

Employment Growth and Poverty: An Analysis of Australian Experience, 1983-1990

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Publication details:

Working Paper No. 25

SPRC Discussion Paper

0733400728 (ISBN)

1447-8978 (ISSN)

Publication Date:

1990

DOI:

<https://doi.org/10.26190/unsworks/156>

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EMPLOYMENT GROWTH AND POVERTY:
AN ANALYSIS OF
AUSTRALIAN EXPERIENCE, 1983-1990

Peter Saunders

No.25

September 1990



Social Policy Research Centre

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P.O. BOX 1 • KENSINGTON • NEW SOUTH WALES • AUSTRALIA • 2033

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Peter Saunders

**ISSN 1031 9689
ISBN 0 7334 0072 8**

**Invited Address to the 19th Conference of Economists, University of New South Wales,
25 September 1990.**

ABSTRACT

Employment growth in Australia since 1983 has been high in both historical and international terms. It has been claimed that the growth has had a major impact on reducing the incidence of poverty among working families. However, although the links between unemployment and poverty are well documented in the poverty research literature, employment growth does not necessarily lead to an automatic reduction in poverty in a labour market characterised by labour supply flexibility, two earner families and increased part-time work. This paper reviews Australian labour market changes between 1983 and 1989 and uses the poverty line methodology developed by the Poverty Commission to estimate the impact of those changes on poverty. The data used in the analysis are generated by a microsimulation model based on the **1986 Income Distribution Survey**. These data are first used to estimate the incidence of poverty in 1982-83, 1985-86 and 1989-90 using poverty lines adjusted in relative and absolute terms. A counterfactual is constructed which simulates family incomes in 1989-90 on the assumption that 1982-83 labour market conditions prevail. Comparisons of this counterfactual with estimates of actual family incomes in 1989-90 indicate that employment growth over the period has had only a modest impact on poverty. This conclusion is shown to hold whether the changes in poverty over the period are measured using a relative or an absolute poverty standard.

1. INTRODUCTION*

This paper draws on recent Australian social policy research and labour market experience in order to investigate the relationship between employment and poverty. Perhaps the single most widely accepted proposition to emerge from decades of work on poverty is that access to employment is the best and most sustainable route out of poverty. Maintenance of a high level of employment was one of the three key assumptions underlying Beveridge's plan for social security, the implications of which were spelt out in **Full Employment in a Free Society** (Beveridge, 1944). Since that time, numerous research studies for a broad range of industrialised countries have indicated that unemployment is a major cause of low income and hence poverty. These studies have shown how the high and sustained levels of unemployment experienced in most Western nations since the mid-seventies have fundamentally changed the nature of poverty. Whereas poverty in the sixties tended to be concentrated amongst the elderly, poverty in the late seventies and throughout the eighties has become far more concentrated among families of workforce age. This development has seen an increase in poverty among the children of families suffering the consequences of joblessness and/or sole parenthood. At the beginning of the nineties, poverty is more likely to be experienced by individuals in the first two, rather than the last two, decades of their life. Concern about the longer-run implications of child poverty, including the emergence of an underclass confronting permanent and large scale joblessness, has led to increased stress on the importance of full employment for the eradication of poverty.

It is, however, equally apparent that the labour market of the eighties and nineties differs in many significant respects from that existing in the period during which the foundations of the modern post-war welfare state were being set in place. Examples include the growth in the labour force participation rate of women generally, and of married women in particular, and the increased prevalence of part-time work. These developments have potentially important implications for the relevance of previous concepts of work, employment and unemployment to the current problem of poverty. While these have been recognised in the social policy literature, their implications have not been incorporated into empirical work on the nature of links between employment, unemployment and poverty. This paper represents an initial attempt to address this issue, at least in the Australian context. The findings and implications of the analysis may, however, have broader relevance and applicability.

* The author acknowledges the excellent research assistance of George Matheson and the valuable assistance and comments of Bruce Bradbury and Peter Whiteford. He has also benefited from comments provided during presentations of an earlier version of the paper to the Social Policy Association Conference at the University of Bath, and at seminar presentations at the Social Policy Research Centre, the University of Essex and the Directorate for Manpower, Social Affairs and Education at the OECD. He accepts full responsibility for all errors of fact or interpretation.

Australian experience since 1983 provides a useful background for exploring these issues because its employment performance since then has been strong, both historically, and also relative to other OECD countries. The paper describes a framework and methodology which is applied to estimate the impact on poverty of the growth in employment in Australia between 1982-83 and 1989-90. In the process, as will become apparent, the paper draws heavily on other research on poverty, living standards and income inequality that has been undertaken in the last decade at the Social Policy Research Centre (formerly the Social Welfare Research Centre).

In order to undertake the analysis, detailed income data are required, along with a methodology for utilising these data to estimate the extent of poverty. In relation to the latter, the paper adopts the broad approach to poverty measurement developed by the Commission of Inquiry into Poverty (1975), the so-called 'Henderson poverty line', named after the Chairperson of the Commission. Although the Henderson poverty line has never received official government endorsement as a poverty standard, it has been used in virtually all previous empirical poverty research in Australia, and thus provides a useful framework for the current exercise. Some of the limitations of the Henderson poverty line in the current context will become apparent later. However, a far more substantial obstacle to analysis of this sort lies in the fact that detailed income survey microdata are not available for either of the two years which span the period to be studied. To overcome this, the paper uses data generated by the use of microanalytic simulation techniques to extrapolate from the income data that are available, i.e. those contained on the unit record file based on the **1986 Income Distribution Survey** conducted and released by the Australian Bureau of Statistics (ABS). The techniques used to measure poverty and to extrapolate the income data both embody developments which are currently in their infancy. For this reason, the estimates presented in the paper should be seen as the initial, somewhat tentative, outcome of work in progress. The main contribution of the paper is more in the methodological and analytical issues it raises, rather than with the specific poverty estimates it produces.

The paper is organised as follows: Section 2 briefly reviews some of the relevant literature, and discusses the broad framework linking labour market developments (specifically those relating to employment growth) to the extent of poverty. In Section 3, Australian labour market developments between 1983 and 1990 are summarised. Section 4 describes the microsimulation methodology as well as that used to develop the poverty line used in the paper. The results of the analysis are presented and discussed in Section 5, while the main conclusions are summarised in Section 6.

2. EMPLOYMENT, UNEMPLOYMENT AND POVERTY

2.1 Unemployment and Poverty

One does not have to delve too deeply into the Australian poverty literature to find abundant evidence of a strong association between unemployment and poverty. For example, the Commission of Inquiry into Poverty noted in its First Main Report, *Poverty in Australia*, that:

... the most important single determinant of low income is whether or not the head of the income unit is working (*Poverty in Australia*, p. 128).

And on the basis of this, the Commission recommended that:

... a major element in an attack on poverty must be the providing of jobs and measures to help people to obtain jobs. (*Poverty in Australia*, p. 146)

More recently, Vipond, Bradbury and Encel (1987) and Bradbury, Encel, James and Vipond (1988) have reviewed the Australian literature on the association between unemployment and poverty. The latter study concluded that:

Repeated studies, both those based on analyses of statistics relating to the workforce as a whole and those based on smaller-scale enquiries, underline the general association between poverty and unemployment. (Bradbury, et al., 1988, p. 35)

Others, such as Burbidge (1981) and Saunders (1982) have attempted to estimate the impact of rising unemployment on poverty during the latter half of the seventies, on the assumption that the links established by the work of the Poverty Commission in the early seventies were broadly maintained, the deficiencies of this assumption being clearly acknowledged at the time by the authors. More recently, the work of Saunders and Whiteford (1987) has emphasised the impact of rising unemployment in the early eighties on poverty among families with dependent children, an important factor behind the increased incidence of child poverty in Australia in the early eighties.

Evidence of the link between unemployment and poverty is not restricted to Australia. In a recent review of the US literature, Sawhill (1988) emphasised the sensitivity of estimates of poverty in the United States to the unemployment rate. A similar conclusion emerges from the work of Room, Lawson and Laczko (1989) on poverty in the European Community, in which the authors conclude:

The changing pattern of poverty (within European Community countries) has been the result, first and foremost, of the sharp rise in unemployment since the 1970s, together with associated changes in the labour market. (Room, et al., 1989, p. 170)

Together, this body of empirical research, while not suggesting that rising unemployment has been the **only** factor behind increasing poverty throughout the seventies and early eighties, nonetheless suggests that the increase in unemployment has almost certainly been the **single** most important factor behind the rise in poverty. Other factors alluded to in the Australian literature include the increased prevalence of sole parent families (whose poverty may indirectly reflect the lack of employment opportunities), but also the inadequate levels of income support payments for families of workforce age with children.

Notwithstanding these additional factors, the main policy implication of these research findings is that the key to reversing the trend towards increasing poverty lies in the need to reduce the level of unemployment. And the best way to reduce unemployment is through the provision of more employment opportunities. Recognition of the significance of this line of argument has been a feature of the economic and social policies of the Hawke Labor Government since their election to office in March 1983. Australia's impressive employment record since that time has, for most but not all commentators, been made possible by the Accord, an incomes policy agreed to between the government and the Australian Council of Trade Unions (ACTU). Under the Accord, the ACTU has ensured that its member unions have accepted wage moderation in exchange for increased social expenditure, higher family assistance payments, a more equitable tax system, and expanded occupational superannuation coverage. This has had the effect of restraining the growth of wage costs to employers, while simultaneously maintaining employee living standards through social wage increases, thereby creating the climate for an impressive growth in employment.

The government, in turn, has repeatedly pointed to its employment record when emphasising its social policy achievements. In presenting its first **Social Justice Report** in 1988, for example, it was noted that since being elected to office:

The Government set about to remove the scourge of unemployment, the major cause of poverty. (Commonwealth of Australia, 1988, Overview, p. 2)

In a recent report, the Prime Minister and the Minister responsible for social justice policies argued that the growth in employment since 1983 has been:

... a major achievement in advancing social justice and removing people and families from poverty. (Hawke and Howe, 1989)

Other government agencies have also pointed to the beneficial impact of employment growth on poverty. For example, the office of the Economic Planning Advisory Council (EPAC) argued in late 1988 that:

Since 1983 over one million new jobs have been generated: employment growth of this order yields major benefits in poverty alleviation. (Office of EPAC, 1988, p. 20)

In a similar vein, Edwards and Whiteford (1988), in reviewing government policies on poverty and income distribution, argue:

Probably the single most effective measure required to assist people to move out of poverty and away from vulnerability to poverty is to provide access to secure employment and relevant support services (such as child care). (Edwards and Whiteford, 1988, p. 70)

In summary, this discussion indicates that there is strong evidence from past research that unemployment is a major cause of poverty. This suggests that sustained employment growth should be central to any longer-term policy designed to alleviate poverty. Should it not therefore follow that Australia's employment record since 1983 is synonymous with significant achievement in reducing poverty? Is employment growth in fact not only **necessary**, but also **sufficient** for a reduction in poverty among those of workforce age?

In attempting to answer these questions, account must be taken of a number of additional factors which may, in principle at least, disturb the logic of the argument. First, there is the fact that while an increase in unemployment may lead unambiguously to a rise in poverty of a similar order to magnitude, it does **not** follow logically from this that a subsequent increase in employment will cause a decline in poverty of similar magnitude. Much depends on what happens to overall labour supply, on the extent to which those groups who benefit from the growth in employment are the same as those who suffered from the initial increase in unemployment, and on the quality of the new jobs that are created. Actual events occur in real historical time, and the real world dynamic can make ahistorical extrapolations from previous events of only limited relevance to current circumstances. Assuming that if previously observed trends are reversed, then the consequences of those trends will also be reversed, may have analytical appeal but be of limited practical use, particularly if the broader socioeconomic context has changed markedly in the intervening period.

