

Tax-benefit Policies and Parents' Incentives to Work: The Case of Australia 1980-1997

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**TAX-BENEFIT POLICIES
AND PARENTS'
INCENTIVES TO WORK
THE CASE OF AUSTRALIA
1980-1997**

by Gerry Redmond

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Tony Eardley
Editor

Abstract

This paper examines the relationship between unemployment and tax-benefit provisions for families with different numbers of children over the 1980s and 1990s in Australia. How have government policies influenced incentives to work for parents in families with different numbers of children during the 1980s and 1990s? And how can these changing incentives be related to the labour market activities of parents in these families? To examine these important questions we use tax-benefit modelling techniques on hypothetical families to show that for most of the 1980s and 1990s, the Australian tax-benefit system caused considerable incentive problems for low-paid workers, particularly those with several children. However, we also show that of themselves, these incentive problems appear unlikely to be responsible for the consistently high unemployment levels, or low employment levels, found among parents of large numbers of children.

1 Introduction

The relationship between unemployment and benefit levels has been the subject of considerable debate in the economics literature over the past quarter century. Similarly, it has long been recognised that unemployment among men with large numbers of children has tended to be higher than unemployment among men in general, and that employment among their spouses has tended to be low. For those who argue that high levels of unemployment-related benefits result in high incidences of unemployment, an obvious place to look for evidence of this is in the labour market activity of the parents of large families, for it is these who invariably receive the largest benefits, even under welfare state regimes (such as that in Australia) where benefits are not overly generous.

The purpose of this paper is to examine how government policies in Australia have influenced incentives to work for parents in families with different numbers of children during the 1980s and 1990s, an era of intensive tax-benefit policy reform. While much of this policy activity was concerned with the eradication of child poverty, it is also arguable that throughout, there was a strong focus on the issue of incentives. In the 1980s, there was an emphasis on encouraging men into work (Bradbury, 1992). In the 1990s, increased employment among married women (as well as among men) became an important policy objective (Saunders, 1995). What was the impact of these policies on parents' incentives to work? And how can these changing incentives be related to the labour market activities of parents with different numbers of dependent children?

In this paper we apply tax-benefit modelling techniques to hypothetical families to show that for most of the 1980s and 1990s, the Australian tax-benefit system caused considerable incentive problems for low-paid workers, particularly those with several children. However, we also attempt to show that of themselves, these incentive problems were unlikely to be responsible for the consistently high unemployment levels, or low employment levels, found among parents in families with four or more children. Rather, we argue that changing incentives structures had little influence on employment levels among this group.

Throughout this paper, the term ‘married’ includes people in de facto relationships, and all references to men and women are to men and women in couple relationships, unless otherwise specified.

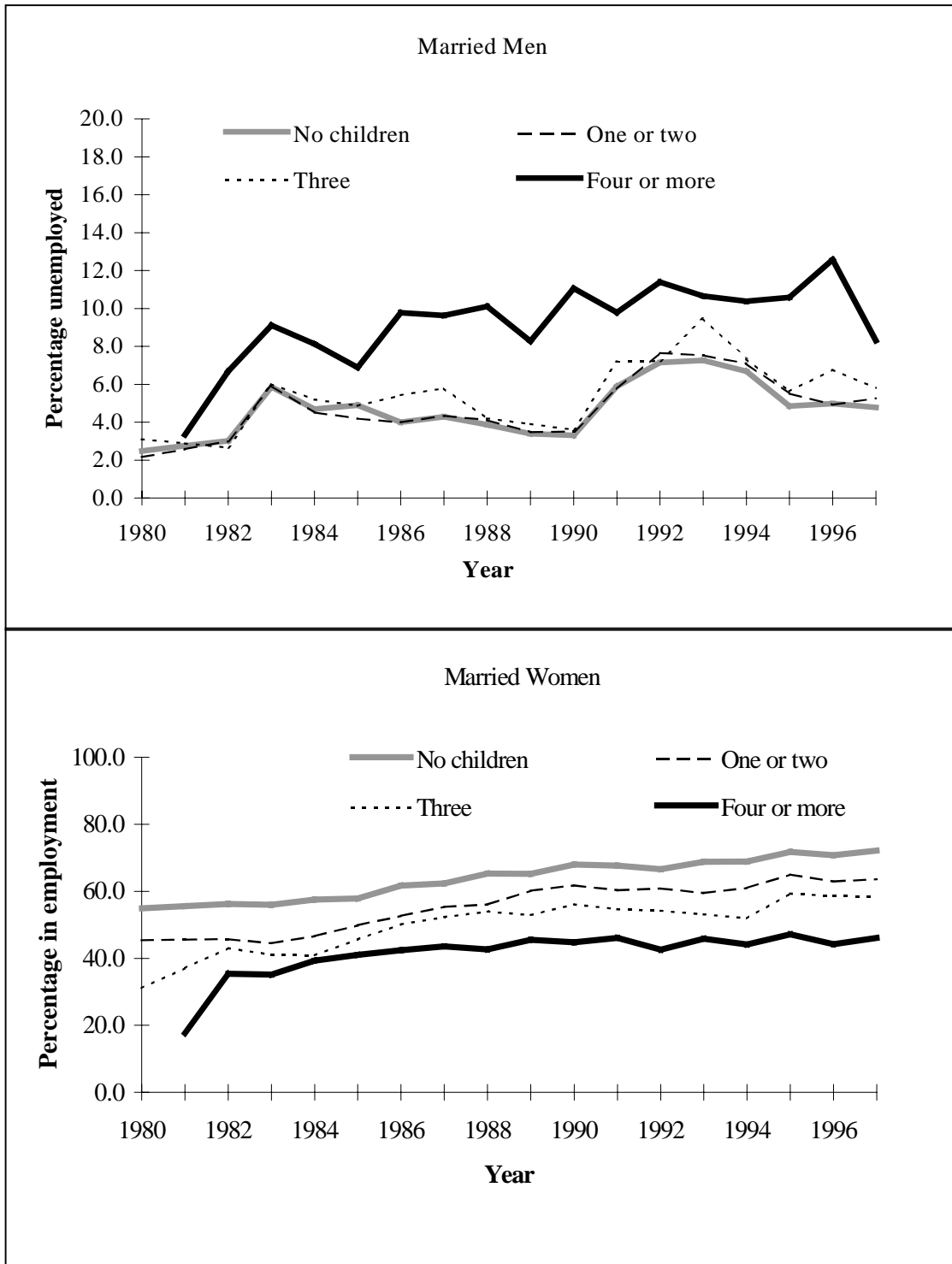
The remainder of this paper is divided into four sections. In Section 2, patterns of unemployment and employment among couples with children are examined. Section 3 examines the incentives for paid employment provided by employee earnings and the tax-benefit system, and encapsulated in replacement rates, for families with between one and four dependent children over the period 1980 to 1997. Section 4 looks at some other potential influences on replacement rates: non-dependent children in the family; rent assistance; and women’s employment and child care costs. Section 5 summarises and concludes.

2 Unemployment and Employment among Married Men and Women in Australia

Evidence from the Labour Force Survey (ABS Cat.6224.0) suggests that for most of the time since 1980, men with four or more children have experienced higher unemployment rates than men with three children or less, and that women with four or more children have experienced lower employment levels than other women. Figure 1 shows that unemployment rates for men with no children, and for those with one or two children, co-vary. For most of the period between 1980 and 1997, this is also true of men with three children, while unemployment rates for men with four or more children are consistently higher.

Among women with husbands in the labour force, there has clearly been a relationship between numbers of dependent children and employment rates since the early 1980s. Married women with no children have the highest employment rates, followed by women with one or two children, and then women with three children. Women with four or more children have consistently had the lowest employment rates since 1980, but there is a less clear distinction between employment among women with four or more children and all other women. Unlike men’s unemployment, women’s employment rates appear to decrease monotonically as the number of children increases.

