# THE AUSTRALIAN LABOUR MARKET: SOME SOCIAL AND ECONOMIC CONSEQUENCES

by Philip E.T. Lewis

Centre for Labour Market Research, University of Canberra

Paper presented to the H R Nicholls Society Annual Conference, 2-4 May, Melbourne.

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I do not intend here to present a thorough, lengthy analysis of labour market regulation and deregulation in Australia but to focus on what I consider to be the most important current issues. In order to provide a context for this discussion it is instructive to begin by looking at a few facts and figures about the Australian labour market. These show clearly there have been considerable changes in aggregate demand, particularly with respect to composition, as a result of structural and technological change. These changes have important implications for the role and potential for government intervention in the labour market.

# **Changes in the Labour Market**

Table 1 shows the major changes that have occurred in the major employment for the period 1981 - 2001.

#### Table 1: Growth in employment, 1981–2001, percentage change.

Full time males	15.4
Full time females	50.0
Part time males	225.4
Part time females	113.3
All full time	24.8
All part time	136.2

(Source: ABS, The Labour Force 6203.0)

Given that the growth in adult population over this same period was about 35 per cent, it is clear that demand for full-time workers, particularly males, has not kept pace with supply.

There has been a substitution of females, particularly part time females, for full-time males. For particular groups, the changes in demand have been particularly noticeable. For instance, a full-time job for anyone 15-20 years old is now an exception rather than the rule and if you are a youth in a part-time job there is an over 80 per cent chance you will be a student (Lewis and McLean 1998).

Much of the above changes in demand are due to the change in composition of output in the economy. This is shown clearly in Figure 1 which shows the changing composition of Australian employment by industry.

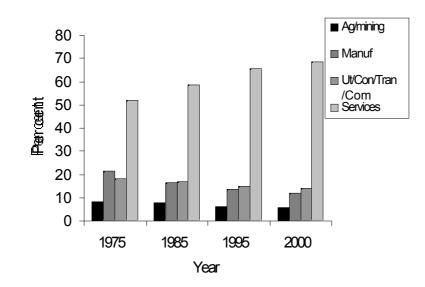


Figure 1: Employment by industry, 1975 –2000, per cent

(Source: ABS, *The Labour Force* 6203.0)

In 1975 services accounted for just over 50 per cent of all jobs but by 2000 the service sector accounted for almost 70 per cent of all jobs. By contrast manufacturing's share of total employment almost halved over the same period to about 11 per cent in 2000. There were similar reductions in the relative shares of jobs in the other 'industrial' sectors.

For brevity I will not show the change in distribution of jobs by occupation, but the picture that emerges when combined with the industry distribution is that a 'typical' Australian worker today is a 'white collar' employee in the service sector.

Changes in industry composition have combined with technological change to systematically change the demand for skills. It is convenient to decompose skills into three types: motor, cognitive and interactive. Moreover, most jobs would contain elements of one or more of these. "Motor skills" are essentially the ability to do physical tasks. "Cognitive skills" relate to the possession and ability to create knowledge. "Interactive skills" refer to the ability to relate between managers and employees, employees and employees, and employees and customers. Interactive and cognitive skills will become increasingly important for survival in the new economy, while motor skills will be vulnerable to substitution by technology and cheap external labour through globalisation.

Kelly and Lewis (2001a) have measured the change in different types of skills and decomposed these changes into those due to changing industrial composition and those due to changes within industries, taken to be technological change. The results of this study are summarised in Table 2.

	Per cent Total Change	Within Industry Contribution	Inter-Industry Contribution
Motor	-28.8	37.0	63.0
Interactive	32.0	54.8	45.2
Cognitive	22.0	71.0	29.0
Education	17.0	73.2	26.8

Table 2: Average economy-wide change in skill levels per worker, 1986 – 1996

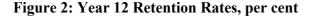
(Source: Kelly and Lewis 2001a)

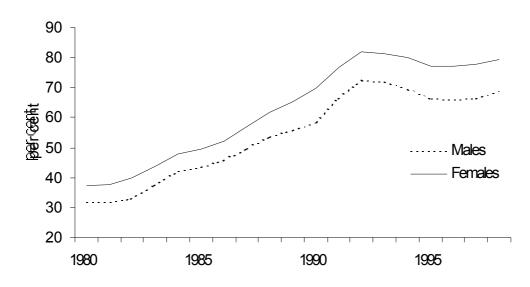
Over the 10 year period, 1986-96, the average demand for motor skills per worker declined by 28 per cent, of which 63 per cent was due to changes in industry mix and 37 per cent due to within industry effects. Thus, although a large part of the fall in demand for motor skills has been due to a shift in output from 'production' related industries to services, a significant part of the decline has been due to changes in demand for skills within industries. The biggest increase in average skill levels has

been for interactive skills with about half the change due to both change in industry composition and technological change, respectively. Demand for cognitive skills and education have grown and the growth is largely due to technological change.

