

**An analysis of the  
determinants of the  
labour market  
activities of housing  
assistance recipients**

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## **ABBREVIATIONS**

AFDC – Aid to Families with Dependent Children

AS – Accommodation Supplement

CSHA – Commonwealth-State Housing Agreement

CPS – Current Population Survey

CRA – Commonwealth Rental Assistance

EITC – Earned Income Tax Credit

EMTR – Effective marginal Tax Rates

FMR – Fair Market Rent

HB – Housing Benefit

HILDA – Household, Income and Labour Dynamics in Australia

HUD – U.S. Department of Housing and Urban Development

MFIP – Minnesota Family Investment Program

PHA – public housing authority

SCRCSSP – Steering Committee for the Review of Commonwealth/State Service Provision

SIPP – Survey of Income and Program Participation

TANF – Temporary Assistance to Needy Families

## EXECUTIVE SUMMARY

The impact of HA programs on labour market behaviour is important for a number of reasons. If individuals limit their labour market participation because of the parameters of HA programs, the fiscal burden imposed by program participants is likely to be higher. In addition to this short term budgetary cost, long-term reliance on HA and related programs may limit the participation of individuals in important aspects of economic and social life.

Economic theory provides a powerful framework with which to analyse labour market related decisions of individuals. Moreover, the basic framework can be adopted to incorporate the role of transfer programs on labour market decision making. Transfer programs generally have two independent effects related to the fact that they transfer substantial resources to recipients and change the prices faced by individuals. These impacts of transfer programs, including HA measures, can be characterised respectively as 'income' and 'substitution' effects. The net influence of a transfer programs on labour market behaviour will depend on the relative size and direction of these two effects. In some cases, the rules of transfer programs, especially any means-testing provisions, will severely reduce the incentives for individuals to either participate in the labour force, or if participating, increase the number of hours worked. When means-tested transfer programs limit the rewards from participating in the labour market in this way they create what are commonly termed unemployment (or poverty) traps, or a low-income trap respectively. The notion being that with little incentive to increase the number of hours of income generating labour market activity individuals find themselves 'trapped' in a situation with little or no employment, and, little or no wage income. In turn, individuals become reliant on transfer programs.

Housing Assistance in Australia consists of two major programs, namely public housing and Commonwealth Rental Assistance. Both programs are means-tested transfer programs. The former of these programs provides an in-kind transfer in the form of a publicly owned dwelling available to recipients at an income related rent. The latter is an entitlement program and consists of a demand subsidy paid to certain renters in the private market. In both cases, the program rules and transfers potentially create unemployment and low-income traps for recipients. This may result from the substantial resources transferred by the programs and or the relatively high effective marginal rates of taxation faced by HA program participants who engage in employment.

An examination of overseas literature examining the impact of HA programs on labour market outcomes shows mixed results. Most of this research is derived from the United States where HA programs differ somewhat to those that exist in Australia. Nonetheless, there is some evidence, for example, that an increase in benefits available under HA programs reduce labour market activity in the form of participation and hours worked. Further, the low income traps associated with a sudden decrease in benefits may act to reduce labour market activity. In addition, there is mixed evidence from studies that have examined the transition from welfare to work following major changes to welfare programs in the United States recently. While some studies show a small positive impact on employment and earnings of participation in HA programs, others show no impact.

It should be stressed, however, that results of overseas studies may have limited applicability for Australia. The HA policy context in Australia differs substantially to that which exists overseas, especially the United States. The lack of Australian studies into the impact of participation in HA programs on labour market outcomes underlines the need for Australian based analysis.

This Positioning Paper represents the first step in research that will contribute to our understanding of this important issue for policy makers. The next steps in the analysis will consist of an examination of the labour market outcomes of HA recipients using the Household Income and Labour Dynamics in Australia survey.

# 1 INTRODUCTION

The impact of housing assistance (HA) measures on the labour market activities of recipients is of particular relevance to policy makers for a number of reasons. First, increasing expenditures on social security or income transfer programs, of which HA measures represent a significant proportion, are a key concern for governments in the face of sustained budgetary pressures. More generally, reliance of individuals on income support programs for a sustained period may be symptomatic of problems associated with the programs themselves and the incentives they create. In particular, the programs may result in disincentives for recipients to participate in the labour market or if participating, to increase their labour activity and earnings.

These disincentives are important for a number of reasons beyond the fact that they limit labour market activity and thereby impose an immediate budgetary cost to the government. Individuals who do not participate in the labour market may develop long-term dependency on HA and other income support measures. Such a pattern of behaviour may in turn result in undesirable individual and social outcomes such as poverty and social exclusion. In the long term, this may itself limit the ability of governments to provide adequate support to those who are needy.

It has been recognised previously that HA programs are potentially important determinants of individual's labour market choices. For example, the Department of Social Security (1993) documents situations in which increases in housing costs for public renters discouraged the acceptance of job offers (Department of Social Security 1993, 22). More recently, the Commonwealth-State Housing Agreement (CSHA) requires that HA measures be designed with the potential for adverse impacts on employment incentive in mind. Similarly, the Reference Group on Welfare on Welfare Reform (the McClure report) emphasised the importance of HA measures in facilitating an individual's ability to find employment and take part in the labour force, rather than acting as a barrier to 'economic and social participation' (see Hulse *et al.* 2003).

Notwithstanding the recognition that HA rules may act as a disincentive to engage in employment, to date there has been only limited research into the impact of these programs on labour market outcomes for individuals both in Australia and overseas. In Australia, the limited analysis conducted previously is being supplemented by the research reported in Hulse *et al.* (2003), amongst others. The literature also contains the results of research into overseas HA arrangements that have sought to identify program effects on labour market behaviour and outcomes. In the U.S. context in particular, much effort has been directed towards determining how HA impacts on the welfare to work transition in light of changes to the Aid to Families with Dependent Children (AFDC) program, the major welfare program in that country.

This research project aims to contribute to our understanding of the role of HA on labour market behaviour and outcomes in Australia. The research has a number of aims, including:

- To review overseas research examining the incentives for participation in the labour market created by alternative HA programs and the labour market outcomes for HA recipients.
- To identify whether poverty traps exist for recipients of HA comparing public housing tenants and recipients of Commonwealth Rent Assistance (CRA) in Australia.
- To compare and document the labour market activities of HA recipients in Australia using the Household, Income and Labour Dynamics in Australia (HILDA) dataset.
- To estimate a series of econometric models to identify the determinants of participation in the labour market, especially HA parameters, by HA recipients.

This Positioning Paper represents the first step in this project and will describe Australian and overseas research into the impact of HA measures on the labour market activity of recipients. Further, the nature of the potential employment disincentives faced by HA recipients in Australia will be canvassed. The remainder of this report is set out as follows. In section 2, a discussion of the theory associated with decisions relating to labour market behaviour in the presence of income support, welfare or transfer programs is set out. After describing the basic framework used to explain the economic analysis of labour market decision making, the introduction of transfer programs into this framework is discussed. Particular emphasis is given to behavioural responses in the presence of HA programs. In section 3, a description of the HA programs in Australia is set out and the potential disincentives created for labour force activity by HA recipients in Australia examined. In section 4, a discussion of the empirical literature dealing with the United States and the United Kingdom is set out. Results of studies in other jurisdictions, including Australia, are also discussed briefly. In section 5, a concluding statement is made.

## 2 LABOUR MARKET BEHAVIOUR IN THE PRESENCE OF TRANSFER PROGRAMS

In this section, the general theory or analytical framework used to analyse labour market behaviour is described first. Following this, a discussion of labour market behaviour in the presence of income transfer programs is set out. The key consideration here is the impact of HA policies on the choices available to individuals and in particular, the possibility that the parameters of HA measures may in fact provide incentives for recipients of HA measures to limit labour market activity. The existence and meaning of poverty or unemployment traps is also discussed.

### 2.1 The basic framework

The economic model of labour market behaviour, especially labour supply is extensively discussed in the literature (Benjamin, Gunderson and Riddell 1998). The decision of how much labour to supply can be thought of as the solution to an individual's problem of how to allocate a fixed amount of time between different activities. The basic model posits an individual making choices over how to allocate her fixed amount of time (time endowment) between market (or work) and non-market (or leisure) activities. Market activities are rewarded with the payment of a wage or income that can be used to purchase goods or services (commodities) from which the individual derives utility or enjoyment. Similarly, it is generally the case that the individual is assumed to derive utility from the consumption of leisure activities.

