

Reducing Unemployment, Joblessness and Inequality in a Globalising Economy: The Case of Australia

by

Peter Dawkins, Melbourne Institute of Applied Economic and Social Research,
University of Melbourne.¹

10th October 2002

¹ I am grateful to Alan Duncan with whom I am working on a forthcoming paper concerned with analysing the construction and effects of an *employment tax credit*. This paper draws on that research. I am also grateful to Peter Kenyon with whom I have written about globalisation and labour markets (Dawkins and Kenyon 2000, 2001). This paper draws up that research and follows up on the ideas canvassed in those papers. Thanks also to Paul Gregg and Rosanna Scutella, with whom I have written papers on jobless households and employment polarisation (Dawkins, Gregg and Scutella 2002a, 2002b). This paper also draws upon that research. Thanks also to John Freebairn, Ross Garnaut, Michael Keating and Chris Richardson, with whom I formed the so-called “Five Economists” whose ideas about reducing unemployment feature in this paper.

Abstract

A stylised view of globalisation and labour markets is that globalisation (along with skill-biased technological change) increases income inequality through the widening of wage differentials, and that attempts to reduce inequality through labour market protection of low wage earners, would cause unemployment. Thus, in this stylized view, there is a trade-off between wage flexibility (and an associated income inequality) on the one hand, and unemployment on the other, that is sometimes called the “diabolical trade-off.” This paper explores whether the diabolical trade-off can be avoided in a globalising economy like Australia, and concludes that it can.

The difference between wage inequality and household (or income unit) income inequality is emphasised. Further, although Australia has a strong tradition of trying to use regulated wages as an anti-poverty device, it is shown that this is not a sensible strategy in the contemporary labour market. Further it is pointed out that the major driver of any increasing inequality in Australia is the widening distribution of employment rather than increasing wage differentials.

The growth of jobless households in Australia is documented and the particular problem of jobless households with children emphasised. It is argued that reducing the incidence of jobless households with children should be a major policy priority.

The author was a member of the Review of the Australian Welfare System, which led to the McClure Report in 2000. Previously he was one of five economists who wrote a letter to the Australian Prime Minister in 1998, proposing, amongst other things, a wage tax trade-off to reduce unemployment (involving the use of an employment tax credit). The ideas of the McClure Report and of the ‘five economists’ are canvassed, and the likely effects of their proposals evaluated. This includes some results of a behavioural microsimulation analysis, undertaken in association with Alan Duncan of the University of Nottingham.

It is concluded that an appropriate policy package can be devised which would reduce unemployment, reduce the incidence of jobless families with children and reduce income inequality in Australia, thus avoiding the diabolical trade-off.

1. Introduction

A stylised view of globalisation and labour markets is that globalisation (along with skill biased technological change), increases income inequality through the widening of wage differentials, and that attempts to reduce inequality through labour market protection of low wage earners, would tend to cause unemployment. In this stylized view, there is a trade-off between wage flexibility (and an associated inequity in the distribution of income) on the one hand, and unemployment on the other. This is sometimes called the “diabolical trade-off.” This paper explores whether the diabolical trade-off can be avoided, in a globalising economy like Australia, and concludes that it can.

The difference between wage inequality and household (or income unit) income inequality is emphasised. It is pointed out that the major driver of any increasing inequality in Australia is the widening distribution of employment rather than increasing wage differentials. Further, Australia’s strong tradition of trying to use regulated wages as an anti-poverty device, is shown not to be a sensible strategy in the contemporary labour market.

The growth of jobless households in Australia is documented and the particular problem of jobless households with children emphasised. It is argued that reducing the incidence of jobless households with children should be a major policy priority.

The ideas of the McClure Report into Welfare Reform and of the so-called ‘five economists’ (who have proposed a wage-tax trade-off using involving the use of an employment tax credit) are canvassed, and the likely effects of their proposals examined.² This includes some results of a behavioural microsimulation analysis, undertaken with Alan Duncan of the University of Nottingham. It is concluded that an appropriate policy package can be devised which would reduce unemployment, reduce the incidence of jobless families with children and reduce income inequality in Australia, thus avoiding the diabolical trade-off.

The paper proceeds in the following way. First, the evidence about the effect of globalisation on the Australian Labour Market is reviewed. Second the evidence about the distribution of earnings and income in Australia is reviewed. Third, the growth of jobless families in Australia, and the high incidence of jobless families with children is documented. Fourth the level of minimum award wages in Australia is documented and compared with other countries, and their lack of effectiveness as an anti-poverty device outlined.

Fifth, the case for introducing an employment tax credit in Australia is explored, including the idea that they might be used in place of increases in minimum award wages, as proposed by the ‘five economists’. The possible effects on unemployment, jobless families and inequality of such a policy package is discussed.

Sixth, the idea that this policy-making process is itself shaped by globalisation, through the international transfer of policies from overseas, is explored.

² The author was a member of the Reference Group on Welfare Reform that produced the McClure Report (Reference Group on Welfare Reform) and one of the “five economists” who wrote a letter to the Prime Minister in 1998 with a plan to reduce unemployment that included, amongst other things, a wage tax trade-off involving the use of an employment tax credit.

Finally, some conclusions are drawn: first about the case for such a policy package to reduce unemployment, joblessness and inequality; and secondly about how the pressure for such a policy package can be seen as the result of globalisation.

2. Globalisation and the Australian Labour Market

2.1 Australia as a 'Globalising Economy'

In the last twenty years of the twentieth century, Australia took major steps to internationalise its economy. After a long period of protectionism, dating back to the early twentieth century, tariffs have been substantially dismantled. Also in the 1980s, the exchange rate was floated, exchange controls removed and substantial financial sector deregulation undertaken. The share of exports in GDP has risen, substantially, along with various other measures of the openness of the economy. Thus Australia, has been and continues to be a 'globalising' economy.

Australia's productivity has surged in the 1990s from below average to above average for the OECD, and many commentators attribute this improved performance to in the increased openness of the economy, along with other microeconomic reforms (see for example Garnaut 2002, Parham 2002,)

2.2 Industry Protection and Wage Determination in Australia³

Intimately linked with Australian protectionism, as part of the 'Australian settlement', was Australia's highly regulated labour market in which wages were largely determined by industrial tribunals, at the federal and state levels. The famous Harvester Decision in 1907, in the Commonwealth Arbitration and Conciliation Commission (the federal industrial tribunal) established the principle that the principal full-time male breadwinner in a household, should receive a wage that is sufficient for a man his wife and three children to live on. Thus the wage system was established as a major pillar of the Australian welfare system. At the same time industry was protected by high tariff barriers in order to enable Australia's relatively inefficient manufacturing to sector to pay these high minimum wages and the associated skill differentials which were also regulated within the award system.

Plowman (1992) has documented this tariff-wage nexus. In the early part of the century 'New protection' was 'the formal linking of protected manufactures and arbitrated wages' (Plowman 1992, p.47)⁴. Plowman argued that this wage-tariff nexus became more problematic over time because of the emergence of two other dominant attributes of Australian wage determination; comparative wage justice and the benchmark role of the sheltered metal trade industry. Moreover, he contended that there was a general disinterest in that production efficiency since tariff protection had the capacity to subsidise not only wage costs, but other labour costs as well. These labour costs included, over-manning, restrictive work hours and other inefficient work practices' (Plowman 1992, p.49). It also generated according to Plowman a 'non-investment culture, complacency about the use of

³ This sub-section draws from Dawkins (1998, p.646)

⁴ The dangers of linking protection with wages were noted by the Brigden Committee on tariffs in 1929 (Plowman 1992). Brigden noted that the Harvester Standard was based on the wages paid in sheltered industries and that 'at some time it will be necessary to review the principles of the Australian wage standard, and all we desire to say here is that the circumstances of unsheltered industries should not be ignored' (Plowman 1992, p.48)

obsolescent equipment, and a low premium being paid to good management, particularly of human resources' (Plowman 1992, p.49)

Plowman went on to argue that 'New Protection' was probably unsustainable. From 1967 onwards the wage-tariff nexus started to break down. In 1967 the Commission 'lost control over wages and facilitated a 16 per cent increase among trade persons. It became clear that the wage-tariff nexus could only be maintained by protection increasing to inordinate amounts relative to previous periods', (Plowman 1992 p.52). Since that time there has been a general shift away from protection which has 'necessarily impacted upon wage determination. We have seen significant changes in recent years as the parties adjust to new realities... They are likely to be pervasive and to have far reaching effects on wage determination and the institutions (and conduct of industrial relations).' (Plowman 1992, p52)

Indeed, the labour market has undergone substantial reform in this globalisation era, with a move to a more decentralised system of enterprise bargaining. This reform process is probably a response to either the internationalisation of the economy, or the microeconomic reform of product markets that accompanied it, or both (Wooden 2002). Interestingly however, Australia's structure of high minimum wages has been retained, and underpins the new wage determination system. The case for keeping them high and increasing their real value over time, is still seen in part, by the ACTU and the Industrial Relations Commission as part of the social safety net.

2.3 Is there evidence of Stolper -Samuelson effects?⁵

The Stolper-Samuelson theorem predicts that increased trade due to reductions in the costs of trading will lead to a change in relative factor prices so that countries with relatively high quantities of skilled labour will experience a fall in the relative price of unskilled labour. It will be accompanied by an increase in factor intensity in favour of unskilled labour.⁶

Evidence from the US suggests that there has been a fall in the relative wages of unskilled labour. However, this was not accompanied overall, by an increase in the intensity of unskilled labour. Further there is little evidence of relative price rises of products, which are skill intensive, which is what the Stolper-Samuelson theorem requires.

As a result many economists have concluded that skill-biased technological change in favour of high skilled workers, has been the dominant influence on the relative wages of skilled and unskilled labour.

Factor content studies⁷ have found some evidence of trade contributing to the reduction in the relative wage of unskilled workers, but typically only around 10 to 20 per cent of the overall decrease in labour demand by domestic firms necessary to explain rising wage skill differentials in the US, or unemployment in Europe.

If the evidence of Stolper-Samuelson effects is that they are weak in the US, they are weaker in Australia (see Dawkins and Kenyon 2000, 2001). As we will see in section 3 the widening dispersion of earnings has been driven by the strong growth in employment of

⁵ Section 2.3 and 2.4 draw upon Dawkins and Kenyon (2000, 2001)

⁶ For a more detailed account of the Stolper-Sameulson theorem (and of the literature on globalisation and labour markets, in general , see Greenaway and Nelson 2001).