Figure 1: Unemployment Rates for Married Men and Employment Rates for Married Women by Number of Dependent Children in the Family



Source: ABS (annual), *Labour Force Status and Other Characteristics of Families, Married Couple Families: Employment Status of Husband and Wife*, ABS Cat. No. 6224.0.

How do these patterns of unemployment and employment relate to incentives to work? If the variation in unemployment and employment levels according to the number of dependent children was solely a function of incentives, then the patterns in Figure 1 would suggest that men with four or more children had less incentive to take up employment than all other men during the 1980s and 1990s, but that the incentive among women to take up employment decreased gradually as the number of dependent children increased. The next two sections address the question of incentives to work as they affect families with different characteristics and different numbers of children.

3 Estimating Incentives for Paid Employment

In this section, we model incentives to work in the 1980s and 1990s for hypothetical Australian families through analysis of their replacement rates: their out-of-work incomes as a proportion of their in-work incomes. We do this by imputing different levels of earnings for them (from nationally representative surveys) and by calculating their liability for taxes and their eligibility for benefits according to rules prevailing in each year between 1980 and 1997.

Calculating Incomes In and Out of Work

In raw terms, a person's economic incentive to take up paid employment can be measured as the amount of income he or she expects to gain as a result of moving from the state of non-employment to employment. For a single person with no entitlement to social security (for example, a recent immigrant to Australia), this incentive is relatively simple to measure, at least on the surface. In such a case the gain from employment can be seen as the wage offered by the employer. But even in this simple case, there are often other factors to be weighed up, such as the cost of getting to and from the place of employment, and the opportunity costs associated with taking up this particular job: will the person miss out on a potentially more rewarding job as a result? In making these considerations, the person must also take into account the income tax that may have to be paid on earnings.

For a person who is entitled to claim welfare benefits, the task of weighing up the potential gain from taking a particular job is more

complex still. How much better off would he or she be when employed (after income tax and job-related costs are deducted from earnings, and perhaps in-work benefits added) than when unemployed and receiving benefits? If the person has to take rent subsidies or potential child care costs into account, then the calculation of economic incentives can become quite complex. These are the sorts of deliberations that unemployed people must theoretically make each time they seek, or are offered, paid employment.

In the literature on employment incentives, this complex calculation is often simplified into a *replacement rate*, that is, out-of-employment income as a proportion of in-employment-income (see Atkinson and Micklewright, 1985). In the calculation of replacement rates over time for this analysis, family income is assumed to include (depending on employment, liabilities and entitlements):

- earnings of all employed family members *less* income tax and Medicare Levy, taking into account Low Income Rebate, Dependent Spouse Rebate, Medicare Levy Rebate and Family Tax Allowance;
- Unemployment Benefit / Jobsearch Allowance / Newstart Allowance received by all family members;
- Partner Allowance / Home Child Care Allowance / Parenting Allowance; and
- Family Allowance / Family Income Supplement / Family Allowance Supplement / Family Payment / Additional Family Payment / Large Family Supplement / Family Tax Payment.

No extra private income, or income in kind is assumed. Similarly, we assume that no extra deductions from earnings, such as for pension contributions or trade union subscriptions, are made. It is important to note that replacement rates are affected not just by the *levels* of earnings, taxes and benefits, but also by the interaction between them, and by the way they change independently of each other over time.¹

1 The calculation of tax liabilities and benefit entitlements of the different hypothetical families for the years 1980 to 1997 are available from the author on request.

Family Types

The analysis in this section focuses on four hypothetical family types:

- a married couple with one child aged under five;
- a married couple with two children, one aged under five and one aged between five and 12;
- a married couple with three children, one aged under five, one aged between five and 12, and one aged 13-14;
- a married couple with four dependent children, one aged under five, one aged between five and 12, one aged 13-14 and one aged 16-17.

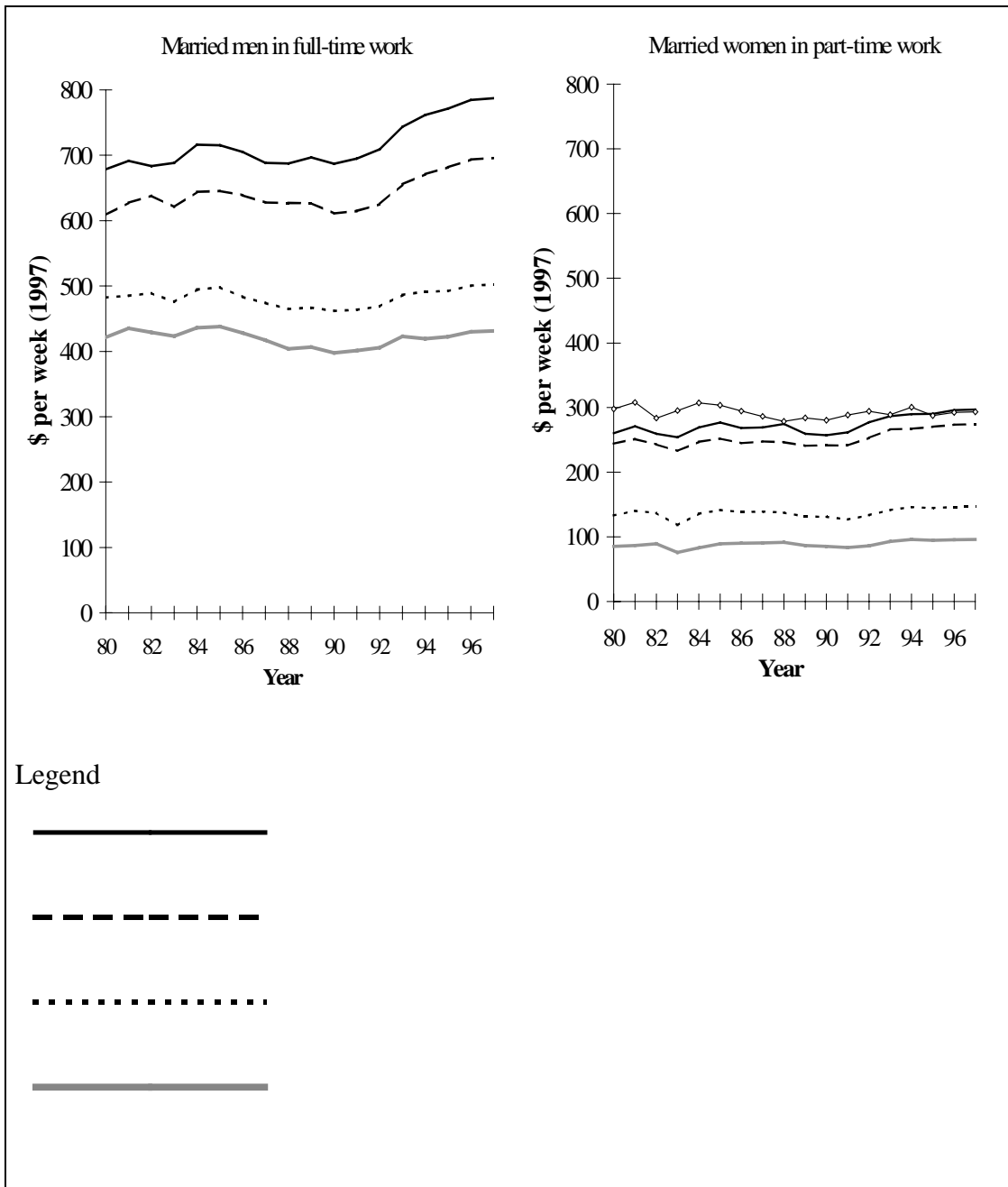
In 1997, couples with dependent children comprised 30.3 per cent of all Australians aged 15 and over: 10.4 per cent had one child, 12.6 per cent had two, 5.6 per cent had three, and 1.8 per cent had four or more children (ABS, 1998).