If, for example, the **experience** of unemployment (particularly over sustained periods of time) erodes labour market skill levels and personal self-esteem and hence undermines subsequent employability, those who become unemployed may miss out from the benefits of employment growth. What begins as a temporary loss of work becomes permanent joblessness and labour

market exclusion. Additionally, the existence of poverty traps may produce financial barriers for the unemployed which impede the return to work and thus exacerbate loss of self-esteem and declining skill levels. Someone, of course, must obtain the new jobs on offer. But if these are primarily new entrants to the labour market, or if they are mainly from families who were not originally poor, then employment growth may be associated not only with small reductions in unemployment, but also with small reductions in poverty. This can occur because while labour market status is a characteristic of **individuals**, poverty status is traditionally seen as a characteristic of the **families** to which individuals belong. This distinction may be of little importance where there is only a single family member who is seeking labour market attachment, but when more than one individual within the family is seeking paid work, the point assumes far greater significance.

One of the most important labour market developments in the last two decades in Australia (and many other countries) is the increased labour force participation of women generally, and of married women in particular. This development, along with the increased prevalence of part-time work, suggests that the logic and implications of arguments linking employment, unemployment and poverty in situations where each family has a single (normally male) labour force member working full-time, may no longer apply. The implications of these developments for Australian income support arrangements for the unemployed were emphasised in the work of the Social Security Review. In a report on income support for the unemployed, the Review noted:

The Australian labour market has undergone very significant changes since 1970, changes which underlie not only the nature and extent of the labour force participation of men and women at different ages but also the extent and the characteristics of unemployment. Further, the development of appropriate policy responses in the area of income support must be based on an accurate assessment of changing patterns of employment, unemployment, and withdrawal from the labour market... . A program predicated on the premise of full employment, when jobs were expected to be full-time and when marriage was expected to be based on the husband as breadwinner and wife as dependent, particularly when caring for children, must now meet markedly new challenges. (Cass, 1988, p. 43)

The relevance of these labour market changes to previously-established links between employment, unemployment and poverty also needs to be acknowledged and their impact assessed.

This line of argument does not, of course, support any **normative** position regarding the desirability of the increased labour force attachment of married women, nor of the other labour market developments that have taken place. The increasingly important role of the earnings of married women in reducing the risk of family poverty has been emphasised by Millar and Glendenning (1987) and Millar (1989). Millar (1989) notes that married women's earnings may

reduce family poverty but obscure individual poverty for women themselves if resources are not shared equally among family members. More generally, the impact of women's earnings on reducing the risk of family poverty needs to be acknowledged. Evidence for Britain and a range of other countries suggests that while family poverty has been increasing in the last decade, the situation would have been significantly worse were it not for the increased numbers of married women in paid employment. As Millar puts it;

Far from providing 'pin-money' and extras to the family income women's earnings are increasingly essential to the family income. (Millar, 1989, p. 4).

The increased prevalence of two earner families thus has two conteraacting effects on family poverty. For many families the ability, if not the necessity, to rely on a second source of earned income has been essential to escaping from poverty. Against this, to the extent that some of the jobs obtained by second earners have reduced the number of employment opportunities that might otherwise have been available to families with no earners, the financial plight of these latter families has been made more perilous.

2.1 Employment and Poverty

Some of the ideas outlined so far can be explored somewhat more formally with the assistance of a framework linking changes in employment status and changes in poverty status for those of workforce age. Consider two discrete points of time, and let the stock of people in poverty at each point be P_1 and P_2 , respectively. Employment levels at each point can similarly be signified by E_1 and E_2 . The flows into and out of poverty over the intervening period can be represented by $P(0,1)$ and $P(1,0)$, respectively, where $P(0,1)$ represents the number who were not in poverty at the initial point but were so at the final point, and where $P(1,0)$ represents the number who were in poverty at the initial point but were not so at the final point. The employment status flow variables $E(0,1)$ and $E(1,0)$ can be defined in a similar fashion. The following two stock-flow identities then apply;

$$\Delta P = P_2 - P_1 \equiv P(0,1) - P(1,0) \quad (1)$$

and

$$\Delta E = E_2 - E_1 \equiv E(0,1) - E(1,0) \quad (2)$$

In a simple world in which each family has a single member seeking employment and in which poverty status depends only upon employment status, it follows that:

$$P(1,0) \equiv E(0,1) \quad (3)$$

and

$$P(0,1) \equiv E(1,0) \quad (4)$$

from which it follows that:

$$\Delta P = P(0,1) - P(1,0) = E(1,0) - E(0,1) = -\Delta E \quad (5)$$

i.e. the absolute change in the numbers in poverty will be exactly equal to the absolute change in employment.

For the reasons already expounded, relationships (3) and (4) are unlikely to hold in practice. Where, for example, the assumption of only a single earner in each family is dropped, it follows that the two one-to-one relationships between employment flows and poverty flows in (3) and (4) will become weaker. This is because some of those individuals who lose their jobs will be in families who remain out of poverty because another earner is present, while some of those individuals who find jobs will be from families who were not originally in poverty because another earner is already present. While there will still be some relation between the poverty status flows and the employment status flows, the relationship need not be one-to-one. Consider the more general formulations:

$$P(1,0) = \lambda_1 E(0,1) \quad (0 < \lambda_1 \leq 1) \quad (3^*)$$

$$P(0,1) = \lambda_2 E(1,0) \quad (0 < \lambda_2 \leq 1) \quad (4^*)$$

Substituting from (3*) and (4*) into (1) and using (2) then produces the following relationship:

$$\Delta P = -\lambda_1 \{ E(0,1) - E(1,0) \} + (\lambda_2 - \lambda_1) E(1,0)$$

i.e.

$$\Delta P = -\lambda_1 \Delta E + (\lambda_2 - \lambda_1) E(1,0) \quad (5^*)$$

Under this more general formulation, the (absolute) change in poverty will be only a fraction of the (absolute) change in employment (because λ_1 is less than 1 by assumption), but the precise relation will also depend on the term $(\lambda_2 - \lambda_1) E(1,0)$. If λ_1 exceeds λ_2 , this term will be positive when employment is rising (i.e. when $E(1,0)$ is negative), and negative when employment is falling (i.e. when $E(1,0)$ is positive). In contrast, if λ_2 exceeds λ_1 this last term will be negative when employment is rising and positive when employment is falling. In the special case where $\lambda_1 = \lambda_2 = \lambda$, equation (5*) reduces to;

$$\Delta P = -\lambda \Delta E \quad (6)$$

The number in poverty now changes in the opposite direction to the change in employment, but by a factor of proportionality which depends upon the size of λ . The smaller is λ , the weaker the relationships between employment status flows and poverty status flows shown in equations (3*) and (4*), and as a consequence the weaker is the impact of the change in employment on poverty. It is worth noting, however, that this effect operates in both directions, at least if the underlying stock-flow relationships are assumed to be symmetrical. Employment growth will have a smaller impact on reducing poverty, but employment reduction will also have a correspondingly smaller impact on increasing poverty. In the absence of longitudinal data that allow changes in individual employment status to be directly related to changes in family poverty status, it is not possible to estimate the key parameter(s) λ (or λ_1 and λ_2) directly. The framework outlined here is intended to introduce the underlying stock-flow relationships, and to highlight the significance of the size of the parameter λ .

The relationship between employment status and poverty status at a point in time can also be illustrated with concepts often used in analysing income support arrangements. Assume only a single source of income, the size of which depends upon whether an individual is in work or not in work. If in work, the individual is assumed to receive a wage, while if not in work, the individual is assumed to receive income support, in the form of unemployment benefit for example. Let Y_W be the income received when in work and Y_N be the income received when not in work. Also, let Y_P be the income level corresponding to the poverty line for that individual, defined according to their family situation and other relevant circumstances. We can then define the **income support replacement rate** (r), which is given by:

$$r = Y_N / Y_W \quad (7)$$

The rate of **income support adequacy** (α) is given by:

$$\alpha = Y_N / Y_P \quad (8)$$

It follows from these definitions that being not in work will necessarily imply poverty, and being in work will necessarily imply the absence of poverty, if $Y_W > Y_P > Y_N$, which in turn implies:

$$\alpha / r > 1 > \alpha \quad (9)$$

The right hand inequality condition in (9) holds if the level of income support is less than the poverty line, while the left hand inequality condition holds as long as income from work is greater than the poverty line.

While this much is obvious, it does prompt consideration of the kinds of situation in which the inequality conditions shown in (9) may not hold. One obvious case where this will occur is where the adequacy rate (α) is greater than one, i.e. where income support payments are higher

than the poverty line. In this situation, being out of work will not involve poverty, so that obtaining a job (as a result of the growth in employment) will have no impact on poverty status. A second possibility arises when other (unearned) incomes, when combined with income support, cause total income when out of work to exceed the poverty line. Again, under these conditions obtaining a job will not affect poverty status. A third possibility arises when income from work is below the poverty line. This may occur in the case of large families with a single earner on low wages or in part-time work, if the poverty line increases with family size at a sufficiently faster rate than any family assistance payments which continue to be received. Or it may occur where wages are simply below the poverty line. In these instances, families will be in poverty whether there is someone in work or not, and again the link between work status and poverty status will be broken.

3. LABOUR MARKET DEVELOPMENTS, 1982-89

The world wide recession of the early eighties had its impact in Australia in the latter half of 1982, somewhat later than in most other countries. Recovery from the depths of the 1982-83 recession began with the breaking of the drought, which led to a massive increase in farm incomes in the following year (Bradbury, Doyle and Whiteford, 1990). This was, however, part of a general economic recovery which began in 1983, coinciding with the election of the Hawke Labor Government in March of that year. Since then, the recovery has been characterised by a sustained and high rate of employment growth, impressive in both historical and international terms. This is not the place to analyse the reasons for that performance although, as noted earlier, most agree that the Accord has been significant in establishing the conditions for non-inflationary growth in output and employment (Chapman, Dowrick and Junankar, 1989).

Table 1 details the main changes in the level and composition of employment in Australia between 1982 and 1989. These trends are illustrated in Figure 1. The last column of Table 1 shows the overall change in employment between 1983 and 1989, thus abstracting from the effects of the 1982-83 recession and focusing on developments since the election of 1983. Between 1983 and 1989, a total of almost 1.5 million additional jobs have been created, an increase of more than 23 per cent on the employment level in June 1983. Employment rose by more than 690 thousand, or by around 10 per cent, in the two years 1985-86 and 1988-89 alone. Almost two thirds of the employment growth has been in full-time jobs, with the remaining one third in part-time jobs. As a consequence, the overall proportion of part-time jobs rose considerably, from 17.4 per cent in 1983 to 20.7 per cent in 1989. Somewhat less than half (44.4 per cent) of the additional jobs have gone to males, with the remaining 55.6 per cent going to females, and close to two thirds of these to married women. The bulk of the extra part-time jobs have gone to women, although the prevalence of male part-time work has also risen. The main trends in the structure of employment between 1983 and 1989 have thus seen a decline in the