⁷ Factor content studies are also explained a reviewed in Greenaway and Nelson (2001)

high wage labour rather than increased wage differentials. This is very consistent with skill biased technological change driving wage dispersion.

2.4 Is it wage rigidity that is preventing Stolper-Samuelson effects?

It could be, however, that like some European countries, wage stickiness for institutional reasons (i.e. minimum award wages) is what has constrained wage differentials, such that the trade effects on the labour market would show up in reduce employment of unskilled workers relative to skilled workers, rather than a change in their relative wage.

Indeed some evidence is consistent with this view. Fahrer and Pease (1994) for example argue that wage rigidity due to institutional factors, has prevented full wage adjustment to occur thus shifting the burden to unemployment. The evidence appears to be that unemployment has increased among workers with less education, for new entrants to the labour market (youth) and for older males displaced from tariff adjusting industries (Fahrer and Pease (1994)

If wage rigidity is part of the explanation for the Australian experience, it is still possible of course that skill biased technological change has been the dominant driver of the unfavourable experience of low skilled workers, rather than trade effects. This was the conclusion reached in a study using a global computable general equilibrium model, (Tyers and Yang (1997), although a small contribution from trade effects was found.

2.5 Is Technological Change caused by Trade Effects?

Thus, in the trade versus technology debate about the movement of the labour market in favour of skilled workers and against unskilled workers, the evidence tended to favour the technology explanation. But there is a growing realisation that trade and technology may be intimately linked for various reasons. One those reasons explored in a paper on the US by ? (2002), is that competition from low wage countries, cause firms and industries to mover towards more capital intensive and more skill intensive production. They find compelling evidence for this in the US. This is an important issue to look at with Australian data. The productivity growth that has been experienced in the 1990s after a period of dramatic reduction in tariff barriers, an the growth in the amount of manufacturing in Australia that became competitive enough to export, is prima facie evidence that this explanation could hold up well for Australia. This would also be consistent with the substitution toward higher skilled labour rather than away from it.

3. The Distribution of Earnings and the Distribution of Incomes

The distribution of earnings has widened in last twenty-five years. Table 1 illustrates this for the case of full-time non-managerial workers. For both males and females the earnings of the lowest decile in the distribution has continued to fall relative to the median. Similarly the highest decile has risen relative to the median.

When examining the reasons why there has been such a widening of the earnings distribution, however, Norris and McLean point out that to a large extent the explanation lies in the strong growth in employment of high-wage workers rather than changes in the relative wage of high wage and low-wage workers. They reproduce evidence from EPAC (1996) as evidence of this, (see Table 2). This demonstrates that there was a very strong

Table 1: Distribution of earning for full-time non-managerial workers (earnings as a percentage of median earnings)

	Lowest decile	Lower quartile	Upper quartile	Highest decile
<i>Males</i>				
1975	76.0	85.6	121.1	141.2
1980	73.8	84.0	123.2	150.4
1985	72.5	80.7	125.7	154.1
1990	69.5	80.6	126.0	156.3
1995	67.7	79.4	127.8	160.7
1998	65.5	78.4	128.7	162.6
<i>Females</i>				
1975	80.2	88.8	115.3	136.5
1980	81.8	88.0	119.3	142.8
1985	78.6	87.3	121.2	147.9
1990	74.9	84.1	123.1	147.6
1995	73.4	84.1	125.3	152.0
1998	71.8	82.3	127.5	150.4

Source: Norris and Mclean (1999)

growth in employment in high wage and high skill jobs between 1986 and 1995, but not in low skill and low wage jobs. Meanwhile there was no significant difference between the growth in wages of high wage and low wage employees.

Table 2: Wages and Employment Growth by Occupational Group (percentage)

	Wages 1986 – 1995	Employment 1986 – 1994
<i>By 1986 wage of occupation</i>		
High	58	22
Middle	50	16
Low	57	-4
<i>By skill level of occupation</i>		
High	58	24
Middle	52	0
Low	55	2

Source: EPAC (1996)

This is consistent with the evidence on occupational wage differentials uncovered by Fahrner and Pease (1994), who were specifically looking for evidence on Stolper-Samuelson effects in Australia. They found no evidence of a systematic widening of occupational wage differentials between 1987 and 1993. They focussed on the wage differentials between

unskilled machinists and high skilled managers, administrators and professionals, which showed now obvious signs of an upward trend. This was updated to 1998 by Dawkins and Kenyon (2000), and still no sign of an upward trend was found.

When we turn to the distribution of disposable income across households, while there is some evidence of a widening, it is much less dramatic. This is to a significant extent due to the ameliorating effects of the tax-transfer system.

Johnson and Wikins (2002) have recently analysed the ABS surveys of income distribution, looking back over the last twenty years. They found that government taxes and transfers acted to reduce the growth in inequality in disposable incomes over the period, to a significant extent offsetting the substantial growth in private (before taxes and transfers) income inequality. However, they do find some evidence of a modest increase in inequality of disposable incomes over the period up to the mid 1990s, remaining relatively constant thereafter.

Johnson and Wilkins (2002) went on to analyse the growth in inequality of private incomes (before taxes and transfers). Their major finding, using a form of 'decomposition analysis', was that about half of the increase in inequality could be attributed to changes in the distribution of employment. We noted above, the widening distribution of employment and the growth of jobless households. The analysis by Johnson and Wilkins (2002) appears to confirm that this has been the dominant driver of any widening of the distribution of income.

4. The Growth of Jobless Households in Australia

Despite the strong performance of the Australian Economy over the last decade, employment has not been very strong and unemployment remains stubbornly high at around 6.5 per cent.

A second policy focus, which is arguably becoming more important than the unemployment rate, however, is to reduce the number of jobless households, particularly jobless households with children.

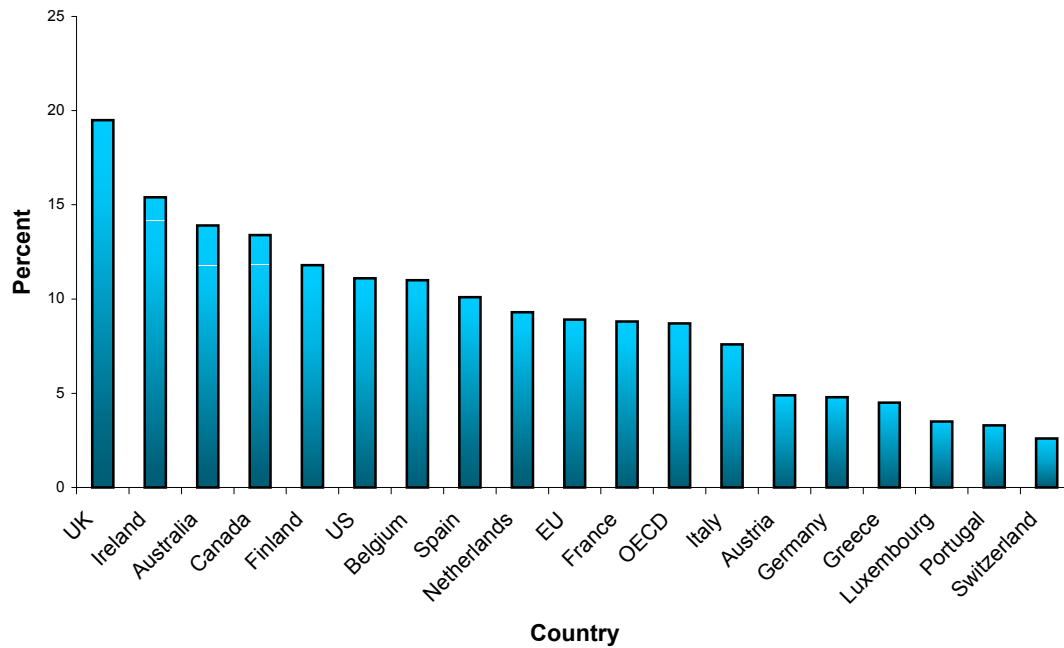
Despite some growth in the proportion of the working age population that are employed, over the last twenty years, there has also been a growth in the proportion of households (which contain working age people) that are jobless. In Australia there is a particularly alarming problem of the number of children living in jobless households. This stands at around one in six. Figure 1, shows that the jobless household rate with children in Australia is one of the highest in the OECD.⁸

The problem of reducing the number of jobless households is a major and explicit priority of the Commonwealth Government's welfare reform process, as recommended by the McClure Report (Reference Group on Welfare Reform 2000b). It is jobless households that have the highest dependency on welfare and the growth in welfare dependence over the last twenty years to a large extent mirrors this growth in jobless households. Another

⁸ The jobless household rate with children, increased a little after 1996 but has probably reduced a little in the last two years, and may be slightly lower now than it was in 1996. However, it has not changed very much and is still probably one of the highest in the OECD.

major objective of welfare reform as recommended by the McClure Report was to substantially reduce the proportion of the working age population who are heavily reliant on income support. The major priority of welfare reform is to move people, as far as possible, from welfare to work

Figure 1: Jobless Household Rate by Country for Households with Children (OECD 1996)



Source: OECD (1998)

While employment levels in Australia have improved from the low levels experience in the early 1980's, joblessness has become increasingly concentrated into households or jobless households, (Dawkins, Gregg and Scutella 2002a, 2002b). By 1997/98, over 16 per cent of working age households had no adult member in paid work.

Table 3 (taken from Dawkins, Gregg and Scutella 2002a), shows the aggregate employment rate (the individual non-employment or jobless rate is then calculated as one hundred minus the employment rate) and the overall incidence of jobless households from 1982 to 1997/98. Aggregate employment recovered between 1982 and 1990 after the early 80s recession and has since been broadly unchanged. By contrast, there has been a near continuous growth in the overall incidence of jobless households, from 12.7 per cent in

Table 3: Comparison of employment rates and jobless household rates, 1982 to 1997/98

	Employment rate	Recipient rate of major Income Support Payments	Jobless households	Working age adults in jobless households	Dependent children in jobless households			
	%	%	N	%	N	%	n	%
1982	70.43	15.40	558,343	12.67	801,352	9.45	432,274	10.11
1986	71.90	14.88	641,127	14.88	925,112	10.76	496,474	11.52
1990	74.22	15.82	649,466	14.20	948,166	10.49	511,367	11.42
1994/95	73.06	20.44	751,886	15.48	1,112,880	11.79	616,341	14.20
1995/96	74.30	20.91	754,398	15.11	1,068,740	11.18	565,060	12.92
1996/97	72.79	22.92	821,939	16.77	1,161,142	12.27	686,529	15.58
1997/98	73.69	21.26	819,442	16.28	1,165,596	12.11	660,242	15.00

Source: Dawkins, Gregg and Scutella (2002a, p139)

1982 to 16.3 per cent by 1997/98. This rise in jobless households mirrors the increasing number of households where a member is claiming one of the three major income support payments (unemployment, disability and lone parenthood).