The choice an individual makes in how much time to allocate to income generating labour market activities and how much time is spent on consuming leisure activities can be viewed as a function of two key issues. The first is the individual's *preferences*, that is, how an individual ranks various combinations of commodities (or bundles) purchased from earned (or unearned) income and leisure. Assuming that all income is spent so that there is no saving, income can be characterised simply as the total amount of commodities consumed. Each combination of leisure and commodity consumption can be thought of as an amount of time spent 'consuming' leisure (and therefore an amount of time spent working), and, an amount of consumption financed by earned and unearned income.

In the context of labour market decision making combinations of leisure time and commodity consumption are referred to as bundles. Hence, when allocating time between leisure and income generating activities the individual will make choices over different bundles. Her preferences allow different bundles to be ranked to reflect the fact that some bundles are preferred to others. Put another way, the individual will derive more enjoyment or utility from some bundles than others. The ranking of these bundles captures the individual's preferences.

The second determinant of an individual's labour market choices is her budget constraint or the set of bundles that are available to the individual. In the absence of an income support or transfer program, the set of bundles available to the individual will be determined by the following: (i) the individual's time endowment; (ii) her unearned or non-labour income, and; (iii) her wage rate,  $w$ . Together, these three parameters will define the set of bundles or choices that are available to the individual.

The individual's time endowment is assumed fixed and can, for example, be thought of as 2000 hours per year (approximately 40 hours per week) that are available for work/employment activities. The input into the budget constraint is the wage rate as this defines the trade-off between leisure activities and the consumption of other goods faced by the individual. Consider an individual who faces an hourly wage rate of  $\$w$ . It follows that consuming an extra hour of time as leisure rather than working 'costs' the individual  $\$w$  in foregone income and therefore consumption of commodities. This



represents what is lost by consuming an extra hour of leisure and represents the price of leisure in terms of consumption of commodities.

For the present, we can assume that the individual does not have any non-labour income. In this simplified framework, the individual's choice can be readily identified by making the behavioural assumption that the individual chooses her most preferred bundle from those that are available or feasible. The set of feasible bundles here are those determined by or contained in the budget constraint. More formally, the individual's behaviour can be characterised as maximising her utility subject to her budget constraint.

The description of the individual's choice set out above can be readily represented in both a diagrammatic or algebraic manner (Benjamin, Gunderson and Riddell 1998, Ch. 2; Fallis 1993). In either case, the solution to the individual's problem allows the identification of the number of hours of leisure she chooses to consume and the amount of income earned from participation in work (and therefore commodities consumed). The amount of income earned being equal to the number of hours of worked (time endowment less the number of hours of leisure consumed) times the wage rate. Irrespective how the individual's problem is presented, her choice may be characterised as that of choosing her most preferred bundle from those that are available or feasible.

This model of optimising behaviour provides a powerful tool by which to consider labour market behaviour and outcomes. It facilitates analysis of choices about whether or not to participate in the labour force (spend some time working), and once in the labour market, how much labour is supplied (how many hours are allocated to work and how many hours to leisure). More generally, the framework is flexible enough to facilitate the analysis of labour market behaviour when the set of parameters faced by the individual changes. Varying the parameters faced by the individual affects the set of choices available to the individual and hence, her optimal or most preferred outcome.

For example, consider if an individual faces a change in the size of her unearned income. In particular, assume that rather than being equal to zero, unearned income increases so it is equal to some positive amount. This type of transfer may be in the form of a demogrant or lump sum transfer to all individuals. The implication of this is that as at zero hours of work or employment, the individual can now consume a positive amount of commodities. It is likely that such a change will alter whether the individual works and if they are working, the number of hours spent working. In particular, it is likely that an individual who is working originally (when unearned income is zero), will be less likely to work in the presence of the demogrant.

The reason for this outcome may be easily rationalised in the context of the description of behaviour set out above. Consider a demogrant that is exactly equal to the individual's earned income prior to receipt of the demogrant. For example, a demogrant of \$200 per week that is given to an individual who was originally working 20 hours per week at \$10 per hour. It is now possible for this individual to consume the same amount of goods as was the case previously (\$200 per week worth of commodities) and additional leisure at the same time. In fact, it is possible to reduce hours worked to zero and still consume the same amount of commodities as was originally consumed. Moreover, if we assume that leisure consumption increases with income<sup>1</sup>, the additional unearned income provides an 'income effect' that will tend to increase the amount of leisure consumed. This will make labour force participation (positive hours of employment) less likely.<sup>2</sup> For those who continue to work in the presence of the

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<sup>1</sup> An alternative way to express this assumption is that leisure is a 'normal good' (Benjamin, Gunderson and Riddell 1998, 82-83).

<sup>2</sup> Note that the reference to the 'income effect' reflects the implicit assumption that the demogrant only changes the individual's total income and not the price of leisure. Further details are discussed in 2.2.

demogrant, the number of hours worked is likely to be less than that worked prior to the demogrant.

In a similar fashion to that described above, changes to wage rates may be analysed to identify how labour supply (participation and hours worked) varies in response to a change in the price of leisure. Indeed, the strength of the analytical framework described above is that it provides a powerful tool with which to analyse how labour market behaviour changes following alterations in the economic environment faced by the individual. One of the most important ways in which that environment might be altered is through various income support and transfer programs such as HA measures.

The framework described above and used by economists provides a powerful analytical tool with which to characterise and evaluate behaviour. It should nonetheless be pointed out that the approach is open to a number of criticisms. For example, the assumption that preferences are given and well behaved implies that individuals act in a rational manner. In turn, choices over alternate combinations of commodities or bundles are consistent. Kreps (1990), however, describes situations in which individual choices appear to violate some basic properties of preferences (18-22). Further, it is implicitly assumed an individual is aware of her budget constraint and the set of choices available. This assumption of perfect knowledge may be violated if rules relating to programs are complex and or are difficult for the individual to ascertain. In this case, the individual may be unaware of the tradeoffs associated with employment and program participation.

Finally, the model assumes the individual makes a dichotomous choice between employment (or labour market activities) and leisure. Such an assumption is clearly a simplification of the actual array of possibilities open to individuals. It may be that demand side constraints mean that no employment opportunities are available; alternatively, individuals may be engaged in unpaid household production activities such as childcare or voluntary work outside the household. While characterisation of all activities other than paid employment as leisure is a simplification that facilitates modelling of behaviour, it does not cover the range of activities that individuals may feasibly undertake.

Despite the potential limits of the analytical framework used by economists, the approach provides a useful means by which to evaluate behaviour and the role of income support programs on observed outcomes. This issue is now considered.

## **2.2 Income support and transfer programs**

The strength of the analytical framework discussed above is that it is readily amenable to analysing income support programs that transfer resources to individuals. In general, the transfer program changes the economic environment faced by the individual, especially the shape of her budget constraint. The simplest approach is to consider a cash transfer to all individuals that is not means tested or taken away from high-income individuals. This is essentially the situation in which all individuals receive a demogrant as outlined above. In this case, the 'income effect' of the transfer will tend to increase an individual's consumption of leisure assuming that leisure is a 'normal good'. Note that to this point it has been implicitly assumed that the effect of the demogrant is to leave the individual's wage rate (or the price of leisure) unaltered.

To this point, the possibility that the demogrant or transfer reduces as total income (earned and unearned) increases has not been considered. In general, this is not the case. Rather, transfers are means-tested and decrease as an individual's available resources (earned and unearned income) increase. In effect, the transfer is 'taxed away' or withdrawn as income from labour activity (or possibly other sources of unearned income) increase. In this situation, the benefit is said to 'taper off' as income increases.

This feature of transfer programs (the tapering associated with means testing) has an important effect on the individual's budget constraint as it alters the price of leisure. An additional hour of work activity no longer entails a gain of  $\$w$  in consumption. Rather, it entails a gain of only  $\$w(1-t)$  in consumption where  $t$  is the tax-back or withdrawal rate. The reason for this is that for every \$1 of income that the individual earns, the transfer is reduced by the amount  $\$t$ , where  $t$  is generally between zero and unity. Hence, an additional hour of work generates a net gain in commodity consumption of only  $\$w(1-t)$  as the value of the transfer is reduced. An implication of the withdrawal or tapering of the demogrant/transfer is that it changes the price of leisure. In fact, with the introduction of tapering leisure becomes cheaper as an additional unit of leisure now costs only  $\$w(1-t)$  in foregone consumption whereas previously it cost  $\$w$ .

The change (reduction) in the price of leisure may encourage the individual to alter her labour market behaviour independently of any 'income effect' described above. In particular, economic theory suggests that individuals will tend towards to substitute towards (increase consumption of) the relatively cheaper good, in this case leisure. This result is generally known as the 'substitution effect'.

The net impact on behaviour of a transfer or income support program will ultimately depend on the exact parameters of the program and combined influence of the income and substitution effects. The key issue is that the model of labour supply can be readily adapted to incorporate transfer programs and identify their impact on labour market behaviour and outcomes. Importantly, it can assist in identifying when and how transfer programs may create disincentives for individuals to participate in the labour market.