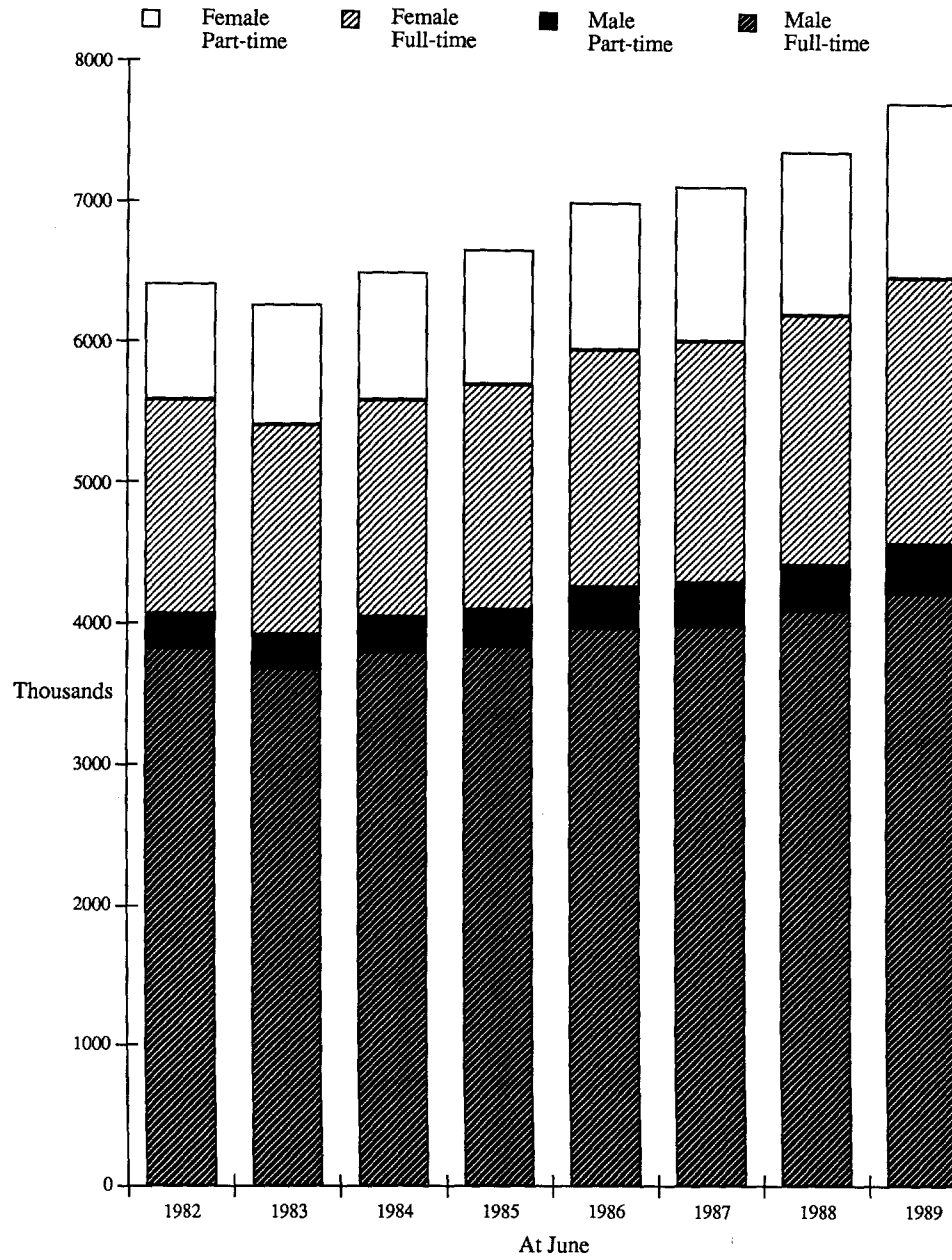
TABLE 1: EMPLOYMENT TRENDS, 1982-1989

(Thousands)

	June								Increase 1983-89	
	1982	1983	1984	1985	1986	1987	1988	1989	('000)	(%)
Males:										
Full-time	3846.1	3684.3	3800.6	3840.2	3973.6	3985.7	4098.6	4222.4	538.1	14.6
Part-time	231.3	240.2	244.6	258.1	284.3	305.5	319.9	348.2	108.0	45.0
Total	4077.4	3924.5	4045.3	4098.3	4257.9	4291.2	4418.4	4570.6	646.1	16.5
Married Females:										
Full-time	768.4	756.0	785.9	801.4	884.3	905.4	960.6	1013.7	257.7	34.1
Part-time	617.3	636.1	667.7	712.5	782.2	820.6	858.1	892.2	256.1	40.3
Total	1385.7	1392.0	1453.6	1513.9	1666.5	1726.0	1818.7	1906.0	514.0	36.9
All Females:										
Full-time	1526.1	1489.0	1543.3	1604.8	1690.5	1720.1	1784.7	1902.9	413.9	27.8
Part-time	823.2	853.0	910.4	956.2	1059.4	1117.6	1175.1	1246.9	393.9	46.2
Total	2349.3	2342.0	2453.8	2561.0	2749.8	2837.7	2959.8	3149.9	807.9	34.5
Persons:										
Full-time	5357.1	5173.3	5344.0	5445.0	5664.0	5705.8	5883.8	6125.3	952.0	18.4
Part-time	1057.1	1093.2	1155.1	1214.3	1343.6	1423.1	1495.0	1595.1	501.9	45.9
Total	6414.3	6266.5	6499.0	6659.4	7007.7	7128.9	7378.3	7720.5	1454.0	23.2

Source: dX EconData

FIGURE 1 : THE COMPOSITION OF EMPLOYMENT, 1982-89



proportion of male full-time jobs from 58.8 per cent to 54.7 per cent, a corresponding increase in part-time work (among both males and females), and a rise in female employment from 37.4 per cent to 40.8 per cent of the total. These are substantial shifts in the structure of employment in a period of only six years.

The strength of Australia's employment record since 1983 is compared with the experience of other OECD countries in Table 2. Over the period 1983-89, average employment growth in Australia was the highest in the OECD area by a considerable margin, and close to three times the OECD average. Only six countries - Canada, Iceland, Luxembourg, Turkey, United Kingdom and the United States - had average annual employment growth over the period more than half of that experienced in Australia, and of these only Canada and Iceland had average employment growth within one per cent a year of Australia's. Table 2 also indicates that OECD employment growth generally since 1983 has been high by the standards of the last three decades, in most instances better than that experienced in the sixties. In the case of Australia, average employment growth during the 1983-89 period has been higher than that experienced over any period of six consecutive years since 1960. Table 2 thus confirms the claim that employment growth in Australia since 1983 has been impressive in both international and historical terms.

Table 3 indicates that the decline in unemployment in Australia between 1983 and 1989 has been considerably less than the rise in employment. The total fall in unemployment, of some 216 thousand people, represents less than 15 per cent of the increase in employment. Even the successful labour market performance since 1983 has not made substantial in-roads into the unemployment problems that began a decade earlier. This is because labour force participation has risen, partly due to a cyclical response to recovery from the 1982-83 recession, but also as part of a longer-run trend (Figure 2). Although the decline in unemployment is less than might be expected, Table 4 shows that the expansion of total employment has broadly matched the increase in adult population size, with the decline in unemployment approximately equal to the increase in the numbers not in the labour force. However, the overall growth in the labour force has meant that the rate of unemployment has declined substantially, from 10 per cent in 1983 to 5.8 per cent in 1989. But it was not until this last year that the unemployment rate fell below that experienced prior to the onset of the 1982-83 recession (Table 3). This again illustrates the downwards insensitivity of unemployment, even in a context of good overall labour market performance and strong employment growth.

It is interesting to note that between June 1983 and June 1989, the number of unemployment benefit recipients (including those receiving job search allowance) fell by 245 thousand (Department of Social Security, **Annual Report 1988-89**, p. 175) or by some 29 thousand more than the fall in the number of unemployed indicated in Table 3. Differences in the labour market and unemployment benefit statistics can explain part of this difference (Saunders,

TABLE 2: EMPLOYMENT GROWTH IN OECD COUNTRIES, 1960-1989

(Annual average percentate changes)

	1960-1967	1967-1973	1973-1980	1980-1983	1983-1989
Australia	2.7	2.6	1.1	0.1	3.4
Austria	-0.6	0.4	0.4	-0.4	0.6
Belgium	0.7	0.9	0.0	-1.4	0.7
Canada	3.0	2.7	2.8	-0.1	2.6
Denmark	1.7	0.8	0.4	-0.2	1.0
Finland	0.1	0.4	0.3	0.9	0.5
France	0.5	0.8	0.2	-0.2	0.1
Germany	-0.2	0.5	-0.5	-0.5	0.9
Greece	-0.9	*	0.9	1.8	0.7
Iceland	1.8	2.6	1.8	2.8	2.8
Ireland	0.1	*	1.4	-0.9	-0.4
Italy	-0.7	-0.2	1.0	0.1	0.4
Japan	1.5	1.0	0.7	1.2	1.1
Luxembourg	-0.1	*	0.8	-0.1	2.2
Netherlands	1.1	0.5	2.2	-2.0	1.3
New Zealand	2.7	1.6	1.5	0.2	0.2
Norway	0.6	*	2.1	0.7	0.9
Portugal	0.4	0.2	*	*	*
Spain	0.6	1.0	-1.6	-1.8	1.6
Sweden	0.4	0.8	1.3	-0.1	0.9
Switzerland	1.6	1.0	-0.9	-0.2	1.0
Turkey	0.8	1.3	1.1	2.0	2.2
United Kingdom	0.5	*	-0.2	-1.8	2.0
United States	1.9	2.0	2.1	0.5	2.5
Mean ^(a)	0.8	1.1	0.8	0.0	1.2

Notes: (a) Geometric mean

* Not available

Sources: OECD, Historical Statistics 1960-1980 and Economic Outlook 47 (June 1990).

TABLE 3: UNEMPLOYMENT TRENDS, 1983-1989[illegible]

FIGURE 2 : THE CIVILIAN POPULATION AGED 15 AND OVER
AND THE LABOUR FORCE, 1982-89

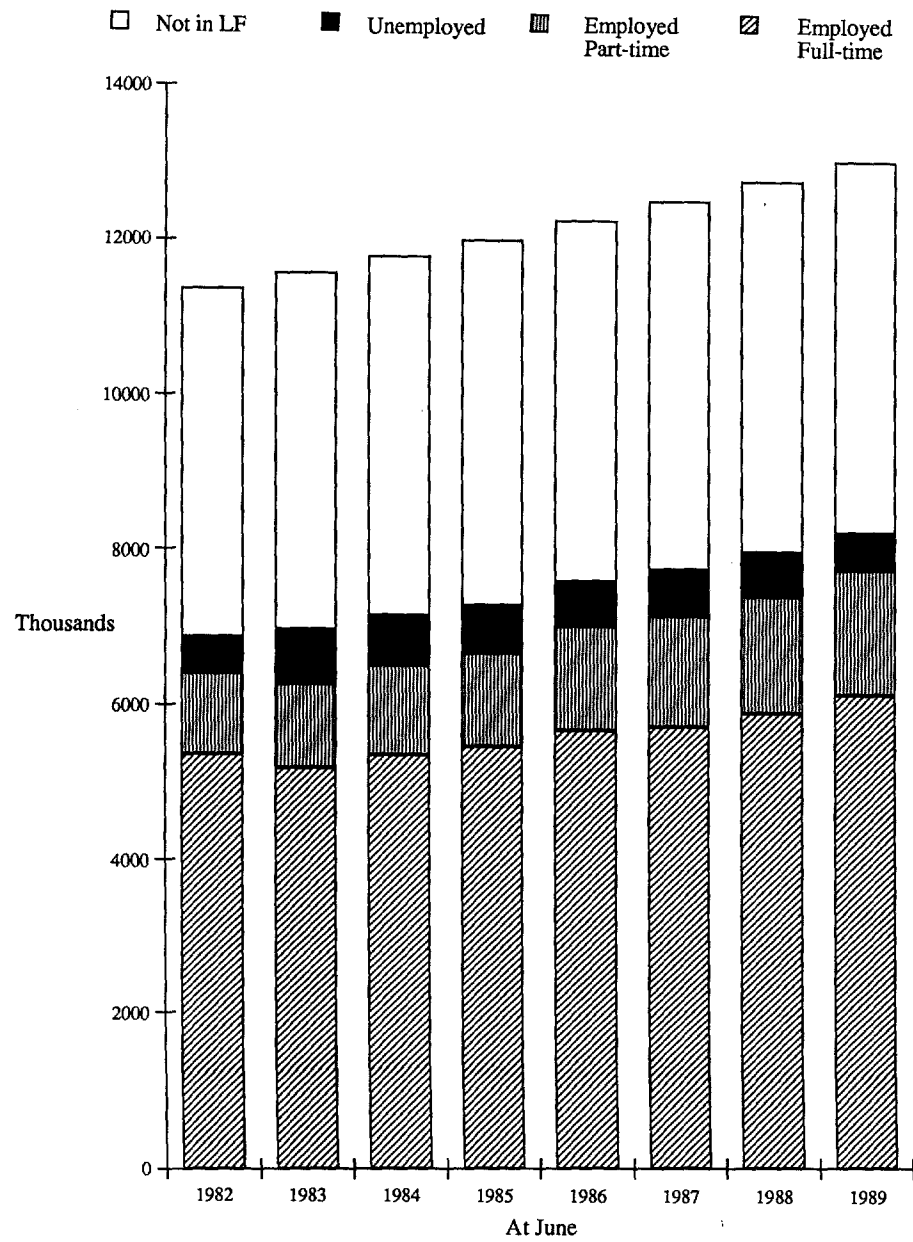


TABLE 4: THE POPULATION AND THE LABOUR FORCE, 1983-89
(Thousands)

	June 1983	June 1989	Change, 1983-89
1. Full-time employment	5173.3	6125.3	+952.0
PLUS			
2. Part-time employment	1093.2	1595.1	+501.9
PLUS			
3. Unemployment	693.2	477.4	-215.8
PLUS			
4. Not in the labour force	4612.9	4837.7	+224.8
EQUALS			
5. Adult civilian population	11572.6	13035.5	+1462.9
Participation rate = $(1+2+3)/5$	60.1%	62.9%	+2.8
Employment rate = $(1+2)/5$	54.1%	59.2%	+5.1
Full-time employment rate = $1/5$	44.7%	47.0%	+2.3
Unemployment rate = $3/(1+2+3)$	10.0%	5.8%	-4.2

Sources: Tables 1 and 3.