Table 3 also shows that just as the incidence of jobless households has risen, so has the proportion of income units that depend heavily on government cash payments for their income. It also shows the proportions of working age adults and the proportion of children in jobless households. Both of these have also risen over the period, with the proportion of dependent children in jobless households rising at a notably faster rate.

Labour force data published by the Australian Bureau of Statistics (1999) suggests that the upward trend in the number of children living in jobless families has continued over recent years with about 860,000 (17.4 per cent) of dependent children living in jobless households in June 1999. Thus about 1 in 6 children live in jobless households. Indeed, as we have seen, in Figure 1, the incidence of jobless households with children is one of the highest in the OECD.

Part of the explanation for the growth in jobless households, lies in the changing structure of households. In particular there has been a shift towards single person households. Of at least equal importance, however, has been the polarisation of employment into either multiple job households or jobless households, (Dawkins, Gregg and Scutella, 2002b).

Table 4 shows that of jobless households with children, lone parent households represent about 56 per cent and this has grown from about 45 per cent on the early 1980s. A major cause, therefore, of the high incidence of jobless households with children, by international standards, is probably a high incidence of joblessness in lone parent households.⁹

Table 4: Jobless households with children – by Sole Parent and Couple Households (percentage)

	1982	1986	1990	1994/95	1995/96	1996/97	1997/98
Sole parent households	45.09	53.39	55.15	49.63	55.28	58.78	56.06
Couple households	54.91	46.61	44.85	50.37	44.72	41.22	43.94

Source: This table is an extension of the analysis in Dawkins, Gregg and Scutella (2002a)

However, while about 56 per cent of jobless households with children are lone parent households, Table 5 shows that this accounts for a lower proportion of the children in jobless households, about 51 per cent. The remaining 49 per cent are in couple households. Table 6 shows that the jobless household rate is especially high and growing in large families with four or more dependent children, albeit a relatively small group in the population.

Table 5: Children in Jobless households – by Sole Parent and Couple Households (percentage)

	1982	1986	1990	1994/95	1995/96	1996/97	1997/98
Sole parent households	42.39	49.99	50.64	46.98	54.53	55.84	51.03
Couple households	57.61	50.01	49.36	53.02	45.07	44.16	48.97

Source: This table is an extension of the analysis in Dawkins, Gregg and Scutella (2002a)

Just as about half of children in jobless households live with both parents, it should be noted that couple households *with children* are the main household type that have

⁹ The factors underpinning international differences in the incidence of jobless households is the subject of a current study at the Melbourne Institute

experienced the polarisation of employment between “all work” and “no work” households, (Dawkins, Gregg and Scutella 2002b). Shifts in employment away from less educated men towards prime aged better educated women, explains about 40 per cent of the adverse shift against couples with children.

Hence there is a large shift in patterns of employment in households with children, way from a dominant single male earner toward a more dual earner and no earner (couple and single) households with children.

Table 6: Jobless household rate by number of children, 1982 to 1997/98

	1982	1986	1990	1994/95	1995/96	1996/97	1997/98
One dependent	10.39	11.27	12.98	14.8	14.06	16.14	15.74
Two dependents	8.25	9.93	9.84	10.8	12.82	11.96	12.00
Three dependents	9.57	12.29	10.92	15.82	9.98	15.68	14.56
Four or more dependents	16.58	15.42	15.58	21.84	17.83	26.56	25.00

Source: Dawkins, Gregg and Scutella (2002a p.140)

5. Minimum Wages in Australia

5.1. *The Level and Structure of Minimum Wages*

As we saw in section 2.2. the award wage system was established as an important pillar of the welfare system, through the famous Harvester Decision in 1907. Although the principal embodied in that decision (that the minimum wage should be enough for a male principal breadwinner, his wife and three children to live on) no longer holds, and the position of women in the labour market has been made more equal, the idea that the minimum wage is a pillar of the welfare system, has survived. Indeed, Australia has one of the highest minimum wages in the world (Metcalf, 1998). They are increased on an approximately annual basis, in what is now called the *Safety Net Review*, which is labelled by the Australian Council of Trade Unions as the *Living Wage Case*.

Table 7 presents evidence from Metcalf (1999) on the real value of the national minimum wage in each of nine countries, (including the UK and Australia) and its value relative to full-time median earnings. This shows that Australia, is at the high end of the distribution as far as minimum wages are concerned.

It should be added that the federal minimum wage is only the bottom rung of a whole structure of minimum wages in Australia.

Table 7: Summary of Minimum Wage Systems in selected OECD Countries with a National Minimum

Country (year of introduction)	End-1997 NMW ¹ in \$US using PPP's ²	Mid-1997 NMW as % of full-time median earnings
<i>Australia</i> (1996, same form since 1907)	6.65	54
<i>Belgium</i> (1975)	6.40	50
<i>Canada</i> Women (1918-30); Men (1930-59)	5.33	40
<i>France</i> (1950, 1970 in current form)	5.56	57
<i>Japan</i> (1959, 1968 in current form)	3.38	31
<i>Netherlands</i> (1968)	6.00	49
<i>Spain</i> (1963, 1976 in current form)	2.94	32
<i>United States</i> (1938)	5.15	38
<i>United Kingdom</i> (1999)	5.44	44

¹National minimum wage, ²Purchasing power parity

Source: Reproduced from Metcalf (1999)

Metcalf was a member of the Low Pay Commission in the UK which was asked by the Blair government to recommend the level at which the UK minimum wage should be set. The Commission undertook extensive research as well as consultation. They concluded that “ the National Minimum Wage should be introduced at a rate which offers real benefits to the low paid, while avoiding unnecessary risks to businesses and jobs”, and advised that the appropriate rate for the National Minimum Wage should be 3 pounds 70 pence per hour in June 2000 along with an initial Development Rate of 3 pounds 20 per hour (for 18 to 20 year olds) and accredited trainees over 21 for a limited period of time. (Low Pay Commission, 1998 p.5).

The Low Pay Commission were very keen to avoid setting the minimum wage too high, in order to avoid serious adverse employment effects. David Metcalf (1999), in the article referred to above, of the London School of Economics, one of the Low Pay Commissioners, has subsequently written a journal article on the subject of minimum wage setting. Metcalf (1999) pointed out that his reading of the international research evidence is that modest increases in minimum wages, when they are at very low levels, do not tend to have adverse effects on employment, (and may sometimes have positive effects). However, at higher levels increases in minimum wages can be expected to have significant adverse effects on employment.

It is particularly noticeable, that all of the studies of minimum wages in France (the only country in Table 7 with the minimum wage higher than in Australia), reviewed in the Joint Government’s submission to the Safety Net Review (2000-2001), a significant negative relationship between minimum wages and employment was found.

4.2. Minimum Wages as an Anti-Poverty Device

In the 2001-2002 Safety Net Review the Australian Industrial Relations Commission (AIRC) awarded an 18-a-week wage rise to award wage earners. Many low-wage earners

gained very little from this decision, however, because of the high effective marginal tax rates that many Australian families face, due to the means tests in the welfare system and their interaction with income taxes. Take a family with two adults and two children, with one adult receiving the national minimum wage for a full-time job – that is \$413.40 before the decision. If the partner is not working they also receive a parenting payment (partnered). They got the \$18 a week increase in the gross earnings from the wage decision. But after changes to their taxes and transfers this was worth a little over \$3 a week net. This resulted primarily from the means test on parenting payment, plus income tax paid.

Further, research by Sue Richardson and Ann Harding (1998) highlighted how those people receiving low wage rates are well spread throughout the distribution of family incomes. This makes award wages safety net adjustments, sometimes called “Living Wage” increases, a very blunt equity device. Figure 2 taken from Richardson and Harding (1998) shows their estimates of the proportion of adult minimum wage earners in each decile of the distribution of annual equivalent disposable family income, in 1994.¹⁰

Figure 2: Proportion of Adult Minimum Wage Earners in Deciles of Annual Equivalent Disposable Family Income, in 1994 and 1986



Source: Richardson, S. and Harding, A. (1998) “Low Wages and the Distribution of Family Income in Australia”, Paper for Conference of the International Association for Research on Income and Wealth.

¹⁰ Richardson and Harding also examine the distribution of low wage earners (with a higher cut-off than the national minimum wage), and find similar results. They also look at the effect on the distribution of income without equivalising income. This does not change the basic conclusion that low wage and minimum wage workers are well spread around the income distribution.

The bold broken line in the figure shows the distribution across all adults in the population 1994. The dotted line shows the distribution across all those in the labour force. If minimum wage earners were equally distributed across the distribution of family incomes 10 per cent of them would be found in each decile.

If we focus on the whole population of adults, the lowest incidence of minimum wage earners is found in the third decile (about 5 per cent) and the highest in the fifth decile (about 15 per cent). There is also a disproportionately high incidence of minimum wage earners in the seventh, eighth and ninth decile and even about 8 per cent in the top decile. In contrast they are disproportionately under-represented in the bottom and third deciles. The latter finding is partly because there is a disproportionate over-representation of people with no work at all in the lowest deciles.

If we focus on those in the labour force, as would be expected there is a slightly higher representation of minimum wage earners in the bottom four deciles, but they are still very well spread around the whole distribution, with about half in the fifth decile or above.

6. The Case for Employment Promotion Policy Package, to include an Employment Tax Credit.

6.1. Introduction

In order to reduce unemployment and the incidence of jobless households, it would be wise to implement policies that will significantly increase both the supply of and the demand for labour, especially from jobless households.

On the supply side, the labour force participation rate needs to rise (and in some case increase hours of work from just a few hours a week), by engaging people into the labour market especially out of jobless households (e.g. lone parents, disability support pensioners) as well as increasing the incentives for the single unemployed and the unemployed in jobless couples to search for and accept jobs when offered them. The principal focus of the McClure Report on Welfare Reform (Reference Group on Welfare Reform, 2000a, 2000b) was on raising this participation rate.

On the demand side, we need to increase the demand for labour, especially low skilled labour in jobless households (and households with very few hours of paid employment).