The possibility that transfer program may create severe disincentives for individuals to engage in labour market activity are reflected in the concepts of 'poverty (or unemployment) traps' and 'low-income traps'. The former refers to a situation in which the individual has little or no incentive to move into employment; the latter to the situation where there is little or no benefit for those in employment to increase their earnings through additional work (Whiteford and Angenent 2002, 39). The existence of poverty traps and low-income traps is of concern for a variety of reasons. In the short term, such disincentives to engage in the labour market increase the fiscal burden associated with the transfer program. In the long term, lack of labour market activity may be associated with poverty, and, economic and social exclusion.

The source of poverty and low income traps may be readily identified using the model of labour market behaviour described above. If the individual or household is eligible for a series of transfer programs (including HA), the total amount of benefits available when not working may reduce the incentive to enter the labour force. This is the problem of high 'replacement ratios', where the total benefits from not engaging in employment are high relative to those from labour market (work) activity. Effectively, the individual is able to consume her time endowment in the form of leisure and still maintain an acceptable standard of living by virtue of the transfers that are available under the social security/income support system. This may result in an unemployment trap where there is little or no benefit derived from engaging in employment.

Further, in the presence of means tested transfers additional earned income is associated with the withdrawal or tapering of benefits. In the presence of multiple transfer programs and or a taxation system that taxes earned income, increases in earned income may be offset by reductions in transfers and or the payment of taxes. The net benefit from increasing work effort (and therefore earned income) may be extremely limited. The resultant increase in disposable resources available to the individual or household is small and in extreme situations, the loss of benefits and higher taxes may in fact leave an individual or household worse off when employment income is increased. This creates low-income traps in which individuals have little or incentive to increased work effort.

An alternative way in which to characterise the problem of low-income traps is that of high effective marginal tax rates (EMTRs). EMTRs capture what happens at the margin as income from paid work increases. The EMTR reflects the proportion of each additional dollar earned that is lost either in the form of benefit withdrawal or tapering, and the payment of taxes. If each additional dollar of income results in the loss of benefits and the payment of income tax, the net benefit from increasing work effort may be small (Hulse *et al.* 2003, 3-5). High EMTRs and associated low-income traps arise largely because of the interaction of means-tested transfer programs and the taxation system. Moreover, the problem may be particularly acute when means tests for a number of benefits are applied simultaneously. In this case, the simultaneous withdrawal of more than one benefit, plus any income tax liability, may result the household being worse off from increased work effort.

The problem of poverty and low income traps has been discussed in Australian literature that has examined the labour market disincentive effects of social security programs. For example, Ingle (2000) describes a number of situations in which high EMTRs, in some cases exceeding 100 percent, persist despite recent changes in the tax and transfer systems designed to alleviate work disincentives like those described above. Moreover, recent discussion of reform of the Australian social security system has emphasised the role of financial incentives created by transfer programs on employment and labour market participation (see for example, Reference Group on Welfare Reform 2000, Appendix 4).

Although the existence of low income and poverty traps in Australia is readily recognised, our understanding of the implications of their impact on the labour market behaviour of HA recipients in Australia is limited. In particular, there is little information on how HA programs contribute to low-income and poverty traps for recipients. This research will provide insight into this issue by examining the employment patterns of individuals in the HILDA dataset. In section 3, the nature of HA programs in Australia is set out and the potential labour market disincentives they create discussed. First, however, it is necessary to examine some additional theoretical considerations that relate to HA programs and their impact on labour market outcomes.

### **2.3 Housing assistance programs and labour market behaviour**

The total impact of a transfer program may be characterised as the combination of the income and substitution effects associated with the transfer. Moreover, the analytical framework described above provides powerful insights into the behavioural responses to transfer programs. In the case of HA measures, however, some additional issues arise when determining the impact of transfers on labour market activity of recipients.

There are a number of reasons for this, the first being that under HA programs transfers are generally not cash transfers but rather in-kind transfers. Hence, the program may provide the individual with a dwelling that is to be consumed in its entirety, or a voucher (or rent rebate) that can be used for rental payments only. That is, the HA cannot be cashed out and used to purchase other commodities. In short, HA measures are generally not fungible.

This lack of fungibility of the transfer means that the results concerning the impact of cash transfers on labour supply may no longer be valid (Leonesio 1988a, 1988b). The reason for this relates to the fact that HA transfers may result in the recipient consuming a bundle of commodities she would not have chosen had the transfer been in the form of cash. Depending on the size and nature of the transfer program, HA measures may constrain the recipient to consume a quantity of the transferred commodity (housing) she would not have otherwise chosen. In particular, the individual might be 'forced' or required to consume a level of housing greater than she would have chosen if the transfer program had provided an amount of cash of equal value to the housing transferred.

Leonesio (1988a) points out that given reasonable assumptions about the individual's preferences over leisure and consumption activities, *a priori* it will be impossible to determine the impact on labour supply of an in-kind transfer relative to an equivalent cash transfer. The impact will depend on the extent to which the in-kind transfer changes the consumption choices and on the relationship between the transferred commodity and leisure. Consider goods that are complements with leisure or are generally consumed in conjunction with leisure. In these cases, an increase in leisure consumption is associated with an increase in the consumption of the transferred commodity (housing). For these goods, in-kind transfers may be associated with greater reductions in labour supply than would be the case for equivalent sized cash transfers.

Conversely, goods that are substitutes with leisure may actually induce increases in labour market activity. Substitutes are goods where an increase in the consumption of one good (say leisure) is associated with a decrease in the consumption of the other (such as housing). An in-kind transfer under a HA may effectively 'force' the individual to consume too much of the transferred commodity (housing) relative to what she would consume if unconstrained by the HA program. If increases in the consumption of housing are generally associated with a decrease in the consumption of the substitute good (leisure), the net outcome of the transfer may be to reduce the total consumption of leisure and hence increase time spent working. Moreover, this result holds notwithstanding the fact that a HA program will tend to increase the consumption of leisure via the 'income effect' of the transfer.

The discussion above characterises the relationship between HA programs and labour market outcomes in a somewhat stylised manner. In particular it is argued that transfer programs alter the set of opportunities available to (or the budget constraint of) an individual which in turn alters the incentives for the individual to engage in labour market activities. In the past decade or so, however, a strand of literature has emerged that suggests that HA programs and tenure status more generally influence labour market outcomes in a less direct manner. Originally hypothesised by Andrew Oswald, this line of reasoning suggests that tenure status influences mobility, which in turn affects labour market outcomes (Flatau et al. 2003). For example, public housing tenancy rules might mean if a household relocates to an area with better employment prospects the transfer associated with the HA program is lost or reduced. In a similar vein, home ownership might entail large transactions costs if the household relocates to regions where employment opportunities exist.

The indirect role that HA programs may play in affecting labour market outcomes through their impact on mobility is an important area of ongoing research. In Great Britain for example, there is evidence that public housing tenants are less mobile than others and exhibit higher rates of unemployment (Flatau et al. 2003, 5). In the United States, a number of large-scale social experiments have been conducted to assess the role of mobility on labour market related outcomes for HA recipients (Katz, Kling and Liebman 2001). It is important to emphasise that HA programs may influence observed labour market outcomes in more subtle ways than through the labour supply model described above.

## **2.4 Summary**

The model of labour supply provides a useful analytical framework with which to analyse the labour market behaviour of individuals. Importantly, the model can be readily adapted to incorporate the presence of transfer programs such as HA. A key issue pertinent to this research being that the design of transfer programs, such as HA, may in fact create strong disincentives for individuals to engage in the labour market. This research will explore this issue by examining the labour market behaviour of HA recipients in Australia. In the next section, the key features of HA programs in Australia

are discussed and potential sources of disincentives to engage in labour market activity explored.

Prior to discussing the main sources of HA in Australia, it is worth noting that the analytical framework described above provides a somewhat stylised model of behaviour. It has been noted, for example, that decisions regarding labour market activity are shaped by a set of forces of which the economic considerations and constraints described above represent only one part (Hulse et al. 2003, 5). Notwithstanding this, it is believed that the model of labour market decision-making described above provides a powerful tool with which to analyse the labour market behaviour and decisions of HA recipients.

### 3 AUSTRALIAN HOUSING ASSISTANCE PROGRAMS

Housing assistance measures in Australia take two principal forms, namely Commonwealth Rental Assistance (CRA) and public housing. The former of these is a demand subsidy paid to private renters who meet the required means test. It is an entitlement program and is not rationed. The latter represents an in-kind transfer that is rationed with potentially long waiting lists for those deemed eligible. In both cases, the rules relating to eligibility and entitlement may be seen to generate disincentives for recipients to engage in or increase the amount of work they undertake. That is, create poverty and low-income traps for actual and potential recipients of the programs.