1987) but increased stringency in the review and administration of unemployment benefit since 1986 is probably of more significance. Between 1983 and 1986, unemployment fell by 129.4 thousand, or by almost twice as much as the decline of 65.2 thousand in the numbers on unemployment benefit. This pattern has been reversed since then, with the fall in registered unemployment between 1986 and 1989 of 86.4 thousand being less than half of the decline in unemployment benefit recipients of 179.8 thousand. This change is a reflection of the increased attention given to reviewing the eligibility and entitlements of new and current benefit recipients which, as Saunders (1990) has shown, has led to a substantial number of benefit cancellations in recent years.

One explanation of the relatively weak link between the growth in employment and the reduction in unemployment already canvassed is the increased prevalence of families with more than a single employed person. Under the Australian income-tested unemployment benefit system, benefit entitlement is determined not on the basis of past contributions but rather on the basis of current family income. It thus follows that increased employment among members of families in which there already exists an employed person will have almost no impact on the receipt of unemployment benefit and, if benefit entitlement is an inducement to register as unemployed, only a small effect on the level of unemployment itself. Table 5 and Figure 3 shed some light on this issue.¹ These data reveal only a slight decline between 1983 and 1989 in the percentage of families with no employed family member, and almost no decline for married couple families without an earner. The main change over the period has been the substantial fall in the percentage of families with a single member employed, and a corresponding increase in the percentage of families with two or more members employed. The number of families with two or more employed members increased by almost 501 thousand between 1983 and 1989, or from 42.0 per cent to 50.0 per cent of all families. Among married couple families, the number with two or more earners rose by 456 thousand, or from 45.3 per cent to 53.9 per cent of such families. It follows that in aggregate more than one third of the 1.45 million extra jobs created between 1983 and 1989 (Table 1) went to people in families in which another family member was already employed.

In light of the earlier discussion, it appears that there are two, and possibly three, features of labour market developments since 1983 which suggest that the impact of employment growth on unemployment and hence on poverty may not have been great over the period. The first is the fact that the decline in unemployment which has accompanied the rise in employment has been of only modest proportions. The second, associated with this to some extent, is the considerable increase in employment among individuals in families already containing at least one employed person. The third factor relates to the growth in part-time employment. While this again

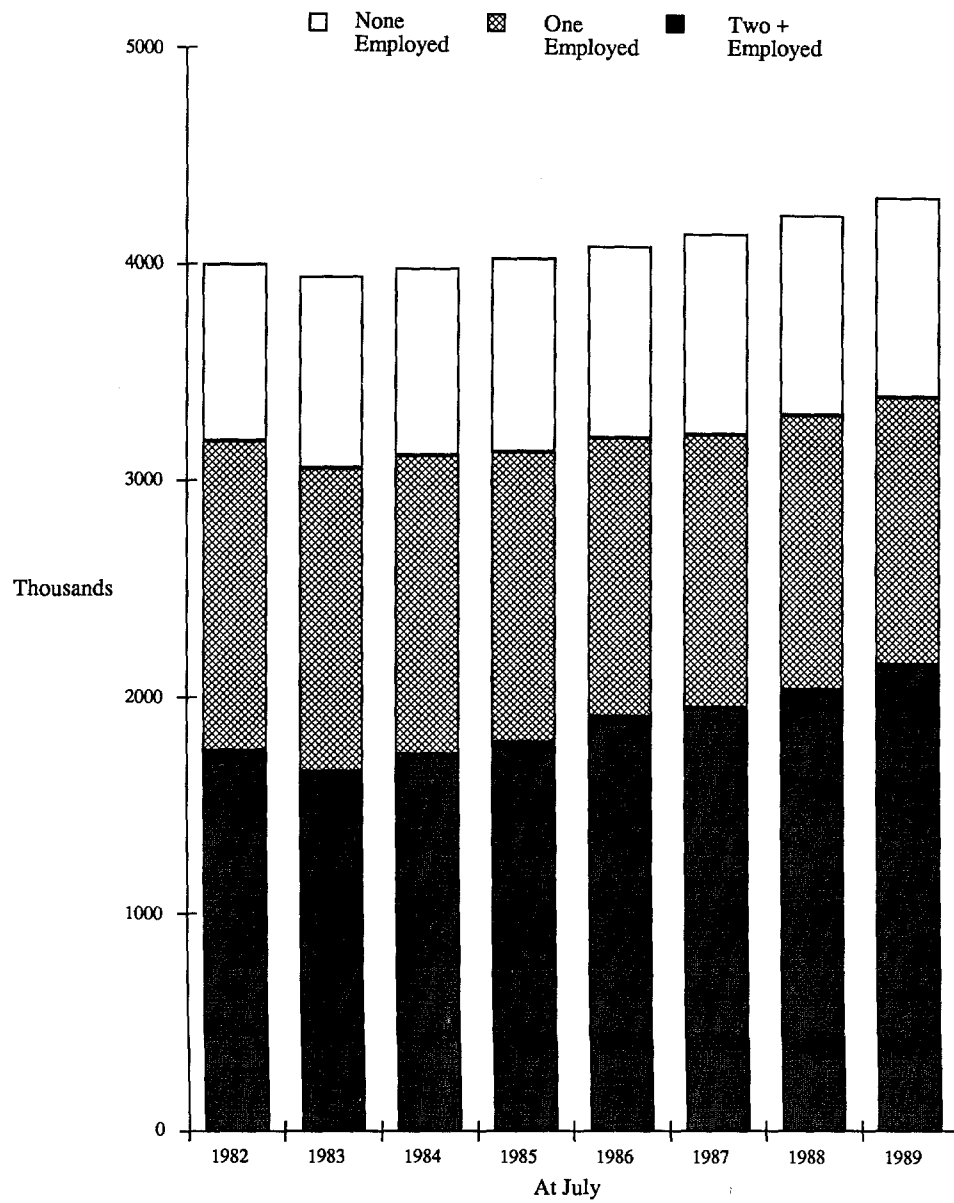
¹ Families are defined for the purposes of Table 5 to comprise two or more related persons usually resident in the same household at the time of the relevant labour force survey.

TABLE 5: EMPLOYMENT STATUS OF FAMILY MEMBERS BY TYPE OF FAMILY
(Number of Families)

July											
	1982	1983	1984	1985	1986	1987	1988	1989	Increase 1983-89		
									('000)	(%)	
Married Couple Families:											
None employed (^{'000}) (%)	610.4 (17.6)	665.3 (19.4)	639.3 (18.6)	676.2 (19.4)	673.4 (19.1)	694.1 (19.5)	703.7 (19.2)	718.9 (19.3)	53.6 (-0.1)	8.1 -	
One employed (^{'000}) (%)	1220.8 (35.2)	1209.1 (35.3)	1176.4 (34.2)	1127.8 (32.4)	1063.0 (30.2)	1034.2 (29.0)	1050.4 (28.7)	999.8 (26.8)	-209.3 (-8.5)	-17.3 -	
Two or more employed (^{'000}) (%)	1635.2 (47.2)	1554.8 (45.3)	1624.5 (47.2)	1676.6 (48.2)	1788.5 (50.7)	1836.0 (51.5)	1906.2 (52.1)	2010.4 (53.9)	455.6 (8.6)	29.3 -	
Total (^{'000}) (%)	3466.4 (100)	3429.2 (100)	3440.2 (100)	3480.6 (100)	3524.9 (100)	3564.3 (100)	3660.2 (100)	3729.0 (100)	299.8 (-)	8.7 -	
All Families:											
None employed (^{'000}) (%)	816.2 (20.4)	888.7 (22.5)	867.2 (21.8)	899.4 (22.3)	886.7 (21.7)	926.4 (22.3)	925.6 (21.8)	920.5 (21.3)	31.8 (-1.2)	3.6 -	
One employed (^{'000}) (%)	1431.5 (35.8)	1400.0 (35.5)	1380.3 (34.7)	1342.8 (33.3)	1290.4 (31.6)	1264.2 (30.5)	1274.5 (30.1)	1239.7 (28.7)	-160.3 (-6.8)	-11.5 -	
Two or more employed (^{'000}) (%)	1754.9 (43.8)	1657.8 (42.0)	1735.9 (43.6)	1790.9 (44.4)	1910.0 (46.7)	1954.8 (47.2)	2035.8 (48.1)	2158.5 (50.0)	500.7 (8.0)	30.2 -	
Total (^{'000}) (%)	4002.6 (100)	3946.5 (100)	3983.3 (100)	4033.1 (100)	4087.1 (100)	4145.5 (100)	4235.8 (100)	4318.8 (100)	372.3 (-)	9.4 -	

Source: **Labour Force Status and Other Characteristics of Families, Australia, Catalogue No. 6224.0, Australian Bureau of Statistics, Canberra: various issues.**

FIGURE 3 : EMPLOYMENT STATUS BY NUMBER OF
EMPLOYED FAMILY MEMBERS, 1982-89



overlaps with the first two features, it is also possible, as noted earlier, that part-time employment may in some cases not have generated sufficient income to allow the family dependent upon that income to move out of poverty. The remainder of this paper develops an approach for estimating how great the overall impact of labour market developments between 1983 and 1989 have been on the incidence and structure of poverty among working age families in Australia.

4. DATA AND METHODOLOGY

4.1 Defining a Poverty Standard

The method used to establish poverty status relies on a comparison of actual family disposable income with a poverty line expressed in income terms. The extent of poverty has been measured by the head-count ratio, i.e. according to the percentage of families in the relevant population with disposable incomes below the relevant income poverty line. Use of an income approach to the determination of poverty status and of the head-count ratio to measure poverty both have their limitations (Townsend, 1979; Atkinson, 1985; Ringen, 1988). These limitations are acknowledged, but have not been addressed, in part for data reasons, but also because of the practical difficulties of applying even a relatively simple and restricted framework to the task at hand.

The poverty line used is that developed in the mid-seventies as part of the work of the Commission of Inquiry into Poverty (1975). It will be referred to as the Henderson poverty line (HPL) hereafter, reflecting the influence in its development of the Chairperson of the Poverty Commission, Professor Ronald Henderson. Although the HPL has never been officially endorsed by government as an appropriate poverty standard, the HPL methodology has been used extensively (if not exclusively) in Australian poverty research (Bradbury, Rossiter and Vipond, 1986; Vipond, Bradbury and Encel, 1987; King, 1986; Saunders and Whiteford, 1987; Bradbury, Encel, James and Encel, 1988; Brownlee and King, 1989; Bradbury and Saunders, 1990). The HPL methodology has required some compromises to be made which limit the analysis, but these are justified on the grounds that use of the HPL framework locates this work within the dominant paradigm of contemporary Australian poverty research. One departure from the HPL methodology will, however, be investigated through the use of a HPL fixed in absolute terms (i.e. adjusted in line with price movements) rather than in relative terms (i.e. adjusted in line with movements in community incomes).