Earnings

In order to calculate family incomes in and out of work, full-time employee earnings of men and part-time employee earnings of women between 1980 and 1997 are taken from the Weekly Earnings of Employees (Distribution) Survey (WEED). This survey is conducted every August. Tables from published reports on the WEED (ABS Cat. 6310.0, Earnings From All Sources) are used to calculate the 10th, 20th and 50th percentiles of the distribution of married male full-time earnings and the 10th and 50th percentiles of married female part-time earnings.

Figure 2 shows that in real terms, the median earnings of men in full-time employment increased during the early 1980s, but then fell back, before rising again from the early 1990s. Overall, when the impact of changes in consumer prices over the period is taken into account, the result is a modest increase in median earnings from \$609 in 1980 to \$611 in 1990 and \$696 in 1997. This represents a 14 per cent increase over the 17 years. Real earnings at the tenth percentile point of the male full-time

Figure 2: Trends in Employee Earnings Received by Married Men, Married Women and Youth



Source: ABS Weekly Earnings (Distribution) Survey, 1980-1997, Earnings From All Sources, ABS Cat. No. 6310.0.

earnings distribution, on the other hand, only increased by about two per cent overall between 1980 and 1997, from \$421 in 1980 to \$431 in 1997. Earnings of women in part-time work, both at the median and at the tenth percentile, on the other hand, increased by about 12 per cent over the period examined.

The Impact of Taxes and Social Security Benefits on In-work Incomes

If earnings remained flat (for men at least) at the bottom of the distribution between the 1980s and mid-1990s, the same cannot be said of income taxes. The income tax burden, as a percentage of gross earnings, generally increased during the early and mid-1980s. This increase was caused by the introduction of the Medicare Levy, and while tax rates fell, thresholds remained fairly constant, with 'bracket creep' causing overall burdens to increase.

Between 1980 and 1996, income tax policies did not, for the most part, distinguish between earners with partners or dependent children (the Dependent Spouse Rebate was an exception). The Family Tax Initiative (FTI), introduced in January 1997, changed this picture somewhat. This comprised a reduced income tax liability (Family Tax Assistance - FTA) for taxpayers with dependent children, and a benefit (Family Tax Payment - FTP) for non-earners and people with low incomes. This tax reduction, or benefit, was worth over \$13 per week for a family with one child aged under five and total earnings of less than \$65 000, provided one member of a couple had very low earnings (less than \$4750) in the year.

During the 1980s and 1990s, the Government launched several important initiatives to support the incomes of large families, mostly through means-tested benefits. Until the middle of the 1980s, Family Allowance (FA) was universally available for families with children. From 1986, however, categorical and income restrictions were applied. About the same time, the first of a new series of means-tested family benefits, which had the aim of encouraging people with dependants to take up low-paid work, was being introduced. Family Income Supplement (FIS), introduced in May 1983, effectively allowed workers with low incomes to claim the dependants' additions that they would have got for their children had they been unemployed, provided that they satisfied a means test. These payments varied according to the number and ages of children in the family, as well as by the level of earnings received by the parents. The income threshold above which a 50 per cent withdrawal rate was applied was equal to about two-thirds of the median wage for married men in 1983.

Figure 3 shows that FIS had a considerable impact on the incomes of low-paid workers with dependent children, particularly those with three or more children, from 1983 onwards. In December 1987, Family Allowance Supplement (FAS) was introduced to replace FIS.² Maximum amounts of FAS per child were more generous than those for FIS, although the means test was more severe. The launch of FAS coincided with the means-testing of FA. Henceforth, all family benefits were means-tested, albeit with a very high disqualification threshold for FA of more than double median earnings for married men. These reforms were introduced at a time when real earnings for many employees were in decline. Thus, Figure 3 also shows a decline in real net incomes for most of the hypothetical families during the late 1980s.

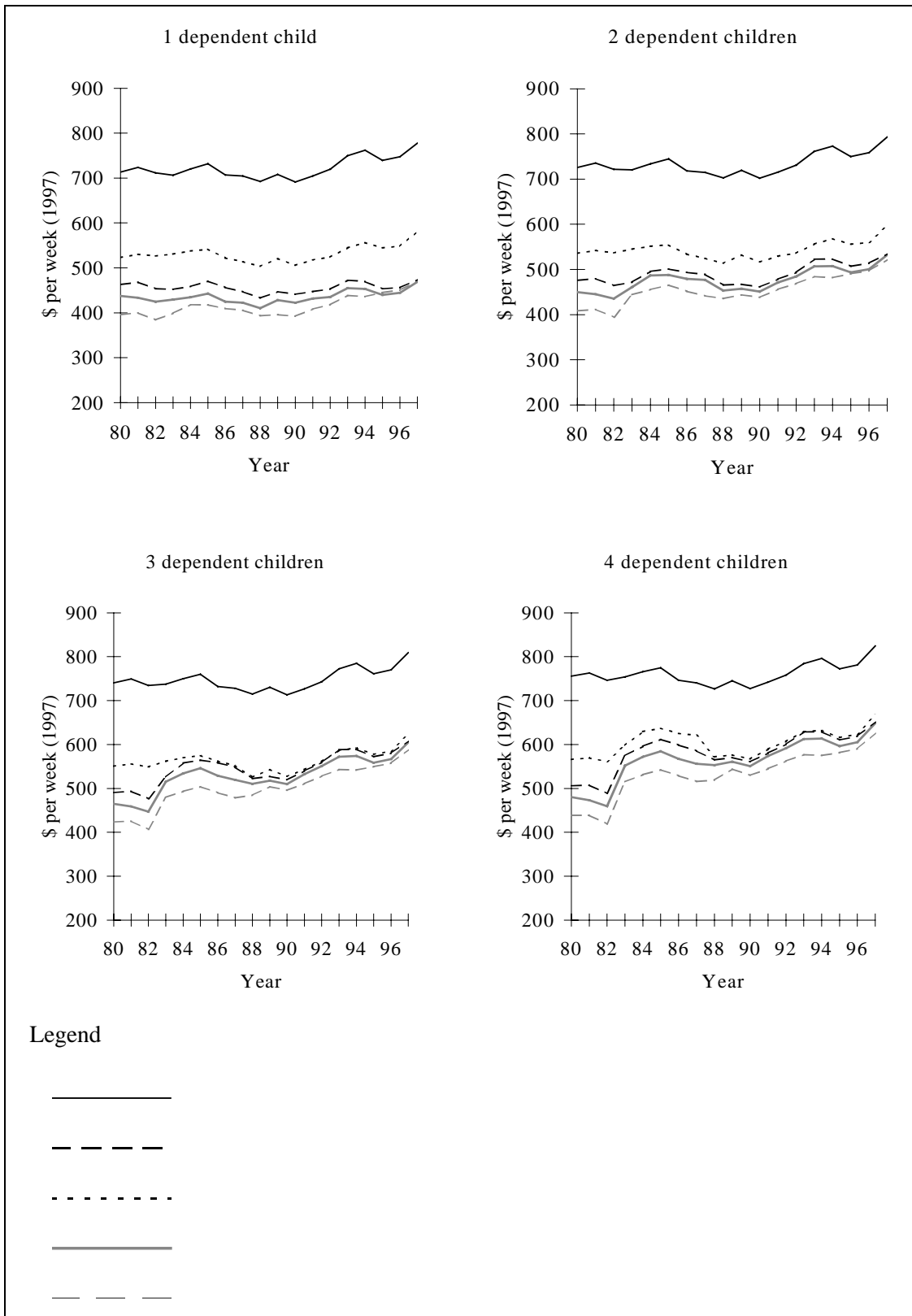
The bottom two panels of Figure 3 show that after the introduction of FIS in 1983, the lines representing net family incomes for low-paid workers begin to converge. This is caused first by increases in per-child benefits (advantaging larger families in particular), and second by harsher means-testing of these benefits in the 1980s and 1990s, leading to higher benefit withdrawal rates for each extra dollar earned. By the 1990s, the net income of a family with three children where the woman was not employed was little higher if the man had earnings at the median than if he had earnings at the 20th percentile. Families with four children also experienced high benefit withdrawal rates, or marginal tax rates. In 1997, an increase in gross weekly earnings from \$500 to \$700 for a man with a non-working wife and four children would yield a net increase in family income of about \$20.

