plus federal budgets was not prepared, but inspection of the table of costs and benefits in Long, *et al.,* (1981) indicates that the overall fiscal impact was estimated to be positive, if estimated savings for the criminal justice system were included.

Where To From Here?

It is surprisingly difficult to locate comprehensive social evaluation studies in the published literature. Most researchers have evidently concluded that at the present state of the art, the best return on research effort is to be obtained by focusing on specific areas. A 1984 OECD symposium on unemployment benefits recognised 'formidable theoretical and empirical problems' in assessing the economy-wide implications of unemployment and policies to alleviate it, and reached the view that (OECD 1984, p. 4):

> the cost/benefit sides of the various labour market programmes were not sufficiently explored and results not yet firmly established. . . . [A]part from clarifying the questions involved, it was obvious that because of the state of the art, the meeting could not yet produce the answers policy-makers would need for more effectively and efficiently integrating income and active labour market policies.

Perfect evaluation of employment programmes thus is not attainable. Second-best, and feasible, is a 'rigorously eclectic' approach to scheme design and monitoring which marries together judgement, survey data, and econometric evidence and model simulations where available. New Zealand work to date has generally failed to integrate these 3 strands, although a few economists (for example, Easton 1987a and 1987b) have ranged across the available evidence. Such research is likely to be of greatest value in identifying the relative effectiveness of alternative schemes in relation to specific goals, and in throwing up issues suited to detailed econometric research—for example, the issue of labour 'displacement', or the search for correlations between scheme participation and outcomes for individuals.

The international literature displays an extremely wide range of findings on issues such as the relative merits of subsidies and training, the extent of windfall and displacement effects, and the responsiveness of labour demand by individual employers to subsidies on wage/training costs. Any *a priori* view of the expected impact of particular types of schemes can readily be 'confirmed' or 'refuted' by suitable selection from the available case-study literature. Methodologically, refutations carry more weight than corroborative evidence, indicating as they do that theoretical models with strong predictions may be unreliable bases for policy design. There is clearly a case for more rigorous and systematic inductive work on the structure and workings of the New Zealand labour market, and for the use of models which are 'open-ended' in their predictions, so that locally plausible parameter estimates can be used to simulate policy proposals.

There is clearly scope also for more systematic work on the deadweight, substitution and displacement effects of employment subsidies, given the importance that numerical estimates of these have assumed in policy debate. The deadweight/substitution concept provides one of the few numerical indicators of net employment impact which can be easily obtained from survey data, and there is a temptation for policy economists to seize on a selection of such numbers to give plausibility to their prior beliefs. The view that the great bulk of employment subsidies end up as windfalls rather than creating net extra jobs has become part of the conventional wisdom in New Zealand discussion, and has contributed to official coolness towards job creation programmes. That view, however, rests heavily upon selective quotation of worst-case numbers from the international research, combined with rather unsophisticated interpretation of the implications of windfalls. The fact that an employer has told an interviewer that a subsidised job would have existed anyway, even without the subsidy, does not suffice to tell us whether the subsidy payment is therefore unproductive. Windfall receipts enhance profitability, or competitiveness, or both, for the receiving firm. Where all local firms are eligible, and where the output is tradeable, subsidies may create additional local jobs by strengthening the trade balance (the Layard effect) (Layard and Nickell 1980). At the very least, some proportion of any windfall will be clawed back through taxation of company profits, so that the use of the raw deadweight ratio in most

commentaries on the issue will tend to overstate the net loss to taxpayers.

Displacement effects within the local economy pose both theoretical and empirical challenges for research, but are not altogether intractable. A recent Australian survey of this and related issues (Lewis and Ryan 1985, pp. 26–27) calls for a full-scale research effort to estimate labour demand functions for the Australian economy and to integrate these into input-output models to generate estimates of economy-wide employment effects. Work along these lines in Australia would be of obvious interest to New Zealand policymakers.

However, even with more empirical work, the economy-wide payoff to active labour market policies is likely to remain controversial because of the continuing rift in the economics profession over the choice of an appropriate macro-economic theory. Monetarist and new-classical research programmes tend to see virtue in active policies only insofar as they transform the labour market into something more closely approximating the free competitive market of neoclassical theory. New-Keynesian theories more readily accommodate proposals for using subsidies, training programmes, incomes policies, and so on, in pursuit of the full-employment goal within the existing institutional/structural framework or something like it.

Much therefore depends on which model of the world the government believe to be 'the true model'. More widely still, it is not easy to separate the impact of specific programmes of employment promotion from the more general stance of the government on social policy. Programmes are most likely to succeeed when the environment in which they are implemented is supportive. A programme which is in tune with the government's general philosophy, and with the general tenor of public opinion, is more likely to be implemented with enthusiasm by officials and accepted willingly by target groups than is a programme which is motivated by political tokenism or which runs against the grain of official philosophy.

II Four Specific Issues

Introduction

Part I of this paper presented the results of a literature search related to the evaluation of active labour-market policies. This

second part of the paper turns to 4 issues which were identified in the original research proposal as deserving of special attention. These were:

1 The calculation of the net fiscal impact of employment programmes.
2 The wider social costs of unemployment.
3 The relevance of labour market structure for the design of policy.
4 The question of 'hysteresis'.

Time constraints have ruled out any attempt at comprehensive discussion of these 4 issues. What follows is more in the nature of notes.

The Social and Fiscal 'Costs of Unemployment'

The quotation marks in the heading reflect the fact that although it is common to find a range of costs *attributed to* unemployment, in fact most of the evidence and discussion in the literature relates to costs *associated with* unemployment. Gordus and McAlinden (1984, pp. 81–83) provide a four-fold classification of such costs on the basis of two distinctions: first, between private and public costs, and second, between 'economic' (i.e., marketed or financial costs) and 'non-economic' costs. They set out their schema as follows:

> Private economic losses refer to those exclusive economic costs specifically suffered by individuals and business firms in the community as a result of economic change. An example of the private economic loss brought about by an increase in unemployment would be the loss of after-tax income experienced by the unemployed themselves, or its reverse, the loss of the output of goods and services to consumers that could have been produced by the unemployed. . . .
>
> Private non-economic losses refer to those exclusive non-economic costs suffered by individuals and their families as a result of economic change. It is this subcategory of costs that contains much of what is referred to as social costs, including the mental and physical illness personally experienced by individuals and their families as the direct or indirect result of economic change. Included also is the possible ultimate cost of mortality, whether due to suicide, homicide, accident or chronic disease. There is a strong interconnection between private non-economic loss and additional private economic loss. . . . . .
>
> Public economic losses refer to those non-exclusive economic costs, brought on by economic change, mutually suffered by all members of society, and borne by either the societal entity as a whole or allocated according to some distribution scheme. Examples of public economic

> losses associated with unemployment include lost income taxes, the cost of unemployment compensation, and the cost of providing social, mental health, and medical services to the unemployed and their families. The first two costs are results of the existence of, and alleviation for, the occurrence of private economic loss due to increased unemployment . . . The latter category of public economic losses is directly connected to the occurrence of private non-economic loss, and represents the actual public economic cost of pathologies which are usually referred to as the social cost of economic changes.
>
> Finally, public non-economic loss refers to those non-exclusive, non-economic costs, as a result of economic change, mutually suffered by all members of society. Examples of such costs may include the long-run disorganization of society as a result of long-term economic stagnation. More specifically, such disorganization could bring about the loss of economic and political morale, the destruction of much of the informal support structure in local communities, and perhaps an increasing disregard for public law and order.

Unemployment has, it should be added, one obvious social benefit associated with it, namely the incentive which the threat of becoming unemployed provides for workers to raise productivity and reduce their real-wage aspirations. This is not likely to be perceived as a 'benefit' by the workers concerned or their union representatives, but the existence of some unemployment/inflation tradeoff appears to be an inescapable feature of modern capitalist economies, and the ability of mass unemployment to break 'inflationary expectations' seems real enough, however (a) unpalatable and (b) qualified by reference to labour-market structure (see below).

The first two of Gordus and McAlinden's categories of losses will not be treated at length here.The 'private economic' cost of reduced social product is easily measured if we have a benchmark estimate of 'potential GDP' and are prepared to attribute all shortfalls to unemployment. This begs, however, tricky questions about what causes what. Unemployment and foregone output are two faces of stagnation or recession, but to describe one of them as a 'cost' of the other is to beg the question of the origins of recession. Nevertheless, there is a long tradition of using 'Okun's Law' to estimate the amount of foregone output associated with a particular level of unemployment (for a New Zealand example see Silverstone 1979). If the association between unemployment and output loss is robust, then any policies which are successful in reducing unemployment should simultaneously be successful in

eliminating the private direct economic costs identified as associated with it.