To summarise the above, a combination of structural and technological change has significantly changed the demand for labour with respect to part-time employment, gender and skills. Fortunately, I would argue, for most Australians the labour market and its education and training system has facilitated the adjustment of labour supply to meet those changes in demand.

The increased participation of women and students in the work force has been well documented (see, for instance Norris and Wooden 1995 and Lewis and McLean 1998) and this has greatly facilitated the increased demand for part-time workers and those with interactive skills. In addition the education system has significantly increased the average cognitive and education levels. For instance, as shown in Figure 2, the overall Year 12 retention rate has reached about 75 per cent and appears to have reached its maximum given current education policy.

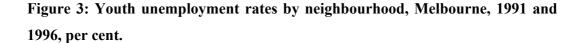


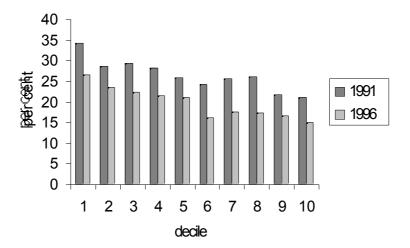


(Source: Lewis and Mclean 1998)

The conclusion one would have to draw is that for most Australians the labour market and the education system has performed very well. Labour supply has adjusted quite well to labour demand due to structural and technological change. However, the unemployment rate remains stuck at about 5 per cent. When we talk about the labour market disadvantage we are not talking about the large majority of Australians but specific groups of people who are particularly disadvantaged and are fairly easily identifiable (Dockery and Webster 2001). Also it is well established that it is the completion of schooling to year 12, which has the most impact on lowering the likelihood of unemployment (see, for instance, Harris 1996).

To illustrate the problem of concentration of disadvantage, it is illuminating to examine specific neighbourhoods (Gregory and Hunter 1995); Figures 3 and 4 show the youth and adult unemployment rates for Melbourne where the unemployment rates are the average for neighbourhoods. Neighbourhoods are defined as Collection Districts (about 250 dwellings and generally equivalent to a suburban block) and are ordered in deciles according to degree of disadvantage. For instance, the bars on the extreme left of the figures are the average unemployment rates for the most disadvantaged neighbourhoods and on the extreme right the bars show the unemployment rates for the most advantaged neighbourhoods.

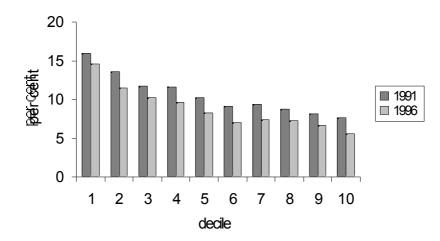




(Source: Kelly and Lewis 2001b)

Two things stand out in Figure 3. First, there are considerable differences between neighbourhoods- youth unemployment is not a general problem, but concentrated in the most disadvantaged communities. Second, in 1991, when the economy was in recession, youth unemployment was more evenly dispersed. However, in 1996, when the economy was in a period of sustained growth, although the youth unemployment in the better-off neighbourhoods had fallen significantly, in the worse-off neighbourhoods there was much less improvement. In other words, youth unemployment is concentrated in poorer neighbourhoods and improvement in the macroeconomy alone, or general job creation, will not solve the problem.

Figure 4: Adult unemployment rates by neighbourhood, Melbourne, 1991 and 1996, per cent.



<sup>(</sup>Source: Kelly and Lewis 2001b)

Neighbourhoods with high adult unemployment have generally higher youth unemployment (Kelly and Lewis 2001b). To a large extent unemployment, as well as other aspects of economic and social disadvantage, is intergenerational and, possibly, geographic in nature. The implications of this are that job creation is far more problematic than simply generating economic growth. I will return to this later.