Families' Incomes when Unemployed

Bradbury (1993) shows that in contrast to employee earnings during the 1980s, the benefit incomes of most unemployed people did generally

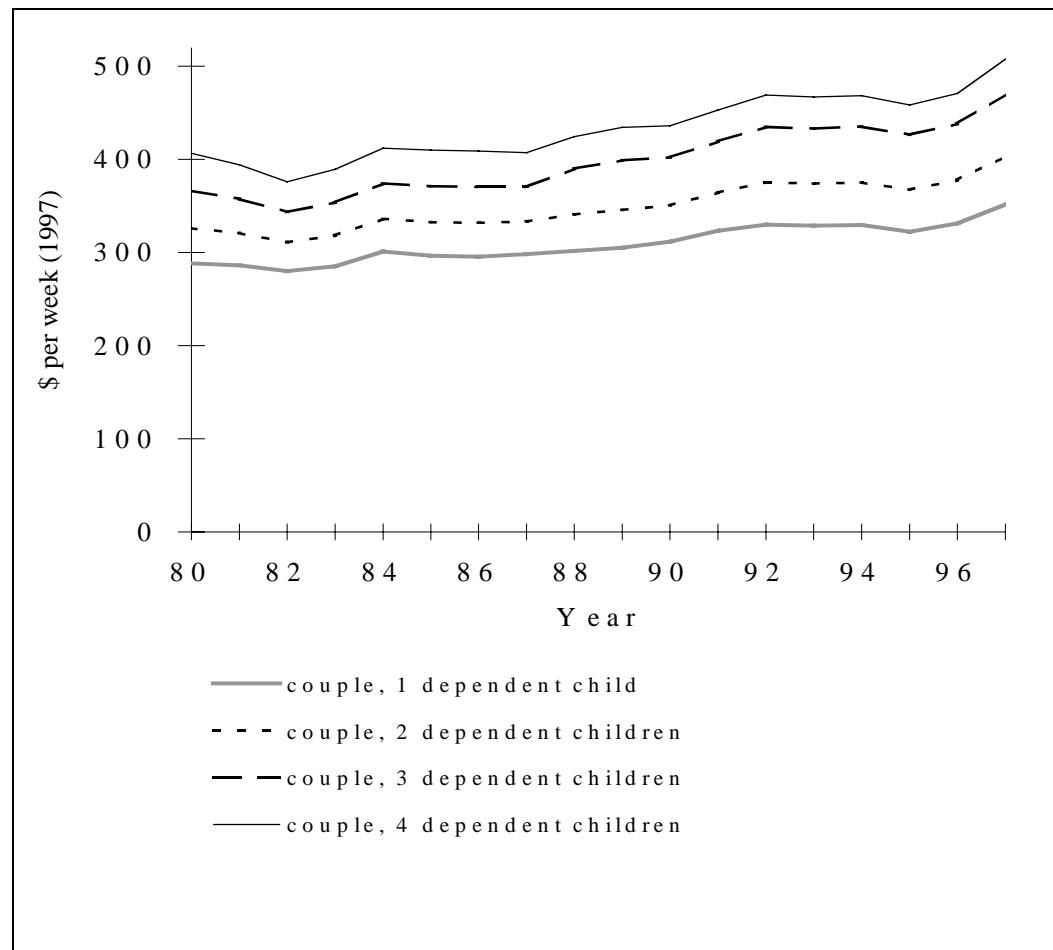
2 FAS was different to FIS in more ways than just benefit amounts or means-test thresholds. The period over which income could be measured for means-testing purposes was also different. Whereas FIS was means-tested on current income, FAS was means-tested on annual income in the most recent financial year. Therefore, as Bradbury, Ross and Doyle (1991) point out, the timing of an application for FAS could have a large influence on calculated entitlement.

Figure 3: Trends in In-work Income Received by Families by Number of Dependent Children and Couple's Earnings



increase faster than the rate of inflation (this was not true for young unemployed people). Figure 4 shows that this trend continued into the 1990s. In contrast to employee earnings, the upward trend in the incomes of unemployed families is notable, and even accelerated during the 1990s with the introduction of Family Payment and the Family Tax Payment. In real terms between 1980 and 1997, out-of-work income increased by 22 per cent for a couple with one child and by 25 per cent for a couple with four children.

Figure 4: Net Income of Families with no Employed Persons by Family Type



Replacement Rates

Replacement rates are regularly used for quantifying the incentives to work that are built into a system of benefits in a given country. Replacement rates are the ratio of incomes received by individuals or families while unemployed to incomes received when in work. This

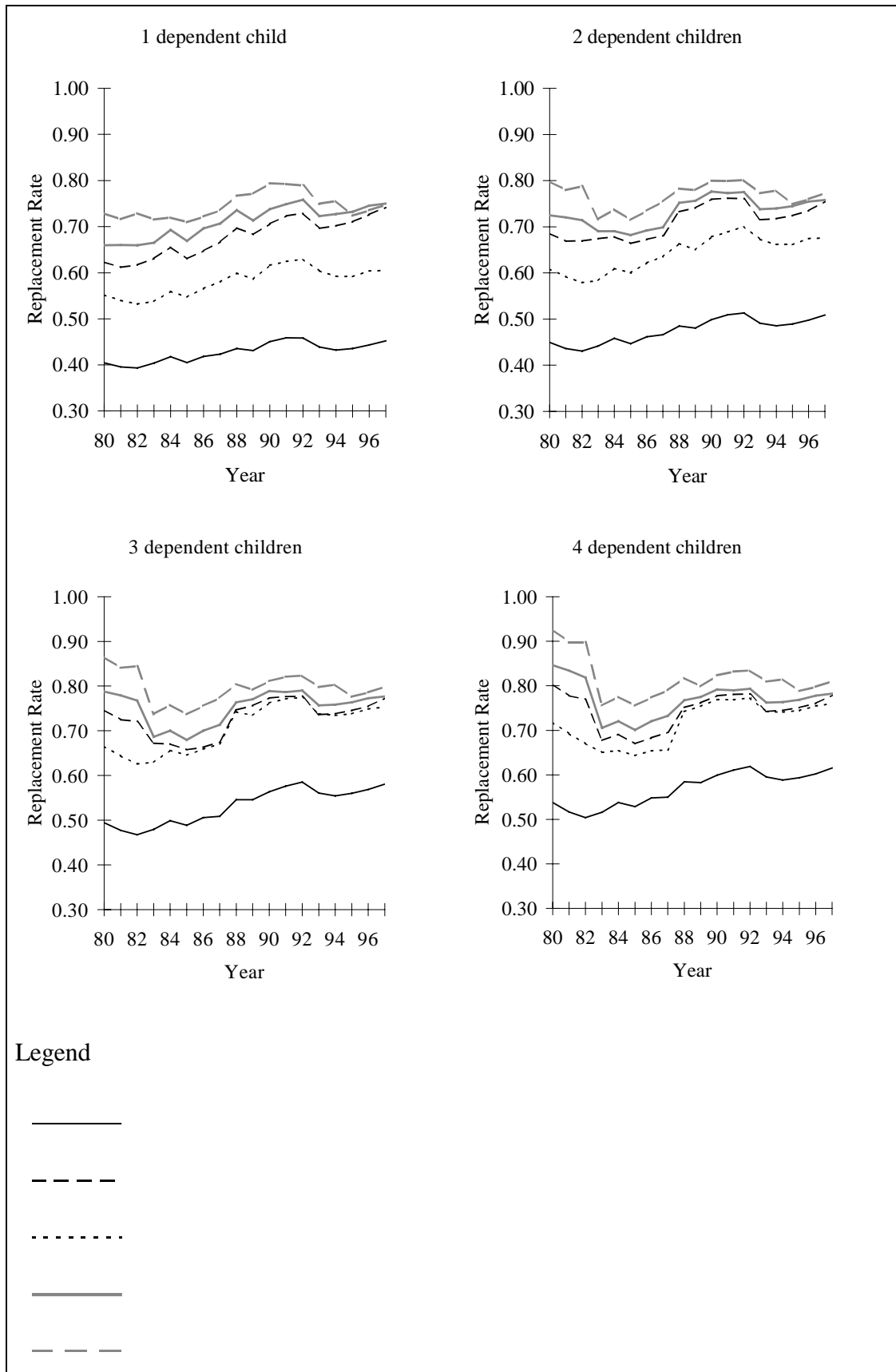
immediately raises questions about the definition of employment, and who in the family counts as being employed. For the purposes of the analysis in this section, attention is focused on couples where either the man or both the man and the woman are in paid employment (the denominator), or where neither the man nor the women is in paid employment (the numerator). Thus, the replacement ratio becomes:

$$\frac{\text{Family income when both the man and woman are out of paid employment}}{\text{Family income when the man or both the man and the woman are in paid employment}}$$

It is worth emphasising that of themselves, replacement rates are necessarily simplistic measures used in the comparison of two or more systems, or in the comparison of the same system over time. Atkinson and Micklewright (1985) discuss the nature of replacement rates at some length. They argue that replacement rates oversimplify the nature of family incomes from employment, benefits and other sources. They generally do not take account of the costs for an unemployed person of looking for work, or the costs for an employed person associated with working. They assume that employment and unemployment are 'steady states', where everything is fixed so long as a person remains in one camp or the other. Most critically, perhaps, replacement rates assume that people respond to economic imperatives to the exclusion of all other social and cultural factors. Nonetheless, they do provide a fairly transparent guide to changes in the formal economic incentives which a given tax-benefit system embodies over time.

Figure 5 shows how replacement rates have changed since 1980 for families with one, two, three and four dependent children, respectively. As Bradbury (1992) points out, the stagnation in real employee earnings at the bottom of the earnings distribution, coupled with the increase in the real level of benefits for unemployed people and rising income tax levels, resulted in higher replacement rates for men with one child between 1980 and the early 1990s. These declined in the early 1990s as a result of small earnings increases and income tax reductions. For families with more than one child the pattern is slightly different. The

Figure 5: Trends in Replacement Rates for Families by Number of Dependent Children and Couple's Earnings



introduction of FIS in 1983 lowered these families' replacement rates considerably, but thereafter rates began to creep up until the early 1990s when tax cuts allowed them to decline slightly. The introduction of FAS in 1988 (renamed Additional Family Payment in 1993) had no impact on replacement rates, and may have even caused them to rise, since the new higher benefit rates for employed people were matched by higher child additions for the unemployed.

It is interesting to compare the trajectory of replacement rates for men with different numbers of children. Table 1 presents some statistics for replacement rates in 1980, 1983, 1990 and 1997 for families where the man's in-work earnings were at the 10th percentile of the married male full-time earnings distribution, and the woman was not in paid employment. For men with low earnings, replacement rates reached a low point in 1983, but by 1990 they had risen considerably, falling back slightly in 1997. As Figure 5 shows, this trend was quite similar for men with higher in-work earnings (who, unlike low-paid employees, also benefited from real increases in earnings).

Table 1: Replacement Rates for Families with Man on Low Earnings^(a) Woman not in Paid Employment, by Number of Dependent Children

Year	Number of Children			
	One	Two	Three	Four
1980	0.73	0.80	0.86	0.93
1983	0.72	0.72	0.74	0.76
1990	0.79	0.80	0.81	0.83
1997	0.73	0.77	0.80	0.81

Note: a) Low earning are defined as earnings at 10th percentile of WEED full-time earnings distribution.

Some features in the four panels of Figure 5 are worth highlighting. As numbers of children in the family increase, the trend lines, particularly those representing families with male earnings only at the 20th and 50th percentile points, move closer together. This suggests that as children are added to the family, not only are replacement rates increased, but net returns on earnings begin to decline. Moreover, the trend lines in the two bottom panels of Figure 5 (relating to men with three and four children

respectively) appear to have drawn even closer together in the 1990s. The main cause of this, as we have seen, has been the increased generosity of benefits for families with children since the introduction of FIS in 1983, aided by stagnant levels of earnings for low-paid workers, and an income tax system that, until 1996, tended to take more each year from families with children.

4 Factors Which May Influence Replacement Rates

In this section, trends in replacement rates over the 1980s and 1990s are examined for hypothetical families with characteristics that might be expected to have an impact on their incomes in and out of work: the presence of older non-dependent children in the household, the family's entitlement to rent assistance and women's incentives to work.

Non-dependent Children

Recent evidence suggests that a high proportion of children continue to live with their parents after they finish their education (ABS, 1999). If income sharing within the family is assumed, the presence of non-dependent children in the familial household can affect the replacement rates of their parents either through the benefits they receive, for example unemployment-related benefits or student grants, or through their earnings from employment. Even if income sharing is not assumed, the amount of unemployment-related benefits or student grants to which a non-dependent child in the familial household may be entitled depends on parental income. Thus, parents' incentives to work and replacement rates for families can conceivably be affected by their non-dependent child's activity and benefit status.

The impact of the status of non-dependent children on their parents' replacement rates is particularly interesting because of the considerable policy changes that have occurred in the area of young peoples' benefits in the 1980s and 1990s. During the 1980s, the real value of unemployment-related benefits for young people decreased by about a quarter. Maximum entitlements began to increase in real terms after 1989, but a parental means test was introduced about the same time, so

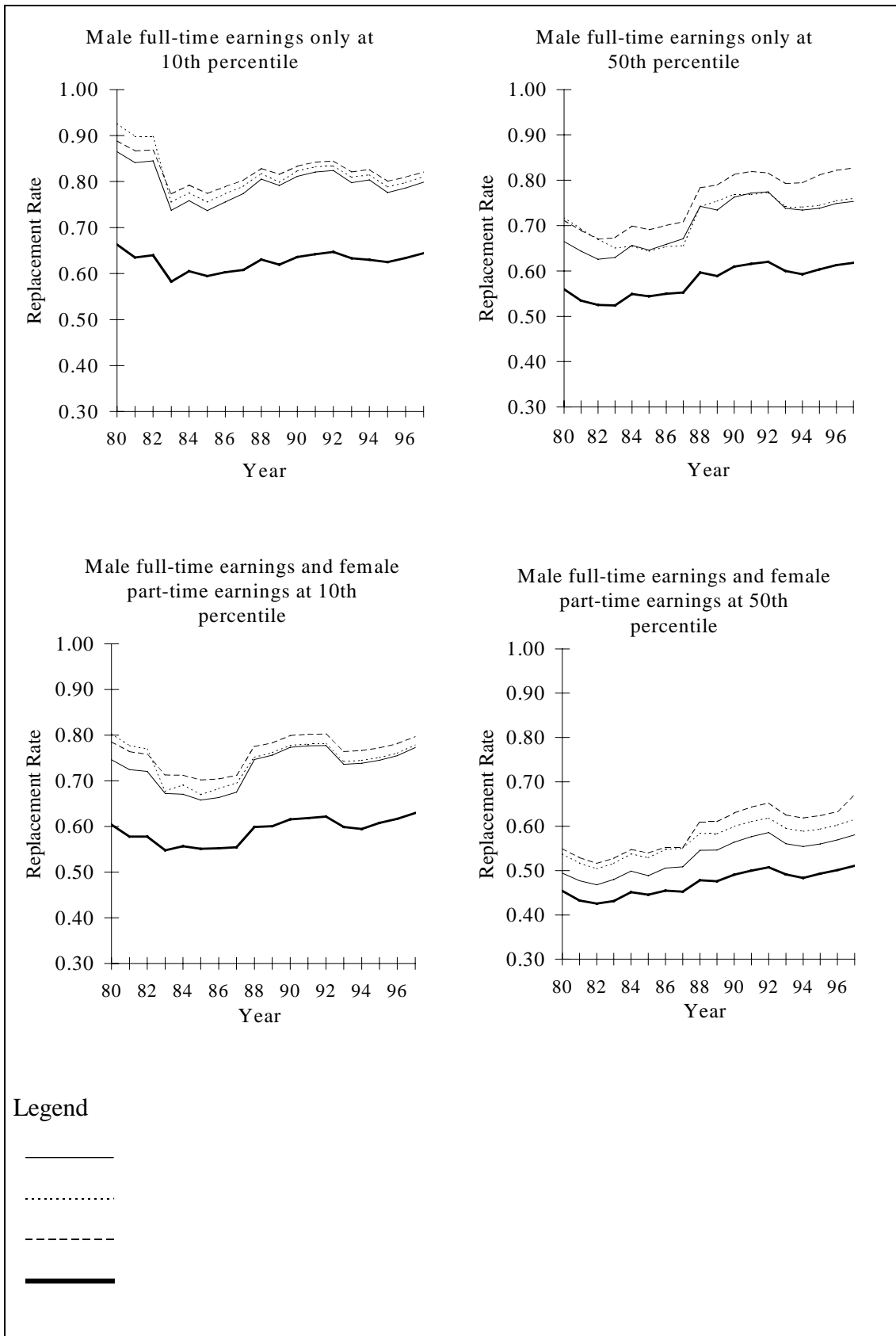
that entitlement would have declined for some young people living in the parental home. In one sense, parental means tests raised the incentives barrier for unemployed parents: if parents increased their income, their non-dependent-children received lower unemployment-related benefits.