The second category—the private non-economic costs suffered by the unemployed themselves— has been documented extensively by psychologists and sociologists as well as by novelists and filmmakers. These costs are subjectively experienced, and are mostly not susceptible of hard measurement—and especially not of aggregation over individuals. It is, however, possible to consider policy changes which might change the degree of misery of the unemployed at a given volume of total unemployment. The severity of deprivation depends on both the identity and characteristics of the individuals who comprise the pool of unemployed labour, and the prevailing social climate of opinion about unemployment and the unemployed. Governments and societies which stigmatise their unemployed and blame them for their own situation obviously tend to generate more misery for the unemployed than do governments and societies which are supportive and non-condemnatory. It is an open question whether the former type of societies also tend to have less unemployment (because of the stronger pressures on workers to find, or hold onto, jobs). (This issue is taken up in the discussion of fiscal costs below.)

In addition to the direct costs, Gordus and McAlinden's third and fourth categories identify a range of possible externalities associated with unemployment. If the psychological stress of being unemployed, or the fall in consumption resulting from lowered real income due to unemployment, leads to a deterioration of health and/or resort to increased levels of criminal activity by the unemployed, there will be additional costs loaded onto society at large in addition to the loss of potential output. The costs of hospitalization for the ill, and policing and prison services for the criminal, will be increased. The claim that such externalities exist, and that the costs thereby imposed on society are high and avoidable, is frequently encountered in day-to-day debate. A recent editorial in the *Guardian,* for example, states:

> Every policy-maker needs to be constantly reminded of the devastating effects of unemployment both at the individual level (hugely disproportionate increases in mental illness and family break-up) and at a community level (increased crime and a growing underclass).
>
> (*The Guardian Weekly,* February 28 1988, p. 12)

This issue of the 'external' costs of unemployment, has generated a rapidly growing literature, initially in the United States in the

1970s and early 1980s, and since 1979 in the United Kingdom. (See, e.g., Sinfield 1981, Showler and Sinfield 1981, Kelvin and Jarrett 1985, Fineman 1987; for surveys of the very limited New Zealand work in this area see Shirley 1979, Macky and Haines 1982.)

The major research programme surveyed in the research for this paper was that of Dr M. H. Brenner of Johns Hopkins University, beginning with his 1971 studies of the relationship between economic conditions and medical statistics, and leading on through a series of published papers and commissioned work for committees of the United States Congress to his major report for the Joint Economic Committee of Congress in 1984. Brenner's work is characterised both by greater econometric sophistication than the parallel European studies, and by greater self-confidence in the usefulness of his findings for policy purposes. However, both his results and his methodology have come under heavy fire from academic critics, and Brenner's previously frequent appearances before congressional hearings seem to have ceased since 1985. (This probably reflects a change in the political composition and outlook of the United States Congress rather than the undeniable shortcomings in Brenner's work.)

Brenner's Work

Brenner's econometric approach involves time-series correlation analysis of economic indicators such as income and employment against social indicators of crime and health. He claims to have obtained statistically robust relationships over long periods of time for the United States economy, from which he estimates the relevant elasticities of suicide, homicide, heart disease deaths, alcohol-related deaths, and so on, to changes in the unemployment rate and similar economic factors.

In his major 1984 study for the US Congress Joint Economic Committee, which updated and superseded a similar 1976 study commissioned by the same committee, Brenner correlated 9 indicators of social stress against four indicators of the state of the economy. The social-stress indicators were:

- Total mortality rates (an indicator of changing average lifespans)
- Cardiovascular-renal disease mortality rates
- Cirrhosis of the liver mortality rates

- Mental hospital admissions
- Suicide rates
- Homicide rates
- State prison admission rates
- Total arrest rates
- Incidence of major crimes reported to the police.

The main economic indicators were:

- Per-capita real income
- Unemployment rates
- Labour force participation rates
- Business failure rates.

The 1976 study had used data for the period 1935–1973. The 1984 study is based on the period 1950–1980.

Brenner summarises the numerical significance of his findings as follows (1984, p. 3):

> Between 1973 and 1974, the unemployment rate rose 14.3 percent, the real per capita income declined 3.0 percent, and the annual change in [sic] business failure rate increased 200 percent.
>
> The increased unemployment rate during 1973–74 is associated with the following: a 2.3 percent increase in the total mortality rate, or 45,936 deaths, from all causes; a mortality rate increase of 2.8 percent, or 28,510 deaths, from cardiovascular disease; a mortality rate increase of 1.4 percent, or 430 deaths, from cirrhosis; a mental hospital admission rate increase of 6.0 percent, or 8,416 persons hospitalized; an arrest rate increase of 6.0 percent, or 577,477 persons arrested; an assault rate increase of 1.1 percent, or 7,035 assaults reported to the police; and a suicide rate increase of 1.0 percent, or 270 known suicides.
>
> The decline in the trend in real per capita income during 1973–74 is related to the following: an increase in the total mortality rate of 3.0 percent, or 59,996 deaths, from all causes; a mortality rate increase of 4.4 percent, or 45,189 deaths, from cardiovascular disease; a mortality rate increase of 2.7 percent, or 806 deaths, from cirrhosis; and a suicide rate increase of 1.11 percent, or 320 known suicides. In addition, the increase in annual changes in the business failure rate is associated with a 9 percent increase in the cardiovascular mortality rate, or 95,680 cardiovascular deaths.
>
> . . . . The 1973–74 increase in the unemployment rate, decrease in real per capita incomes, and increase in the annual change in the business failure rate are related to more than $24 billion in costs . . . These costs include income lost because of illness and mortality and costs of supporting mental hospitals and the criminal justice system.

Brenner's rationale for using aggregate data to demonstrate the relations between economic and social phenomena is that, at the

level of nationwide unemployment and income changes, we are dealing with matters which are outside the control of any individual, which both strengthens the validity of the regressions and permits tentative statements to be made about the direction of causality, from economic to social phenomena.

Methodologically, however, his approach suffers from 3 serious defects. First, it is not clear that his results are free of 'simultaneity'—that is, although he may have shown that, e.g., unemployment and suicide rates move together over time, he has not eliminated the possibility that both are linked to some third, causal factor. Second, he does not present a fully developed *theoretical* basis for his statistical relationships; the plausible 'stories' which relate unemployment to, e.g., heart attacks and mental breakdowns, are told at the micro, individual level, while Brenner's correlations use aggregate data. (Thus, for example, it is not necessarily the case that it is unemployed people who suffer the additional heart attacks.) The status of his conclusions is therefore uncertain in scientific terms, however politically congenial or otherwise they may have been to United States politicians. Third, and potentially most problematic of all, other researchers using the same methods and data as Brenner claim to have been unable to replicate some of his results with respect to several key relationships between economic indicators and rates of criminal offending (Cook and Zarkin 1985; Wilson and Cook 1985). This has cast some doubt on the quality of Brenner's statistical analysis.

Brenner's work aroused widespread academic controversy in the United States; the debate is surveyed, and a wide range of econometric results compared, in Gordus and McAlinden (1984). They find (and a burgeoning literature on the economics of crime confirms—cf. Long and Witte 1981, Freeman 1983, Corman, *et al.*, 1987) that alleged correlations between unemployment and crime rates are decidedly suspect, that only certain specific types of crime show an apparent relationship with unemployment, and that the measures usually used as indicators of 'crime'— namely rates of imprisonment and of crimes reported to police—may show not so much the volume of crime as the extent of social tolerance for deviation. There is considerable evidence to suggest that in hard times societies display less tolerance, so that imprisonment rates tend to rise regardless of whether crime has increased.

Precisely the same problem arises with the use of numbers of mental hospital admissions as an indicator of the incidence of

mental illness. In good times, families and employers are likely to be more willing to 'carry' mentally handicapped or disturbed people than is the case in recession, when there is an incentive for employers to be more ruthlessly selective in their hiring practices and when the families of mentally ill persons come under increased stress from other sources.

There are thus at least 2 competing theoretical models to 'explain' why unemployment should be associated with rising imprisonment and hospitalization rates. One is the 'social causation' argument espoused by Brenner, which attributes the increased costs of institutionalization to increases in social pathologies caused by the stress of unemployment. The other is the 'uncovering' hypothesis which suggests that unemployment is associated with increased economic hardship and reduced social tolerance, thus increasing society's propensity to institutionalize its 'problem' individuals. The first of these sits easily with the claim that policies which reduce unemployment have beneficial external effects for society. The second is more problematic: it suggests that policies which succeed in reducing unemployment will contribute to making crime and mental illness disappear from view again, rather than actually reducing their incidence.

Gordus and McAlinden, having surveyed some 50 major studies, come down on the side of social causation theories (1984, p. 84) but admit that there is as yet no conclusive evidence that can discriminate satisfactorily between the alternative positions.

This leaves Brenner's correlations between unemployment and mortality, whether from heart and liver disease, or from suicide. These correlations appear to be relatively robust and widely replicated, although there has been some concern about the lag structures used by Brenner (some of his effects take 2 years or more to appear following a rise in unemployment).