Labour supply policies are discussed in section 6.2. and especially the role that an *employment tax credit* can play in providing incentives for people to move from welfare to work. Labour demand policies are discussed in section 6.3. In section 6.4., the wage tax trade-off proposed by the Five Economists, is discussed, and how it would increase both the supply of and demand for labour. In section 6.5. the case for a more integrated modular income support system is discussed. This will lead on, in the subsequent section 4, to a discussion of the potential role of tax credits in such a rationalised income support system.

6.2. Labour Supply Policies

6.2.1. "Sticks", "carrots" and services

The major thrust of welfare reform is to increase the supply of labour from jobless households (and households with very little employment – perhaps a few hours a week).

This requires a combination of improved work incentives, increased administrative requirements on income support recipients who have a capacity for work, and individualised service delivery to job seekers. Some progress has been made since the McClure Report in each area¹¹, but there is a strong case now, for a major push on work incentives.

6.2.2. Work Incentives, Replacement Rates and Effective Marginal Tax Rates

The interaction of tax rates and means tested social security benefits lead to high effective marginal tax rates for many low-income families. Increased targeting of welfare payments in the 1980's along with an increasing generosity in payments may be one of the contributing factors that led to the rising occurrence of the jobless household (Dawkins, Gregg and Scutella 2002a).

Figure 3 presents evidence on the growth in the “replacement rate” for households of different types since the early 1980s.

Figure 3 Net Replacement Rates of income support versus minimum age, various non-renter income unit types



Source: Reference Group on Welfare Reform (2000b), Appendix 4, p.50

¹¹ The first policy package following the McClure Report was called *Australians Working Together*. This provided for an upgrading of the individualised service delivery to Centrelink customers and introduced some new obligations in benefit recipients, especially lone parents. A ‘working credit’ was introduced to reduce the loss of earnings experienced by benefit recipients who take temporary employment, which results from benefits being calculated on the basis of each fortnightly level of earnings.

It provides a priori evidence that growing work disincentives may have contributed to the growth in the incidence of jobless households. These replacement rates represent the proportion of the income that could be obtained by the household if it held one full-time minimum wage job, relative to that which could still be obtained if the household had no job and relied exclusively on income support payments. Replacement rates for low paid part-time jobs can be even higher. Furthermore these illustrative figures do not include the withdrawal of Rent Assistance for the large proportion of those renting privately who live in jobless households.

To give an idea of the work incentives that a jobless couple currently faces, Dawkins Gregg and Scutella (2002a) presented the following two examples, one with two children and one with no children. They assumed that the couple is on allowances with rent assistance.

“For a couple without children an increase in wage income from \$0 to \$500, (which might result from the couple taking one full-time job at a wage a little higher than the minimum possible, would result in an increase in net income of just \$73.66. For the couple with two children net income would increase by \$141.52. When you consider the costs of job search, travel to work etc., this make the decision to take such a job look barely economic. If both partners obtained jobs worth \$500 each the effect on net income is more than twice as great (\$412.00 with no children and \$344.90 with two children)¹².

For families without children (and even for those with children prior to the recent reforms) there are substantial extra disincentives to take full-time work at or just above the minimum wage. For example, a single adult without children with a \$400 a week income receives \$171 more than being on welfare without rent allowance but \$130 with. In contrast the returns to being a second earner are very large. An additional \$400 a week second income on top of a first income at the minimum wage produces a net household gain of \$255 (or \$217 with Rent Assistance).¹³”

Dawkins, Gregg and Scutella (2002a p.151)

6.2.3. Reforming the Income support system to improve work incentives

The McClure Report (Reference Group on Welfare Reform 2000)noted that the Australian social security system is tightly targeted to people in need, which could be viewed as a strength in terms of the cost to taxpayers and providing limited assistance to those who can look after themselves. However, it went on to argue that this tight targeting can significantly reduce work incentives as social security payments are withdrawn at relatively high rates and income tax is payable.

In addition, means tests for different benefits sometimes overlap, so that individuals or families may face two or more tapers on different benefits at any one time (Keating and Lambert 1998a, 1998b). This problem of high effective marginal tax rates means that people sometimes receive little or no increase in disposable income from extra work and the resultant earnings.

It noted that the most severe effective marginal tax rates related to couples, as outlined in 6.2.2. above.

¹² Prior to the reforms to the generosity of family payments and taper rates (introduced with the new tax system), these figures would look even less attractive for families with children.

¹³ Reference Group on Welfare Reform (2000b), Technical and other appendices, Table 4.1, pp46-47.

There are, broadly speaking, two possible approaches to ensuring adequate incentives for people to take up and to stay in paid work. One is to reduce the level of benefits paid to people when they are not working. The other is to increase the amount of income received when a person is working. This can be done by increasing people's earnings (for example, by increasing the minimum wage), by cutting taxes (thus increasing people's take-home pay) or through in-work benefits that offer additional assistance to low-paid workers in low-income families. Increasing minimum wages is not favoured as the approach because it would cut across the objective of increasing employment opportunities for disadvantaged people.

On using income tax cuts it was argued that

“while general reductions in income tax would not be expected to have an adverse effect on low-wage employment, it would also be relatively ineffective in targeting the most disadvantaged families, as much of the benefit of tax cuts would flow to people in middle to higher income households.”

(Reference Group on Welfare Reform, 2000b p26)

The terms of reference of the Reference Group precluded the cutting of anyone's benefits. And as a general principle they were against cutting a person's benefits. They therefore concluded that “in-work benefits” was the preferred approach.

(Reference Group on Welfare Reform, 2000b p26).

6.2.4. *“In- Work Benefits”*

In-work benefits, i.e. income support payments received while also receiving wage income, can be of two kinds: supplementing earnings through basic income support payments; or employment conditional benefits.

One idea canvassed was whether to reduce the withdrawal rate on Newstart and other allowance payments, thus moving this income test towards the income test applying for pensions. However, there is a major problem with this idea. That is that too large a reduction in the withdrawal rate would, reduce the incentive for some people to take-up full-time work, unless some form of benefit matched it for people in full-time work. It is important that improved incentives for part-time work should not unduly compromise incentives for full-time work.

One radical method of increasing the incentive to work full-time would be to enable full-time employees to become eligible for Newstart allowance or the proposed participation support payments discussed above, could be extended to full-time workers. However, this would be a costly approach and unlikely to be cost effective.

The other option, which looks more promising, is to introduce an employment conditional benefit, i.e. a benefit that is paid only to people who have income from employment or who have a certain minimum level of employment.

This can, in principle, be implemented either through the benefit system or through the tax system. Overseas examples include the Working Families Tax Credit in Britain and the Earned Income Tax Credit (EITC) in the United States.

The McClure Interim report, commented on the pros and cons of such employment conditional benefits

“There is considerable research available on the potential impact of schemes such as the EITC. Firstly, they can make a significant difference in encouraging income support recipients into work. This is especially the case for lone parents in the United States. Their impact on couples with children is less positive. Although they induce some people to move from income support to work, they also reduce workforce participation by some second earners in a family as assistance is withdrawn at higher income levels. In the Australian context, it would be critical to integrate any such tax credit with the new Family Tax Benefit to ensure that the expected positive work incentive effects flowing from the ANTS package were not compromised.”

(Reference Group on Welfare Reform 2000a p44)

Subsequent research at the Melbourne Institute (Dawkins et al 2000), in association with Simon Lambert, then at NATSEM (Lambert 2000), has resulted in a proposal, linked with the Five Economists Plan, which would enable an *employment tax credit* to be well integrated with the ANTS tax system. This involves attaching the *employment tax credit* to Family Tax Benefit Party A. This proposal, its costs and its likely effects on labour supply, is outlined in section 6.5 below.

6.2.5 Towards the Modular Income Support System Proposed by McClure¹⁴

The McClure Report recommended a rationalisation of the income support system, to become simpler and more integrated. For example rather than operating completely separate income support payments for lone parents, disability support pensioners, and unemployed job seekers from other types of households, a modular system was proposed. This would include a base payment for everyone receiving income support, plus add-ons for such things as: the costs of living alone, the presence of children and the costs of disability.

There are a number of arguments against having a system as complex as the current system, with its array of benefits and associated means tests and taper rates, many of which overlap. The first is that people do not understand the way that it operates and are uncertain about the effects on their net incomes from changes in their private incomes due to extra paid work. If people are risk averse this can make the disincentive to work greater than it would be in a less complex system. This argument, therefore, is part of the thrust for stronger incentives to work. Further, the complexity of the system is such that reforms aimed at a particular objective can have unintended consequences.

A related point is that much of the interaction between clients and Centrelink is concerned with dealing with the complex payment system. If the system was simpler the relationship between clients and Centrelink could be more focussed on helping to raise the chances of economic and social participation of those on benefits.

Another set of arguments relates to the categorical structure of the income support system. There is a division of recipients into rigid categories of one type of pension or allowance and its associated payments and means tests and any associated mutual obligations and associated employment assistance services. These rigid categories imply that there is a large

¹⁴ Section 3.5. is based on the authors discussion of the case for welfare reform as proposed by the McClure Report, in a Policy Forum on Welfare Reform in the *Australian Economic Review*, (Dawkins 2001)

variation between categories and little variation within categories and that people circumstances do not change much. The Reference Group considered that these were false assumptions that need to be remedied. (Reference Group on Welfare Reform 2000a, p.34.)

On the simplified payment structure the McClure Report outlined a framework for developing a more streamlined system. It was argued that a simpler approach than the current pension / allowance divide would be to adopt “a modular construction of the income support payment rate”. This could include a standard base rate of payment plus add-on modules to address various additional needs such as the costs of children; the extra cost of living as the only adult in a household; any additional costs of lone parenthood; additional costs of childcare; housing costs above some specified level; costs of disability; and remote area costs. (Reference Group on Welfare Reform 2000b p.23)

6.3. Labour Demand Policies

While an increase in the supply of labour from jobless households can lead to a significant increase in employment, there is also a very strong case for policies aimed at boosting the demand for labour, especially low skilled labour that tends to be prevalent amongst the unemployed and in jobless households.

Sustained strong economic growth is one desired ingredient of an economy, to produce a growth in the demand for labour. However, as can be seen in Table 8 the employment content of growth has been disappointing in the 1990s, despite sustained strong output growth. It has become increasingly clear that economic growth alone will not solve the problem of unemployment and joblessness in Australia.

Table 8. Economic and Employment Growth in the 1980s and 1990s (Average annual rates of change)

	1978-79 to 1989-90 per cent	1989-90 to 1999-00 per cent
GDP per capita	1.8	2.1
Employment	2.4	1.3
Productivity (GDP per hour)	1.0	2.1
Real wages	0.1	1.7

Source: Dawkins and Keating (2002)

The other major determinant of labour demand is real-labour costs, which are driven primarily by what happens to wages. If the rate of growth of wages can be slowed, along with sustaining strong economic growth, then the demand for labour will grow more strongly.