In this section, the characteristics of CRA and public housing are discussed as they relate to the labour market incentives created for individuals. This will provide insight into the possible labour market implications of HA in Australia, including the relevance of overseas studies of HA for understanding how labour market behaviour may be influenced in Australia.

#### 3.1 Commonwealth Rent Assistance

Commonwealth Rent Assistance is an income supplement paid to renters in the private rental market that has, over the past decade, become the dominant form of HA in Australia in terms of expenditure and the number of households assisted. As of June 2003, over 940,000 income units received CRA payments (Department of Family and Community Services 2003a, 109). CRA has been extensively discussed in a number of previous places including Hulse (2001, 2002), and the discussion here will focus on eligibility rules and levels of CRA as they are relevant to how work incentives are affected by program rules.

CRA is available to individuals who receive a transfer from the Commonwealth government and rent in the private rental market. More specifically, CRA is available to an individual if they meet two sets of criteria. The first relates to the fact that CRA is an income supplement paid to individuals who receive a payment from the Commonwealth government. In particular, the following individuals are potentially eligible to receive CRA:

- individuals in receipt of a pension;
- people without dependent children receiving an income support payment who are partnered or over 25 years;
- people without dependent children receiving an income support payment who are single and aged under 25 (21 for Disability Support Pensioners) living permanently away from parents or guardians;
- recipients of ABSTUDY;
- people with dependent children receiving more than the base rate of Family Tax Benefit Part A.

Hence, CRA represents a supplementary payment that is paid in addition to payments payable under the *Social Security Act* or the *Family Assistance Act*.

The second criterion requires that the individual be renting in the private rental market. Rent may entail a number of alternatives including:

- rent, but not payments to a State or Territory Housing Authority;
- service and maintenance fees provided in a retirement village, hostel or aged care facility;
- board and lodgings that includes meals and accommodation;

- site fees for a caravan, tent, mobile or other structure that is used as a principal home;
- mooring fees for a vessel,

(see Centrelink 2003)

CRA is paid to all those eligible at the rate of \$0.75 for every dollar of rent paid above a minimum rent threshold, up to a maximum rate of assistance. The rent thresholds and maximum CRA payments vary depending on family type. Payment levels according to whether CRA is paid as part of a benefit received under the *Social Security Act* or as a result of payments available under *Family Assistance Act* are set out in table 3.1 below:

**Table 3-1– Commonwealth Rent Assistance payments (from 20 September 2003)**

	Maximum rate of CRA	Minimum rent threshold	Rent at which maximum rate of CRA is payable
<b>CRA payable under Social Security Act</b>			
Single or partnered & separated due to illness, no children	\$94.40	\$83.80	\$209.67
Singles, no children, sharer	\$62.93	\$83.80	\$167.71
Couple, no children	\$89.20	\$136.60	\$255.53
Partnered, temporarily separated, no children	\$89.20	\$83.80	\$202.73
<b>CRA payable under Family Assistance Act</b>			
Single, 1-2 children	\$110.88	\$110.46	\$258.30
Single, 3 or more children	\$125.30	\$110.46	\$277.53
Couple, 1-2 children	\$110.88	\$163.52	\$311.36
Couple, 3 or more children	\$125.30	\$163.52	\$330.59

Source: Australian Government Department of Family and Community Services (2003b)

For means testing purposes, CRA payments are considered as part of the base payment under which the income supplement is paid and means tested under provisions that apply to that payment. CRA is the last part of the payment to reduce after the primary payment under which CRA is paid, is tapered off. Taper or withdrawal rates of the primary payments vary according to what form the primary payments take, but they range from 30 percent to as high as 70 percent of earned income.

One consequence of the payment of CRA is that recipients face the withdrawal of income support or transfer payments over an extended income range. This has the effect of prolonging the range of income over which an individual faces potentially high EMTRs (Ingle 1997, 15; Hulse et al. 2003, Appendix 3). For example, recipients of unemployment related benefits face EMTRs of approximately 70 percent over an extensive range of earned income. For singles, this applies approximately to the first \$200-\$250 of earned income per week, and the first \$500 of earned incomes for couples. Ingles (2000) documents a variety of similar situations for government benefit (pension and allowance) recipients other than the unemployed. In the context of the model described in section 2, prolonging the high EMTRs faced by individuals may act as a disincentive to increase labour market activity.



Further, the reduction in CRA payments may be accompanied by the requirement of additional payments through the taxation system, such as the Medicare Levy. The combined impact of the withdrawal of CRA and tax system related payments is to increase the EMTR faced by individuals, in some cases spiking at over 100 percent (see Hulse et al. 2003, Appendix 3). However, EMTRs in excess of 100 percent generally apply over a relatively short range of income.

There is a further problem identified in Ingles (2000) associated with the 'sudden death' or loss of payments when earned income reaches a certain threshold. In particular, the reduction of family payments from full to a partial level when income exceeds a given threshold means that recipients may suffer a discrete reduction in benefits at that point. This effectively creates a 'notch' in the individual's budget constraint, or a large drop in disposable income associated with a marginal increase in earned income. Intuitively, near such a point on the individual's budget constraint she will have little (or more accurately no) incentive to increase income through additional work effort. Ingle (2000) points out that the size of the notch, namely the loss in benefits when the threshold is met and benefits are reduced by a discrete amount, is influenced by the receipt of CRA (11).

It should be stressed that the rules relating to the withdrawal of benefits and payment of income taxation are complex, especially when the individual or household is eligible for a number of income support payments. It follows that assuming individuals are fully aware of the tradeoffs between work and program participation may not be realistic. Care should be taken when interpreting how individuals respond to the incentives created by programs as this may reflect, in part, limited knowledge of the trade-off between employment and program participation.

### **3.2 Public Housing**

Public housing consists of those dwellings owned (or leased) and managed by State and Territory housing authorities. As of 30 June 2002, approximately 345,000 public housing dwellings were occupied with the Commonwealth State Housing Agreement representing the main source of funding for public housing. Much of the following discussion is sourced from SCRCSSP (2003, chapter 16).

Public housing is available to individuals on low incomes and those with special needs. In fact, individuals with a disability represent a disproportionately large share of occupants in total housing. Although people with a disability represented 17 percent of the population aged between 15-64 years in 1998, 39 percent of public housing tenants in 1998 were people with a disability (SCRCSSP 2003, 16.9).

The characteristics of public housing tenants is an important issue when considering the implications of HA measures on labour market activity and outcomes. Moreover, it highlights the need to control for a range of factors when attempting to identify the impact of HA measures on labour market activities. To the extent that individual residing in public housing experience a work limiting disability, lack of labour market activity may be associated with factors other than the disincentive effects created by the HA program. This issue has become more pertinent in recent years as public housing has been increasingly targeted towards individuals with special needs (Hulse et al. 2003, 15). Information in HILDA regarding the disability status of individuals should assist in identifying the role of HA measures on labour market outcomes independently of other considerations.

Unlike CRA, public housing is not an entitlement and the limited numbers of public housing dwellings that are available requires rationing amongst those who are eligible. In general, applicants must be Australian citizens or permanent residents and not own (fully or partially) residential property. Minimum age for eligibility varies between 15 and 18 across jurisdictions. A number of jurisdictions do not specify minimum ages. All applicants must be resident in the State or Territory. Income and assets limits for

eligibility vary by State and Territory, and household size. For example, in New South Wales maximum income limits are \$395 for households consisting of one individual, and \$775 for households of six people (New South Wales Department of Housing 2003). In South Australia, singles must have gross incomes less than \$540 per week and a couple with four children a gross income of \$1,122 per week. The exact manner in which income is calculated also varies across States (South Australia Housing Trust 2003). Definitions of income vary across jurisdictions (SCRCSSP 2003, 16.16-17).

The limited number of dwellings available means that waiting lists exist for public housing. State and Territory governments have a segmented waiting list that gives some applicants priority to access the limited number of public rental properties available. The segmentation of applicants according to need varies across jurisdictions and generally reflects need and or homelessness, and difficulty in assessing appropriate private market rental accommodation.

After allocation, jurisdictions generally provide security of tenure to tenants after an initial probationary period. However, in some cases the tenure is subject to ongoing review. For example, since 1997 new tenants in Victoria (other than those over 65 years of age) have been subject to an ongoing eligibility review. In South Australia, tenants housed after September 1999 who exceed set income limits over three consecutive years and fail to meet a needs test may have their tenure reviewed and a tenure premium applied. The ACT has also introduced limited tenure with regular reviews for tenants commencing after January 2001. The Northern Territory also offers six month to 5 year leases with reviews of eligibility after the completion of each lease.