As with any other income poverty line, the HPL embodies four crucial elements. These are the establishment of the basic poverty standard, selection of the basic unit for analysis, a set of equivalence scales relating family needs to family circumstances, and a method for updating the poverty line over time. In relation to the second of these, the unit adopted in earlier poverty

research in Australia has been the income unit, a somewhat narrower definition than the family.² It is thus assumed that all income accruing to individuals within a given income unit is pooled and shared for the benefit of all members of the unit. Each of the remaining three elements of the HPL have been subject to criticism, but the underlying approach and methodology have proved to be remarkably resilient, as noted in recent reviews by the Office of the Economic Planning Advisory Council (1988) and Saunders and Whiteford (1989).³

The HPL is an explicitly relative poverty standard. Drawing on earlier work on poverty, the Poverty Commission established the HPL for a 'standard family' of two adults (one in work) and two children at a fixed percentage of average weekly earnings. The HPL equivalence scales were derived - in the absence at the time of relevant Australian estimates - from the expenditure patterns prepared by the Budget Standard Service of New York in 1954. For each income unit type, the scales comprise two elements. The first (the personal costs component) depends upon the number, age, sex and workforce status of adults in the income unit and the number, age and sex of children. The second (the housing costs component) depends upon the total number of individuals in the household in which the income unit resides.

A feature of the HPL equivalence scales rarely noted in the literature is the considerable variation they (and hence the poverty line) can exhibit, even for income units of a given type. This results in part from the different weighting given according to the age, sex and workforce status of individuals in the unit, but more importantly to the way housing costs vary according to the size of the household in which the unit is living. Thus, for example, a single male aged 30, in work and living alone has an equivalence factor of 37.8 points on the basis of the HPL methodology.⁴ If, however, that person was not in the labour force, and shared their housing with four other people, their equivalence factor would fall to 26.3 points, or by almost one third. This range of variation in the HPL equivalence scale for a given income unit type is as large as the variation in equivalence factors across some income unit types. The degree of variation is greatest for single person income units, where housing costs contribute the greatest proportion of the total equivalence factor points, and where household living arrangements show most diversity. Variations within other income unit types are smaller, but nonetheless present. All of

² Income units include married couples (with or without dependent children), sole parents and single persons. Dependent children are either aged under 15, or aged 15 to 20 years and a full-time student, who are not themselves the head or spouse of an income unit.

³ Discussion of the merits and limitations of the HPL can be found in Saunders (1980), Stanton (1980) and Manning (1982) as well as in Saunders and Whiteford (1989).

⁴ This compares with an equivalence factor of 68.3 points for the Henderson 'standard family' comprising working head, non-working wife and two dependent children.

which serves as a reminder that reference to 'the' poverty line conceals the fact that poverty income levels vary both across and within different types of income unit.

To those unfamiliar with the development of the HPL, separate reference to the fourth element in the construction of the poverty line, that relating to the index used to adjust it overtime, may seem somewhat strange. In its work, the Poverty Commission set the HPL as a fixed percentage of average weekly earnings (AWE). This was regarded at the time as the best available indicator of average community incomes, and thus as an appropriate basis for adjustment of a relative poverty line. In light of criticism that adjustment of the HPL in line with AWE ignores the effect of fiscal drag on average disposable incomes, the HPL was later recalculated relative to the national accounts measure of household disposable income per capita (HDYC), and has since been adjusted in line with movements in HDYC (Manning, 1982). This changed procedure has not been without its own problems, most noticeably reflecting the fact that published estimates of HDYC are precisely that - estimates - and are thus subject to revision as the National Accounts are themselves revised (Edwards and Whiteford, 1988). Such revision can lead to considerable changes in the estimates of poverty for some groups, as the sensitivity analysis of Bradbury and Saunders (1990) illustrates. One can, however, make too much of such matters. In practical terms, all that one can do when estimating poverty is to use the most recently available data to construct the poverty line, and acknowledge that the resulting estimates may be subject to revision. That is no less of a problem for poverty research than the problems caused by data revisions in many other areas of economic and social research.

There is, however, a more fundamental sense in which the index used to adjust the HPL over time creates difficulties for the use of this (or any other) poverty line in the kind of exercise undertaken here.⁵ It relates to the nature of the question being examined through the use of the poverty line. The research question posed here relates not to estimating the extent of poverty in a particular set of circumstances, but rather to estimating what poverty would have been had a **different** set of circumstances applied, the latter being estimated on the basis of an assumed counterfactual. In conducting such an exercise, logical consistency requires that account should also be taken of the impact of those different circumstances on family incomes, thereby on HDYC, and thus on the index used to adjust to the poverty line over time. More specifically, in estimating the impact of employment growth on poverty using the HPL methodology, it is necessary to acknowledge the positive association between the growth in employment and the rise in HDYC, the index used to update the poverty line.⁶ However, while the logic of this

⁵ This point may apply with more force to a relative than to an absolute poverty line, but it remains an issue even where poverty is measured in absolute terms.

⁶ This is, of course, no more than an example of the more general issue that relative poverty lines that are adjusted in line with average incomes can, in the short run, lead to the result that measured poverty has a positive association with economic growth (Saunders and Whiteford, 1987, p. 10).

argument is compelling, there are enormous practical difficulties involved in addressing it in a coherent and satisfactory manner. There is no obvious way of making the necessary adjustments in order to satisfy the conditions of strict logical consistency, while at the same time avoiding undue confusion and obscurity in the meaning of the resulting estimates. It has to be acknowledged, therefore, that while the whole HPL methodology may not be entirely appropriate for the current exercise, it represents a useful starting point in what is an essentially exploratory study.

There is, however, one refinement to this aspect of the HPL methodology that is worth exploring further. It relates to the issue of whether poverty is an absolute or relative phenomenon, and thus to the question of the appropriate method for adjusting the poverty line over time. In light of the conceptual difficulties of an income adjustment to the poverty line for counterfactual purposes, combined with the fact that, at least over short periods of time, government income support policies - which index assistance levels to price rather than to income movements - implicitly embody an absolutist view of minimum standards, the analysis will also be conducted on the basis of a poverty line held constant over time in real terms. It is to be emphasised, however, that the use of this absolute poverty measure should not be interpreted as lending support to the view that poverty is an absolute concept. Rather, the use of both a relative and an absolute poverty line provides more detail on the changes in low incomes, as well as highlighting how significant the choice of poverty standard is for estimating the trend in poverty and the impact of employment growth on poverty.

The extent to which the index used to update the poverty line can potentially have an impact on the degree of poverty is illustrated in Table 6, which shows movements in the relevant indices between 1982-83 and 1989-90. Over the period, real household disposable income per capita (HDYC) increased by 12.7 per cent, while real average weekly earnings (AWE) declined by 4.8 per cent. It is thus interesting to note that over this period AWE growth was considerably below HDYC growth. This contrasts with the situation in earlier periods when the reverse occurred and led to the view that since AWE movements did not incorporate the effects of fiscal drag, the HDYC index was a better measure of average community incomes against which to index the poverty line. Between 1982-82 and 1989-90, indexation of the HPL to AWE would in fact have caused a **smaller** increase than has actually resulted from using the HDYC series to update the poverty line.

However, the more pertinent point in the current context relates to the different growth rates of the CPI and HDYC over the period. Using the (relative) HPL methodology, the poverty line in 1989-90 is 12.7 per cent higher, in real terms, than it was in 1982-83. In contrast, an absolute poverty line approach would maintain the poverty line fixed in real terms over the period through adjustment to CPI movements only. It needs to be emphasised that this absolute poverty

**TABLE 6: MOVEMENTS IN CONSUMER PRICES, AVERAGE WEEKLY EARNINGS AND
AVERAGE HOUSEHOLD DISPOSABLE INCOMES, 1982-83 TO 1989-90**

	Consumer Price Index ^(a) (1980-81 = 100)	Average Weekly Earnings ^(b) (\$ per week)	Household Disposable Income Per Capita ^(c) (\$ per week)
1982-83	123.1	279.5	143.1
1985-86	148.7	339.5	185.2
1989-90 ^(d)	202.3	437.1	265.0
Percentage changes:			
- 1982-3 to 1985-6	20.8	21.5	29.4
- 1985-6 to 1989-90	36.0	28.7	43.1
- 1982-3 to 1989-90	64.3	56.4	85.2

Notes: (a) Weighed average of 8 capital cities.
 (b) Average of successive August figures.
 (c) Average of quarterly figures for the year.
 (d) Estimates for 1989-90 are based on price, earnings and household disposable income forecasts presented in the 1989-90 Budget, combined with ABS population projections.

Sources: ABS, Consumer Price Index, Catalogue No. 6401.0; various issues.
 ABS, Weekly Earnings of Employees, Catalogue No. 6301.0; various issues.
 ABS, Projections of the Populations of Australia, States and Territories 1987 to 2031, Catalogue No. 3222.0.
 Social Policy Unit Newsletter No. 16, April 1989; Table 4.

line is an artificial construct, in that it is derived from the relative HPL by arbitrarily fixing the benchmark year at 1982-83. There should thus be no implication whatever that this absolute poverty line has any objective basis to it. How much difference the two alternative poverty line adjustments makes to the estimate of poverty in 1989-90 (and in 1985-86) will depend upon the shape of the cumulative income distribution curve in the region bounded by the two alternative poverty lines, as illustrated in the work of Saunders and Bradbury (1990). Comparison of the two sets of poverty estimates can thus be used to get a better understanding of what is happening to family incomes at the lower end of the income distribution.

4.2 Generating the Data

As noted in the Introduction, the kind of detailed income data required to estimate poverty are available in Australia for only selected years. The most recent such data are those contained on the unit record file from the **1986 Income Distribution Survey (IDS)** collected and released by the Australian Bureau of Statistics. The IDS unit record file contains detailed demographic and socio-economic data (including detailed income and labour market status information) at the individual, income unit and household level. The data on the IDS file are relevant to the current circumstances of respondents, as well as to their circumstances over the course of the 1985-86 financial year. It is the annual IDS data for 1985-86 which form the basis for the simulation of data for the years 1982-83 and 1989-90. Data for these years were generated by the use of a microsimulation technique involving adjustment of incomes, population size, labour market status and demographic structure. Application of these techniques to Australian income survey data has been pioneered by King (1987a: 1987b). The specific model utilised here has been developed at the Social Policy Research Centre in the work of Bradbury, Doyle and Whiteford (1989) and Bradbury (1990a: 1990b).⁷ That work is continuing to refine the procedures used and for this reason, the results presented and discussed in Section 5 should be seen as preliminary.

The details of the microanalytic simulation techniques are explained at length in the papers just referred to, and they will thus be described only briefly here. The method involves using published ABS data on movements in labour market status and demographic structure as a basis for adjusting the weights assigned to each observation on the 1985-86 IDS unit record file. This procedure is combined with adjustments to the detailed income component data recorded on the file to reflect available National Accounts information on income movements. Models of the

⁷ The degree of my intellectual debt to the work of my colleagues Bruce Bradbury, Jennifer Doyle and Peter Whiteford should be obvious from the following discussion and application of the results of their work.

social security and income tax systems are then used to derive disposable incomes.⁸ As Bradbury, Doyle and Whiteford themselves explain:

Each person and family in the unit record file is given a 'weight', so that users of the file can produce population estimates from the sample numbers, i.e. the weights give the number of persons in the population represented by an individual in the survey, with the weights differing between individuals in accordance with the number of persons with those specific characteristics in the population as a whole. Our methodology involves taking the 1985-86 Income Distribution Survey unit record file and adjusting both these weights and the income ... variables to reflect changes in the composition of the population between the survey period and the periods used in the analysis.