The potential fiscal significance of Brenner-type results is summarised by Gordus and McAlinden as follows (1984, p. 83):

> Brenner (1979a) has estimated the economic cost of a sustained rise of 1.4 percent in the unemployment rate for the period 1970–1975. Included in Brenner's cost calculations is the income loss suffered due to either increased mortality or institutionalization and actual public outlays connected to incarceration or hospitalization. In 1981 dollars these costs anmount to about $11.8 billion. Not included in Brenner's cost of pathology total are costs incurred for outpatient treatment for the unemployed, the cost of increased police deterrence, and costs suffered by victims through increased crime. Brenner then adds an estimated cost for

increased compensation to the unemployed included in the sustained 1.4 percentage point increase in the rate of unemployment, raising the total cost over the five year period to about $35 billion in 1981 dollars. Not included in this final total is the value of lost output of those unemployed who were not institutionalized or who did not suffer mortality. The inclusion of these additional alternative costs would substantially raise the overall economic cost of the sustained rise in unemployment.

Evidence now supplied by Brenner and others that a sustained increase in unemployment is responsible for a related and significant increase in public expenditure makes it more likely that government programs designed to reduce the rate of unemployment will help pay for themselves in reduced public expenditures over the long run. The immediate costs of such programs, of course, will continue to remain expensive in terms of both public and private costs. However, the potential benefits of countercyclical policy can now be seen as far greater than previously realized in terms of avoiding the public and private costs of economic change. . . .

The United States, being a large country, tends to throw up numbers that seem large at first sight. The Chairman of the Subcommittee on Economic Goals and Intergovernmental Policy, however, in his 1984 letter of transmittal of Brenner's 1984 report to the Joint Economic Committee, put Brenner's latest results in context by summarising the various types of costs incurred in recessions such as that of 1982 in the United States (Brenner 1984, pp. iii-iv):

Since 1980, the United States has endured back-to-back recessions and the worst levels of unemployment since the 1930s. Currently 8.5 million Americans are jobless. The national unemployment rate exceeded 10 percent for 10 months. At the worst point of the recession nearly 12 million people, or 10.7 percent of the workforce, were unemployed. In two years, unemployment has risen by more than 40 percent and directly touched at least one-fourth of all persons in the work force. Among families with one or more members in the labor force, 29 percent had at least one person unemployed in 1981 and 33 percent had someone unemployed in 1982.

Economists have taken stock of some of the economic costs of recession. Because of idle labor and plant capacity, output of goods and services has run between $250 billion and $300 billion a year below the economy's potential in recent years.

Moreover, recessions can have harmful effects on productivity long after they have technically ended. Investments in both physical and human resources which could add to our productivity in the future are undertaken less frequently in periods of excess capacity. Other productivity losses occur as the skills of idled workers obsolesce.

> There may also be long-term damage to the labor market prospects of those out of work—especially persons unemployed for six months or more. Besides experiencing greater trouble finding new jobs, such workers are most likely to take jobs with lower wages and benefits than they had previously. Studies of past recessions suggest that young people in the process of establishing their careers are most seriously impeded by lengthy spells of unemployment. Some of them never catch up. . . .
>
> Much of the burden of unemployment is sustained by the jobless themselves. Typically, workers' losses of income are only partially replaced by unemployment compensation and other transfer payments. The financial hardship is frequently compounded by the loss of critical benefits, like health insurance, which were tied to the job.
>
> Joblessness may also subject family relationships to considerable strain. The psychological pressures on individuals are intensified by feelings of failure, guilt over the inability to support their families, and loss of self-esteem. Greater stress may affect the entire household, not just those out of work. The longer this situation endures, the more likely it becomes that frustrations will be vented on the family—or on the rest of society.
>
> Although many transfer programs and social services for the unemployed have been reduced in scope in this recession, the steep increases in joblessness continued to push public expenditures up. At the same time, high unemployment has reduced tax revenues available to all levels of government. At the Federal level, the combined effect on the deficit from those so-called 'automatic' tax and spending changes is in the range of $30 billion to $35 billion for each one percentage point rise in the national unemployment rate.
>
> Other costs to society are harder to quantify. This study, in looking at how particular social indicators vary in accordance with changes in aggregate economic performance, makes a valuable contribution to this process of estimation.

Even allowing for inflation, it seems clear that Brenner's key number in his 1984 report—$26–30 billion of 'social pathology' costs from a 14.3 percent increase in unemployment (equivalent to the 1.4 percentage points mentioned in the Gordus/McAlinden quote above) (Brenner 1984, p. 17)—pales to virtual insignificance when compared to the aggregate output losses from recession, in the hundreds of billions of dollars annually.The relatively small size of the social-loss estimates resulting from the research programme is probably the most significant feature of the results.

Net Fiscal Impact

The question of whether labour-market interventions 'pay for themselves' via fiscal clawback is extremely difficult to answer,

because of the difficulty of establishing the elasticity of aggregate unemployment with respect to expenditure on policy interventions. Many of the simple calculations encountered in the literature simply duck this issue. For example, Showler (1981, pp. 48–53) offers a 'far from exhaustive account of the economic costs of unemployment' (1981, p. 53) which attempts to identify the net impact on the government's budget of the increase in United Kingdom unemployment between 1973 and 1978. The items in his calculation are as follows:

	1973	1978
Unemployment rate	2.7 percent	6.1 percent
	£ million	
Government transfer payments to the unemployed, and related administrative expenses ..	£704	£2,7898
Foregone income tax revenues and National Insurance contributions		£1,170
Foregone consumption tax revenues		£160
Total direct budgetary cost of unemployment		£4,128

Showler comments (1981, p. 52):

> It is not, of course, suggested that the whole of this figure could be saved directly by a return to full employment, as clearly some unemployment would remain. [However] . . . the level of unemployment prevailing in 1978 could be more than halved, yielding public expenditure savings of at least £2,000m. Higher levels of employment would also increase activity rates as well as reducing registered unemployment, thereby yielding savings in transfer payments (e.g., pensions) and higher tax and national insurance contributions not included in the above calculations. . . .

In the same vein Moon (1984, p. 15) records that:

> In 1982 it was calculated that each extra person unemployed cost £5,000 per year—or £96 per week—in social security benefits and lost tax revenues. The annual cost to the country of 3 million unemployed, on these two indicators alone, is about £15,000 million. . . . (*The Times,* 18 February 1982).

The intended implication of these estimates seems to be that a policy package which achieved full employment at a total gross expenditure of £15 billion or less should be self-financing. Whether such a policy package existed was a question not tackled by Showler or Moon. Byatt (whose own 1981 estimate of £3,400

per person unemployed had been, he claimed, misused in this way by politicians and the media), strongly suggests that zero-net-cost employment creation is unlikely because if there are deadweight and/or displacement effects, the employees in the new jobs created would have to accept wages that were less (in after-tax terms) than the benefits they received as unemployed. (This, however, depends on Byatt's apparent belief that there are no aggregate multiplier effects from direct job creation—his analysis is based on redirecting the existing government expenditure from unemployment benefit, etc., to public-sector jobs or private-sector wage subsidies. Constant government expenditure then means no Keynesian multiplier expansion of aggregate demand, incomes, and hence revenues.) (Byatt 1984, pp. 67–69)

Byatt and other authors have pointed out that even if feasible self-financing employment-expanding policies are available, and even if government is as ferociously bent on achieving a budgetary surplus as was the Thatcher regime, the government will normally have other macro-economic objectives besides merely the reduction of unemployment. As Byatt (1984, p. 68) puts it:

> In a world where inflationary tendencies still pose major problems for output and employment, it is misleading to argue that a reduction in unemployment is an over-riding priority and therefore simple-minded to document the costs of unemployment as if the establishment of such costs was a sufficient reason for action.

Henning and Richardson (1985, pp. 8–9) expand on this:

> . . . . [T]here are some positive benefits as well as costs to other policy sectors in allowing unemployment to rise to rather high levels. For example, it may induce wage moderation more effectively than statutory incomes policies can; it may induce changed attitudes to productivity, innovation, and flexible working practices; . . . . . A large pool of unemployed may be necessary to facilitate . . . fundamental economic and technical restructuring . . .
>
> Acceptance, by government, of high levels of unemployment as a 'policy' response is . . . accompanied by sophisticated welfare policies . . . [which]impose costs on the public purse. Such costs might be considered bearable as a means of facilitating the achievement of other policy goals—such as increasing the competitiveness of certain industries and raising levels of productivity. This was clearly the strategy of Mrs Thatcher in Britain. Her critics could not see why the £17 billion being spent on welfare payments to the unemployed could not be spent on keeping people in jobs. But the government had other economic objectives, and chose to take the political risks of high unemployment and to bear the increased public expenditure that resulted from high unemployment (notwithstanding the fact that it also wanted to reduce public

> expenditure). Thus governments can and do order objectives in their own special way. . . . .

The issue of whether any policy is fiscally self-financing is generally a red herring. It is relevant only if either (a) there is a binding budget constraint on government which removes all freedom of manouevre, and there are no other programmes which could be cut to make way for the proposed policy; or (b) the aim is not so much to assess costs and benefits as to persuade politicians. In political-economy terms it may well be the case that politicians can be seduced into approving measures which they would not otherwise endorse by the idea that there would be no impact on the government's budget deficit.