At the risk of presenting a caricature of the pre 1975 labour market, the choices facing individuals with little or no skills were about which job to choose rather than if a job were available. Staying on until Year 12 was an option chosen by a minority of

youths and university by an even smaller minority. Today full time work for juniors is a rarity, part time work is taken up largely by students and married women, if you left school at year 10 then your chances of unemployment are much higher than the rest of the population and some high schools in our poorest suburbs have few going onto higher education.

# The New Economy

The above changes to the Australian labour market have arisen from developments sometimes referred to as the 'New' or 'Global Knowledge' Economy, which has emerged out of two forces; namely the growth in technology and the subsequent knowledge intensity of economic activities including knowledge intensive goods and services, and the globalisation of economic activity. The major drivers are the rapid development and improvement of information technologies, increased pace of technological change, deregulation both within and across national boundaries, and the communications revolution.

A major development in the New Economy is the increase in the knowledge intensity of capital, labour, products and services, particularly knowledge based services. The growing incorporation of knowledge into the production process implies significant changes in the skill mix of workers. For instance, printing processes once consisted of heavy machinery operated by tradespersons in what was essentially a manufacturing industry. Now people in the printing industry are more likely to be behind a computer, making customised designs for clients. Most jobs in the printing industry can probably now best be regarded as providing services, rather than manufacturing.

New technology tends also to be complementary to highly skilled labour and it is a substitute for low skilled labour. Some jobs, such as the filing clerk, have virtually disappeared. However, the big expansion in employment is in personal and knowledge related services. These are in such areas as education, training, recreation, entertainment and personal services. There have been significant declines in relative employment in goods industries and particularly in the production of primary commodities.

Labour force skills are the critical factor in determining the rate at which the potential of technologies can be realised. While competition and emulation urge organisations to pursue the potential reductions in transaction costs and other savings offered by the new information technologies, these technologies are of little use without the right people with the right skills. Moreover, to realise the potential economies and other benefits, firms have and will continue to have to restructure the entire internal and external organisation of their business. That is, the soft technologies (management and organisational) are critical to the successful adoption of hard technologies, such as the Internet. The requirements of change have far reaching implications for education, training and institutions in the labour market in general. Success in the new way of doing business means new skills, new outlooks and a new commitment to life-long learning. Also, for the economy to take full advantage of the New Economy clearly a greater degree of flexibility is required.

One of the main effects of the emergence of the New Economy has been the impact on internal labour markets (ILMs). As conceptualised by researchers such as Doeringer and Piore (1971) firms possessing internal labour markets had the following characteristics:

- a) they were generally larger firms;
- b) they possessed a hierarchical, pyramid organisational structured;
- c) external recruitment was focused on a large intake of more junior employees;
- d) promotion and advancement occurred according to internally developed policies and pay rates;
- e) generally, employees experienced gradual pay increases with the accrual of service;
- f) there was heavy investment in the development of firm specific skills;
- g) there was an emphasis on training and development of employees.

Typically a young worker would enter a firm on a subsidised (by the firm) wage knowing that they would "pay back" the employer during the middle years and contribute to their subsidised employment in later years. Thus, typically a worker would receive a higher than "market" wage when young and old while accepting a lower wage in middle years. ILMs provide a (limited) protection from the external labour market (with respect to both unemployment and wage flexibility), together with government regulations, union membership and the welfare state (all of which are closely related to ILMs). From the 1980s there have been signs worldwide of the destabilisation of ILMs (Gautie 2002). Several factors are associated with the decline in ILMs, and these are outlined below.

*Growth in employment has been less than the growth in labour supply*. One of the main reasons for the development of ILMs was relative labour shortages. Firms were encouraged to develop staff training and firm loyalty in order to retain labour during these periods of shortage. Increased unemployment creates greater availability of labour on external labour markets, particularly in "old economy" firms. Moving up the job ladder depends on job growth and flows of labour through the firm. ILMs involve younger and older workers being paid more and workers in their middle age less than the spot wage. This is therefore a dynamic process whereby new entrants to firms and those reaching retirement are subsidised by middle-aged workers. Thus in this typical ILM a younger worker will receive subsidies knowing that in their middle age they will need to pay back the employer, and that as they reach retirement they will receive a subsidy from the firm which they have already paid. When the jobs distribution is frozen (little movement from one level to another within the firm), firms will no longer be willing to pay younger and older workers the premiums. With inflexible (downward) wages this results in unemployment/retrenchment.