Public housing operates on a system of rebated rents with the majority of households paying no more than 25 percent of assessable income. Rent payable increases with income up to the point at which the market rate of rent is payable. The income to rent ratio of 25 percent has recently been introduced in New South Wales, Queensland, Victoria, Western Australia and the ACT. The Northern Territory has an income to rent ratio of 23 percent. Previously, States and Territories set the income to rent ratio on a sliding scale, with a higher proportion of income being payable as rent as income rose (Ingle 1997, 19). In South Australia, the income-rent ratio varies depending on location, ranging from 18.5 percent in country regions to 25 percent for other groups. The exact definition of assessable income varies across jurisdictions. As of June 2002, the majority of tenants in public housing received a rebated rent, that is, paid a rent lower than the market rate. The proportion of tenants receiving a rebated rent ranged from 79 percent in the ACT to almost 90 percent in New South Wales (SCRCSSP 2003, 16.18).

The impact of rent setting procedures on EMTRs and therefore employment incentives for residents of public housing is somewhat different to that experienced by recipients of CRA. In many cases, the rent setting procedures for public housing results in the 'stacking' of withdrawal, taper or tax rates when the individual increases her earned income. The reason for this is that the income tests associated with the setting of rent in public housing is separate to any income test used in administering the social security system, or payments under the income tax system. Further, unlike many income tests for other transfer programs, there is no range of income that is regarded as 'free' for the purpose of the income test. Hence, rents increase at a rate of approximately \$0.25 for every dollar of income from the first dollar of income. The EMTR for earned income is effectively an additional \$0.25 in the dollar for above that imposed by any income support program the tenant derives benefits from and or the tax rate imposed by the income tax system.

The limited research into the resultant nature of labour market incentives faced by public housing tenants suggests that there are large disincentives faced by recipients of this form of HA. For example, Queensland Department of Housing (2001) reports the results of analysis conducted for the Northern Territory that suggests that for an unemployed couple with two children residing in public housing, the net gain from one adult engaging in full time employment was an increase in weekly household

disposable income of approximately \$56 per week. Households with other structures (for example no children) benefited even less from participation in employment. These figures point to the likelihood of substantial unemployment or poverty traps for public housing tenants.

Ingle (1997) also details the high EMTRs faced by public housing tenants, even relative to CRA recipients (18-19). For some income ranges, EMTRs exceed 100 percent. Similar findings are presented in Department of Social Security (1993, Attachment 6). To the extent that this makes leisure 'cheaper' in the framework described in section 2, it is reasonable to expect that the income related rents faced by tenants in public housing are likely to discourage labour market (employment) activity. Moreover, given that the benefit associated with tenancy in public housing, this 'income effect' will tend to increase the amount of leisure that is consumed by recipients. The exact nature and extent of the employment disincentives, however, are likely to be highly individualised. The reasons for this include the fact that the EMTRs faced by public housing tenants will depend on what, if any, other transfer payments she receives and the withdrawal or taper rates associated with them. Further, the income test will potentially be influenced by income received by other household members irrespective of the actual contribution made by the others in the household to rent payments.

A final consideration on the likely impact of public housing on labour market activities is that unlike CRA, it is not an entitlement program. Rather, it is rationed through the use of waiting lists. As noted by Fischer (2000) the implication of rationing is that labour market behaviour may be influenced by the existence and nature of the waiting list. In particular, individuals may limit labour market activity to remain eligible and not lose a place on the waiting list. Alternatively, individuals may be encouraged to participate in the labour force given the need to wait until a dwelling becomes available. Ultimately, the nature of the impact on labour market outcomes will be an empirical question.

### **3.3 Summary**

The above discussion suggests that there is ample scope for the labour market outcomes to be substantially influenced by HA measures in Australia. As noted previously, however, there is only limited information on the effect of HA programs on labour market outcomes in Australia. For example, Hulse (2003) reports despite the fact that over 84 percent of CRA recipients are of working age, only around one in ten are working. Approximately one-third of recipients receive income support payments that are conditional on job search and related activities (37). Similarly, few public housing tenants in receipt of Commonwealth government payments through Centrelink were receiving payments requiring active job search (16).

The key issue is that the structure of HA programs in Australia may create disincentives for individuals to engage in and increase labour market activity. In section 4, studies that have analysed similar programs and attempted to quantify the impact of HA on labour market outcomes elsewhere discussed.

## **4 REVIEW OF LITERATURE ON EMPLOYMENT INCENTIVE EFFECTS OF HOUSING ASSISTANCE MEASURES**

The following discussion describes some of the literature that has examined the labour market implications of HA measures. In general, the overseas analyses described have examined how HA measures impact on the employment behaviour and outcomes (labour force participation and hours worked) of HA recipients. The focus on overseas studies reflects the fact that there has, to date, been very little analysis of how HA programs influence the labour market outcomes of recipients in Australia. Moreover, it underlines the need for additional research in Australia on this important aspect of social policy. Much of the literature is drawn from U.S. and reflects two considerations. First, the realisation that HA transfers represent sizable fiscal commitments by governments and, the increasing interest in that country of the role HA measures may play in helping facilitate the transition from welfare to work.

When trying to infer lessons for Australia from the results of analyses of overseas HA programs it is important to emphasise that the labour market incentives created by HA are likely to be program and therefore country specific. At best the results of these studies are instructive for the likely impact of HA measures on labour market outcomes in Australia. There are two reasons for this. The first relates to the HA measures and the institutional characteristics of these programs. In the United States, for example, HA in the form of public housing and demand subsidies are both subject to rationing (Peterson 2000). In comparison, as noted in section 3, in Australia only public housing is rationed and CRA is an entitlement program. Given the need to establish and maintain eligibility for a rationed program over a period of time, the observed labour market behaviour for actual and potential participants may differ somewhat in Australia and the U.S..

The second reason overseas studies should be interpreted cautiously relates to the fact that, as is the case in Australia, HA policies are often delivered in conjunction with other transfer programs (see Hulse 2002; Priemus 2000). The interaction of HA programs, especially as they relate to the tax back or withdrawal rates when the recipient engages in employment, are closely associated with the rules for other transfer programs the individual participates in or is potentially eligible for. To the extent the set of transfer programs available to the individual and the rules associated with them are highly country specific, the results from overseas studies should be treated with caution when applied to the Australian policy environment.

Despite these limitations, overseas studies do provide an insight into the key factors that might influence the labour market behaviour of HA participants in Australia and how the analysis of HA programs may proceed. The discussion below will describe analyses that have examined HA programs in the U.S., the United Kingdom and other countries. As noted above, the majority of recent literature has examined U.S. HA programs and their impact on labour market outcomes. A smaller amount of literature is available from the U.K. and other countries. In each case, following a brief description of the types of assistance available in each jurisdiction, results from some of the key studies are set out.

### **4.1 U.S. Studies**

A number of studies have examined the impact of HA measures on the labour force activity of recipients in the U.S.. More recently, much of the literature has considered the role of HA receipt on the welfare to work transition in the context of fundamental changes to welfare in the U.S., especially the placement of lifetime limits on eligibility for some means-tested benefits. Detailed discussions of the history of HA in the United

States are set out in Olsen (2001) and Peterson (2000). The main forms of HA considered in the literature are of two types.

The first is public housing, with public housing projects owned and operated by local public housing authorities (PHAs). As of 1998, there were approximately 1.3 million households living in public housing (Peterson 2000, 141). Public housing provides recipients with the use of a publicly owned unit with dwelling size determined by family size and composition. Traditionally, households allocated a dwelling were required to pay 30 percent of their 'adjusted income' as rent. Recent changes to this rule under the *Quality Housing and Work Responsibility Act* of 1998, however, reduce the amount of income lost in higher rent payments as earned income increases. These changes included the possibility of flat rents and the adoption of earnings disregards where earned income was ignored for a limited period of time for the purpose of setting rent levels (see Miller and Riccio 2002, 3-24). In the past, adjusted income included payments from Temporary Aid to Needy Families (TANF, formerly Aid to Families with Dependent Children or AFDC) as income, but not the employment related EITC (Earned Income Tax Credit) supplement. TANF represents the largest single cash transfer or welfare program in the U.S. for needy families and it differs significantly from the program it replaced, namely AFDC. Whereas AFDC was an entitlement program for needy families with children that potentially provided benefits for life, TANF imposes lifetime limits (generally 5 years) on the receipt of payments and emphasises the transition from welfare to employment. This fundamental change in the nature of the welfare program has generated interest in the role that HA programs may play in facilitating the transition to employment for TANF recipients facing the end of their lifetime access to welfare. Other in-kind transfers, such as food stamps, are also not considered as adjusted income (Peterson 2000, 157; Fischer 2000, 151).