It is this principle that led the so called “Five Economists” to propose (for a period of time), the provision of a tax credit for low-wage earners in low income families, in place of ward wage increases; a kind of wage-tax trade-off.

6.4. A Wage Tax Trade-Off: “The Five Economists’ Plan”¹⁵

We noted in section 5.2. that raising minimum wages was not an effective way of improving the living standard to of low income families, quite apart from any negative effects that might have on employment of low wage workers. The award wage increases also raise the hurdle facing unemployed jobseekers, who are mostly low skilled.

Thus the so-called ‘Five Economists’ wrote a letter to the Prime Minister in 1998, suggesting that as part of an unemployment reducing strategy, an employment tax credit could be used in place of raising minimum award wages, for a number of years.

If minimum award wages were frozen for four years, then inflation would effectively reduce the real wages (real before tax) of those who depend upon award wages safety net adjustments. The reduction would be a bit over 10 per cent (if the Reserve Bank is successful in achieving its inflation target). Assuming that award wage earners would otherwise receive real wage increases, the policy would reduce real wages of award wage earners relative to what they would otherwise receive, by greater than 10 per cent. If the effect of wages safety net adjustments would be to increase real award wages by about 1 per cent per year (increases in nominal wages of about 3.5 per cent per year), then the overall effect of the policy would be to dampen the growth of real award wages by around 14 to 15 per cent.

About 25 per cent of employees would be directly affected and about 20 per cent of the national wage bill.¹⁶ As a result, average real wages would be reduced by about 2.5 to 3 per cent relative to what they would otherwise have been (assuming no flow-on effects to other workers, and without any worker who relies on the safety net moving onto enterprise bargains).

In our letter to the Prime Minister, the five economists quote the findings DeBelle and Vickery (1998). In their estimate of the elasticity of labour demand, DeBelle and Vickery (1998) found an elasticity of -1.0 . Thus they concluded that a two per cent cut in average real wages would increase employment by about two per cent (and reduce the unemployment rate by one percent). On this basis the policy proposal could be expected to produce an increase in employment of the order of 2.5 to 3 per cent and reduce the unemployment rate by around 1.25 to 1.5 per cent below what it would otherwise have been.

A more recent estimate of the aggregate wage elasticity of labour demand (Lewis and MacDonald 2001) suggests that total hours worked has an elasticity of -0.9 , and the aggregate elasticity of demand for workers was -0.8 . On this basis our estimate of a reduction in the unemployment rate of around 1.25 to 1.5 per cent might be a little high. A reduction by about 1 to 1.25 per cent would be implied by the Lewis (2001) estimates.

¹⁵ For a more detailed outline and analysis of the “Five Economists Plan” see Dawkins (2002).

¹⁶ More details of the coverage of award wages are provided in Dawkins et al (2000) and Dawkins and Loundes (2000)

There are a number of caveats to the above estimates. First, since those who rely on the wages safety net have below average wages, and are of below average skill, the responsiveness of the demand for their labour to changes in their wages is likely to be above average. This suggests that the employment effect would be larger than estimates based on the average worker. Further, if the effect of the pause were to flow on to other wages, then the effect could be further enhanced.

On the other hand there is the possibility that freezing award wages would lead to some workers (who currently rely on wages safety net adjustments), receiving over-award pay or moving to enterprise bargains, thereby reducing the wage effect and dampening the employment effect. On the other hand if the demand for award wage workers increases, this could increase the number of workers on awards. (We will return to the issue of flow on effects and movements off awards later).

Meanwhile let us return to the point that less skilled workers have a higher elasticity of labour demand than higher skilled workers Hamermesh (2000) who is acknowledged as a leading world authority on labour demand, (see for example Hamermesh, 1993), has made the following observation

“the preponderance of evidence suggests that labour demand elasticities are substantially higher i.e employment demands are more responsive, for a given cut in wages for low skilled workers, than for high wage workers. The evidence I think is quite clear on that.

That being the case, real wage growth cuts for low-wage workers will have a much bigger effect on total unemployment reduction than will an across-the-board slow down in real wages” (Hamermesh 2000, p.23)

Hamermesh was basing this statement on a range of studies in various countries. While there have been few studies of the elasticity of labour demand for low skilled workers in Australia such evidence that exists suggests that Australia is not an exception to this principle (e.g Lewis 1985).

Subsequent to the Five economists letter to the Prime Minister, a literature has developed in which various estimates have made of the employment effects of such a plan, using both partial and general equilibrium analysis, considering the possible flow on effects, and the fact that the elasticity of labour demand for low skilled workers is thought to be higher than for high skilled workers. This literature, which is reviewed in Dawkins (2002) has produced a variety of estimates of the possible employment effects of the policy, some below the em, suggested above, to others that suggest the employment effect could be significantly larger than this.

Further discussion of the employment effect, along with the effect on the government budget and on income distribution, is outlined in section 6.7 below).

In terms of the feasibility of the Government getting the The Australian Industrial Relations Commission (AIRC) to agree to such a trade off, it is interesting to note that in its 2002 Safety Net decision, the AIRC indicated that it might take into account changes in taxes and transfers in future decisions.

Whether the government should rely on the AIRC in implementing a wage tax trade-off over a number of years, under its current terms of reference, however, is an important policy issue. There is a case for amending their terms of reference to increase the

importance of the incomes of low wage earners in low-income households, and reduce the importance of preserving relativities between award wages and enterprise bargains.

The case could also be made, in the longer term, for minimum wages being set by Parliament on the recommendation of a group of experts on both the wages safety net and the income support system and on their inter-relationship.

6.6 An Employment Tax Credit Proposal

As outlined under 6.5 above, there are good reasons to proceed with a rationalisation of the income support system, as part of the broad “welfare to work” strategy. There is also a strong case for one of the modules in this system to be a work incentive module that could be implemented as an *employment tax credit*. In a modular system there is a powerful argument that one of the modules should be designed to promote work incentives. The basic effect of all the other modules, is to deter work, because they are received whether a person is working or not. This deterrence effect can be ameliorated by linking the payments with activity requirements, and by allowing some proportion of the benefit to be retained when a person is receiving a limited level of earnings. But neither of these kind of policies are as fundamental in their approach to encouraging work, as a “work incentive payment” or “employment conditional benefit”.

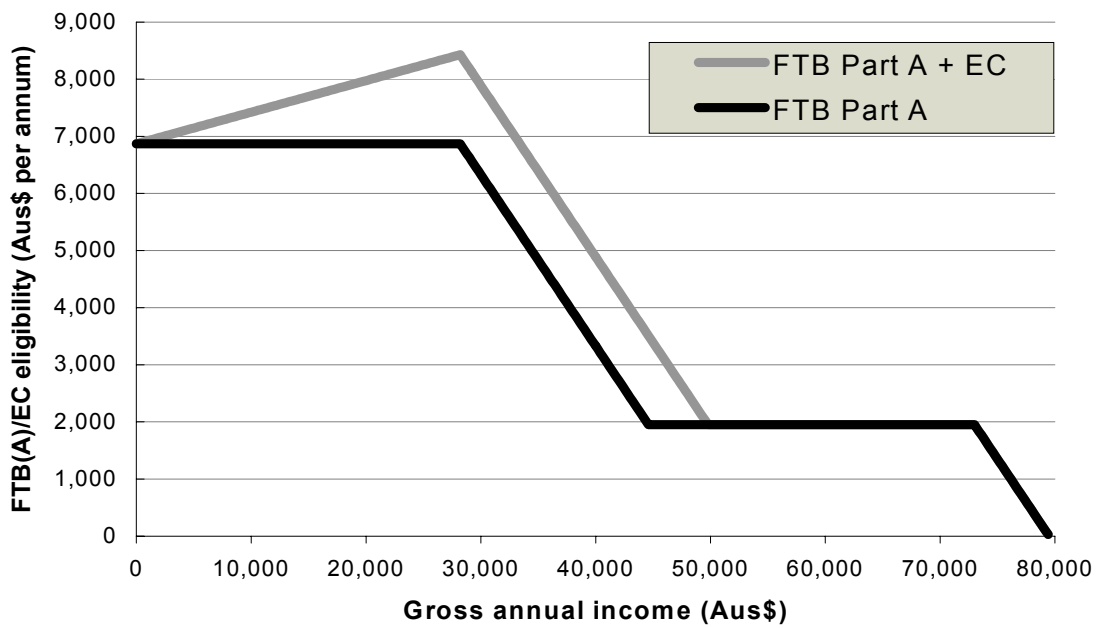
As also noted in section 6.2.4 above the McClure Report was concerned about the problem of integrating an *employment tax credit* with Family Tax Benefit to ensure that the expected positive work incentive effects flowing from the ANTS package were not compromised.

Dawkins et al (2000) have outlined a particular form for an *employment tax credit*, to fit well with the ANTS package and to be suitable for using in a wage tax trade-off along the lines of the five economists plan. It was developed by Simon Lambert in consultation with Dawkins and was a further development of the idea first developed by Keating and Lambert (1998a, 1998b). This would be attached to the current Family Tax Credit Part A, in a manner that is illustrated in Figure 3 in which EC is short for the *Employment Tax Credit*.¹⁷ This avoids the problem of “overlapping tapers”, which could otherwise of led to serious disincentives to work for some households, as the employment tax credit is withdrawn for higher income households.

The basic Employment Tax Credit (EC) proposal of Lambert (2000) would be to provide a maximum credit of \$30 per week to the recipient. This would be introduced over a three year period, in roughly equal amounts, as an alternative to award wage increases in the Wages Safety Net Cases.

¹⁷ The case illustrated in Figure 3 corresponds to a family with two children aged 8 and 13 as at July 2000.

Figure 3: Family Tax Benefit Part A plus an Employment Tax Credit (EC)



Source: Duncan (2002)

There were no specific hours conditions for EC eligibility in the Lambert (2000) proposal. Duncan (2002) has experimented with the structure of the EC, both by varying the level of

the maximum EC, and by introducing specific hours conditions for entitlement, of the form that currently limit entitlement in the UK WFTC system. Specifically, he examines a range of variants to the EC that restrict entitlement to lone parents who choose to work 10, 20 and 30 hours. And he considers the effects of increasing the maximum entitlement to EC to \$40 per week.