The sample weights are first adjusted to reflect demographic change on the basis of the age and sex distributions in the annual labour force series. The weights are then adjusted to ensure that the total level of employment in the year in the survey datasets corresponds to the employment levels in the years for which the estimates are simulated. (Then) the value of the income variables in the data file are inflated or deflated to reflect trends in all the varying income components over the period.... Finally, models of the income tax and social security systems are applied to calculate changes in disposable incomes. (Bradbury, Doyle and Whiteford, 1989, pp. 7-8)⁹

It should be apparent from this description that it represents what Bradbury (1990a) refers to as a 'static simulation' method. This implies that no individuals recorded on the file actually change their economic status over the period (except in as much as their incomes are adjusted), only that the weights given to people in particular situations change in a way that captures the movements implied in other available aggregate data. The growth in employment between 1983 and 1989 described earlier, is thus captured in the static microsimulation model not by some people **moving** from being either unemployed or not in the labour force to being employed, but rather by assigning a greater weight to those who were **already** employed and a correspondingly lower weight to those who were **already** unemployed or not in the labour force.

An important implication and limitation of the approach is thus that the characteristics of those income units who are re-weighted on the file so as to capture broader labour market (and other) changes, are by definition identical to those income units who already had that status in the base year (i.e. in 1985-86). The model does not therefore allow for the full range of changes in the structure of employment and unemployment that may have actually taken place (although the re-weighting will pick up some of these). The increased labour force participation rates of married

⁸ The techniques (and their limitations) are explained in more detail in Bradbury, Doyle and Whiteford (1989), pp. 7-25 and Appendix A, and in Bradbury (1990a).

⁹ The weighting method described here has subsequently been revised slightly. The revised method adjusts according to the labour market status of different **family** types rather than according to **personal** age and sex characteristics.

women, for example, will be concentrated in the microsimulation entirely on families where the wife was already in the labour force in 1985-86, while the family circumstances of new part-time workers will mirror those of part-time workers in 1985-86, and so on. The model thus does not allow for any changes in the types of families engaging in part-time work, or in which both partners are in work. Similarly, receipt of unemployment benefit by income units with an unemployed member will mirror the pattern of benefit receipt existing in 1985-86, even though, as noted earlier, increased stringency of administration of benefits has occurred since 1986 and this has had a marked impact, not only on the level of benefit receipt, but also on its composition. How serious these problems are in practical terms is difficult to ascertain, because there are currently no more recent IDS data that can be used to validate the microsimulation results.¹⁰

The accuracy of the microsimulations of labour market states has been investigated by Bradbury (1990b) who compares them with published ABS labour force statistics. These comparisons show that the microsimulation model overpredicts the participation rate and underpredicts the unemployment rate (Bradbury, 1990b; Table 5). Furthermore, the increase in the participation rate between 1982-83 and 1988-89 is overpredicted by the microsimulation, while the decline in the unemployment rate over the period is underpredicted. Together, these imply that the microsimulation model overpredicts the level of employment but underpredicts the growth in employment between 1982-83 and 1988-89. Although there are some legitimate reasons for these differences - for example the different concepts of unemployment used in the **Labour Force Survey** and reported in the **Income Distribution Survey** - the fact that the differences exist should be borne in mind when interpreting the results that follow. In particular, it needs to be remembered that since it is the outcome of the microsimulation model that is used to estimate the impact of employment changes on the incidence of poverty, the fact that the model predicts a somewhat worse labour market performance than actually occurred is likely to impart a downward bias into the estimates.

4.3 Defining the Counterfactual

All 'what if?' questions involve the use of a counterfactual which describes how the situation would have been had a different set of circumstances prevailed. It is normal, of course, to compare this counterfactual with an actual situation in order to isolate any differences and investigate their extent and causes. The current exercise is, however, somewhat more complex than this, in that neither the counterfactual nor the actual situation prevailing in 1989-90 are directly derived from survey data. Instead, the 'actual' situation with regard to disposable

¹⁰ An income survey is scheduled to be undertaken by ABS in 1991 and will collect data for the 1990-91 financial year. It will, however, be some time before those data are released in unit record file format.

incomes and hence poverty in 1989-90 is based on the microsimulation model described in Section 4.2. In attempting to estimate the impact of employment growth (or, more precisely, of labour market change) on the incidence and structure of poverty between 1982-83 and 1989-90, an obvious counterfactual is one in which demographic, income, tax and social security changes between 1982-83 and 1989-90 are assumed to occur but where the labour market is held unchanged in its 1982-83 situation. One of the great strengths of the microsimulation techniques just described is that it is a relatively straightforward matter to generate an internally consistent set of outcomes corresponding to this (and other) counterfactual situations.¹¹

The fact that such counterfactuals can be readily produced by the microsimulation model does not, however, guarantee that their use has any logical validity. It all depends on precisely what they are used for. There are a number of fundamental issues at stake here, many of which defy any satisfactory and logically consistent resolution. An example illustrates the general point. Although the proposition remains controversial in some quarters, there is evidence (e.g. Chapman, Dowrick and Junankar, 1989) which suggests that the moderation of wage increases achieved under the Accord has been a major factor contributing to the growth in employment since 1983. This evidence raises questions about the relevance of a counterfactual simulation which assumes that labour market outcomes remain as they were in 1982-83, but which also assumes that the rate of increase in wages (and other income components) that actually occurred between 1982-83 and 1989-90 remains unchanged. However, it is one thing to note such lapses in internal logical consistency, but quite another to satisfactorily resolve them. To do so would require a fully integrated model of the entire socio-economic system. As it is, microsimulation models (in Australia at least) are very much in their infancy, in terms of both scope and sophistication. In light of this, it appears reasonable in current circumstances to explore applications of the models, but to note their limitations and qualify the results appropriately.

5. RESULTS

The first step in the generation of results is to use the HPL methodology (described in Section 4.1) and the disposable income data (described in Section 4.2) to derive estimates of relative poverty in 1982-83 and 1989-90, as well as in the year to which the IDS data actually refer, i.e. in 1985-86. Every effort has been made to follow the HPL methodology as closely as possible. The HPL for each year was constructed using the (detailed) Henderson equivalence scales and the annual estimates of HDYC contained in the April 1989 *Newsletter* (No. 16) published by the

¹¹ In fact the demographic structure in the counterfactual situations described and compared later (in Tables 9 and 10) is held constant at its level in 1985-86, the year to which the IDS data refer. It makes almost no difference to the results if the demographic structure is set at the levels produced by the microsimulation model.

Social Policy Research Unit (SPRU) (SPRU, 1989).¹² The resulting average poverty lines for specific income unit types in 1982-83, 1985-86 and 1989-90 are shown in Table 7, along with rates of income support (inclusive of family allowances) relevant to those in each family circumstance in each year.

Following the procedures adopted by the Poverty Commission (and most subsequent Australian researchers) the sample for analysis was defined to exclude all income units with any missing annual data, all juvenile income units, and those income units where either the income unit head or spouse was self-employed.¹³ Excluding juveniles and the self-employed from the poverty estimates raises the question of the extent to which employment growth among these two groups since 1983 explains overall employment growth. According to ABS labour force data, employment among the self-employed increased from 653.1 thousand to 774.1 thousand between August 1983 and August 1989. Civilian employment among juveniles aged 15 to 19 increased from 582.6 thousand to 727.9 thousand between June 1983 and June 1989. Together, these two groups thus account for an increase in employment of about 266 thousand during 1983-89, equivalent to a considerable proportion of the total increase in employment. However, there are differences in the definitions employed in ABS labour force statistics and those conventionally used in poverty research (see footnote 13) which suggest that the actual employment growth excluded from the analysis by omitting these two groups may differ considerably from the 266 thousand figure.

The comparisons in Table 7 are of particular significance because, as noted earlier, the link between changes in employment status and changes in poverty status depends in part upon the level of income support payments relative to the poverty line. However, Table 7 indicates that the only cases where income support payments exceeded the poverty line was for aged people, whether single or couples. The fact that the excess of the pension over the poverty line for aged couples is greater than that for aged single people is a reflection of the difference between the pension relativity for single aged people and aged couples (0.60 to 1.0) and the difference in the needs of aged single people and aged couples implied by the HPL equivalence scales (0.66 to 1.0). Even for the aged, the excess of income support levels over the poverty line declined

¹² The HDYC figures are shown in Table 6. In order to derive the Henderson poverty line (HPL) from the HDYC data, they were multiplied by the ratio of the standard family HPL in the September quarter 1973 to the September quarter 1973 estimate of HDYC, i.e. by $\$62.70 / \$48.70 = 1.2875$. This gave the standard family poverty line in each year, from which the poverty lines for other family types were calculated using the detailed HPL equivalence scales. The equivalence scales were derived following the procedure described on pp.354-356 of Volume 1 of *Poverty in Australia*.

¹³ Juvenile income units were defined as single persons under 21 years of age who are not heads of households or families. Income units are considered self-employed if at least half the weeks worked during the year by the head or spouse were spent in self-employment.

**TABLE 7: INCOME SUPPORT LEVELS AND HENDERSON POVERTY LINES IN
1982-83, 1985-86 AND 1989-90^(a)**

(\$ per week)

INCOME UNIT TYPE	1982-83		1985-86		1989-90	
	Income ^(b) Support	Poverty Line	Income ^(b) Support	Poverty Line	Income Support	Poverty Line
Single person:						
- aged under 25	62.90 ^(d)	72.30	86.90 ^(d)	94.30	102.20	135.90
- aged 25 to 44	62.90	79.90	89.80	104.10	126.30	149.10
- aged 45 to 60/65 ^(c)	62.90	79.00	89.80	103.00	126.30	148.20
- aged 60/65 and over ^(c)	76.90	69.10	97.20	90.00	133.40	129.40
Couple, no children:						
- head aged under 65	128.30	131.10	162.10	170.30	222.30	246.60
- head aged 65 and over	128.30	105.60	162.10	136.80	222.30	195.70
Couples with:						
- one child	142.90	164.50	182.60	214.30	255.40	308.60
- two children	158.80	192.40	205.40	251.80	288.50	362.20
- three children	174.70	219.20	229.60	285.30	321.60	411.20
- four children	190.60	264.40	253.90	319.90	354.70	459.60
- five or more children	208.00 ^(e)	275.10 ^(e)	279.60	357.50	390.80	514.60
Sole parent with:						
- one child	99.60	109.30	128.10	142.10	179.00	205.50
- two children	116.20	141.20	150.80	183.20	212.00	264.00
- three children	135.20	165.20	175.10	214.10	245.20	307.10
- four or more children	154.10 ^(f)	204.00	199.30 ^(f)	264.60	278.30	381.00

Notes: (a) The poverty lines shown are the sample mean for each income unit type. All figures have been rounded to the nearest 10 cents. Children are assumed to be aged under 13 years in calculating income support levels, which include family allowances.

(b) Taken from Moore and Whiteford (1986).

(c) Aged 65 for males; aged 60 for females.

(d) Unemployment benefit payable to an adult aged 19.

(e) Assumes five children.

(f) Assumes four children.

Sources: Moore and Whiteford (1986) and as explained in main text.

between 1982-83 and 1989-90, because pensions were indexed to the consumer price index (CPI) while the poverty line was adjusted in line with movements in HDYC.

For all non-aged income units of workforce age, Table 7 indicates that income support levels were below the poverty line throughout the period. This shortfall has tended to widen in absolute (and proportionate) terms over the period, because indexation of income support payments to many non-aged families has been less extensive than has been the case for the aged. This is true despite the significantly increased levels of assistance to low income families with children introduced in the 'family package' of 1987 (Saunders and Whiteford, 1987). Table 7 thus confirms that throughout the period 1982-83 to 1989-90, income support levels for working age families have been below the poverty line. It follows that if income support was the **only** source of income for non-aged families, reliance on it necessarily implies poverty. Furthermore, if the net income from work exceeds the poverty line, then any families on income support who find a job will automatically move out of poverty. For these families at least, the simple relation between employment status and poverty status outlined in Section 2.2 will thus apply.