In the first case it is the design of government financial management, rather than the finances of the policy proposal, that need scrutiny. In the second case, there is always the suspicion that politicians use budgetary constraints as an excuse, rather than a fundamental reason, for blocking certain programmes. Numbers relating to net fiscal impact are then needed to forestall irrelevant criticism rather than to establish the actual desirability of a programme.

At the heart of the difficulty with net-fiscal-impact calculations is the uneasy overlap between micro- and macro-economic issues that characterises all labour market discussions. Partial-equilibrium analyses which hold everything else constant, while inspecting the detailed financial flows associated with an employment policy measure, will necessarily become inadequate as soon as the policy achieves a significant measure of impact, for then there must be system-wide repercussions of some sort, which must in turn affect the government's budgetary out-turn. Even an ultimate worsening of the government deficit, however, would not rule out the initial policy, if the economy-wide effects were felt to be beneficial. (To take a familiar and relatively non-controversial example, the army and police force are not generally expected to give a positive fiscal return. Nor is Parliament.)

Sørenson (1984) recognises these points in his itemised discussion of the 'impact of unemployment on government budgets'. In the abstract, his cost-benefit framework is impeccable: the decision rule is to implement a particular measure or package if its fiscal costs, net of the fiscal savings from any consequent reduction in unemployment, are less than the broad and diffuse set of non-fiscal benefits resulting from the reduction in unemployment. As he demonstrates, the minimum change in the government deficit

associated with a given rise in total unemployment is relatively straightforward to estimate: assuming that aggregate *ex ante* expenditure has not moved, the *ex post* deficit will be increased by (at least) the amount of increased unemployment benefit payments and lost tax revenues. (This effect, often described as an 'automatic stabiliser' in Keynesian macro-economics textbooks, is itself expected to mitigate the rise in unemployed by supporting aggregate demand.) The actual effect is likely to be greater to the extent that there Brenner-type external effects of unemployment on the budget.The *ex ante* fiscal cost of proposed policies is also possible to estimate with some degree of accuracy.

If, then, we knew the relationship between the employment policy and the unemployment rate, we could calculate an *upper-bound* figure for the overall worsening of the deficit likely to result from the policy intervention. (That is, we would be taking the actual costs of implementing the policy, minus a *minimum* estimate of the fiscal savings from the reduction in unemployment). We would then have a maximum-net-fiscal-cost estimate to set against the widespread measurable and non-measurable social benefits of a reduction in unemployment. Policy-makers could then make a (subjective) decision whether to approve the policy proposal on the basis of as much information as possible.

Here, however, Sørenson's story abruptly stops, leaving us with 2 key (but unstated) points. The first is that the budget out-turn, however accurately we manage to estimate it, is relevant only as the most easily measured component in a far wider-ranging estimation of economy-wide gains and losses. His decision criterion does not in fact hinge on the budget out-turn.

The second point is that in order to carry out the calculation proposed by Sørenson, we need to know the elasticity of the unemployment rate with respect to the proposed policy expenditures. How many extra jobs, and how many fewer unemployed (not the same number, incidentally) will result from, say, $1 million of additional expenditure on employment policies—or, for that matter, on *any* government programmes, since government spending is expected to be expansionary if anything? This is precisely the point at which there is at present no non-controversial procedure to follow, because we cannot estimate the impact of government spending on unemployment unless we have a prior model of what causes unemployment. The Keynesian tradition of macro-economic modelling, which attributes a large part of the present unemployment

in the OECD to aggregate demand deficiency, anticipates a positive relationship between government expenditure and aggregate employment. That is, expansionary policies have real effects, even though it is admitted that part of any demand expansion is liable to blow out in higher inflation. The 'split between price and quantity' is expected to be determined partly by the scale of unemployment, if high unemployment leads to low inflationary expectations and high factor supply elasticities. With the inflation costs of the expansionary policy added into Sørenson's list of off-budget costs and benefits, his overall calculation of budgetary outcome can be carried out for any *given* price/quantity split, and his decision criterion is then operational. In an 'ideal Keynesian' world where there is no inflationary penalty to fiscal expansion, the decision to adopt a full-employment policy stance will be especially easy for politicians to adopt.

The 'New Classical' tradition in macro-economics, in contrast, tends toward (and often asserts directly) the view that there are no sustained effects of fiscal policy on employment or unemployment, both of which fluctuate around 'natural' rates determined by underlying real forces in the economy, particularly on the supply side. Fiscal expansion over any but the very short term then carries a high inflation penalty for no lasting real effect. With no transmission mechanism connecting government spending to the unemployment rate, there is not much interest to Sørenson's type of calculation. Additional spending will simply worsen the deficit until 'inflation taxes' have clawed back the full amount.

There is really no way around this problem by *a priori* reasoning. The issue is which macro-economic theory best captures real-world economic processes, and this is an empirical matter. Hence the relevance of macro-econometric modelling work. In the absence of clear professional agreement among economists as to which model is 'true', policymakers must choose their preferred model either on their assessment of the weight of empirical evidence, or by subjective preferences (ideological leanings). The political identification of the 'Right' with new-classical ideas, and of the 'Left' with Keynesianism, has confused the issue rather than clarified it, since these identifications both rest on political convenience rather than any academic commitment to the quest for truth. In the long run in a democracy, one would hope that adherence to the 'true' model should pay off, if there is one. It may be, however, that one model is 'true' today and a different one

tomorrow (as, for example, appears to have been the case with the so-called 'collapse of the Phillips Curve' in the 1970s).

Labour Market Structure

There are a number of issues of a structural nature which are relevant to any discussion of the costs and benefits of employment programmes. In simple neoclassical-type models with homogeneous labour, perfect competition, and 'well-behaved' supply and demand relationships, the issues of 'displacement' and 'deadweight effects' arise as soon as government intervention by subsidy is suggested. To estimate the probable size of such effects requires estimation of elasticities of substitution and the product-wage elasticity of demand for labour. In more sophisticated neoclassical models of the multi-sector general-equilibrium type, a large number of structural parameters become relevant—especially the elasticities of substitution among various types of labour, in addition to the elasticity of substitution between labour and capital—and intersectoral input-output linkages also become important in determining net overall employment effects of particular types of intervention. General-equilibrium models of the type developed by the Project on Economic Planning at Victoria University are suited to the exploration of issues of this kind, particularly now that these models incorporate so-called 'CRESH' (constant ratios of elasticity of substitution/homothetic) production functions (Stroombergen 1983; Philpott and Stroombergen 1986).

The sort of analysis made possible by these multi-sectoral models is hinted at by Easton's (1987a) discussion of the possible gains from a wage-tax tradeoff in New Zealand. His argument is for tax cuts which reduce the real cost of hiring labour, while leaving workers with the same real take-home pay as before, and keeping the government budget deficit unchanged. The key to this result is that the increased employment resulting from real-product-wage cuts results in an increase in GDP which is large enough to permit the government to recoup the tax revenues foregone on wage income by raising the tax rate on investment income. In order to achieve the maximum GDP gain, Easton recommends that the tax cuts should be accompanied by a publicly run programme to train up suitable workers (not the disadvantaged, but those most suited to upskilling) to meet shortages of particular types of skilled

labour, which might otherwise cause bottlenecks and choke off the expansion of output.

In the course of developing his argument, Easton makes reference to some experiments on the PEP's Joanna model which calculated, for each of 10 skill groups of workers, the 'own price/wage elasticity of demand' and the 'total employment elasticity'. The first of these provides the percentage of additional jobs for the group resulting from a 1 percent cut in its real wage rate. The second ratio gives the accompanying percentage increase in total economy-wide employment. Of particular interest at first sight are the elasticities for unskilled blue-collar workers (Easton 1987a Appendix I, p. 16), namely 0.2 for the 'group employment elasticity' (that is, the own-price elasticity) and 0.11 for the 'total employment elasticity'. While low, these figures seem to indicate little 'displacement effect' of unskilled wage changes on employment for other skill groups. Most of the expected displacement effects, admittedly, are likely to occur *within* skill groups, and the PEP data and models are not sufficiently disaggregated to tackle that issue.

Most authors writing on 'labour market structure' tend to mean, by the term, some idea of built-in rigidities which hinder or prevent some notional tendency towards market equilibrium. This view is explicit in, e.g., Treasury (1984) Chapter 11. Examples of the sort of structural rigidities commonly appealed to are fixed relativities in wages from sector to sector in an economy where changing production composition requires intersectoral reallocation; the existence of specific 'skill bottlenecks' which prevent employment as a whole from rising in line with increases in effective demand for output; and the geographical immobility of labour which traps workers in declining regions while leaving growth poles short of (certain types of) labour. The solutions often proposed under the portmanteau slogan 'labour market flexibility' relate mainly to a combination of institutional reforms and training programmes. The former often include union-busting measures which are expected to 'free-up' relativities and thus enable wages to reflect market scarcities—and in some of the more forthright expositions, to open the way for reductions in economy-wide real wages. The justification tends to be that any expansion of effective demand in an economy with rigid labour markets will lead disproportionately to inflation rather than output and employment gains unless the labour market is 'freed up'. The detailed mechanisms are

seldom set out with much rigour, but the implicit model seems to be one in which unions and wage awards are exogenous elements impacting on (and distorting) a labour market which would otherwise reveal itself as 'well behaved' in a neoclassical sense.