The second major category of HA measure in the U.S. are the demand side subsidies in the form of section 8 certificates or vouchers. Traditionally, the voucher and certificate programs operated in a very similar fashion but nonetheless contained a number of important differences. In 1998, the two programs were consolidated under a single set of rules corresponding to those of the voucher program. Under this program, the U.S. Department of Housing and Urban Development (HUD) contracts with a local agency such as the local PHA to operate the program. Upon application, a family enters a waiting list and once at the top of the waiting list, receives a voucher or certificate. At this point, tenants must locate an appropriate dwelling within a limited period to make use of the voucher or certificate. Previously certificates could only be used in the local area where they were issued. Vouchers on the other hand, could be used anywhere in the country. Today both vouchers and certificates can be used nationally (Peterson 2000, 144).

Section 8 certificates and vouchers allow recipients to live in private housing units with rents at or below the local fair market rent (FMR). The FMR is defined as the rent of a safe and sanitary unit in the 40<sup>th</sup> percentile of rents with the same number of bedrooms in a particular county or Metropolitan Statistical Area. Tenant rents are calculated in a similar fashion to the formula used for public housing with the remainder of the rent paid by the government. Section 8 vouchers allow tenants to choose to live in dwellings with rents that exceed the FMR. However, any rent in excess of the FMR is paid in full by the tenant. The voucher pays a share of the rent equal to the FMR less 30 percent of the household's adjusted income (Fischer 2000, 151).

As noted previously, a key feature of HA programs in the United States is that they are not entitlement programs and rationing applies to both forms of assistance. Eligibility for the programs (public housing and the section 8 program) requires that the household be 'low income', based on the median income for households in the local city or region. The budgetary ceilings that limit the housing subsidies mean that eligibility is generally constrained to those households with low income levels defined as 80 percent of the median income for households of the same size in the local

region. Most subsidies, however, are limited to 'very-low income' households with income levels defined as 50 percent of the median income for comparable households (Fischer 2000, 152).

HA is also rationed by virtue of waiting lists or queuing. Once eligibility for HA is established, the household joins a waiting list prior to being granted benefits. The rules relating to the ability of households to turn down an offer of HA and not return to the bottom of the waiting list vary across PHAs and are discussed in Petersen (2000, 154-55). Average waiting periods for assistance can be long and, in some cases, can be misleading due to the closure of waiting lists to new households. Nonetheless, Petersen (2000) reports that nationally, the average voucher or certificate holder had to wait approximately 28 months before receiving a voucher. In larger PHAs (those with 10,000 to 30,000 section 8 recipients), waiting lists averaged around 42 months. An interesting point noted in Petersen (2000) is that average waiting lists for section 8 HA is approximately twice that for public housing. One possible explanation being that demand based subsidies that can be used in the private market are preferred by virtue of the enhanced choice that such HA provides. It should also be noted that there is provision for households with special needs (such as substandard housing or high rent to income ratios) to be given priority in the allocation of HA. Although originally established at the federal level, since 1997 local PHAs have exercised greater control over preference rules.

Once in receipt of assistance, a household's income can exceed the income thresholds required for eligibility without losing access to HA. Certificate and vouchers holders can earn up to 50 per cent of the low-income threshold. At that point, however, the value of the subsidy would have been reduced to zero in many cases. Public housing households can remain in dwellings and continue to pay 30 percent of adjusted income in rent irrespective of how much is earned (Fischer 2000, 152).

Shroder (2002) provides a good review essay on the impacts of HA on labour market activities of recipients. Nonetheless, it is instructive to consider in more detail research that has attempted to quantify the impact of HA on labour market activity. There are a range of reasons why HA may impact negatively on labour market behaviour. Following the discussion in sections 2 and 3, these disincentives may, at least partially, be associated with the high EMTRs faced by HA recipients. In the U.S., the rules defining the rent payable by HA households mean that HA benefits decrease by approximately 30% for every dollar increase in 'adjusted income'. The exact impact of HA benefit reduction on the EMTRs faced by households will depend on where additional income is sourced from and the set of programs the household participates in. The EMTR associated with HA will generally be less than 30 percent, however, due to the withdrawal of other transfers and the resultant decrease in 'adjusted income' for a household that increases its earned income. That is, the 30 percent loss of HA benefits generally does not simply stack on top of the EMTRs imposed by other programs.

This is somewhat different to the stacking of EMTRs from different programs that is faced by public housing tenants in Australia. Fischer (2000) describes the effective marginal tax rates being applied to TANF/AFDC recipients who also receive HA. For example, for residents of Dallas, Texas the receipt of federal HA can act to increase the EMTR from -4.4% to over 22.4% over some ranges of income (154). Again, this is still (slightly) less than the 30 percent that would come from a simple stacking of withdrawal or taper rates over programs. In many cases, after taking account of the reductions in other transfer payments such as AFDC/TANF, every extra dollar of earned income reduces the value of HA measures by approximately \$0.10 (Fischer 2000; see too Coe *et al.* 1998, 4).

The two other sources of labour market disincentives are identified by Fischer (2000). The first is that associated with the income effect. As Yelowitz (2001) reports, HA generally confer substantial benefits on recipient households, often far in excess of the benefits derived from other programs. This creates an 'income effect' discussed in

section 2 and may allow households to reduce labour market activity and survive on a combination of assistance from public and private (friends and family, charitable organisations) assistance (Fischer 2000, 154). Finally, as discussed previously the rationing of HA in the U.S. creates waiting lists that may induce potential recipients to maintain low incomes (limit labour market activity) so as to maintain eligibility.

One of the earliest studies of the effect of HA on labour market behaviour was by Schone (1992). Following Leonesio (1988a, 1988b), Schone (1992) argues that a means-tested income support program may, under a reasonable set of assumptions regarding preferences, actually act to increase the amount of work by recipients of in-kind transfers. Using the Survey of Income and Program Participation (SIPP), the labour supply behaviour of a set of female headed households is predicted and the impact of public housing receipt on labour supply simulated. Schone demonstrates that under a realistic set of assumptions, participants in the in-kind transfer program (public housing) are have weekly hours of work approximately 5 percent higher than non-participants. It should be stressed, however, that the analysis relies on a highly stylised set of assumptions regarding preferences and may not be readily generalised.

Ong (1998) examines the relationship between subsidised housing and the number of hours worked by female recipients of welfare (AFDC) in California. The analysis in Ong (1998) consisted of a series of Tobit models to identify the determinants of the number of hours worked by welfare participants. The Tobit model takes account of the fact that many individuals will report zero hours of work, and those reporting non-zero hours are not a random sample of the population.

Ong (1998) captures the impact of participation in HA programs by use of variables reflecting the level of rent paid by individuals, and dummy variables indicating program (public housing or section 8) participation. Unfortunately, the measure of rent used is the 'out-of pocket' cost to the household, a figure that is likely to suffer from endogeneity given that rents are determined, at least partly, the level of labour market activity. Ong (1998) argues that any resulting bias is likely to be small (784). The results of the analysis suggested a small positive (but statistically insignificant) effect on hours worked for recipients of public housing compared to those renting in the private market. Section 8 HA recipients, however, were found to work a statistically significant 60 hours more per annum on average compared to those renting in the private market not receiving HA, *ceteris paribus* (786).

Ong (1998) also compared the labour market activity of a subset of his sample, namely those actually receiving HA. While there is evidence that HA recipients residing in section 8 dwellings work additional hours to those in public housing, the exact reason for this outcome is unclear. In particular, it may represent a selection effect in that individuals/households more likely to engage in employment self-select into the section 8 HA program. One final caveat identified by Ong (1998) is the applicability of the results beyond the specific sample analysed, namely welfare recipients in California. Differences in public housing across jurisdictions may limit the extent to which the results may hold beyond California.

Fischer (2000) examines the effect of HA benefits on two aspects of labour market activity, namely labour force participation and annual hours worked. Fischer notes that a problem with any analysis such as this is the endogeneity between program participation and labour supply. Further, he is critical of research that has attempted to use exogenous variation in the HA subsidy characteristics, especially the size of the FMR, to identify labour market effects of HA programs. Correlation between FMRs (as a measure of the value of the housing subsidy) and labour supply may occur through some mechanism related to housing costs but unrelated to the subsidy. Further, variation in FMRs may not reflect true variation in the value of the subsidy, but rather simply variation in the local cost of housing of a constant quality. Fischer overcomes these problems by comparing the labour supply of AFDC recipients who receive HA to those who do not receive HA, exploiting variation in the value of HA caused by

differences in AFDC levels and the effect of rationing. It is possible to do this because AFDC recipients are nearly always eligible for HA, but not all AFDC recipients receive HA due to rationing. Hence, among AFDC recipients it is reasonable to hypothesise that variation in labour market activity does not impact on receipt of HA measures.