*Financial markets*. The basis of ILMs is implicit long-term contracts. High interest rates, increased corporate ownership in the share market (for example pension funds), and greater incidence of takeovers since the early 1980s have led to firms having a greater emphasis on the short-term as opposed to the long-term, discouraging implicit long-term employment contracts.

*Globalisation*. Increased competition, either domestically or internationally, reduces the ability of workers to bargain and increases uncertainty for firms. This reduces the incentives for firms to enter into long-term contracts.

*Falling union density*. One of the generally recognised factors associated with ILMs is employer response to union pressure. In their original paper, Doeringer and Piore (1971) maintained that "while to a certain extent, the development of internal labour markets may be understood as a free response of employers to the advantages which the internal market provides, they have in many cases been forced by union pressure to provide greater job security than is otherwise to their advantage" (p. 173). In Australia, union density has fallen from about 50 per cent in the early 1980s to 23.1 per cent in 2002 and 18 per cent in the private sector (ABS catalogue 6310.0). It would therefore be expected that union power has significantly diminished, particularly since employment has shifted from the public sector to the private sector through such developments as contracting out.

*Technological change*. This relates to the introduction of new capital that both embodies new technologies (for example personal computers) but also relates to the way management organises labour and capital within the firm. The effects on skills and employment have been detailed above in paragraph 10. As Caroli (2000) explains, the new technologies create the need for "codified competencies" rather than the individual-based competencies of old technologies. This means that skills are more easily transferable between jobs and places of employment, which allows greater flexibility and interaction with the external labour market and diminishes the need for ILMs. The decline in ILMs has implications for policy, particularly retrenchments and redundancy.

# **Evidence on Labour Demand**

As far as the aggregate demand for labour is concerned, the evidence on the responsiveness of demand to wage changes (elasticity) is fairly clear (Lewis and McDonald 2002). The elasticity of demand for labour or the economy as a whole with respect to real wages is about -0.8. That is, a fall in real wages of 1 per cent would increase employment 0.8 per cent. In my view this evidence is so overwhelming it is difficult to take seriously those economists who maintain that the demand curve for labour is not downward sloping (see, for instance, Nevile 2001) which forms the major basis for the critique of the "five economists" proposal (see, for instance, Dawkins 1999, 2001).

With respect to the elasticity of demand for different types of labour, particularly the lower skilled, there is a relative dearth of Australian evidence, although economic theory would suggest it is much higher for the low skilled than for labour generally. The two studies that do provide estimates (Lewis 1985 and Daly et al 1998) both conclude that elasticities are large but there are a number of problems, acknowledged by the authors, which make the estimates less reliable than we would like. However, there can be little doubt that for the less skilled the impact of wage changes would be even higher than for workers generally.

Technological progress is labour saving of about 1.5 per cent per year, although it was significantly lower in the 1980s and higher in the 1990s. Thus we arrive at the rule that, given labour force growth of about 1.5 per cent per year, output at least 3 per cent to reduce unemployment.

# Labour Supply

There is a common misconception, even voiced by some quite influential economists, about the role of labour supply policies in reducing unemployment. The argument goes something like this: labour supply policies, such as labour market programs and reduced unemployment benefits, can only redistribute jobs rather than reduce unemployment because no new jobs are created. In order to understand how labour supply policies work, consider the simple representation in Figure 5 below.

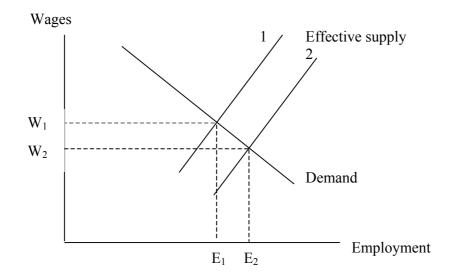


Figure 5: Creating jobs through labour supply policies

The concept of "effective" supply refers to the situation whereby for certain people, at the current wage, their productivity (marginal product) is so low that they are effectively unemployable (see, for instance, Lewis 1994, Flatau, Lewis and Rushton, Lewis and Ross, 1996). Figure 5 shows the effects of a supply side policy, such as a labour market program. This does not mean that these socially disadvantaged are precluded from employment if certain structures and regulations were changed. For instance, as Burtless (2002) points out, for the United States:

"... In many urban labour markets in North America, for example, jobless workers with few qualifications can apply to temporary employment agencies for short-term work. Although the employment is uncertain and irregular, workers who are persistent can usually obtain temporary work assignments, and many eventually find permanent jobs if their work performance impresses a manager who has provided a short-term job assignment. Other job opportunities for less qualified workers can be found in low-wage retailing, cleaning and landscape services, agriculture, manual

labour, and informal child care. With relatively little training, less educated job seekers can find work as home health aides for the elderly and disabled...