Both these elements remain open to dispute. First, it is not self-evident that unions and wage awards are exogenous causes rather than endogenous results of labour markets; and it is furthermore not established that these institutional features are dramatically inhibiting to 'adjustment' (cf. the useful debunking of this claim in Easton 1987b). Second, there are a large number of econometric studies which cast doubt upon whether labour supply functions, in particular, are 'well behaved' (Killingsworth 1983), and which raise similar (though generally less severe) difficulties with labour demand. Space and time do not permit exploration of this literature in the present paper. Thus although there are undeniably a range of 'active labour market policies' whose purpose is to break down structural obstacles to adjustment, the evaluation of these proposals is not carried forward here. We move on instead to some very recent developments in theory which have abandoned the fundamental neoclassical idea that the labour market has some inherent tendency to 'bounce back' from unemployment-inducing shocks

Hysteresis

An alternative to models which focus on structural rigidities in labour markets is provided by the new generation of labour-market models based on so-called 'hysteresis' (i.e., permanent effects from temporary shocks). Hysteresis is consistent with labour markets which are entirely free of the commonly mentioned sort of 'rigidities' such as unions, supply bottlenecks and so on. All that is required is abandonment of the neoclassical assumptions of undifferentiated labour and perfect competition, in order to produce the unemployment equilibrium result sought by Keynes. Indeed, the hysteresis concept is really the latest in a long line of attempts to reconstruct Keynes's unemployment-equilibrium idea in the face of the so-called 'neoclassical synthesis' which denied that unemployment above some frictional level could persist in a market economy, unless unions persisted in pricing their members out of work.

Blanchard and Summers, in their major paper introducing the hysteresis theme, explain the concept as follows (Blanchard and Summers 1986, pp. 15–16):

> After twenty years of negligible unemployment, most of Western Europe has since the early 1970s suffered a protracted period of high and rising unemployment . . . Few forecasts call for a significant decline in unemployment over the next several years, and none call for its return to levels close to those that prevailed in the 1950s and 1960s.
>
> These events are not easily accounted for by conventional classical or Keynesian macro-economic theories. Rigidities associated with fixed-length contracts, or the costs of adjusting prices or quantities, are unlikely to be large enough to account for rising unemployment over periods of a decade or more. And intertemporal substitution in labor supply is surely not an important aspect of such a protracted downturn. The sustained upturn in European unemployment challenges the premise of most macro-economic theories that there exists some 'natural' or 'non-accelerating inflation' rate of unemployment toward which the economy tends to gravitate and at which the level of inflation remains constant. The Europeran experience compels consideration of alternative theories of 'hysteresis' which contemplate the possibility that increases in unemployment have a direct impact on the 'natural' rate of unemployment.
>
> . . . The essential point is that there is a fundamental assymetry in the wage-setting process between insiders who are employed and outsiders who want jobs. Outsiders are disenfranchised and wages are set with a view to ensuring the jobs of insiders. Shocks that lead to reduced employment change the number of insiders and thereby change the subsequent equilibrium wage rate, giving rise to hysteresis. Membership considerations can therefore explain the general tendency of the equilibrium unemployment rate to follow the actual unemployment rate.

Hysteresis, thus, is the process whereby temporary shocks have a permanent effect on the level of employment. The term is borrowed from physics, where it has the meaning 'The lagging of magnetic effects behind their causes' (Shorter Oxford English Dictionary).

The Blanchard-Summers explanation for hysteresis is an 'insider-outsider' model of the labour market; altenatives which they recognise (but do not develop) are longer-run effects of reduced physical investment, and erosion of human capital. The insider-outside model hypothesizes that when a negative shock cuts employment, this shakes-out some of the workers who were formerly 'insiders' with jobs in the formal sector of the economy. The remaining, smaller, group of insiders now closes ranks and bargains for a higher real wage which is consistent with the smaller level of employment—but inconsistent with the re-hiring

of former insiders now unemployed. Successive negative shocks thus produce a ratchet effect on equilibrium unemployment. The converse, Blanchard and Summers suggest, is also true: a series of positive shocks will bring outsiders back into the employed insider group, and as the numbers of insiders expands, the target real wage will fall to validate the larger volume of employment. This, they suggest, was the pattern of the recovery from the 1930s Depression, particularly in the United States.

The insider-outsider model has been elaborated by a number of recent papers (Lindbeck and Snower 1985, Gregory 1985) and points the way to a substantial new research programme in macroeconomics. 'Natural-rate' theories appear inconsistent with the OECD evidence of persistence of unemployment, and have a far less elaborated (and less plausible) set of assumptions about the nature of the labour market. Keynesianism, with some substantial revisions, can be made compatible with the new model.

The implications for employment policy are a matter of current debate, with 2 immediately obvious positions being possible. One, which Blanchard and Summers seem to espouse, is that old-fashioned Keynesian fiscal stimulation could restore full employment provided that (a) it was not fully anticipated, and (b) the 'membership rules' dictating who is an insider permitted relatively rapid recruitment of new insiders. Alternatively, any sequence of random favourable shocks (such as the 1986 fall in oil prices) could trigger off the same process. The central theoretical problem with this story (Hall 1986, pp. 87–88) is that if the power of insiders to set the real wage is as great as the model requires, they would be expected to appropriate the gains from favourable shocks as a rise in their real wage rather than an expansion in their numbers. The 'natural rate' hypothesis would then gain a new lease of life, in altered form, in the face of attempted reflation. Blanchard (Blanchard and Summers 1986, p. 89) apparently conceded this point in discussion, and suggested that 'high inflation may have to be accepted for some time as a trade-off for lower unemployment'. This last point, however, is a *non sequitur,* presuming as it does that a trade-off is available under conditions of demand reflation.

The alternative policy response, associated with the work of Layard (1986), involves 'working around' the insiders by providing employers with direct incentives to hire-in outsiders. Blanchard and Summers' model would predict that success with a programme

of marginal stock subsidies over a period sufficient to qualify marginal workers for 'insider' status would lead in time to a decline in the negotiated real wage to levels consistent with the expanded volume of total employment.

One major theoretical advantage of insider-outsider models over 'conventional' classical and Keynesian stories is their different perception of the unemployed. Conventional theories, which postulate an undifferentiated labour force competing for jobs in an open competitive market, have a well known tendency to end up 'blaming' either the unemployed, or labour in general (including the unemployed) for unemployment. Whether through search behaviour, or real-wage-resistance, or preference for leisure validated by unemployment benefits, the unemployed find themselves portrayed as active agents of their own misfortune. This image is so far out of line with everyday knowledge about the real-world unemployed, that it has tended to bring conventional economics into widespread disrepute among other disciplines more closely concerned with detailed empirical research into the unemployed. Insider-outsider models still allocate 'blame' to labour rather than capital for unemployment, but restrict it to *employed* labour, whose possession of a degree of monopoly control over the economy's existing stock of jobs enables them to erect barriers to entry against 'outsiders'.

(The insider-outsider idea, it should be noted, is not at all new. It has a long history of use in development economics; see, for example, Lewis (1956). In the Lewis model, the constraint on total employment originates in the limited stock of reproducible capital, and hence the rationing of high-wage jobs in the 'modern sector'.)

As Blanchard and Summers' discussion the role of unions makes clear, the existence of such barriers to entry against the unemployed does not require conscious, formal organisation of employed workers. Their view is of a real wage determined endogenously for each period on the basis of an equilibrium arrangement for the current inhabitants of the 'insider' economy. A variety of stories are possible about how this wage-formation process operates; what is important is that once set, the real wage in the present period sets the height of the 'entry barrier' against new labour recruitment in the following period. A head-on assault against union structures, privileges, and practices is neither a necessary nor a sufficient condition for tackling the entry barriers, because unions are a *manifestation,* not the cause, of insider market power. If 'labour

market flexibility' is interpreted to mean lower entry barriers against new recruits, then policy needs to be targeted at the source of the problem rather than its symptoms. In Blanchard and Summers' model the required 'favourable shocks' consist not of any attack on institutional structures, but of events which force-feed recruits into employment and thereby irreversibly change the population of 'insiders'.

Obviously enough, active labour market measures such as marginal wage subsidies and training programmes have a potential role to play in such a story, *provided* they are successful in increasing the total number of employed workers in the 'insider' economy (if insider 'membership' lapses immediately upon a worker's becoming unemployed) or the total number of 'insiders' (if workers displaced by subsidised workers retain their insider status thereafter and thus have some influence on the wage-determining process).