Before proceeding to use of the microsimulated data for examining the impact of labour market change on poverty, it is instructive to consider what a somewhat less sophisticated approach reveals. Figure 4 shows the incidence and structure of poverty among non-aged income units in 1985-86, classified according to the labour market status of the **head** of the income unit. In constructing these estimates, a difficulty arose because poverty status is determined on the basis of annual income, while labour market status may change during the course of year. In order to overcome this, the estimates in Figure 4 categorise the labour market status of the non-aged population into three mutually exclusive groups. The first contains income units where the head was employed throughout the year on a full-time, full-year (fy/ft) basis. The second contains income units where the head was unemployed (looking for, but unable to find work) according to the following four alternative definitions:

U_1 = unemployed at any time during the year;

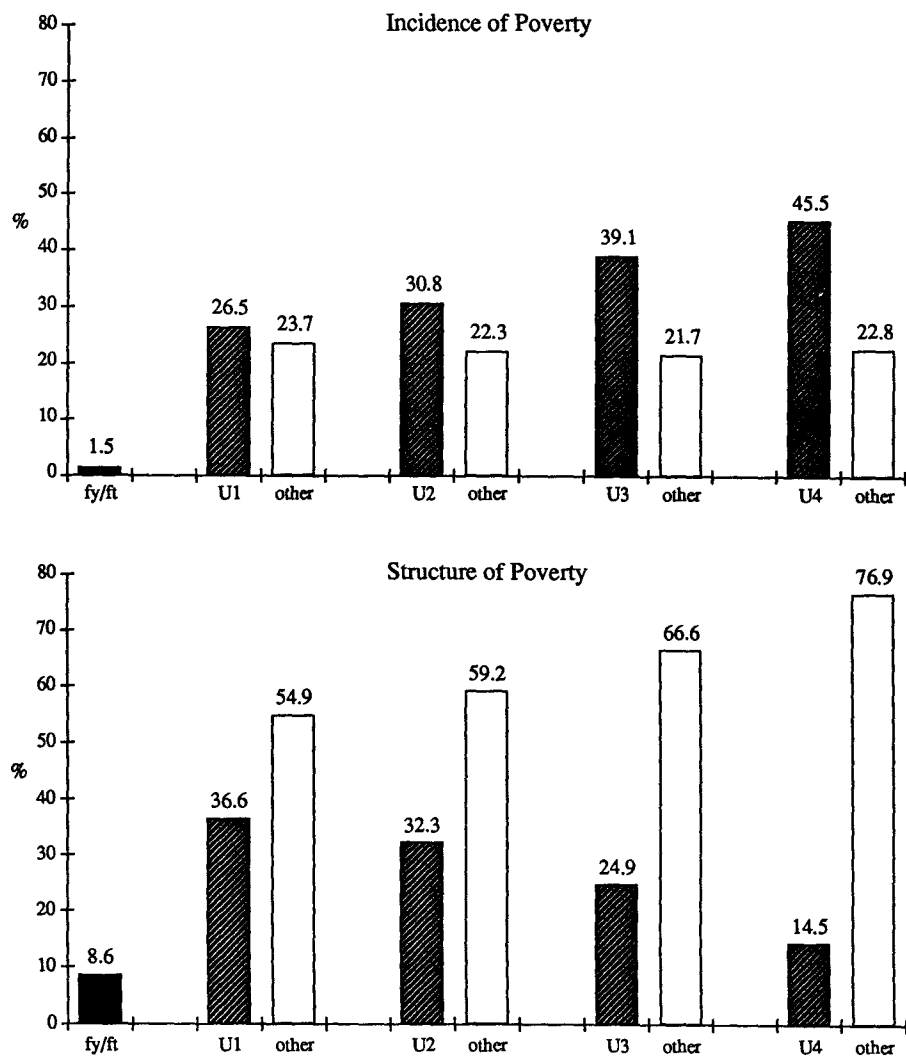
U_2 = unemployed for at least eight weeks during the course of the previous financial year
(the definition of unemployed income units used by the Poverty Commission);

U_3 = unemployed for at least twenty six weeks during the course of the previous financial year; and

U_4 = unemployed for the whole of the previous financial year.

The third ("other") category shown in Figure 4 is then defined as a residual to include those who fall outside of each definition of the unemployed, as well as full-year, part-time workers, part-year, full-time workers, part-year, part-time workers and those who were not in the labour force.

FIGURE 4: POVERTY AND LABOUR MARKET STATUS AMONG
NON-AGED INCOME UNITS 1985-86



The estimates in Figure 4 confirm the finding of Bradbury, Encel, James and Vipond (1988) that the incidence of poverty among full-year full-time workers is very low, although this group still contains close to 9 per cent of all income units in poverty. The fact that there is any poverty amongst this group is disturbing, although it is most probably concentrated among low wage families with large numbers of children. The incidence of poverty among unemployed families in 1985-86 varies between 26.5 per cent and 45.5 per cent, depending on which of the four definitions of being an unemployed income unit is used. However, as the definition of unemployed is narrowed, the percentage of the poor who are unemployed also falls, from 36.6 per cent for the first definition (U_1) to 14.5 per cent for the fourth definition (U_4).

The poverty rates shown in the upper half of Figure 4 can be used to gain an initial estimate of the impact of the decline in unemployment on the incidence of poverty. A decline in the numbers unemployed of, say, U thousand can be estimated to lead to a decline in the number of families in poverty of between $0.265.U$ thousand and $0.455.U$ thousand, depending upon how the total fall in unemployment affects those of different unemployment duration. Using a simple averaging of successive June unemployment totals shown in Table 3, combined with the assumption of no change in the total number unemployed between June 1989 and June 1990, provides estimates of the average annual unemployment levels of 572.4 thousand in 1982-83 and 477.4 thousand in 1989-90. This annualised fall in unemployment of 95.0 thousand can then be combined with the estimates of poverty among the unemployed in 1985-86 to estimate that the impact on the number of non-aged income units in poverty lies in the range 25.2 thousand to 43.2 thousand.¹⁴ Since the estimated total number of non-aged income units in poverty in 1985-86 is 443.4 thousand, the implied decline in the number of families in poverty ranges between 5.7 per cent and 9.7 per cent. These are not large changes, and they illustrate the weaknesses in the association between employment changes, unemployment changes and poverty changes discussed in Section 2. They have, however, been derived using a simplistic framework which is clearly not entirely appropriate. A more appropriate framework for investigating this issue is provided by comparing actual (simulated) outcomes with the counterfactual described in Section 4.3, a comparison which is analysed later.

Estimates of the incidence of poverty in 1982-83, 1985-86 and 1989-90 are shown in Table 8. For the latter two years, estimates are presented of the incidence of both relative poverty - derived by adjusting the 1982-83 poverty line with movements in HDYC - and absolute poverty - derived by adjusting the 1982-83 poverty line in line with movements in the CPI. The relative poverty estimates show an increase in the poverty rate from 8.9 per cent in 1982-83 to 11.6 per cent in 1989-90. The rise in the percentage of people in relative poverty is somewhat less than this, reflecting the increasing incidence of poverty among single people. For single people, the

¹⁴ $95.0 \times 0.265 = 23.2$; $95.0 \times 0.455 = 43.2$

TABLE 8: ESTIMATES OF RELATIVE AND ABSOLUTE POVERTY BY INCOME UNIT TYPE, 1982-83 TO 1989-90

INCOME UNIT TYPE	Percentage below poverty line:				
	1982-83	1985-86		1989-90	
	Relative = Absolute	Relative	Absolute	Relative	Absolute
NON-AGED					
Single people	9.8	10.7	8.3	11.8	7.9
Sole parents	46.4	46.9	40.3	44.2	33.1
Couples, no children	2.2	3.2	2.4	2.7	1.9
Couples, with children	7.0	8.6	6.3	7.2	4.1
All Non-aged					
Income Units	9.4	10.6	8.4	10.4	7.0
Persons	10.1	11.6	9.1	10.6	7.1
Adults	7.9	9.2	7.1	8.7	5.7
Children	14.4	16.8	13.4	14.8	10.1
AGED					
Single	9.8	15.3	7.4	23.5	5.8
Couples	3.2	4.6	4.4	4.3	3.3
All Aged					
Income Units	7.2	11.1	6.2	16.0	4.8
Persons	6.1	9.3	5.7	12.7	4.4
POPULATION					
Income Units	8.9	10.7	7.9	11.6	6.5
Persons	9.5	11.3	8.6	10.9	6.7
Adults	7.6	9.2	6.8	9.5	5.4
Children	14.4	16.8	13.4	14.8	10.1

Sources: See text.

relationship between age and the incidence of relative poverty follows a similar pattern in all three years. For those aged under 25, the poverty rate is between 10 per cent and 11 per cent; the poverty rate then falls to between 7 per cent and 8 per cent for single people aged between 25 and 44, before increasing sharply to 18 per cent (in 1982-83 and 1985-86) and to almost 22 per cent (in 1989-90) between the age of 45 and the age of eligibility for the pension (60 for females and 65 for males). These patterns illustrate the emerging seriousness of poverty amongst older working age single people.

Throughout the period, the incidence of relative poverty among the non-aged was greatest among sole parent families, whose poverty rate in 1985-86 was more than four times that of single people, over five times that among couples with children, and almost fifteen times greater than the incidence of poverty among childless couples. Since the vast majority of sole parent families were at one stage in families with two adults (Raymond, 1987) the differential poverty incidences in Table 8 highlight the dire consequences for custodial parents and their children following separation. Between 1982-83 and 1989-90, the incidence of relative poverty among sole parent families declined slightly, although it increased slightly among couples with dependent children. The net result of this was a slight overall increase in the percentage of children in poverty, from 14.4 per cent in 1982-83 to 14.8 per cent in 1989-90. However, this overall stability conceals a considerable increase in the percentage of children in poverty between 1982-83 and 1985-86, and a sharp decline thereafter.

The estimate in Table 8 of 14.8 per cent of children living in income units below the Henderson poverty line in 1989-90 implies that the number of children in relative poverty in that year was almost 454 thousand. Although the limitations of the methods used to derive this number bear further emphasis at this stage, this estimate suggests that the Hawke government has fallen well short of its aim to abolish child poverty by 1990, at least when assessed using the Henderson poverty line. This is notwithstanding the fact that the number of children in poverty is estimated to have fallen by about 53 thousand between 1985-86 and 1989-90. If, instead, an absolute poverty line is used, the numbers of children in poverty is estimated to have fallen by 96 thousand between 1985-86 and 1989-90, but there still remains almost 310 thousand children in absolute poverty in 1989-90. Although it would be unwise to place too much emphasis on the precise size of these numbers for the reasons already outlined, they do suggest quite clearly that there is some way to go before the problem of poverty among children in Australia is behind us.

The trend in relative poverty among the aged differs considerably from that for the non-aged, particularly in the period after 1985-86. However, as the sensitivity analysis undertaken by Bradbury and Saunders (1990) indicates, head count measures of the incidence of poverty are extremely sensitive for the aged, particularly the single aged, because the level of the single rate of pension is very close to the Henderson poverty line (Table 7) and because the pension is

virtually the only source of income in many instances. Thus, much of the rise in relative poverty among single aged people shown in Table 8 reflects a small movement in their incomes from just above to just below the poverty line. This movement in turn primarily reflects the rise in the real level of the poverty line in a period of substantial real average income growth, and illustrates the point made earlier about the limitations of measuring poverty using relative poverty lines during a short period of high income growth.

The estimates of absolute poverty in Table 8 are all lower than the relative poverty estimates, reflecting the growth in real HDYC over the period. Between 1982-83 and 1989-90, the overall incidence of poverty, when measured against a poverty line held constant in real terms, declined from 8.9 per cent to 6.5 per cent. The decline in absolute poverty over the period is greater for non-aged income units with children than for non-aged income units without children, and proportionately greater for aged than for non-aged income units. There is a very marked difference in the estimates of poverty among single aged people when the absolute poverty line replaces the relative concept. This reflects the fact, commented on earlier that many single elderly people have incomes just below the HPL. Overall, the patterns of poverty among income unit types are similar using both the absolute and relative poverty lines, and are thus not discussed further.