Table 9 summarises the overall costs of these EC variants (expressed in Aus\$ millions), using the Melbourne Institute Tax and Transfer Simulator (as described in Creedy, Duncan, Harris and Scutella, 2002). It is important to note that these simulated costs are *static*, in the sense that they *do not* include any adjustments for changes in labour market behaviour following the introduction of the EC. The Lambert (2000) proposal (to be introduced over a three year period) is modelled by Duncan to cost around Aus\$2.5billion¹⁸, or around 22% of the overall cost of FTB payments. By introducing hour's conditions for entitlement, these (static) costs are reduced to a degree. For example, if entitlement were restricted to those working 20 hours or more, then the overall cost of the credit reduces to around Aus\$2.3billion.

Table 9: The simulated cost of the Lambert (2000) Employment Credit and variants (in Aus\$millions, and as a proportion of the cost of FTB payments)

	Value of <i>Employment Tax Credit</i> (Aus \$ per week)			
	30		40	
<i>Hours condition</i>	Δ cost	Δ %	Δ cost	Δ %
No limit	+2482	+22%	+3518	+31%
Hours>10	+2460	+21%	+3488	+30%
Hours>20	+2310	+20%	+3281	+28%
Hours>30	+2088	+18%	+2969	+26%

Source: Duncan (2002, p28)

These cost savings are relatively modest, since many households will lose much or all of their entitlement to EC before reaching the hours condition for eligibility. The cost of the basic Lambert (2000) credit increases significantly, from Aus\$2.5billion to Aus\$3.5billion if the maximum credit is increased to \$40 per week. Not only does the EC increase for those previously eligible for the \$30 credit, but there will be some previously non-eligible workers who are entitled to the more generous credit.

6.6.1. *The Effect on Lone Parents*

¹⁸ This estimate is lower than that of Lambert (2000). This needs further examination.

Table 10 reports the results of a series of simulations by Duncan (2002) of the labour supply responses of lone parents to different variants of the Lambert (2000) proposals.¹⁹

The basic \$30 per week EC, linked to FTB Part A, is modelled to increase employment rates among lone parent households by around 5.1 per cent, with average hours increasing by around 1.5. So, the main effect of the EC is on participation, a feature common to many equivalent simulations of the effects of employment tax credits on lone parents' employment incentives in the US (for example, in Eissa and Liebman, 1996) and the UK (see Blundell, Duncan, McCrae and Meghir, 2000). As hour's conditions are introduced to the \$30 credit, we see a reduction in the simulated employment response, for reasons explained earlier in the paper. Restricting eligibility to those who choose to work 20 hours is modelled to result in a 4.1 per cent increase in employment among lone parents.

Table 10: Employment effects of the *Employment Tax Credit* among lone parents (proportional increase in employment, and average hours change)

	Value of Earnings Credit (Aus \$ per week)			
	30		40	
<i>Hours condition</i>	Δ emp (%)	Δ hours	Δ emp (%)	Δ hours
No limit	+5.1%	+1.5	+6.4%	+1.8
Hours>10	+4.7%	+1.5	+6.3%	+1.9
Hours>20	+4.1%	+1.5	+5.9%	+2.0
Hours>30	+2.6%	+1.3	+3.6%	+1.7

Source: Duncan (2002) p.29

One can see how hours conditions and increases in the level of entitlement can be combined to improve the efficiency of the *employment tax credit* in promoting employment. If, for example, entitlement to the EC were limited to those lone parents who choose to work for 20 hours or more, then the employment gain reduces from 5.1 per cent to 4.1 per

¹⁹ The model of labour supply used to simulate the employment effects of the *employment tax credit* for lone parent households in Australia is described fully in Duncan and Harris (2002). For a discussion of how econometric models of this form are used in simulation routines in general, and in the Melbourne Institute Tax and Transfer Simulator in particular, see Creedy, Duncan, Harris and Scutella (2002). The model allows for quite flexible preferences over hours of work and net incomes, and accounts for fixed costs (including childcare costs) that affect the likelihood of employment. These costs differ by the age and number of children. An important feature of the models we use is that they allow preference heterogeneity across household types. That is, preferences and costs are allowed to vary with observable factors such as age and demographic composition. Moreover, they are also allowed to depend on unobservable characteristics. We use the model to generate a *probability* that a person with a certain set of observed characteristics will participate or work a certain number of hours. This probability should be interpreted as the proportion of people in the population with these characteristics that carry out the action being evaluated (e.g. participation in the labour market). Simulating the effects of the reform involves estimating the changes in these probabilities (proportions) as a result of the policy being introduced.

cent. However, if the maximum EC is then increased from \$30 to \$40 per week, the simulated increase in employment rises to **5.9 per cent** among lone parent households.

Finally, Table 8 compares the costs of the EC among lone parent households when one ignores behavioural responses to those that take full account of the simulated increases in employment. As lone parent households move into employment to take advantage of an Earnings Credit, their entitlement to other allowances, and the amount of tax they pay, will adjust also. If one measures the change in the overall net cost to the Australian government of an Earnings Credit (as a proportion of the net cost of payments minus taxes paid), the basic Lambert (2000) plan (\$30 per week, no hours condition) would increase net costs in respect of lone parents by around **2.6 per cent** when behavioural responses are ignored. However, if one factors the likely increases in employment into this assessment, the *adjusted* net cost is only **0.2 per cent**.²⁰

Table 8: The adjusted net cost of the Employment Tax Credit among lone parents

	Value of Employment Tax Credit (Aus \$ per week)			
	30		40	
<i>Hours condition</i>	Static (%)	Adjusted (%)	Static (%)	Adjusted (%)
no limit	+2.6%	+0.2%	+3.6%	+0.4%
Hours>10	+2.6%	+0.0%	+3.5%	+0.3%
Hours>20	+2.6%	-0.6%	+3.2%	-0.5%
Hours>30	+1.8%	-1.2%	+2.4%	-1.5%

Source: Duncan (2002), p.30

6.6.2. The Effect on other Household Types

Preliminary modelling suggests that a relatively small positive impact on the labour supply of single males and females without children and on married males, and a small negative effect on married women's labour supply (with husbands working). This will be further developed and reported in a forthcoming paper with Alan Duncan.

6.6.3. Designing a Tax Credit for a Wage-Tax Trade-Off

When a tax credit is to be used in a wage tax-trade-off, consideration must be given to the design features that are appropriate for this purpose. One consideration here is what the

²⁰ It is unlikely that such flowbacks would be repeated for other demographic groups, whose employment responses are likely to be more modest.

Australian Industrial Relations Commission (AIRC) would see as equal or superior to an award wage increase. We have noted that award wage increases are of very little value to many low wage earners in low-income families and the kind of tax credit proposed by the five economists would be of considerably higher value to most low wage earners in low-income families. To the extent that the AIRC sees its safety net adjustment as a policy aimed at low-wage earners in low-income families, this should make a compelling case.

As some low-wage earners in low-income families only work a few hours a week, there is an argument that, in this context, a minimum hours requirement may not be appropriate. It was for this reason that the Lambert (2000) proposal outlined in Dawkins et al (2000), is for a tax credit to be from the first hour of work. However, this is an issue that might require further discussion.

Further, if the case for a safety net adjustment is strongest for supporting families with children (in-keeping with the early tradition of the arbitration system in the form of the famous Harvester Decision), there might be a case for a more generous credit to families with children than to couples without children or to singles. If this is thought to be the case, then it is arguable that an adjustment of the family tax benefit or a new child tax credit might even be the appropriate instrument. This requires further discussion.

If the AIRC is more concerned about those people relying on the award system per se, as opposed to enterprise bargains, regardless of their family income, this will make the policy implementation harder. There are a substantial number of minimum award wage earners in middle and high-income families who would not benefit from a tax credit for low income families.

It does seem inappropriate in the more decentralized wage setting system for a safety net decision to focus on the needs of high-income families. So it is to be hoped that this problem would not arise. Having said that there are arguments for a national minimum wage, which would apply to workers regardless of their household income. This is to avoid the potential use of monopsony power in the labour market to exploit low-wage workers. There is even the possibility where monopsony power exists, that at a very low minimum wage, an increase could lead to an increase in employment (Metcalf 1999). However, international evidence presented in Metcalf (1999) – see Appendix 1 – shows that Australia’s national minimum wage is high by comparison with other countries. Thus it is very unlikely that the kind of pause in award wage increases proposed by the “Five Economists”, would not lead to national minimum wage that would be below the optimal level. Even after three or four years of holding award wages where they are Australia would still probably have a national minimum wage as a proportion of median earnings that was still above the norm for the OECD. This is something that the AIRC could monitor.

6.7. Effect on Employment, Unemployment and Jobless Households of the Employment Tax Credit if it is embedded in a wage tax trade-off.

6.7.1. Introduction

The policy ideas we have discussed above included the introduction of an employment tax credit to encourage increased labour supply with people moving from welfare to work. If the employment tax credit was combined with wage restraint in a wage tax trade-off, as

proposed by the “Five Economists”, then this supply side effect would be reinforced by an increase in labour demand because of the downward pressure on labour costs (especially the costs of employing low skilled workers) from the restraint on minimum award wages. As we have seen in section 6.4. over a four year period this is estimated to boost employment by about 2.5 to 3 per cent.

This, in turn, would reduce the unemployment rate by an estimated one and a half per cent, so that a five per cent unemployment rate should be achievable without raising inflationary pressure.

The increased work incentives, mainly due to the employment tax credit, is a complimentary policy that will help to ensure that a substantial proportion of the new jobs are taken by people from jobless households (or households with only a few hours of work) who are currently heavily reliant on welfare).

The employment tax credit would have a large positive impact on labour supply of lone parents, a small positive impact on the labour supply of single males and females without children and on married males, and a small negative effect on married women’s labour supply (with husbands working). The large positive impact on lone parents will significantly reduce the incidence of jobless households. The smaller positive effect on single males and females without children, and on married males, would also have a negative impact on the incidence of jobless households. The only negative effect on labour supply (but a small one) would be on women in couples where the male is also employed. As the male is also employed this would not have any effect on the incidence of jobless households.

6.7.2 Effect on Income Distribution

Lambert (2000) simulated the effect of the wage tax trade off on the distribution of income, in a static micro-simulation, which excluded any labour supply or labour demand effects. Table 9 is one of the tables from Lambert’s analysis.

Table 9: Share of disposable income by decile of weekly disposable income.