The analysis in Fischer (2000) consists of two components. The first considers the annual hours worked and the labour force participation decision for a set of single females who received AFDC sometime between 1986 and 1992. For this analysis, Fischer (2000) uses linear regression techniques and logistic regressions respectively. The second component of the analysis is an examination of the labour supply of HA recipients immediately prior to and after HA is initially received. This analysis allows identification of the effect of HA on AFDC recipients.

The results of the analysis in Fischer (2000) suggest that federal rental subsidies reduce labour supply through both income and marginal tax (substitution) effects. In particular, an increase in AFDC payments will tend to reduce the value of HA subsidies and result in both increased labour force participation and hours worked among those working. For example, consider an *increase* in monthly AFDC benefits of \$100 that leads to a \$30 *decrease* in the value of the housing subsidy received. Fischer (2000) finds such a change is associated with an increase in labour force participation of 16% and an increase of 41 hours worked per annum among welfare participants who received HA. Further, the comparison of labour market behaviour prior to and after receipt of HA also showed a negative effect on participation and hours worked of HA receipt (165).

Like Fischer (2000), Painter (2001) also examines the effect of HA on labour force. A key contribution of the analysis in Painter, however, is the attempt to explicitly account of the rationing aspect of HA measures using information on the length of the waiting list for HA. A problem with the analysis, for the reasons described in Fischer (2000), is the use of the FMR as a proxy for the value of the housing subsidy available to households. Using data from the SIPP, Painter considers the labour market behaviour of a sample of female headed households. A key feature of the analysis in Painter (2001) is that he incorporates information about the time spent waiting for access to HA. Estimation using a probit specification on the decision to participate or not in the labour force suggests that an increase in the monthly value of housing benefits in the order of \$100 will lead to a decrease in labour force participation of approximately 1.6 percent.

Painter also finds that waiting lists exert an important influence on labour market behaviour. In particular, the longer an individual is required to wait for HA the greater the likelihood of labour force participation. Elimination of the waiting time for HA would reduce labour force participation by approximately 6.4 percent. An interesting result in Painter (2001) is the recognition that failure to recognise the disincentives associated with potentially very large transfers provided under HA programs may result in an underestimate of the overall impact of transfer programs on labour market behaviour. In particular, Painter (2000) finds that including the impact of HA programs raises the labour force disincentives associated with transfer programs by an additional 21 percent.

Yelowitz (2001) also considers the impact of HA program parameters on labour market outcomes. He begins by considering the impact of HA measures on the budget constraint or set of choices available to individuals. Variations in a range of parameters that define HA measures is considered graphically and the position of 'notches' in the individual's budget constraint is identified. Notches capture the situation in which additional work actually results in a discrete drop in disposable income and consumption as the remaining value of a subsidy is lost and have previously been discussed in section 3 above (Yelowitz 2001, Appendix). The magnitude and exact 'positioning' of the notch on the individual's budget constraint will be a function of an



individual's wage rate, the rules relating to the rate at which housing related benefits are withdrawn or taxed away, the size of the housing subsidy, and the size of the FMR.

Using data from the SIPP and Current Population Survey (CPS), Yelowitz (2001) exploits variation in HA program generosity from a number of different sources. This includes geographic differences in benefit levels, variation across time through changes in the FMR and finally, the gender composition of families. Yelowitz exploits this variation to identify the impact of the public housing subsidy on labour market behaviour of female-headed households. The latter source of variation, namely that associated with the gender composition of the family, reflects the fact that what constitutes acceptable housing depends on the gender composition of children. Hence, a household with one female and one male child gets a voucher for a three-bedroom dwelling, whereas a household with two male children gets a voucher two-bedroom dwelling.

In his analysis, Yelowitz (2001) considers a number of labour market outcomes including labour force participation and intensity of work effort (full-time versus part-time employment). The approach adopted in Yelowitz is effectively a reduced form specification that considers how variation in the parameters of HA programs including the size of the maximum subsidy (the FMR), the low-income limit that defines eligibility to HA, and the size of any notch in the individual's budget constraint affects labour market outcomes. The size of the 'notch' is defined as the value of any implicit housing subsidy at the point a household loses eligibility for the program. Yelowitz finds that raising the FMR has a significant negative impact on work effort. Given a baseline labour force participation of 70 to 75 percent, a one-standard deviation increase in the maximum level of HA benefits (the FMR), results in a reduction in labour force participation by around 4 percent. Similar results are found for specifications that include measures of the 'notch' in the budget constraint, namely that increases in it create 'strong disincentives to work'.

In addition to the econometric analyses described above, a series of studies have sought to identify what, if any, impact the receipt of HA has on the transition for welfare to work in the context of major policy reform in the United States. As described above, the entitlement program AFDC was replaced by TANF under the *Personal Responsibility and Work Opportunity Reconciliation Act*. The effect was to change in a fundamental way the nature of welfare in the United States. The most imposing change being the lifetime limits on how much time individuals may spend receiving program payments. In this context, the role of HA measures in facilitating the transition from welfare to work has become a key concern of policy makers (see Sard and Daskal 1998; Zedlewski 2002).

In most cases, the analysis has not been concerned with the exact reasons for the different outcomes among the HA and non-HA groups. For example, differences may arise from labour market disincentive effects of the HA program, spatial considerations related to HA programs and where they allow households to locate, or the characteristics of recipients and non-recipients. A number of these studies assess the impact of HA measures on the welfare to work transition through simple comparison of mean outcomes (employment, income, welfare recidivism etc) for HA and non-HA households. Nonetheless, the papers are useful in documenting the labour market implications of participation in HA programs.

For example, Mancuso *et al.* (2003) considers the outcomes for families that exited TANF in the 4<sup>th</sup> quarter 1998 in a number of Californian counties. Using a mix of administrative and survey data, the mean outcomes for households that received HA and those that did not receive HA at the time of leaving TANF were compared. Also considered were households receiving HA in January 1999 but who were not receiving TANF at that time. The results of the analysis suggest that HA recipients were more likely to experience welfare recidivism, have lower wages and income than non-HA households, and were more likely to be employed full time 18 months after leaving

TANF. The reason for this apparent contradiction being that non-HA households generally had more adults and therefore additional potential sources of income. In a similar analysis of Massachusetts welfare leavers, Nagle (2003) finds similar full time employment rates among HA and non-HA households, but that HA households generally possess characteristics associated with poorer labour market outcomes. Nonetheless, there did not appear to be any reluctance on the part of HA households to engage in employment despite the possibility of losing part of their rental subsidy. Van Ryzin *et al.* (2003) reports that participation in HA programs had little or no impact on short-term transitions from welfare to work for TANF leavers in New York City.

Bania *et al.* (2003) find a slight positive impact on employment from public housing but no impact from other forms of HA (section 8 vouchers/certificates and other project based assisted households) on the welfare to work transition in Cleveland, Ohio after controlling for personal and neighbourhood characteristics. The authors of the analysis note, however, that the results should be treated cautiously given the likelihood of misclassifying HA recipients and the possibility of omitted variables. Conversely, Verma and Hendry (2003) find that Californian HA recipients in section 8 tenure-based assistance have slightly more positive employment outcomes when examining a set of welfare recipients who left the TANF in the third quarter 1998. Finally, Corcoran and Heflin (2003) examine a series of labour market related outcomes for a set of women who receiving assistance in Michigan in February 1997. They find no evidence that HA affects the probability of being employed and contrary to Ong (1998), weak evidence of a positive association between public housing residence and the number of hours of employment (82-85).

Some other evidence of the impacts of HA measures on labour market outcomes is provided by the results of large scale random assignment social experiments designed to assess the potential for financial incentives that 'make work pay', and thereby induce greater workforce participation by welfare recipients. Miller (1998) reports on results from the Minnesota Family Investment Program (MFIP) that imply larger positive effects on employment and earnings for MFIP participants receiving HA at the time of assignment compared to those who were not receiving HA. This result is counter-intuitive as the parameters of the experiment *suggested* that HA should have shown a smaller response to the financial incentives created by MFIP. The exact reason for the result remains unclear and the analysis could not rule out the possibility that MFIP rules actually altered the financial rewards from working, especially part-time work, for HA recipients in a favourable manner and induced greater employment activity on their part relative to non-HA households.

Shroder (2002) notes that the results from analyses of the impact of HA programs on labour market outcomes should be treated cautiously. The data and techniques used in these studies are subject to a number of methodological problems that the studies described above, and those discussed below, often ignore or deal with inadequately. Notwithstanding these caveats, the studies provide some evidence on the predictions of the labour supply model described in section 2. The evidence is not, however, unambiguous and ultimately can only be resolved with appropriate empirical analysis.