The 'hysteresis' argument, however, implies a policy stance on unemployment which is far removed from the spirit in which active labour-market policies have tended to be pursued in New Zealand. Referring back to the Robertson 'policy matrix' reproduced earlier, it is clear that the Swedish model of market activism fits better than the British model (that is, that 'social-democratic' rules rather than 'neo-liberal' ones are appropriate). The design of policy, it is suggested, has to be based on a 'big push' to change the state of the world from one of high unemployment to one of full employment. Once attained for a few periods, the new state of the world is expected to become self-validating. The various employment programmes of the sort discussed in these 2 papers are thus to be conceived of, not as stand-alone policy initiatives or competing alternatives, but as complementary parts of a total package the hallmark of which is a commitment to achieve irreversible change in the prevailing state of the world.

(The last major policy initiative in New Zealand based upon a hysteresis-type concept was the anti-inflationary wage-price freeze of 1982–84, the stated intention of which was to bring down inflationary expectations on a sustainable basis, for which purpose it was believed that a couple of years' experience of low actual inflation might suffice. The policy was heavily criticised at the time from the perspective of conventional economic models of the natural-rate or cycle-about-trend variety, on the grounds that expectations could not be thus autonomously changed by force-feeding the economy with low inflation. Whether these criticisms were

well-aimed or not is impossible to judge, given the immediate abandonment of the freeze following the 1984 change of government, and the upward pressures which then came to bear again on inflation expectations. Adherents of the hysteresis thesis would probably regard the 1984 abandonment of the freeze as a mistake.)

Conclusion

The ground traversed in this paper presents some of the most challenging and vital issues both for modern economic research, and for contemporary New Zealand economic policy. It is unfortunate but necessary to record that the New Zealand research record to date is thin. Labour market policies seem to have been introduced or abandoned in New Zealand largely on the basis of *a priori* beliefs buttressed by selective quotation from inconclusive, and not necessarily transferable, overseas research results.

There has probably been too great an emphasis placed in New Zealand on the neoclassical intuition that in a fully-employed economy, active labour-market policy cannot achieve net gains in employment or output. New Zealand is far from being fully-employed. Concepts such as displacement and deadweight effects are relevant as cautionary points to bear in mind when designing and implementing policy, but there is no firm evidence here or overseas to sustain a 100 percent crowding-out thesis. Prior adherence to a New-Classical world view is required to warrant any general claim that, for example, marginal wage subsidies cannot be effective in the present state of the New Zealand economy.

In fact, given the current state of knowledge and the obvious heterogeneity of the unemployment problem and the unemployed themselves, *any* generalisations are likely to prove dangerous. Well designed and clearly targeted remedies require a correct initial diagnosis of the problem. If diagnosis is wrong, policies risk being ineffective or damaging. In the absence of any clear diagnosis, policy will tend to drift in an *ad hoc* fashion with the tide of events and political opinion. The second of these possible scenarios may in practice be preferable to the first, but it is surely not the best we can do.

For the immediate future, a serious commitment to research into the causes of New Zealand's unemployment seems called for. So

does a serious policy commitment to eliminating mass unemployment. As a number of commentators have remarked (e.g., Richardson and Henning 1985) a declared and credible policy commitment to full employment may in practice turn out to be as important as informed policy design, because of the 'placebo' effect—people can live more easily with unemployment, and treat the unemployed with more consideration, if they *believe* that their government is doing all that can be done to eliminate unemployment. At a more technical and positive level, the hysteresis approach to unemployment offers the proposition that almost any political shock pushing the system towards full employment may, if it succeeds initially in cutting unemployment, establish a new 'state of the world' with lower unemployment.

Employment programmes therefore have more to offer than simply the narrow quantifiable gains in target-group earnings and employment at which most evaluation (cost-effectiveness) studies direct their attention. Such programmes are to be ranked also according to their effects on morale and social cohesion. One overseas observer, envious of New Zealand's full-employment record during the 1960s, remarked to a 1976 conference on the issue of whether unemployment benefit was to blame for rising unemployment in the West that (Helliwell 1978, p. 118):

> In explaining the New Zealand experience, at some stage one must note that the society is perceived by those inside and out as one where higher levels of social services and transfer payments are widely accepted. It ... appears to be part of the perception that ... widespread and economical provision is only possible if there is a high degree of individual restraint on the demands made on the system ... We should not be surprised to find that it is possible in 'synergistic' societies where mutual trust is high to have unemployment insurance systems which are at once more generous and less costly than in more competitive societies where each individual maximises his own well-being without regard for the costs that this might impose on society as a whole.

Credibility, consensus, political philosophy and social attitudes form the framework for any employment policy. They must also be accorded a significant place in the evaluation of such policies.

References

Andrews, M.J., Bell, D.N.F., Fisher, P.G., Wallis, K.F. and Whitley, J.D., 1985, 'Models of the UK Economy and the Real Wage-Employment Debate, *National Institute Economic Review* No 112, May 1985, pp. 41–52.

Ashenfelter, O., 1975, 'The Effect of Manpower Training on Earnings: Preliminary Results', *Proceedings of the Twenty-Seventh Annual Winter Meeting of the Industrial Relations Research Association* (Madison, Industrial Relations Research Association).

———, 1978, 'Estimating the Effect of Training Programs on Earnings', *Review of Economics and Statistics* Vol. 60 No 1, February, pp. 47–57.

Ashenfelter, O. and Card, D., 1985, 'Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs', *Review of Economics and Statistics,* Vol. 67 No 4, November, pp. 648–660.

Barrett, N.S., *et al.,* 1975, *Temporary Measure to Stimulate Employment: An Evaluation of Some Alternatives* (Congressional Budget Office, Washington DC, September 2).

Barsby, S.L., 1972, *Cost-Benefit Analysis and Manpower Programs* (Lexington, Mass., Heath Lexington Books).

Blanchard, O.J. and Summers, L.H., 1986, 'Hysteresis and the European Unemployment Problem, *NBER macro-economic Annual* Vol. 1.

Blaug, M., 1975, 1975, 'Discussion: Cost-Benefit Analysis of Government Training Centres in Scotland: Appraisal', in Parkin, M. and Nobay, A.R., *Contemporary Issues in Economics* (Manchester University Press).

Borus, M.E., 1964, 'A Benefit-Cost Analysis of the Economic Effectiveness of Retraining the Unemployed', *Yale Economic Essays,* Autumn.

Braae, G.P., 1978, 'The Effects of Unemployment Benefits on the Rate of Unemployment in New Zealand', in Grubel, H.G. and Walker, M.A. (eds), *Unemployment Insurance: Glocal Evidence of its Effects on Unemployment* (Vancouver, The Fraser Institute).

Brenner M.H., 1971a, *Time Series Analysis of the Relationship Between Selected Economic and Social Indicators* (Springfield, Va., National Technical Information Service).

———, 1971b, Economic Changes and Heart Disease Mortality', *American Journal of Public Health* Vol. 61, pp. 606–611.

———, 1973a, *Mental Illness and the Economy* (Cambridge, Mass., Harvard University Press).

———, 1973b, 'Fetal, Infant and Maternal Mortality During Periods of Economic Instability', *International Journal of Health Services* Vol. 3 No 2, pp. 145–159.

———, 1975, 'Trends in Alcohol Consumption and Associated Illnesses', *American Journal of Public Health* Vol. 65, pp. 1279–1292.

——, 1976a, *Estimating the Social Costs of National Economic Policy: Implications for Mental and Physical Health, and Criminal Aggression* (Joint Economic Committee of the US Congress, Washington DC, US Government Printing Office).

——, 1976b, 'Effects of the Economy on Criminal Behaviour and the Administration of Criminal Justice in the United States, Canada, England and Wales, and Scotland', in United Nations Social Defense Research Institute, *Economic Crises and Crime: Correlations between the State of the Economy, Deviance and the Control of Deviance* (Rome).

——, 1979a, 'Prepared Statement' and Testimony in *Long-Term Implications of Current Budget and Economic Trends on Unemployment, Minority Business, and Education: Hearing before the Task Force on Human and Community Resources of the Committee on the Budget, House of Representatives, 96 Congress 1st Session, July 20 1979* (Washington DC, US Government Printing Office), pp. 12–51.

——, 1979b, 'Influence of the Social Environment on Psychopathology: the Historic Perspective', in Barrett, J.E., *et al.*, (eds), *Stress and Mental Disorder* (New York, Raven Press).

——, 1979c, Testimony, in *The Social Costs of Unemployment: Hearing before the Joint Economic Committee, Congress of the United States, 96 Congress 1st Session, October 31 1979* (Washington DC, US Government Printing Office), pp. 2–24 and 35–44.