The plentiful job opportunities available in the low-wage United States labour market are not so common elsewhere in the OECD. In part this is because product and labour market regulation have slowed the development of low-wage service occupations that have become common in the United States. The effects of some of these regulations could be ameliorated with regulatory reform and carefully crafted incentives to encourage the creation of jobs for the less skilled. But more employers would be willing to develop and offer low-wage job opportunities if they believed, as American employers do, that an eager if untrained workforce is available to accept the jobs." (p. 122-123)

Supply-side policies shift the effective supply curve to the right. People who were previously unemployable now enter employment as the real wage falls for people at the margin. Jobs are created because at the lower wage firms can undertake activities which are now profitable but which would have previously been unprofitable. That is, there is an *output effect*. There is also a *substitution effect* whereby some workers are displaced by the new labour supply. However, the net effect on jobs is positive. Notice that the effectiveness of supply side policies depends on the size of the elasticity of demand for labour and particularly the output effect. As I asserted earlier there is, in my view, indisputable evidence regarding the size of these elasticities which suggest that there is an important role for supply side policies. Let me briefly comment on some of these in the Australian context.

# Minimum wages

The manipulation of wages has a well-researched track record in Australia thanks mainly to the Prices and Incomes Accord. The experience of the Accord is undisputable: an overall reduction in real wages resulted in significant employment growth in line with the predictions of the theory demand for labour. Predicting the impact of lowering the real wages of only workers on award wages, as proposed by the "five economists", is a bit more complicated but nevertheless, in my view, their conclusions are essentially correct - freezing award wages will create jobs and reduce unemployment.

The focus of policy should be to raise the incomes of *low income households* rather than of *low wage workers*. There is substantial evidence that many low wage workers are in relatively high income households and that poor households are usually poor because members of the households are out of work. Thus, facilitating jobs growth should take preference over raising wages of those in work.

Most importantly, the effectiveness of supply side policies is greatly diminished by the existence of minimum wages.

# Social security reform

There appears to be virtual consensus that the social security system in Australia has resulted in adverse labour market conditions. The recommendations of the McClure (2000) report have been generally favourably received and we await with interest the evaluations of the measures resulting from the report. However, there is still a heavy 'tax' on people wishing to make the transition from social security to paid employment.

# Retrenchments and Redundancy

There is currently an ACTU test case on redundancy before the Australian Industrial Commission which aims to update the TCR standard. In particular the aim is to:

- (i) increase the level of termination payments to the NSW standard;
- (ii) extend coverage to long-term casuals;
- (iii) extend coverage to small business.

While it is true that retrenchments are still a significant feature of the labour market in Australia, the empirical evidence suggests that the incidence of retrenchments as a

proportion of total employment has not changed significantly over time (Murtough and Waite 2000). Retrenchment can be due to a number of factors including a downturn in the economy, individual business failure, seasonal factors, structural change and technological change. The ability of firms to adjust the quantity of labour employed is an important adjustment mechanism in ensuring an efficient economy. Thus any impediments to retrenchments (that is, increased costs) would be expected to reduce the ability of firms to restructure, and therefore reduce the efficiency of the economy. While there are significant costs to retrenched workers, these are mainly a matter for government policy such as education and training, job creation schemes (through, for instance, subsidies) and the social security system.

Most people who seek out casual employment do so because of the flexibility it allows as well as the increased loading for loss of sickness and holiday pay. Developments in the New Economy, particularly in retailing, have made casual workers a particularly attractive option for employers. Over 80 per cent of young people in casual work are students. The income they derive from casual work has been an important factor in financing the growth of tertiary education in Australia (Lewis and Koshy 1999). There is no evidence that casual jobs are any more precarious than fulltime ones. Introducing retrenchment payments for casuals would be expected to result in employers terminating casual employment before the qualifying period for termination payments. This would lead to a significant turnover in jobs, but significantly reduce the duration of employment for many people, particularly younger workers for whom unemployment is particularly high.