Decile of weekly income unit disposable income	Sub-scenario									
	1	2	3	4	5	6	7	8	9	10
	Share of total weekly disposable income %									
1	0.91	0.90	0.91	0.90	0.91	0.89	0.91	0.90	0.91	0.89
2	3.55	3.51	3.54	3.50	3.53	3.50	3.54	3.50	3.53	3.50
3	4.59	4.55	4.55	4.52	4.55	4.51	4.55	4.52	4.55	4.52
4	6.08	6.04	6.04	5.99	6.04	5.99	6.04	5.99	6.04	5.99
5	7.34	7.32	7.19	7.17	7.20	7.18	7.19	7.17	7.20	7.17
6	8.83	8.81	8.72	8.71	8.71	8.71	8.71	8.72	8.71	8.71
7	10.55	10.55	10.52	10.53	10.52	10.53	10.52	10.52	10.52	10.53
8	13.15	13.18	13.19	13.21	13.21	13.22	13.19	13.22	13.20	13.21
9	16.98	17.02	17.13	17.20	17.16	17.20	17.14	17.19	17.15	17.20
10	28.02	28.12	28.22	28.27	28.19	28.26	28.21	28.28	28.19	28.27
All	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: STINMOD

Source: Lambert (2000)

Columns 1 and 2 involve a wage tax trade-off, (column 2 having a higher average wage increase for those not relying on awards than column 1). The remaining columns do not have the award wage freeze or tax credits and represent a range of assumptions about the rates at which awards and other wages might increase over a three-year period (see appendix 2) The analysis is done in such a way that a good way of examining the effect of the policy is to compare column 1 with column 3 and column 2 with column 4, although other comparisons may also be made. The important point to note is that the winners from the policy, in terms of their share of disposable income) (in columns 1 and 2) are in income deciles 2 to 7, and the losers are in deciles 8, 9 and 10.

It should be stressed again that the simulations were restricted to the first round effects of the policy and do not incorporate the effects of the employment increase of the kind found by Dixon and Rimmer (2000) and others. Since these involve a significant reduction in unemployment they would further reinforce the positive distributional impacts of the policy. Further the labour supply effects involving the movement of people from welfare to work would almost certainly also reduce inequality in Australia, given that joblessness has been found to be the major determinant of rising inequality.

6.7.3. Effect on the Governments Budget

The Gross Cost of the Employment Tax Credit

The cost of the employment tax credit for the government depends critically on its design and magnitude. The gross cost of the particular “Five Economist proposal” in Dawkins et al (2000), would be of the order of \$1billion in year 1, \$2 billion in year 2 (as the tax credit is doubled) and \$3 billion in year three.

There is a case for examining ways of reducing the gross cost. One question that needs to be addressed is whether the tax credit needs to be as large as that proposed in Dawkins et al (2000). Given that the value of the tax credit to low wage earners in low income families, would be much higher than the value of an award wage increase that they would otherwise get, it may be possible to design an employment tax credit in the proposed wage tax trade-off with a gross cost of say \$0.75billion in year 1, \$1.5billion in year 2, and \$2.25 billion in year 3.

Savings from the “Fiscal Dividend” of the Policy

The policy package is designed to boost employment and to reduce unemployment, the incidence of jobless families and the numbers relying heavily on income support.

First, for example, the anti-inflationary wage restraint, should enable monetary policy to be more expansionary, than it otherwise would be, producing stronger growth in GDP, and higher tax revenue, lower unemployment benefits etc.

Second the effect on real labour costs, will also lead to a boost in labour demand, higher employment and a stronger government budget as a result.

Third the improved work incentives will lead to greater movements from welfare to work, than have occurred in comparable periods of employment growth in the past.

Modelling of the wage tax trade-off by Richardson (1999) and Dixon and Rimmer (2001a 2001b), suggest that in the long run, the policy will result in a net positive impact on the annual budget, because of the effect on output and employment. Dixon and Rimmer's modelling suggests that this could be within five years. Richardson suggests that it might take a while longer.

It is reasonable to believe that the fiscal dividend from the policy package being discussed here, could be larger than that estimated by the modelling of the kind undertaken by Richardson (1999) and Dixon and Rimmer (2001a, 2001b), because of the welfare to work effects of the improved work incentives. That is greater movements from welfare to work, than have occurred in comparable periods of employment growth in the past. For example, analysis by Duncan (2002), presented in this paper, suggests that the up-front cost of the *employment tax credits* that go to lone parents, will largely be recouped due to the labour supply response.

It is also possible that by substantially reducing the unemployment rate and incidence of jobless families and heavy reliance on welfare, that there could be other savings to federal and state government budget that may not have been included.

More research on budgetary impact of the policy package is needed. However, if required, it seems quite possible that a policy package of this kind, that would substantially reduce the unemployment rate and the number of jobless households, could be designed to budget neutral within five or six years, and have a positive effect on the budget thereafter.

Given the broader economic and social benefit of the policy package, it is arguable that aiming for it to be budget neutral over a five or six-year period, is too stringent a test. If the government and the society are willing for the budget still to be incurring some costs, after that time, the confidence with which the government can proceed with the policy package would be further enhanced.

Offsetting Savings in the Proposed Modular Income Support System

In the whole reform package, there are other savings that could be offset against the cost of the tax credit. These could include the following.

- Indexing income support payments to the CPI, (currently some are indexed to the CPI (e.g Newstart) and others are indexed to average earnings e.g (Parenting Payment).
- There may be savings associated with other aspects of the simplification and integration of the income support system, in relation to new entrants to the system, who may not receive the level of income support that they might have received had the system not been reformed (e.g. lone parents)

In the first three years of the reform package, these savings though significant, can only be expected to be relatively modest offsets to the cost of the employment tax credit. After five or six years, however, these savings would become larger and could make a very significant contribution to the medium to long run fiscal effectiveness of the policy package.

7. Globalisation and Policy Transfer

A recent conference paper by Duncan and Greenaway (2002) explores the link between globalisation, policy co-ordination and policy transfer, hypothesising that the more open are economies the greater the scope for policy induced spillovers either in the form of

policy coordination (which is generally a response to policy competition). Multilateral agreements under the WTO and the Kyoto Protocol in environmental policy are examples of policy coordination. Central bank independence and the adoption of tax credits (with the UK following the US in the latter, were presented as examples of policy transfer. Policy transfer is a process that has been defined by Dolowitz and Marsh (2000) where “..knowledge about policies’ administrative arrangements and ideas in one political setting is used in the development of policies’ administrative arrangements, institutions and ideas in another setting’

Duncan and Greenaway (2002) go on to state that “with increased globalisation we have observed increased policy transfer, which is hardly surprising since, with increased openness, government (or to be more accurate their advisers) have access to a wider information set and evidence in what works or does not work, elsewhere in the global economy.” (Duncan and Greenaway 2002, p2).

The paper then goes on to describe the development of in-work benefits in the United Kingdom, and outline how the UK learned from the US earned income tax credit. They also make the point that many other countries are actively considering whether to adopt tax credits as part of larger scale welfare reform” and presumably learning for the US and UK experience in the process (Duncan and Greenaway 2002 p.18)

“The aim of any system of in-work benefits is to shift the balance between incomes in and out of work. Tax and transfer systems were, in the past, often designed solely with distributional objectives in mind. Now, in-work benefits, once rare, have become widespread. Countries as diverse as Belgium, Canada, Finland, Italy, New Zealand, the United Kingdom and the United States have now adopted a policy of subsidising low paid workers wages as a way of improving work incentives. Many other countries are actively considering whether to adopt tax credits as part of larger scale welfare reform”. Duncan and Greenaway (2002, p.18)

Australia and France were nominated as two of those countries. In Australia’s case as discussed above, this is certainly true. It is also true that in thinking about it, the Australian government and its advisors are looking at the overseas experience. The Reference Group on Welfare Reform (2000a) in its interim report said

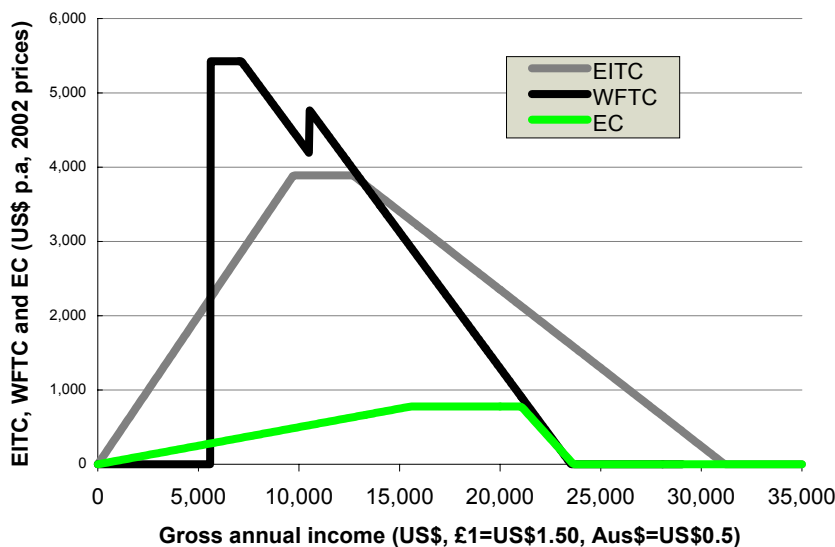
“There is considerable research evidence on the potential impact of the EITC. Firstly it can make a significant difference in encouraging income support recipients into work. This is especially the case for lone parents in the United States. Their impact on couples with children is less positive. Although they induce some people to move from income support to work, they also reduce workforce participation by some second earners in a family as assistance is withdrawn at higher income levels. In the Australian context.... It would be critical to integrate any such tax credit with the new Family Tax Benefit to ensure that the expected positive work incentive effects flowing from the ANTS package were not compromised.

If a primary aim is to boost the incentives for people to secure full-time employment or a substantial number of part-time hours, there is some logic in a benefit that increases with hours of work or is conditional on a minimum number of hours. These are features of the tax credit in the US and the UK respectively.” (Reference Group on Welfare Reform 2000a)

We saw in section 6.6. how the proposal subsequently developed by Simon Lambert in Dawkins et al (2000), was at pains to ensure that careful integration of the employment credit proposal, discussed in the this paper, with the ANTS package (the Australian New Tax System).

The Australian proposal developed by Lambert looks, at first glance, to be significantly less generous than either EITC or WFTC. But this would be a misleading conclusion to draw from the stylistic comparison of schedules in Figure 4, for a number of reasons. First, the chart ignores other elements in the tax and transfer systems that assist low-income households and working households. Secondly, the apparent generosity of a tax credit does not always translate ultimately to an equivalent increase in overall net incomes. For example, WFTC is assessable as income for calculating Housing Benefit and Council Tax Benefit, as noted previously. Reductions in these last benefits offset the gains from the WFTC. In contrast, Lambert's EC proposal avoids this problem because it is attached to FTB Part A and is assessed after all other payments have been received. Therefore a \$30 per week EC will translate into an increase in net income of \$30 per week overall.