——, 1979d, 'Mortality and the National Economy: a Review and the Experience of England and Wales, 1936–76', The Lancet September 15, pp. 568–573. Brenner, M.H., 1980a, Testimony, *in Health and Other Effects of Unemployment: Joint Hearing before the Committee on Labor and Human Resources, United States Senate, and the Subcommittee on Employment Opportunities of the Committee on Education and Labor, House of Representatives, 96 Congress 2nd Session, on Examination on how Unemployment Affects the Health, Attitudes and Living Conditions of Individuals, July 24, 1980* (Washington DC, US Government Printing Office), pp. 23–26.

——, 1980b, 'Industrialization and Economic Growth: Estimates of their Effects on the Health of the Population', in Brenner, M.H., Mooney, A., and Nagy, T. (eds), *Assessing the Contributions of the Social Sciences to Health* (Boulder, Co., Westview Press).

——, 1980c, 'Importance of the Economy to the Nation's Health', in Eisenberg, L. and Kleinman, A., *The Relevance of Social Science for Medicine* (Dordrecht, Reidel).

——, 1981, Summary Statement and Testimony, in *Racially Motivated Violence: Hearings before the Subcommittee on Criminal Justice of the Committee on the Judiciary, House of Representatives, 97 Congress 1st Session, March 4, June 3 ansd November 12, 1981* (Washington DC, US Government Printing Office), pp. 17–45.

——, 1982a, 'Assessing the Costs of National Unemployment Rates', and Testimony, in *Costs of Unemployment: Hearings before the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban*

Affairs, House of Representatives, 97 Congress 2nd Session, August 12 and 17, 1982 (Washington DC, US Government Printing Office), pp. 33–63.

———, 1982b, 'Assessing the Social Costs of National Unemployment Rates for the Older Population', reprinted together with his testimony, in *The Unemployment Crisis Facing Older Americans: Hearing Before the Select Committee on Aging, House of Representatives, 97 Congress 2nd Session, October 8 1982* (Washington DC, US Government Printing Office), pp. 41–58.

———, 1984, *Estimating the Effects of Economic Change on National Health and Social Well-Being: a Study Prepared for the Use of the Subcommittee on Economic Goals and Intergovernmental Policy of the Joint Economic Committee, Congress of the United States* (Washington, US Government Printing Office, June 15 1984).

Brenner, M.H., and Mooney, A., 1982, 'Economic Change and Sex-Specific Cardiovascular Mortality in Britain, 1955–1976', *Social Science and Medicine* Vol. 16, pp. 431–442.

———, 1983, 'Unemployment and Health in the Context of Economic Change', *Social Science and Medicine* Vol. 17 No 16, pp. 1125–1138.

Briggs, V.M. Jr, 1987, 'Youth Employment and Training Programs: a Review', *Industrial and Labor Relations Review* , October, pp. 137–140.

Burtless, G., 1985, 'Are Targeted Wage Subsidies Harmful? Evidence from a Wage Voucher Experiment', *Industrial and Labor Relations Review* Vol. 39 No 1, October, pp. 105–114.

Bushell, R., 1986, 'Evaluation of the Young Workers Scheme', *Employment Gazette* May 1986, pp. 145–152.

Byatt, I.C.R., 1984, 'The Wider Impact of Unemployment', in OECD, *High Unemployment: a Challenge for Income Support Policies* (Paris, OECD).

Casey, B. and Bruche, G., 1985, 'Active Labor Market Policy: an International Overview', *Industrial Relations* Vol. 24 No 1, Winter, pp. 37–61.

Committee on Government Operations, US Congress, 1985, *Job Corps Program: Its Benefits Outweigh the Costs* (Washington DC, US Government Printing Office).

Cook, P.J. aand Zarkin, G.A., 1985, 'Crime and the Business Cycle', *Journal of Legal Studies,* Vol. 14, January, pp. 115–128.

Corman, H., Joyce, T., and Lovitch, N., 1987, 'Crime, Deterrence and the Business Cycle in New York City: a VAR Approach', *Review of Economics and Statistics* Vol. 69 No 4, November, pp. 695–700.

Dickinson, K.P., Johnson, T.R. and West, R.W., 1987, 'The Impact of CETA Programs on Components of Participants' Earnings', *Industrial and Labor Relations Review* Vol. 40 No 3, April, pp. 430–441.

Easton, B.H., 1987a, *Labour Flexibility, Wages, and Free Lunches* (Research Paper No 180, University of Melbourne Department of Economics).

———, 1987b, 'The Labour Market and Economic Liberalisation', in Bollard, A. and Buckle, R. (eds), 1987, *Economic Liberalisation in New Zealand* (Wellington, Allen and Unwin/Port Nicholson Press).

Employment Employment Division, 1984a, 'Review of Private Sector Employment Schemes', in Employment Promotion Conference, 1985,

Studies of Employment and Training Programmes (Wellington, Government Printer).

———, 1984b, 'A Study of the Long-Term Unemployed', in Employment Promotion Conference, 1985, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

———, 1985, 'Study of Public Sector Employing Authorities', in Employment Promotion Conference, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

Employment Promotion Conference, 1985, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

Fineman, S. (ed.), 1987, *Unemployment: Personal and Social Consequences* (London, Tavistock).

Forer, P., 1980, 'Job Creation and Temporary Employment: the Last Five Years', *New Zealand Population Review,* Vol. 6 No 3, September, pp. 33–37.

Freeman, R., 1983, 'Crime and the Labor Market', in Wilson, J.Q. (ed.), *Crime and Public Policy* (San Francisco, ICS Press).

Gordus, J.P. and McAlinden, S.P., 1984, *Economic Change, Physical Illness, Mental Illness, and Social Deviance: a Study Prepared for the Use of the Subcommittee on Economic Goals and Intergovernmental Policy of the Joint Economic Committee, Congress of the United States* (Washington DC, US Government Printing Office).

Gray, A. and Neale, J., 1984, 'Study of the Project Employment Programme', in Employment Promotion Conference, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

Gregory, R., 1985, 'Wages Policy and Unemployment in Australia' (paper presented at Conference on Unemployment, Chelwood Gate.)

Haines, H. and Macky, K., 1982, 'Employed and Unemployed School Leavers in a New Zealand Community', in Abbott, M. (ed.), *Mental Health Foundation of New Zealand/New Zealand Psychological Society Symposium on Unemployment* (Auckland, Mental Health Foundation).

Hall, R.E., 1986, 'Comment' on Blanchard and Summers (1986), *NBER macro-economic Annual* Vol. 1, pp. 85–88.

Hamermesh, D.S., 1971, *Economic Aspects of Manpower Training Programs: Theory and Policy* (Lexington Mass., Heath Lexington Books).

Hamishek, E., 1986, 'The Economics of Schooling', *Journal of Economic Literature* , September.

Hancock, M., 1981, *It Just Doesn't Seem to Matter What Happens to Women* (Auckland, New Zealand Working Women's Council).

Hardin, E. and Borus, M.E., 1971, *The Economic Benefits and Costs of Retraining* (Lexington Mass., Heath Lexington Books).

Haveman, R.H., 1982, 'The Potential of Targeted Marginal Employment Subsidies', in OECD, *Marginal Employment Subsidies* (Paris) pp. 14–53.

Haveman, R.H. and Saks, D.H., 1985, 'Transatlantic Lessons for Employment and Training Policy', *Industrial Relations,* Vol. 24 No 1, Winter, pp. 20–36.

Hawke, G.R., 1981, *Unemployment in New Zealand* (Wellington, VUW Working Papers in Economic History 81/2)

Heckman, J.J. and Robb, R. Jr, 1986, 'Alternative Methods for Evaluating the Impact of Interventions', in Heckman, J.J. and Singer, B., *Longitudinal Analysis of Labor Market Data* (Cambridge University Press), pp. 156–245.

Helliwell, J., 1978, 'Formal Discussion: What Are the Lessons from the Antipodes?', in Grubel, H.G. and Walker, M.A. (eds), *Unemployment Insurance: Global Evidence of its Effects on Unemployment* (Fraser Institute, Vancouver), pp. 114–118.

Henning, R. and Richardson, J., 1984, 'Introduction: Unemployment as a Political Issue', in Richardson, J. and Henning, R. (eds), *Unemployment: Policy: Responses of Western Democracies* (London, Sage Publications).

Hollister, R.G., 1987, 'Youth Employment and Training Programs: a Reply', *Industrial and Labor Relations Review,* October, pp. 141–145.

——, 1986, 'Prepared Statement', in *Job Corps Oversight Hearing: Hearing Before the Subcommittee on Employment Opportunities of the Committee on Education and Labort, House of Representatives, 99 Congress 2 Session, April 22 1986* (Washington DC, Government Printing Office), pp. 36–47.

Howell, R.H., White, E.L., Monigatti, D., Pidd, A., Rawnsley, B. and Webster, C., 1980, 'Fatal and Non-fatal Deliberate Self-Harm in the Wellington Region 1978: a Social Analysis', *New Zealand Medical Journal,* Vol. 92, pp. 468–471.

Johnson, C., 1985, *Direct Federal Job Creation: Key Issues,* (report prepared for Committee on Education and Labor, US House of Representatives, 99 Congress 1 Session, October. Washington DC, Government Printing Office.)