The decline in ILMs suggest several policy responses. These include:

- *more flexible wages*;
- wage subsidies (particularly for young workers, as in France and Japan this replaces the implicit subsidies of ILMs with explicit subsidies from the government);
- *early retirement* (early access to government and private pensions);
- investment in education and training;
- *improved job search programmes* for displaced workers, such as JobNetwork.

Given the problems facing the unemployed, it follows that although boosting aggregate demand may be necessary for reducing unemployment it is not sufficient. This is why it is necessary to also focus on labour supply.

#### Labour market programs

There is a considerable amount of research on the impact of labour market programs in Australia and the main results are summarised by Dockery and Webster (2001). As pointed out the major problem with evaluating these programs is the lack of controlled experiments or randomised allocation to programs. It has been argued that such allocations are somehow morally wrong. However, surely the cost of people being allocated to programs that do not work, or not being allocated to programs that do, is far more of a problem.

What we do know about labour market programs is that they are very expensive in terms of cost per job created and identifying successful programs is a top priority. Also, the massive cost of trying to solve the unemployment problem 'after the event' suggests it would be more cost effective to intervene for people at risk before they become almost unemployable. There is also growing evidence that British attempts at mutual obligation and labour market programs which contain a more intensive job search element have been somewhat more successful than those in Australia.

#### Education & training

As mentioned above the single best indicator of the probability of being unemployed is the level of education and training. Also, as I noted above, there has been a big increase in participation in non-compulsory schooling, TAFE and universities. Most Australians are coping well with the changes in skill requirements in response to changing demand for labour. However, at the risk of being repetitive, there is a relatively small, but significant proportion of the population who do not possess the human capital required to be part of the effective labour supply. Although they are a relatively small proportion of the labour force they make up the great majority of the unemployed. This suggests that education and training policy has to address the problems of the most disadvantaged as well as the majority for whom it caters well at the moment. This would involve the direction of more resources to 'problem' schools and students and providing incentives for the best teachers move to disadvantaged areas in much the same way as the Commonwealth Government is offering incentives for teachers in rural Australia.

#### Intergenerational & neighbourhood effects

The evidence is mounting in Australia and elsewhere suggesting that the underlying relationships between family, neighbourhood and youth need to be addressed if employment opportunities for disadvantaged youth are to be improved (Kelly and Lewis 2001b). There are important linkages between the socio-economic status of regions and the employment and educational patterns of its constituents, particularly youth. Youths who are identified by certain regions and socio-economic characteristics are more likely to be over-represented in the pool of young unemployed. They are also more likely to have low educational attainment. The consequences will be continued labour market disadvantage and inequality of opportunity.

There is no one model of intergenerational and/or regional effects that has gained acceptance among economists. However, whatever the model driving these effects, it is, in my view, indisputable that a major failure of public policy has been the neglect of schools and community education in Australia's most disadvantages areas.

### Conclusion

In conclusion, the Australian labour market and its education and training institutions have served most Australians rather well. No doubt deregulation of product, labour and capital markets have been a major reason for this. When we talk about improving the labour market we are really concerned with improving employment opportunities for the most disadvantaged. In the short run the potential exists for these people to find employment but these will not be the jobs that would be long term and skilled. Improving the position of the disadvantaged in the long term is clearly not an easy task and could well take several decades since improving educational outcomes involves changing family and community cultures as well as increased resources for education.

In an earlier paper (Lewis 2002) I speculated on what would have happened if in 1975 we knew, or could have predicted, what the Australian labour market would look like 25 years later. I suspect the first reaction would have been to isolate Australia from the impacts of globalisation and technological change through increased tariffs, resistance to privatisation, minimising deregulation and limiting immigration. I would hope, however, that an alternative view would have prevailed which recognised that making Australia more competitive and adaptive to change would increase the opportunities for most Australians, particularly women. If we had known of the huge cost of unemployment and the difficulties of solving the problem, would we not have embarked on a targeted program of measures, such as education, aimed at improving our inner cities, rural communities and the most disadvantaged.

In retrospect, after two and a half decades, we can see how policy makers got it wrong but there does not appear much sign of policy makers getting it right in the next two and a half decades. Also, there are many in Australia who would wish to turn back the clock by moving to a more regulated economy, pointing to the costs of deregulation and downplaying or denying the benefits. A more appropriate approach is to allow markets to bring greater growth and employment and address the root causes of labour market disadvantage which is generally a problem of labour supply.