Figure 4 The Australian EC proposal compared with the US EITC and the UK's WFTC



Source: Duncan (2000)

8. Conclusions

While globalisation combined with skill-biased technological change may be causing an increased dispersion of earnings, it has been doing so primarily through the distribution of employment and the growth of high wage jobs, possibly at the expense of low skilled jobs due to wage rigidity at the low skilled end of the labour market. Further the evidence shows that the tendency for a widening distribution of household income is being driven by the distribution of jobs, with the number of jobless households growing alongside the number of multiple job households.

The best way to reduce inequality is to cut the number of jobless households. Since raising minimum wages are a poor equity device, using tax credits instead for a number of years, would enable employment to increase due to both supply and demand effects, the number of jobless households to decline, and income distribution to become more equal. In this way the “diabolical trade-off” would be avoided.

Thus, this paper has discussed a policy package would bring together the wage-tax trade-off idea of the “Five Economists” and the rationalisation of the income-support system and improvement of work incentives, consistent with the recommendations of the McClure Report on welfare reform. An *employment tax credit* is an important part of the proposed package to be provided in place of wages safety net increases for three or four years. This should enable the unemployment rate to be reduced to around 5 per cent and the incidence of jobless households to be cut significantly, and inequality to be reduced.

While there would be substantial up-front costs to the government’s budget, it should be within the scope for a budget that is benefiting from strong economic growth. Further the economic impact of the policy would generate substantial benefits for the budget in the medium to long-term. As well as achieving its employment objectives, the policy could be paying for itself in not much more than five years.

It has been noted that while globalisation may be part of the cause of the widening distribution of jobs and distribution of income, it may also be helping with the solution in the way that it promotes policy transfer between countries. The experience of the US and the UK with in-work benefits along the lines of an employment tax credit, is providing Australia with useful evidence about how to design its own such policy.

References

- Blundell, R., Duncan, A., McCrae, J. and Meghir, C (2000), 'The Labour Market Impact of the Working Families' Tax Credit', *Fiscal Studies*, 21. pp.75-100
- Borland, J. (1999) 'Will lowering wages reduce unemployment?', *CEDA Bulletin*, July, pp. 16-18.
- Business Council of Australia (2000) *Rebuilding the Safety Net: Proceedings of a Conference* 29 April 1999.
- Creedy, J., Duncan, A., Harris, M., and Scutella, R. (2002) *Microsimulation Modelling of Taxation and the Labour Market: The Melbourne Institute Tax and Transfer Simulator*, Cheltenham: Edward Elgar, pp.320 (approx), forthcoming
- Dawkins, P. (1999) 'A Plan to Cut Unemployment in Australia: An Elaboration on the 'Five Economists' Letter to the Prime Minister, 28th October 1998', *Mercer-Melbourne Quarterly Bulletin of Economic Trends*, 1'99 pp. 48-57.
- Dawkins, P., (2001), "The Case for Welfare Reform as Proposed by the McClure Report", *Australian Economic Review*, Vol 34, No 1, pp 86-90
- Dawkins, P., (2002) "The Five Economists Plan: The Original Idea and Further Developments", *Australian Journal of Labour Economics*, Vol.5, No.2, pp. 203-230.
- Dawkins, P., Gregg, P. and Scutella, R. (2002a), 'The Growth of Jobless Households in Australia', *Australian Economic Review*, Vol 35, No 2, pp.133-154
- Dawkins, P., Gregg, P. and Scutella, R. (2002b), 'The Growth of Jobless Households and the Polarisation of Employment in Australia', Paper presented to the *Towards Opportunity and Prosperity Conference*, University of Melbourne, April

- Dawkins and Keating (2002), 'Full Employment: The Five Economists' Plan Revisited', Paper presented to *Towards Opportunity and Prosperity* Conference, University of Melbourne, April.
- Dawkins, P. and Kenyon, P. (2000), 'Globalisation and Labour Markets: Implications for Australian Public Centre for Research on Globalisation and Labour Markets, Research Paper 2000/7, School of Economics, University of Nottingham.
- Dawkins, P. and Kenyon, P. (2001), 'The Labour Market and International Competitiveness', Chapter 4 in H. Bloch and P. Kenyon (Eds), *Creating an Internationally Competitive Economy*. Basingstoke, Palgrave.
- Dawkins, P., Lambert, S., Dixon, P., and Rimmer, M., (2000), 'A Wage-Tax Trade-Off to Reduce Unemployment; A Quantitative Analysis' *New Directions* Discussion Paper No.4 Business Council of Australia
- Dawkins, P. and Loundes, J. (2000) 'The Effect of Restraining Award Wages on the Level and Distribution of Wages', report to the Business Council of Australia, available from the Melbourne Institute of Applied Economic and Social Research, University of Melbourne.
- Debelle, G. and Vickery, J. (1998) 'The Macroeconomics of Australian Unemployment', in Debelle and Borland (eds), *Unemployment and the Australian Labour Market*, Reserve Bank of Australia, Sydney.
- Dixon, P.B. and Rimmer, M. (2001a) 'A Wage/Tax Policy to Increase Employment', *Australian Economic Review*, Vol. 34 No. 1, pp.64-80
- Dixon, P.B. and Rimmer, M. (2001b) 'A New Specification of Labour Supply in the MONASH Model with an illustrative application', paper presented to a conference at the Melbourne Institute, August.
- Dolowitz, D.P., and Marsh, D. (2000), 'Learning from abroad; the role of policy transfer in contemporary policy making', *Governance*, 13, 5-24.
- Duncan, A., (2000) "Welfare Reform and Work Incentives; What can Australia Learn from International Experience?", paper presented at FaCS/Melbourne Institute Conference on Welfare Reform , University of Melbourne
- Duncan, A. (2002), "Work Incentives and Labour Supply of Lone Parents", Paper presented to *Towards Opportunity and Prosperity* Conference, University of Melbourne, April.
- Duncan, A. and Greenaway (2002), "Tax Credits and Welfare for Working Families: A Case Study in Policy Transfer", revised version of paper presented to Political Economy of Policy Reform Conference, Tulane University, USA, 9th -10th November 2001.
- Duncan ,A. and Harris, M. (2002) "Simulating the Effect of Welfare Reforms among Sole Parents in Australia", *Economic Record*, forthcoming
- Eissa, N. and Liebman, J.B. (1996) 'Labour Supply response to the Earned Income Tax Credit' *Quarterly Journal of Economics* 111(May) 65-637

- Fahrer, J. and Pease, A. (1994) 'International Trade and the Australian Labour Market', in Lowe, P., and Dyer, J., (eds) *International Integration of the Australian Economy: Proceedings of a Conference* (Sydney: Reserve Bank of Australia).
- Garnaut, R., (2002), 'Equity and Australian Development: Lessons from the First Century', paper presented to the *Towards Opportunity and Prosperity Conference*, University of Melbourne, 4th-5th April
- Greenaway, D and Nelson D. (2001) Introduction in Greenway and Nelson (eds), *Globalisation and Labour Markets*, Vols 1 and 2, Aldershot, Edward Elgar.
- Hamermesh, D (1993), *Labor Demand*, Princeton University Press.
- Hamermesh (2000), 'Labour Demand and a Wage Tax Trade-Off' in Business Council of Australia (2000) op.cit.
- Joint Governments' Submission (2001) *Safety Net Review-Wages: 2000-2001*, Commonwealth Department of Employment, Workplace Relations and Small Business, Canberra.
- Keating, M, (2001) 'Restoring Full Employment: The Five economists Proposals' Paper to Conference on Unemployment at the University of Newcastle
- Keating, M. and Lambert, S. (1998a) 'Improving Incentives: Changing the Interface of Tax and Social Security', *Australian Economic Review*, Vol 31, No. 3, 281-289
- Keating, M and Lambert, S. (1998b) 'From Welfare to Work: Improving the Interface of Tax and Social Security' NATSEM Discussion Paper no. 35
- Lambert, S. (2000) 'Wage freeze - Earnings Credit Trade-Off : A Microsimulation Analysis', report to the Business Council of Australia, available from the Melbourne Institute of Applied Economic and Social Research, University of Melbourne.
- Lewis, P.E.T. (1985), 'Substitution between Young and Adult Workers in Australia', *Australian Economic Papers* Vol. 24, No. 44, pp115-125,
- Lewis, P. and MacDonald, G (2002), 'The Elasticity of Labour Demand in Australia', *Economic Record*, 78(240), March 2002, pages 18-30.
- Low Pay Commission (1998) *The National Minimum Wage: First Report of the Low Pay Commission*.
- Metcalf, D. (1999) 'The British National Minimum Wage', *British Journal of Industrial Relations*, 37(2) pp. 171-201.
- Norris, K. and McClean (1999), 'Changes in Earnings Inequality 1975-1998', *Australian Bulletin of Labour*, Vol 25, No. 1, 23-31.
- OECD (1998), *OECD Employment Outlook*, OECD Paris
- Plowman, D. (1992), 'Centralise, Decentralise or Secede', *Labour Economics and Productivity*, Vo1 4 No.1, pp45-52.

- Parham, D., (2002), Productivity Growth in Australia: Are we Enjoying a Miracle?”, paper presented to the *Towards Opportunity and Prosperity Conference*, University of Melbourne, 4th-5th April
- Reference Group on Welfare Reform (2000a) *Participation Support for a more Equitable Society: Interim Report of the Reference Group on Welfare Reform*, Canberra, Department of Family and Community Services
- Reference Group on Welfare Reform (2000b) *Participation Support for a more Equitable Society: Final Report of the Reference Group on Welfare Reform*, Canberra, Department of Family and Community Services
- Richardson C (1999) ‘Reducing Unemployment’ in *Rebuilding the Safety Net*, Proceedings of a Conference, 29th April, Business Council of Australia
- Richardson, S. and Harding, A. (1998) ‘Low Wages and the Distribution of Family Income in Australia’, Paper for Conference of the International Association for Research on Income and Wealth, Cambridge.
- Tyers, R. and Yang (1997), “Trade with Asia and Skill-Upgrading: Effects on Labor Markets in Older Industrial Countries’ *Weltwirtschaftliches Archiv* ,Vol 133 No. 3, pp383-417.