Junankar, P.N. and Price, S., 1984, 'The Dynamics of Unemployment: Structural Change and Unemployment Flows', *Economic Journal,* Vol. 94, Supplement, 1983, pp. 158–165.

Kelvin, P. and Jarrett, J.E., 1985, *Unemployment: its Social Psychological Effects* (Cambridge University Press).

Killingsworth, M.R., 1983, *Labor Supply* (Cambridge University Press).

Layard, P.R.G., 1979, 'The Costs and Benefits of Selective Employment Policies: the British Case', *British Journal of Industrial Relations,* Vol. 17, No 2, July 1979, pp. 187–204.

——, 1986, *How to Beat Unemployment* (New York, Oxford University Press).

Layard, P.R.G. and Nickell, S.J., 1980, 'The Case for Subsidising Extra Jobs', *Economic Journal,* Vol. 90, March 1980, pp. 51–73.

——, 1983, 'Marginal Employment Subsidies Again: a Response to Whitley and Wilson', *Economic Journal,* Vol. 93, December 1983, pp. 881–882.

Lewis, P.E.T. and Ryan, C.A., 1985, *Wage Subsidies, Their Employment Effects and How to Evaluate Them* (Bureau of Labour Market Research Working Paper No 51, Canberra).

Lewis, W.A., 1956, 'Economic Development with Unlimited Supplies of Labour', *The Manchester School*

Lindbeck, A, and Snower, D., 1985, *Wage Setting, Unemployment and Insider-Outsider Relations* (Stockholm, Institute for International Economic Studies Working Paper 344.)

Long, D.A., Mallar, C.D., and Thornton, C.V.D., 1981, 'Evaluating the Benefits and Costs of the Job Corps', *Journal of Policy Analysis and Management* Vol. 1 No 1, Fall, pp. 55–76.

Long, S.K. and Witte, A.D., 1981, 'Current Economic Trends: Implications for Crime and Criminal Justice', in Wright, K.N. (ed), *Crime and Criminal Justice in a Declining Economy* (Cambridge Mass., Oelgeschlager, Gunn & Hain).

McDermott, P., 1980, *The Social Response to Unemployment* (Paper presented to New Zealand Association of Economists Winter Conference, Massey, August).

MacDonald, M., Pearce, N., Salter, D. and Smith, A.H., 1982, 'Health Consequences of Unemployment—Will Effects of Recent Rises in New Zealand Unemployment Become Apparent in National Health Statistics?', in Abbott, M. (ed.), *Mental Health Foundation of New Zealand/New Zealand Psychological Society Symposium on Unemployment* (Auckland, Mental Health Foundation).

Macky, K. and Haines, H., 1982, 'The Psychological Effects of Unemployment: a Review of the Literature', *New Zealand Journal of Industrial Relations* Vol. 7, pp. 123–135.

Mallar, C., Kerachsky, S., Thornton, C. and Long, D., 1982, *Evaluation of the Economic Impact of the Job Corps Program* (Princeton, NJ, Mathematica Policy Research).

Moon, J., 1984, 'The Responses of British Governments to Unemployment', in Richardson, J. and Henning, R. (eds), *Unemployment: Policy: Responses of Western Democracies* (London, Sage Publications).

Moon, J. and Richardson, J.J., 1985, *Unemployment in the UK* (Aldershot, Gower).

National Research Advisory Council, 1981, *Report of the Working Party on Research into Employment with Special Emphasis on Youth Employment* (Wellington, mimeo).

National Research Council, Committee on Youth Employment Programs of the Commission on Behavioral and Social Sciences and Education, 1985, *Youth Employment and Training: the YEDPA Years* (Washington DC, National Academy Press).

OECD, 1982, *Marginal Employment Subsidies* (Paris).

O'Neill, D.M., 1982, 'Employment Tax Credit Programs: the Effects of Socioeconomic Targeting Provisions', *Journal of Human Resources* Vol. 17 No 3, Summer, pp. 449–459.

Pereira, M., 1982, 'The National Research Advisory Council and Some Counsel for Research Against National', *New Zealand Journal of Industrial Relations* Vol. 7, pp. 145–156.

Philpott, B.P. and Nana, G., 1984, *A Devaluation Policy Package to Maximise Employment Growth* (Wellington, Victoria University Research Project on Economic Planning Internal Paper No 162A, July).

Philpott, B.P. and Stroombergen, A., 1986, *Analysing Flexible Labour Markets—a General Equilibrium Approach Using 'CRESH' Production Functions* (Wellington, Victoria University Research Project on Economic Planning Occasional Paper No 87, January).

Richardson, J. and Henning, R., 1985, 'Policy Responses to Unemployment: Symbolic or Placebo Policies?', in Richardson, J. and Henning, R. (eds), *Unemployment: Policy: Responses of Western Democracies* (London, Sage Publications).

Robertson, D.B., 'Mrs Thatcher's Employment Prescription: an Active Neo-Liberal Labor Market Policy', *Journal of Public Policy* Vol. 6, No 3, July-September 1986, pp. 275–296.

Robinson, D., 1986, *Monetarism and the Labour Market* (Oxford, Clarendon Press).

Sako, M. and Dore, R., 1986, 'How the Youth Training Scheme Helps Employers', *Employment Gazette,* June, pp. 195–204.

Shirley, I.F., 1979, 'Beneath the Surface: Social Relationships and the Costs of Unemployment', in Shannon, P. and Webb, W. (eds), *Unemployment and New Zealand's Future: Proceedings of the Second Social Policy School* (University of Otago).

Showler, B., 1981, Political Economy and Unemployment', in Showler, B. and Sinfield, A., 1981, *The Workless State: Studies in Unemployment* (Oxford, Martin Roberston)

Showler, B. and Sinfield, A., 1981, *The Workless State: Studies in Unemployment* (Oxford, Martin Roberston).

Silverstone, B.D.J., 1979, 'Unemployment and Production in New Zealand: Okun's Law', *The Accountants' Journal,* Vol 58, June, pp 194 196.

Sinfield, A., 1981, *What Unemployment Means* (Oxford, Martin Robertson).

——, 1984, 'The Wider Impact of Unemployment', in OECD, *High Unemployment: a Challenge for Income Support Policies* (Paris, OECD).

Sørenson, F-O., 1984, 'The Impact of Unemployment on Government Budgets', in OECD, *High Unemployment: a Challenge for Income Support Policies* (Paris, OECD).

Stretton, A., 1984, 'The Short-Term Impact on Participants of Youth Employment and Training Programs', *Journal of Industrial Relations,* 26 March.

Stroombergen, A., 1983, *Modelling the General Equilibrium Effects of Differential Wage Changes with CRESH Production Functions* (Wellington, Victoria University Project on Economic Planning Occasional Paper No 65).

Training Policy Division, 1984, 'Report on a Review of the Work Skill Development Programme', in Employment Promotion Conference, 1985, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

——, 1985a, 'Report on a Review of the School-leavers' Training and Employment Preparation Scheme', in Employment Promotion Conference, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

——, 1985b, 'Report on a Review of the Young Persons Training Programme', in Employment Promotion Conference, *Studies of Employment and Training Programmes* (Wellington, Government Printer).

Treasury, The, 1984, *Economic Management* (Wellington).

Turner, D.S., Wallis, K.F. and Whitley, J.D., 1987, 'Evaluating Special Employment Measures with macro-econometric Models', *Oxford Review of Economic Policy* Vol. 3 No 3, Autumn, pp. xxv-xxxvi.

Whitley, J.D. and Wilson, R.A., 1983, 'The macro-economic Merits of a Marginal Employment Subsidy', *Economic Journal* Vol. 93, December 1983, pp. 862–880.

Wilensky, H.L., 1985, Nothing Fails Like Success: The Evaluation-Research Industry and Labor Market Policy', *Industrial Relations* Vol. 24 No 1, Winter, pp. 1–19.

Wilson, J.Q. and Cook, P.J., 1985, 'Unemployment and Crime—What is the Connection?', *The Public Interest* No. 79, Spring, pp. 3–8.

Witte, A.D., 1979, Prepared Statement and Tesimony, in *The Social Costs of Unemployment: Hearing before the Joint Economic Committee, Congress of the United States, 96 Congress 1st Session, October 31 1979* (Washington DC, US Government Printing Office), pp. 25–44.

Woodbury, S.A. and Spiegelman, R.G., 1987, 'Bonuses to Workers and Employers to Reduce Unemployment: Randomised Trials in Illinois', *American Economic Review* Vol. 77 No 4.

Ziderman, A., 1975, 'Costs and Benefits of Manpower Training Programmes in Great Britain, *British Journal of Industrial Relations*, July.

——, 1978, *Manpower Training: Theory and Practice* (London, Macmillan).

Ziderman, A. and Driver, C., 1973, 'A Markov Chain Model of the Benefits of Participating in Government Training Schemes', *The Manchester School* December.