Figure 6 shows how these policy changes, in conjunction with changes in earnings for adults and young people, impacted on replacement rates. Replacement rates are presented for four different family types:

- a married couple with three dependent children, aged under five, between five and 12 and 13-14;
- a married couple with four dependent children, aged under five, between five and 12, 13-14 and 16-17;
- a married couple with three dependent children, aged under five, between five and 12 and 13-14, and one non-dependent unemployed child aged 16-17;
- a married couple with three dependent children, aged under five, between five and 12 and 13-14, and one non-dependent employed child aged 16-17.

Schneider (1999) argues that policy changes in the area of youth benefits since the late 1970s have promoted greater dependency among young adults on their parents. Has this increased dependence in turn reduced incentives for parents to take up paid employment? It is possible to approach this question by comparing replacement rates in Figure 6 for the second and third families listed above, which have the same composition, except that in the second family (dotted line) the 16-17 year old child is classed as a dependent in respect of whom family benefits can be claimed, and in the third family (dashed line) the 16-17 year old is classified as a non-dependant who is unemployed and entitled to claim his/her own unemployment-related or training benefits. Before 1983, child-related additions were added to unemployment benefits and there were no in-work benefits for parents in paid employment. Therefore, families where the parents were in low-paid work had a lower replacement rate if a non-working child was classified as a non-dependant claiming his or her own benefits than if the child was

Figure 6: Trends in Replacement Rates for Families by Number of Dependent and Non-dependent Children and by Couple's Earnings



classified as a dependant. After 1983 this picture changed somewhat: replacement rates increased for families with an unemployed non-dependant compared to families with a dependant of the same age.

An increase in the difference between replacement rates for families with a non-dependent child and families without is evident in the 1990s. This is caused by the introduction of parental means tests on non-dependent children's unemployment benefits from 1988, and is most evident in the two right hand panels of Figure 6. However, these means tests did not affect parents with very low earnings, as is the case in the two left hand panels of Figure 6. All four panels show that the earnings of a non-dependant, if fully counted as family income, had the potential to reduce the parents' replacement rates considerably. In general, however, the dependency status of non-working children had only a small impact on parental replacement rates throughout the 1980s and 1990s.

Rent

Rent Assistance was originally introduced for a small number of pensioners in private rented accommodation in 1958. Eligibility was restricted to pensioners until December 1986, when it was made available to Unemployment Beneficiaries after a 26-week waiting period. Between 1986 and 1993, eligibility for Rent Assistance was widened, and benefit levels were raised. Rent Assistance is payable on rents that exceed a given threshold, up to a specified maximum (the threshold and maximum varies according to family size and type). The amount of Rent Assistance awarded depends on the level of rent and on the beneficiary's income. There is a unified means test for Rent Assistance, unemployment and family related benefits, and the benefits are withdrawn in turn, rather than concurrently, as income increases.

The impact of Rent Assistance on replacement rates has received scant attention in Australia to date. Research carried out in the early 1990s suggests that Rent Assistance added between 10 and 20 per cent to the effective marginal tax rates of claimants in New South Wales and Victoria (DSS, 1993) but there is little information on its potential impact on incentives to move into, or out of, paid employment. In this section, replacement rates are modelled for a family with four dependent children

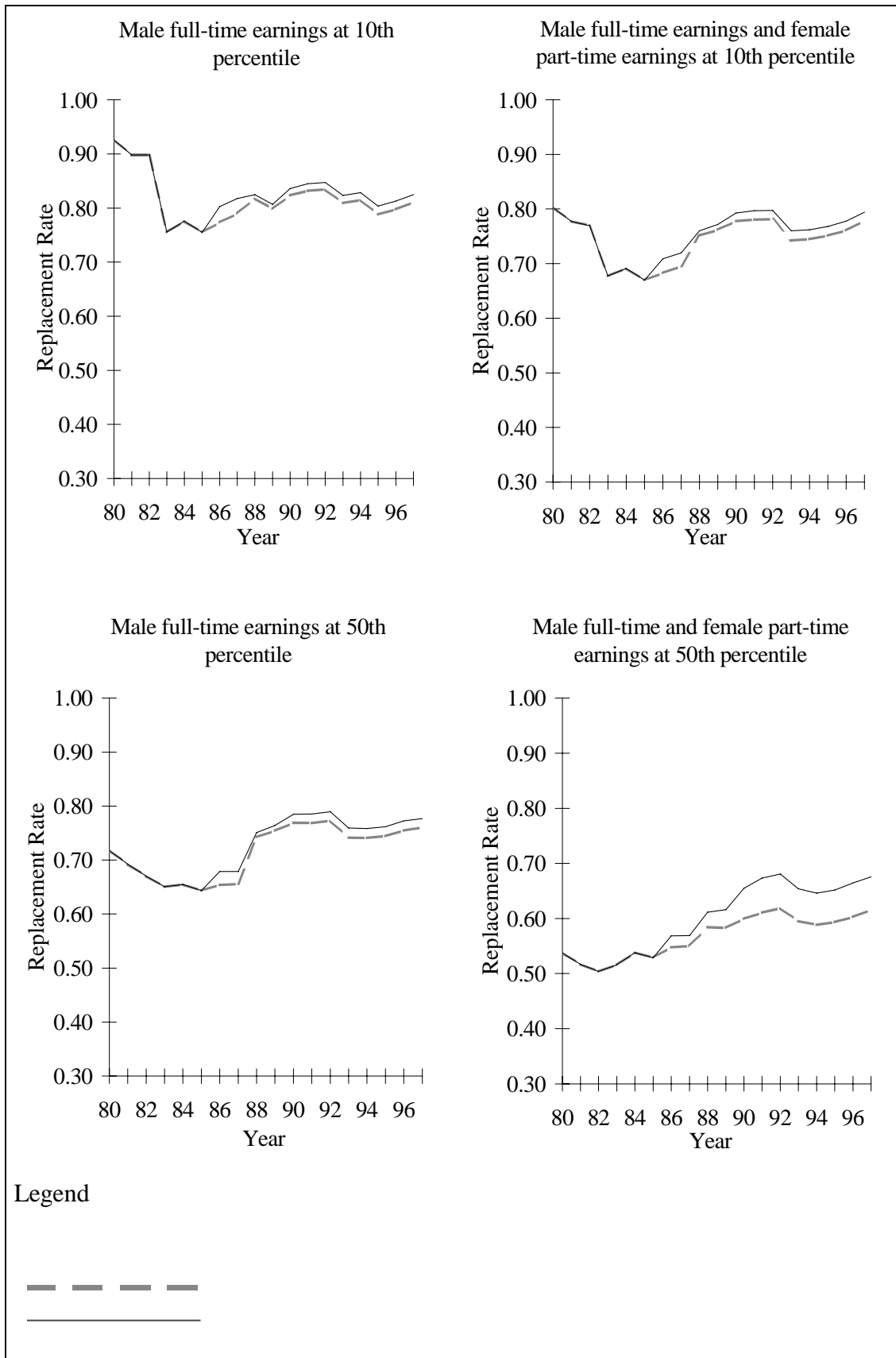
living in rented accommodation. Rent levels are taken from the report on indicative budget standards for Australian families (Saunders et al., 1998): \$191.90 for a three-bedroom dwelling in which two adults and four children live (Saunders et al., 1998: 132). This figure is deflated for each year to 1980 using the ABS Consumer Prices Index for private rents.