## **4.2 U.K. Studies**

Analysis of HA measures in the United Kingdom has, like that for the United States, examined their impact on labour market activity by focussing on two key HA policies, public or social housing and tenant based demand subsidies in the form of Housing Benefit (HB). Social housing, which comprises Local Authority and Housing Association provision has been diminishing in importance in recent decades as policies designed to promote home ownership have been pursued (Bingley and Walker 2001; Wadsworth 1998, 381). The declining labour market fortunes of those in public housing in the U.K. have been documented in the literature and largely appear to reflect the debilitating effect of recessions on those residing in social housing. Increasing concentrations of

low skilled individuals have resulted in poorer employment and earnings outcomes for those tenants. Interestingly, there is evidence that it is not unwillingness on the part of social housing tenants to take low paying employment that has caused the deteriorating labour market outcomes for this group (Wadsworth 1998, 389). A reluctance to do so may be consistent with a disincentive effect associated with high rates of benefit withdrawal when entering into employment.

Housing Benefit in the United Kingdom is a means-tested benefit designed to pay all or some of a tenant's rent while unemployed or on low income. Importantly, and unlike in Australia or the U.S., it is payable to private tenants in addition to tenants in public housing. The amount of HB payable is equal to rent payable less a portion of 'excess income' formula and a deduction to take account of the deemed contribution of other non-dependants in the household to the rent (Giles *et al.* 1997, 51). Excess income is defined as earned income net of income tax and social insurance contributions. It also includes most social security or welfare benefits, including in-work benefits. The definition of excess income makes provision for an earnings disregard and a needs based deduction set as a function of household size and composition. The taper or withdrawal rate applied to HB in the U.K. is set at 65 percent.

As noted for the U.S. and more generally when considering the labour market incentives created by HA policies, a key issue is that the combination of withdrawal rates for HA measures and other welfare benefits may create minimal incentives for recipients to engage in or increase their work effort. Brewer (2000) reports that the effect of HB is to 'dramatically reduce the financial incentive to work' (21). For example, moving into part-time minimum wage work the combination of the tax system and withdrawal rates on benefits means that recipients can keep less than one-third of earnings. Although similar impacts hold for those in the United States, HB is relatively less important there among the low-income population compared to the United Kingdom.

Giles *et al.* (1997) report that many social renters looking to increase the number of hours worked or enter the labour force face high EMTRs in excess of 60 percent. Moreover, the ratio of total benefits (including HB) when unemployed is sufficiently high to act as substantial disincentive for individuals to actively seek out employment. Bingley and Walker (2001) analyse the impact of HB on employment incentives using a sample of women derived from the Great Britain Family resources Survey. The analysis uses a multinomial probit to analyse the decision to participate in the labour force, and having decided to participate, the decision to work full-time or part-time. The decision to take-up HB is treated as an endogenous variable and is allowed to depend on the level of benefits. To facilitate interpretation of the results, Bingley and Walker (2001) simulate behavioural responses when policy parameters are changed, including the level of HB. They find that HB has similar impacts on labour supply decisions as other programs suggesting that there is little or no stigma attached to receipt of the benefits under the program. Further, assuming that HB taper binds, an increase in the taper is associated with a decrease in the proportion of individuals not working. This captures both an income effect (lower income reducing the consumption of leisure) and a substitution effect (lowering the return from additional employment). The increase in participation is offset, however, by a shift from full-time to part-time work so that overall average hours worked is largely unchanged.

### **4.3 Evidence from other countries**

A limited amount of information is also available about the impact of HA measures on labour market outcomes in other countries. Some of these studies are discussed in Hulse (2003, Appendix 1). In the case of New Zealand, Accommodation Supplement (AS) is a means-tested benefit administered within the national income support schemes and provides a payment of \$0.70 for each additional dollar paid in accommodation costs up to a maximum ceiling (St John and Rankin 1998, 30-32). Like

Australia, the maximum benefit varies with family size but unlike, it also varies with geographical location. Also, similar to RA in Australia the taper rate for AS is not stacked on that of other benefits, and therefore does not exacerbate the problem of high EMTRs (Hulse 2002, 43).

Housing assistance programs in Canada are discussed in Steele (1998). HA is a provincial responsibility and is provided for the most part as a component of general social assistance payments (Hulse 2002). The 'income deficit model' means that for individuals eligible for means-tested social assistance payments, a shelter allowance (up to an allowable maximum) forms part of the total amount of social assistance payable. The amount of social assistance is then tapered off at different rates (depending on the province) as earned income increases.

Evidence on the impact of HA programs in Australia is limited. Whereas the potential role of Australian HA programs to create labour market disincentives has been acknowledged for some time, there is only limited evidence on the actual impact of HA on labour market outcomes (see Hulse et al. 2003, 1-2). For example, Barrett (2002) finds evidence that receipt of HA in the form of public housing in New South Wales is associated with lower probability of exiting an important social security program. This *may* be consistent with an employment disincentive effect associated with the large subsidy received by public housing recipients in NSW. Further, Hulse *et al.* (2003) represents an important recent contribution to the literature on identifying the labour market implications of HA programs.

#### **4.4 Summary**

The discussion in this section has examined overseas analysis of HA on labour market outcomes for participants. The results of this analysis are largely consistent with the economic theory discussed in section 3. For example, Yelowitz finds that notches in the budget constraint create a disincentive for work, and Painter identifies evidence consistent with the income effect of HA programs.

Given the HA programs in Australia also create disincentives for work *similar* to those in the U.S. and other countries, it is likely that similar effects on labour market behaviour will be associated with HA programs in Australia. This research is intended to fill, at least partly, gaps in our knowledge of the impact of HA programs in Australia on the labour market outcomes exhibited by recipients.

## 5 CONCLUSIONS

This study aims to contribute our knowledge of the potentially adverse consequences of HA programs for labour market behaviour in Australia. The discussion in section 2 spelt out the basic framework of analysis for this research, namely the model of time allocation in the presence of income transfer programs. When allocating time between labour (market work) and leisure activities, transfer programs may induce individuals to 'consume' more leisure than they would in the absence of the program. If the incentives to do so are substantial, individuals may be faced with an unemployment or low-income trap. Consequently, there may be little or no incentive to increase labour market activity. In addition to the immediate fiscal burden associated with such an outcome, this may have deleterious long-term effects on social or economic participation of HA recipients.

In section 3, the discussion described why the two most important HA programs in Australia may generate disincentives to participate in or increase labour market activity. For recipients of CRA, the means-testing rules associated with the program result in potentially high EMTRs over an extended range of income for recipients. In the case of public housing recipients, the potential stacking of withdrawal or taper rates means that EMTRs may be very high. In these situations, there may be substantial disincentives for greater labour supply on the part of recipients.

In section 4, results of analyses of overseas HA programs, especially those in the U.S. were discussed. These studies present a number of important results relevant for any analysis of Australian HA programs. First, the studies are generally consistent with the theoretical model of labour market behaviour in the presence of transfer programs. Further, the studies highlight the need for careful analysis of the determinants of observed behaviour. Participation in HA programs and the parameters that define benefits represent only one set of influences that determine labour market behaviour. Other factors also influence observed outcomes and accounting for those factors is important when identifying the independent effect of HA.

The research questions posed in this study are:

- Do poverty traps and incentives exist for individuals in receipt of HA in Australia to participate in the labour market?
- Do poverty traps and related labour market incentives vary for individuals/households with different characteristics?
- Do poverty traps differ under different HA programs?
- Are varying patterns of labour force activity and income support among beneficiaries of HA in Australia?
- What determines the participation in the labour force of HA recipients, especially as they relate to the structure and parameters of HA programs?
- Can HA programs be structured to eliminate or minimise incentives for recipients to engage in the labour market?

The next steps in this research will be to undertake empirical analysis of the labour market activities of HA recipients in Australia using the HILDA dataset. Key features of the HILDA dataset include the fact that it is representative of the Australian population and contains a wide range of information on labour market behaviour. In addition, it includes information on the tenure status of respondents including public housing tenancy. Moreover, preliminary analysis of the data indicates that recipients of CRA can be identified with an acceptable degree of accuracy. Together, this information will allow the labour market behaviour of HA recipients in Australia to be examined

The empirical analysis will proceed by identifying the set of households/individuals in receipt of HA. The characteristics and behaviour of individual's benefiting from HA will be compared to the non-housing assisted population. Further, the characteristics and behaviour of individuals/households in receipt of alternative sources of HA will be compared and contrasted. Examination of the determinants of labour market activity of HA, controlling for other factors, will proceed using appropriate statistical tools.

Further analysis of HILDA will commence forthwith.

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