#### References

- Burtless, G. (2001), 'How Can Supply Side Policies Reduce Unemployment?', Australian *Journal of Labour Economics*, , *Australian Journal of Labour Economics*, Vol. 5, No. 2, June, pp. 115 – 142.
- Caroli, E., (2000), 'Flexible Interne versus Flexible Externe du Travail', Document de Trevail LEA-INRA No. 00-10.
- Daly, A., Duc, N.H., Eldridge, D., Gabbitas, O. & Mc Calman, P. (1998), Youth Wages and Employment, Productivity Commission Staff Research Paper, Ausinfo, Canberra.
- Dawkins, P. (2001),' The Five Economists Plan: the Original Ideas and Subsequent Developments', *Australian Journal of Labour Economics*, Vol. 5, No. 2, June, pp. 203 230.
- Dawkins, P. (1999) 'A Plan to Cut Unemployment in Australia: an Elaboration on the Five Economists' letter to the Prime Minister, 28<sup>th</sup> October 1998', *Mercer Melbourne Institute Quarterly Bulletin of Economic Trends.*
- Dockery, A. M. and Webster, E., (2002), 'Long-term Unemployment and Work Deprived Individuals: Issues and Policies', *Australian Journal of Labour Economics*, Vol. 5, No. 2, June, pp.175-194.
- Doeringer, P.B. and Piore, M. J., (1971), *Internal Labour Markets and Manpower Analysis*, D.C. Heath and Co., Lexington, Ch. 8.
- Flatau, P.R., Lewis, P.E.T & Rushton, A. (1991), 'The Macroeconomic Consequences of Long Term Unemployment', *Australian Economic Review*, 4th Quarter, pp.48-56.
- Gautie, J., (2002), 'The Destabilisation of Internal Labour Markets', Centre d'Etudes de l'Emploi, Universite de Reims et LSS-ENS.
- Gregory, R.G. & Hunter, B. (1995), 'The Macroeconomy and the Growth of the Ghettos and Urban Poverty in Australia', Centre for Economic Policy Research Discussion Paper No. 325, April.
- Harris, M.N. (1996) 'Modelling the probability of youth unemployment in Australia', *Economic Record*, 72(217), pp. 118-129.
- Kelly, R. and Lewis, P.E.T., (2001a), 'The Role of Information Technologies in Skill Change', paper presented at the 28th Annual Economic Society of Australia Conference of Economists, University of Western Australia, Perth, September, forthcoming *Australian Journal of Labour Economics*.

- Kelly, R. and Lewis, P.E.T., (2001b), 'Neighbourhoods, Families and Youth Employment Outcomes: A Study of Metropolitan Melbourne', *Journal of Socio-Economics*, forthcoming.
- Lewis, P.E.T. (1985) 'Substitution Between Young and Adult Workers in Australia', *Australian Economic Papers*, Vol. 24, No. 44, pp.115-126.
- Lewis, P.E.T. (1994), 'Long-Term Unemployment the Case for Wage Adjustments', *Economic and Labour Review*, Vol. 5, No. 1, pp. 11-20.
- Lewis, P.E.T. (2002), 'What Do We Know About Job Creation', *Australian Journal* of Labour Economics, Vol. 5, No. 2, pp. 279-288.
- Lewis, P.E.T. & McDonald, G. (2002), 'The Elasticity of Demand for Labour in Australia', *Economic Record*, forthcoming.
- Lewis, P.E.T. & Mclean, B. (1998), 'The Youth Labour Market in Australia', *Australian Journal of Labour Economics*, Vol. 2, No. 2, pp.157-172.
- Lewis, P.E.T. & Ross, R. (1996), 'Does the Labour Market Adjust?' in Norris, W.K.
  & Wooden, M. (eds) *The Changing Australian Labour Market: A Survey of the Issues*, AGPS, Canberra.
- McClure, P. (2000), *Participation Support for a More Equitable Society*, final report of the Reference Group on Welfare Reform.
- Nevile, J.W. (2001), 'Should Award Wage Rates be Frozen?', *Economic Papers*, Vol. 20, No. 2, pp. 26-35.
- Norris, W.K. & Wooden, M. (eds) *The Changing Australian Labour Market: A Survey of the Issues*, AGPS, Canberra.