The evidence in Figure 7 suggests that replacement rates for men and women with four children who took up employment at low or median wages did not change much if they were also eligible for Rent Assistance. In 1986 and 1987, Rent Assistance was only available to unemployed families and not as an in-work benefit, but maximum amounts of Rent Assistance were relatively low, so replacement rates for families receiving rent assistance in these years were only a few percentage points higher (two to three per cent in most cases) than for families who did not receive it. From 1988, Rent Assistance was also available as an in-work benefit, and between 1989 and 1991 the level of rent assistance was substantially increased. However, because one means test was used for both family benefits and Rent Assistance, and one taper was used to reduce eligibility, the effect of this increase in generosity was to extend the range of income over which family benefits and Rent Assistance were withdrawn, rather than to increase replacement rates as such. Thus, as Figure 7 shows, there is only a significant difference in replacement rates for a family with four children where the man has earnings equal to the full-time median, and the woman has earnings equal to the part-time median. It seems unlikely that receipt of Rent Assistance can in itself be associated with greatly increased disincentives to take up paid employment.

Women's Incentives to Work and Child Care Costs

As several authorities have noted (e.g. Castles, 1994) the earnings of married women have become increasingly important in maintaining family living standards. While 46 per cent of women whose husbands were in the labour force had either full- or part-time jobs in 1980, 66 per cent did so in 1997 (ABS, Cat. No.6224.0). Most of this increase in participation was concentrated among women with no children or just

Figure 7: The Impact of Rent Assistance on Replacement Rates for Families with Four Dependent Children by Couple's Earnings



one child. Among women with four or more children and a husband in the labour force, the percentage in work increased less dramatically, from about 40 per cent in 1980, to 46 per cent in 1997.

The policy relevance of women's participation was heightened by the thrust of the White Paper *Working Nation* (Australia, Prime Minister, 1994), which sought, by partially individualising benefits and through other non-social security measures, to encourage more married women and single parents into the labour force. The implementation of *Working Nation* policies coincided with a dramatic increase in the number of child care places available for Australian children (Lee and Strachan, 1998). Several authors have pointed to a strong relationship between the cost and availability of child care and women's participation in paid employment (see Gornick, Meyers and Ross, 1996). But unlike cash benefits, the impact of child care provision on participation is complicated by its *local* availability, its quality and the availability of alternatives (for example, informal care). Factoring the imputed cost of child care into replacement rates ignores these issues; the assumption is made that child care is available locally, that it is of sufficient quality and that there is no informal care alternative. The only question which replacement rates analysis can adequately address is: how do formal child care arrangements add to in-work costs?

Because there is no national child care scheme with standardised prices, and because the nature of women's participation in employment and provision of child care have both fundamentally changed in the past 20 years, it is difficult to look at the long-term historical impact of child care costs on replacement rates. For the purposes of this analysis, data on average net child care costs (after assistance and rebates) are taken from the Commonwealth Department of Health and Family Services (DHFS) *Annual Reports* for a family where the man works full time and the woman works part time.³ These average costs are subtracted from the in-work incomes of hypothetical families with two children and four children. In both family types, two children (aged under five and aged

3 See Department of Health and Family Services (1996: 106, Figure 14; 1997: 141, Figures 16 and 17). Estimated costs used in this analysis are the 'family contribution' element of total child care costs for families on low and median earnings with 30 hours of child care per week

between five and 12 respectively) are in need of child care while the mother works part time. The figures taken from DHFS are available for the years 1993 to 1996. They are necessarily crude and should not be over-interpreted. They suggest that for families on low incomes where one parent was in part-time work, average net child care fees increased from about \$22 per week to about \$30 per week for 30 hours' child care between 1993 and 1996. For families with one parent in part-time work who received median earnings, average net fees for 30 hours' child care remained at about \$40-45 per week between 1993 and 1996.

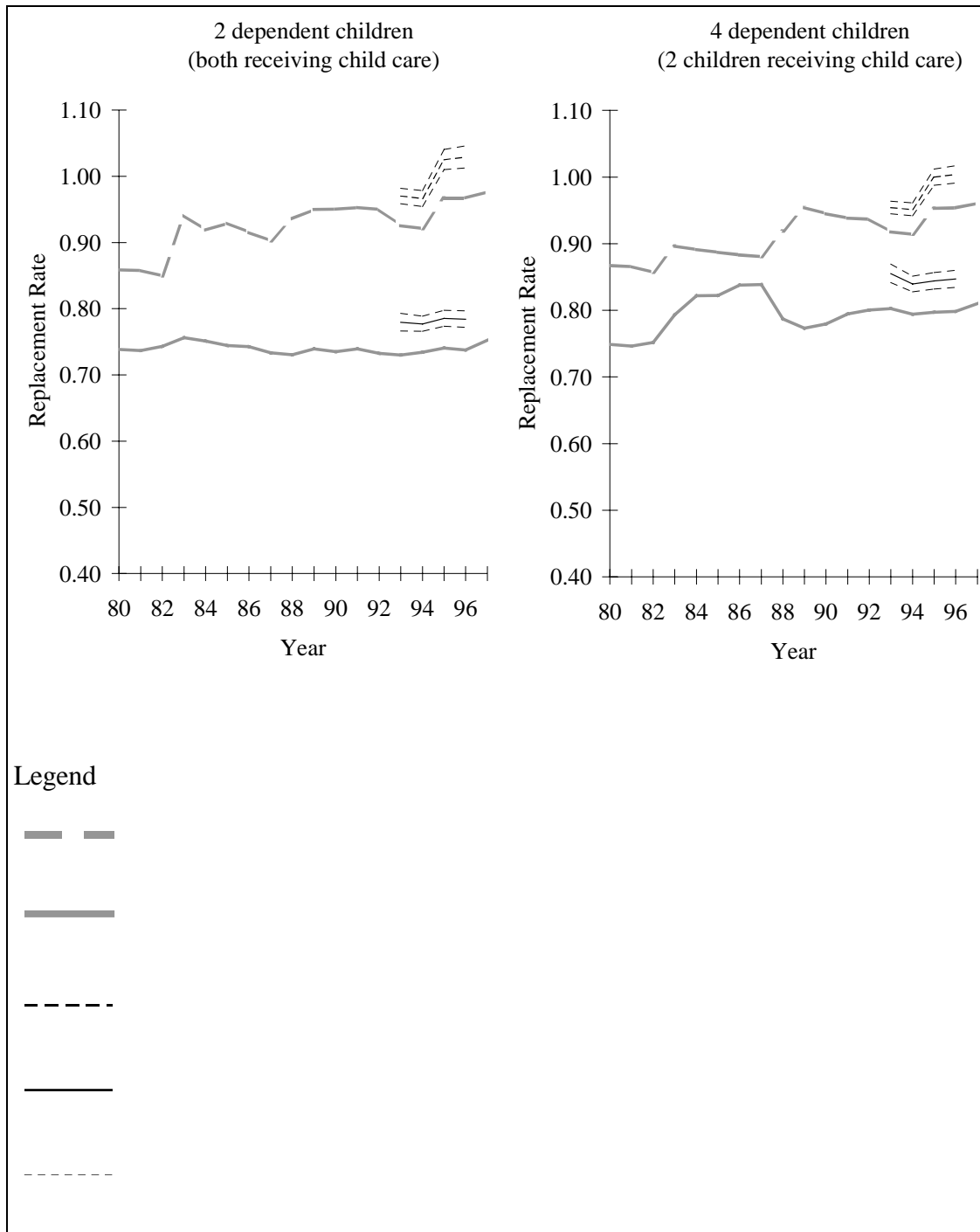
Figure 8 shows the replacement rates faced by women in part-time work whose husbands work full time.⁴ Here the definition of replacement rate is different to that used elsewhere in this paper: the focus is on incentives for women whose husbands are employed to take up part-time employment. Therefore, the numerator of the replacement rate no longer describes the income of a family where both parents are out of paid employment, but where the man is in full-time work:

$$\begin{aligned} \text{Replacement Rate 1} &= \frac{\text{Family income, male employed full time on low earnings}}{\text{Family income, male employed full time and female employed part time on low earnings}} \\ \text{Replacement Rate 2} &= \frac{\text{Family income, male employed full time on median earnings}}{\text{Family income, male employed full time and female employed part time on median earnings}} \end{aligned}$$

Figure 8 suggests that the premium gained by women taking up low-paid work where their husbands are already in low-paid full-time employment is small, and has fallen steadily since the early 1980s. This is perhaps not

4 Women's low earnings are assumed to be at the 10th percentile point of the married female part-time employee earnings distribution, and men's low earnings are assumed to be at the 10th percentile point of the married male full-time employee earnings distribution. Median earnings are at the 50th percentile of the same distributions.

Figure 8: Replacement Rates for Working Women on Part-time Earnings With and Without Child Care Costs by Number of Dependent Children



surprising, given the increasing importance of means-tested in-work benefits over this period. It is interesting to note that replacement rates faced by women in low-paid work with two children are actually higher than those faced by women with four children. This is a function of the

faster withdrawal of in-work benefits faced by smaller families as their in-work incomes increase. But in the case of both families with two and with four children, after 1983 (when FIS was introduced) women's low-paid employment rarely adds more than 10 per cent to total family incomes. Since 1983, therefore, the incentive for the wives of low-paid men to take up part-time low-paid employment has not been strong. Incentives are stronger for the wives of men who are employed full time on median earnings. While a woman in low-paid part-time work (with a low-paid husband) took home about 27 per cent of her gross earnings after all deductions and benefit withdrawals in 1997, a woman with median part-time earnings (and a husband with median earnings) took home about 57 per cent of her gross earnings.⁵

The deduction of net child care costs from family incomes for the years 1993 to 1996 where the woman is employed part time shows that, for low-income families, serious disincentive effects may occur. The inclusion of child care cost data in replacement rates where both parents are employed pushes replacement rates associated with wives' employment up to about 1.0 (or 100 per cent). This suggests that families with formal child care arrangements might actually be worse off with both parents in low-paid employment than if the wife remained in the home, particularly after 1994. This is still the case even if a 25 per cent margin of error in the imputed level of net child care fees is allowed for (see Figure 8). This disincentive problem is likely to increase with the number of dependent children in the family; this may be one important reason why, as Figure 1 shows, wives' employment declines fairly monotonically as the number of dependent children increases. It must be stressed that these findings are crude. However, they do point to a potential policy problem which could benefit considerably from more detailed and careful research.

5 Summary and Conclusions

Results from the analysis of replacement rates for hypothetical families with children between 1980 and 1997 can be summarised as follows.

⁵ It is worth noting that introduction for the Family Tax Initiative slightly increased replacement rates faced by women with employed husbands.

- Replacement rates were generally very high for low-income families with three or more children in 1980. The introduction of Family Income Supplement in 1983 caused replacement rates to decline dramatically, but after 1985 a combination of wage stagnation and 'bracket creep' in income taxation caused them to increase again. They generally remained high until 1997.
- Unemployment was particularly high for men with four or more children throughout the 1980s and 1990s. While replacement rates for families with three children were similar to those for families with four children, unemployment among the fathers of four or more children was considerably higher than unemployment among the fathers of three children. This suggests that factors other than replacement rates may be associated with the abnormally high unemployment rates experienced by the fathers of four or more children.
- Neither rent assistance nor the presence of non-dependent children in the household appeared to greatly affect replacement rates during the 1980s and 1990s, particularly those of families where the parents were in low-paid work. However, the wives of low-paid husbands were clearly faced with decreasing returns on their gross earnings if they decided to take up low-paid employment themselves. If child care costs were added to the equation, the replacement rate for wives' employment was about 1.0 (or 100 per cent) in the mid-1990s.

These findings are significant, and they point to an ongoing policy problem in terms of the low returns to employment for parents who take up low-paid employment. It is a problem which low-income families have had to confront through most of the 1980s and 1990s. Our findings do not suggest that replacement rates for families, even those with four children, are such that there is *no* incentive to work. In 1997, an unemployed man with a non-employed wife and four children would have experienced an increase in family income of \$120 a week if he took up low-paid work (with earnings at about the 10th percentile of the male earnings distribution). However, the findings do suggest that families that try to increase their earnings above this low level will find that they are heavily taxed for doing so. It is here that the negative impact of high

replacement rates for low-income families is perhaps most felt: once a parent with three or four children finds employment and experiences an increase in family income, he or she would have to attain a very large increase in earnings if the family were to enjoy a further significant increase in living standards. This is the case (and has been so since the 1980s) either if the employed partner wishes to earn more, or if the other partner wishes to enter paid employment.

In addition to highlighting the continued high level of replacement rates faced by parents of large families, this analysis has also shown that in the Australian context, there does not appear to be a simple relationship between benefit levels and labour market activity. If this were the case, all other things being equal, unemployment among men with three children would be nearly as high as unemployment among men with four or more children. However, it is possible that all is not equal between the two groups. This is an area where analysis of more detailed survey data might perhaps reveal interesting and policy-relevant results.

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figure 2

Mean (men: full-time; women: part-time)

Median (men: full-time; women: part-time)

20th pctile (men: full-time; women: part-time)

10th pctile (men: full-time; women: part-time)

figure 3

Male full-time and female part-time earnings at median

Male full-time and female part-time earnings at 10th percentile

Male full-time earnings only at median

Male full-time earnings only at 20th percentile

Male full-time earnings only at 10th percentile

figure 5

Male full-time and female part-time earnings at median

Male full-time and female part-time earnings at 10th percentile

Male full-time earnings only at median

Male full-time earnings only at 20th percentile

Male full-time earnings only at 10th percentile

Figure 6

3 dependent children

4 dependent children

3 dependent children and 1 non-dependent unemployed child

3 dependent children and 1 non-dependent employed child

Figure 7

Replacement rate excluding Rent Assistance

Replacement rate including Rent Assistance

Figure 8

Replacement Rate 1

Replacement Rate 2

Replacement

Rate 3 = Replacement Rate 1 with child care costs deducted

Replacement

Rate 4 = Replacement Rate 2 with child care costs deducted

Child care costs associated with Replacement Rates 3 and 4, +/- 25%