The estimates in Table 8 do not indicate the impact of labour market change on poverty over the period. Rather, they estimate the impact on poverty of labour market and all other socioeconomic changes that took place between 1982-83 and 1989-90. To isolate the impact of labour market change, it is necessary to compare the poverty estimates for 1989-90 with a counterfactual which abstracts from the labour market changes that have occurred, but which assumes that all other events occurring over the period actually took place. This counterfactual, described along with its limitations in Section 4.3, has been generated by a simulation which incorporates changes to income levels (including compositional changes), and to the personal tax and social security systems, but which does not re-weight cases on the data file according to the observed labour market changes since 1982-83. Such a counterfactual is, of course, somewhat unrealistic because, as noted earlier, it takes no account of the interaction between those changes which are incorporated into the analysis and the labour market changes which are not. How significant a problem this is in practice will depend upon the strength of those interactions.

Table 9 presents the two estimates of relative poverty in 1989-90, the first of which embodies actual labour market changes between 1982-83 and 1989-90 into the simulation, while the second assumes no change from the labour market conditions which existed in 1982-83.¹⁵

¹⁵ As noted earlier (footnote 11) the two simulations in Tables 9 and 10 are both based on the actual demographic structure contained in the data for 1985-86, but on the estimated population size in 1989-90. This explains the minor discrepancies between the poverty estimates for 1989-90 shown in Tables 9 and 10, and those shown in Table 8.

INCOME UNIT TYPE	Assuming 1989-90		Assuming 1982-83		Difference:	
	Labour Market (^{'000})	(%)	Labour Market (a) (^{'000})	(%)	(^{'000})	(%)
Single person:						
- aged under 25	88.3	11.2	96.4	12.3	8.1	0.9
- aged 25 to 44	59.3	7.7	61.2	8.2	1.9	0.5
- aged 45 to 60/65(b)	83.1	21.6	84.3	21.8	1.2	0.2
- aged 60/65 and over(b)	180.6	23.5	181.9	23.0	1.3	-0.5
Couples, no children:						
- head aged under 65	24.7	2.7	26.4	2.8	1.7	0.1
- head aged 65 and over	21.0	4.3	21.0	4.3	0.0	0.0
Couples with:						
- one child	15.0	3.2	15.4	3.3	0.4	0.1
- two children	36.1	5.9	40.4	6.3	4.3	0.4
- three children	32.9	13.9	37.8	14.2	4.9	0.3
- four children	9.6	15.8	10.7	14.8	1.1	-1.0
- five or more children	5.9	30.4	6.8	28.7	0.9	-1.7
Sole parent with:						
- one child	51.8	36.3	57.8	40.4	6.0	4.1
- two children	42.0	48.1	47.4	52.9	5.4	4.8
- three children	17.2	68.5	19.5	69.2	2.3	0.7
- four or more children	5.2	66.1	5.7	68.8	0.5	2.7
All Aged Income Units	201.7	16.0	202.9	15.9	1.2	-0.1
All Non-Aged Income Units	471.1	10.4	509.8	11.1	38.7	0.7
All Income Units	672.8	11.7	712.6	12.1	39.8	0.5

Notes: (a) Both sets of estimates are based on the demographic structure prevailing in 1985-86.
(b) Aged 65 for males; aged 60 for females.

Notes: (a) Both sets of estimates are based on the demographic structure prevailing in 1985-86.
(b) Aged 65 for males; aged 60 for females.

Table 10 repeats the results from this exercise using the absolute poverty line for 1989-90. Both sets of poverty estimates are presented in more detail than those shown in Table 8, in order that the groups mainly affected can be more accurately identified. There is an important note of caution that should be applied to these estimates, which have been derived from a complex and relatively untested (and unvalidated) microsimulation methodology. Of greater significance, interest focuses primarily on the differences shown in the final two columns shown in Table 9 and 10, these indicating the estimated impact of labour market change on the numbers in poverty. Because these differences are derived from two sets of estimates which are themselves each subject to considerable qualification, they are even more subject to those qualifications and to their associated limitations.

The results in Table 9 indicate that the number of non-aged income units in relative poverty in 1989-90 would have been 38.7 thousand greater if 1982-83 labour market conditions had existed in that year but everything else had remained unchanged. The incidence of relative poverty would have been 0.7 percentage points higher, at 11.1 per cent rather than 10.4 per cent. Labour market changes over the period are estimated to reduce the number of single non-aged people in poverty by 11.1 thousand, the number of non-aged childless couples in poverty by 1.7 thousand, the number of couples with children in poverty by 11.6 thousand, and the number of sole parent families in poverty by 14.2 thousand. These numbers are again only modest in size, particularly when juxtaposed against the growth in employment over the period (Table 1). They do, however, lie towards the upper end of the range of the estimated impact derived earlier from the simple association between unemployment and poverty at a point in time.

On the basis of the results in Table 10, the impact of labour market change on the pattern of absolute poverty is similar to that derived using a relative poverty standard. The largest reductions in poverty occur for younger single people, couples with two or three children, and sole parents generally. However, the extent of these reductions is again small. In fact, Table 10 indicates that the impact of labour market change on absolute poverty is **smaller** (in terms of both numbers and the proportionate reduction in the poverty rate) than if a relative poverty standard is used. The total reduction in absolute poverty among non-aged income units is estimated at 24.6 thousand, less than two thirds of the 38.7 thousand reduction using a relative poverty line. This difference arises in part because some of those income units who move out of relative poverty as a consequence of labour market change, are not in poverty initially when an absolute poverty definition is used, so that their poverty status is not influenced by the changes under consideration.

The limitations of the estimates in Tables 9 and 10 again need to be emphasised, particularly those relating to the fact that the microsimulation model does not perform well in tracking labour market changes over the period. However, it seems unlikely that the estimates in Tables 9

**TABLE 10: THE INCIDENCE OF ABSOLUTE POVERTY IN 1989-90 UNDER
ALTERNATIVE LABOUR MARKET ASSUMPTIONS**

INCOME UNIT TYPE	Assuming 1989-90 Labour Market (a)		Assuming 1982-83 Labour Market (a)		Difference:	
	('000)	(%)	('000)	(%)	('000)	(%)
Single person:						
- aged under 25	74.4	9.4	80.2	10.3	5.8	0.9
- aged 25 to 44	34.2	4.5	34.7	4.6	0.5	0.1
- aged 45 to 60/65(b)	46.7	12.1	47.3	12.2	0.6	0.1
- aged 60/65 and over(b)	44.3	5.8	45.0	5.7	0.7	-0.1
Couples, no children:						
- head aged under 65	17.0	1.8	18.0	1.9	1.0	0.1
- head aged 65 and over	16.3	3.3	16.2	3.3	-0.1	0.0
Couples with:						
- one child	7.1	1.5	7.2	1.5	0.1	0.0
- two children	17.0	2.8	18.4	2.9	1.4	0.1
- three children	21.6	9.1	24.8	9.3	3.2	0.2
- four children	6.9	11.3	7.1	9.9	0.2	-1.4
- five or more children	4.0	20.6	4.5	19.1	0.5	-1.5
Sole parent with:						
- one child	38.0	26.6	43.4	30.4	5.4	3.8
- two children	28.8	33.0	31.9	35.6	3.1	2.6
- three children	15.1	60.2	17.0	60.5	1.9	0.3
- four or more children	5.2	66.1	5.7	68.8	0.5	2.7
All Aged Income Units	60.5	4.8	61.2	4.8	0.7	0.0
All Non-Aged Income Units	315.9	5.5	340.5	7.4	24.6	1.9
All Income Units	376.4	6.5	401.7	6.8	25.3	0.3

Notes: (a) Both sets of estimates are based on the demographic structure prevailing in 1985-86.
(b) Aged 65 for males; aged 60 for females.

and 10 are likely to be wildly off the mark. They may be subject to quite large sampling and other errors, but these will not affect the main conclusion derived from them, which is that the strong performance of the Australian labour market between 1982-83 and 1989-90 has had only a relatively modest impact on the extent of relative (and absolute) poverty among the working age population. This having been said, a reduction in the number of families in relative poverty of almost 39 thousand (or 8.2 per cent) is not an achievement to be dismissed lightly. Nor is a reduction in absolute poverty among working age families of 24.6 thousand (or 7.8 per cent). However, it seems that overall the claim that employment growth has had a major beneficial impact on the incidence of poverty in Australia is exaggerated, perhaps greatly so.

6. SUMMARY AND CONCLUSIONS

The rise in unemployment which accompanied the recessions of the seventies and early eighties left its mark in terms of a 'new poor' comprising working age families, many with children, whose unemployment condemned them to a situation of joblessness and poverty. The first step in reversing that process involves a return to previous high levels of employment, and to a labour market in which unemployment is primarily small-scale and temporary in nature. Achieving those conditions has been difficult, with high levels of unemployment proving to be remarkably resilient, even in the context of the sustained economic growth experienced in many countries since the recession of the early eighties. The Australian experience since that time has been characterised by a buoyant labour market and a rate of employment growth that has been high in international and historical terms. Yet even so, it was not until 1989 that the rate of unemployment fell below its level prior to the recession that began in 1982.

Labour market developments throughout the eighties have seen a continuation of several longer-run trends that are changing fundamentally the nature of the labour market. These include the increased participation of married women and the resulting rise in significance of the two earner family, and the rise in part-time employment. Alongside these changes, the persistence of high levels of unemployment and the increase in long term unemployment have seen large sections of the working age population condemned to the exclusion and marginalisation which characterise joblessness and poverty. These changes have had two implications for the association between poverty and labour market performance. Unemployment as a cause of poverty has undoubtedly risen in significance throughout the industrialised world since the mid-seventies. At the same time, the expansion in the scope and variety of paid labour market activities has meant that employment growth now translates less readily into reductions in unemployment and hence in poverty.

This paper has explored these issues, not directly, but indirectly by investigating the association between labour market changes and poverty in Australia between 1982-83 and 1989-90. The

decline in unemployment since 1983 has been only a fraction of the size of the increase in employment, which is suggestive of only a modest impact on the incidence of poverty. The size of that impact has been estimated using microsimulation methods to generate income survey data for 1982-83 and 1989-90 from the income distribution survey undertaken by the Australian Bureau of Statistics in 1986. Poverty has been estimated using the relative poverty line methodology developed by the Poverty Commission in the mid-seventies and also using an absolute poverty line held constant in real terms since 1982-83. A counterfactual for 1989-90 was constructed in which the labour market situation in 1982-83 was assumed to exist but where all other changes over the period were taken to have actually occurred. This counterfactual was then used to derive estimates of what relative and absolute poverty would have been in 1989-90 if the labour market had stayed as it was in 1982-83. The difference between these and the actual poverty estimates in 1989-90 was then attributed to the impact of labour market change on poverty.

The estimates indicate that the reduction in relative poverty among working age families as a consequence of labour market changes between 1982-83 and 1989-90 was just below 39 thousand, equivalent to a decline in poverty from 11.1 per cent to 10.4 per cent. This impact is estimated to be even smaller if an absolute poverty line is used, the overall decline in poverty being less than 25 thousand, equivalent to a fall in the absolute poverty rate from 7.4 per cent to 5.5 per cent. This is over a period in which the level of employment rose considerably, and also one in which unemployment declined, albeit by far less than the growth in employment. Detailed description of the methods used to derive these estimates indicates that they are subject to a number of important qualifications. The simulation model underlying the results is in its early stages of development, and evidence indicates that it does not always track labour market changes that well. There are also problems with the logical consistency of the counterfactual, as well as with the appropriateness of the Henderson poverty line for the purposes for which it has been used in the paper.

At the present time, however, it seems unlikely that the results are grossly inaccurate. If this is the case, then the main conclusion to emerge from the paper is that the strong general labour market performance experienced in the last seven years in Australia has not had anything like the kind of major impact on poverty that has often been claimed. If this is indeed the case, it raises further questions about why this is so, questions relating to the nature of the new jobs that have been created, the extent to which they fulfil the aspirations of those seeking employment, and about who is ending up with those new jobs. The results in the paper shed no light on whether individual labour market initiatives designed specifically for those unemployed or not in the labour market might have a greater impact on reducing rates of joblessness and poverty. Indeed, such targeting of programs and income support measures for the disadvantaged has been a major feature of federal government policies in Australia in recent years. The results do, however,

suggest that general labour market performance and job creating initiatives, whatever their overall merits, cannot be described as well-targeted methods for the alleviation of poverty.

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