Final Report

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

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LIST OF ABBREVIATIONS

ABS - Australian Bureau of Statistics

ACT - Australian Capital Territory

CRA - Commonwealth Rent Assistance

DSP - Disability Support Pension

EMTRs - effective marginal tax rates

FaCS - Department of Family and Community Services

FTB-A – Family Tax Benefit-Part A

HA - housing assistance

HILDA - Household Income and Labour Dynamics in Australia

PP – Parenting Payment

NSA – Newstart Allowance

NT - Northern Territory

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

SIHC – Survey of Income and Housing Costs

EXECUTIVE SUMMARY

An economic model of labour market activity points to the possibility that the receipt of housing assistance (HA) measures may be associated with disincentives to be actively engaged in the labour market. Income and substitution effects associated with the program support may encourage individuals to choose to work less than they would in the absence of income support measures. At the same time, it should be recognised that receipt of HA may facilitate greater labour market activity. This may arise from opportunities to relocate to regions with better employment prospects or the existence of positive neighbourhood effects. The nature of the disincentive is an empirical question that can be addressed with appropriate analysis of data. The overseas evidence on this issue is ambiguous and in Australia very little evidence exists of the effect of HA programs on labour market outcomes.

The HILDA dataset was used in the present analysis of the impact of HA measures on labour market activity. Although the HILDA dataset contains a plethora of information that can be exploited to examine housing related issues, it does not contain requisite data on CRA receipt: thus it is necessary to impute the receipt and amount of CRA for individuals using other data in HILDA and the decision rules used by Centrelink to determine eligibility. The individuals and households identified as receiving HA measures in HILDA, either in the form of CRA or public housing, generally have characteristics that are largely consistent with *a priori* expectations. For example, public housing households tend to have lower income levels than those in the private rental market, and also be located in areas with relatively low levels of socio-economic advantage.

A number of conclusions arise from the analysis of the role of HA measures on labour market behaviour. First, there is *some* evidence that receipt of CRA reduces the likelihood that an individual is observed to be engaging in paid employment. Conversely, the analysis of hours worked suggests that receipt of HA measures, especially CRA, does not impact on the choice of hours worked. For working age non-disabled public housing tenants the engagement in the labour force is more limited than that of a comparable population that do not reside in public housing. Moreover, there is *some* evidence that entry to public housing coincides with a reduction in labour force participation and hours worked amongst those working.

The analysis in this project has provided some insight into the impact of HA measures on labour market activity and outcomes for recipients of HA. The results from the analysis suggest that the programs do not, *per se*, have a sizeable or substantial impact on labour market activity for recipients of the HA measures. It should be stressed, for example, that the receipt of CRA is conditional on the receipt of other government payments. To the extent that individuals in receipt of CRA face labour market disincentives associated with poverty traps or low income traps, this will in part reflect those of the primary payment that is paid in conjunction with CRA. Hence, reducing the disincentives for recipients of HA programs to engage in the labour force (especially CRA recipients) cannot be dissociated with the broader question of how to limit the disincentives from income support programs more generally.

In terms of the original research questions posed by the project, the following conclusions may be set out. In relation to the nature of the poverty traps and incentives for individuals and households in receipt of HA in Australia to participate in the labour market, the situation depends on the HA received and the type of

household. For example, CRA recipients often face the withdrawal of income support or transfer payments over an extended range of income. This has the effect of prolonging the range of income earning activity where the individual faces potentially high EMTRs. For public housing tenants rent setting procedures result in the 'stacking' of withdrawal, taper or tax rates when the individual increases her earned income. The net result is that public housing rent setting procedures tend to increase the EMTR faced by the HA recipient.

The analysis set out in this report is essentially a reduced form approach in which the role of the receipt of HA measures on certain dimensions of labour market activity has been considered. Ideally, separate identification of the various pathways by which HA measures may influence labour market behaviour should be investigated. Hence, questions investigating the separate role of high EMTRs produced by the 'stacking' of taper rates under public housing rent setting rules; the prolonging of relatively high EMTRs under CRA; and, any indirect costs or benefits associated with locational aspects of HA measures (fixed location under public housing and location choice under CRA), warrant further investigation.

The final research question concerned the issue of how HA programs might be structured to eliminate or minimise disincentives for recipients to engage in the labour force. The analysis undertaken for this project provides some limited insights into this question. First, it is noticeable that the more limited engagement of public housing tenants may largely be explained by the allocation criteria by which tenure in public housing is granted. For example, a disproportionately high proportion of individuals in public housing are characterised as having a disability. In these circumstances, average labour market activity of public housing tenants is expected to be lower than that of the population in general. With a limited supply of public housing, however, it is unlikely that an appropriate policy response to improve the engagement of public housing tenants in the labour market is to allocate those limited tenures to a more 'work ready' set of tenants. Nonetheless, the stacking of taper/ withdrawal rates is a potential source of labour market disincentives that could possibly be addressed by reconsidering the relationship of income and asset tests where the public housing tenant is also in receipt of a government payment. This may ameliorate the potentially high EMTRs faced by public housing recipients. With respect to CRA, mitigating any labour market disincentives linked to the HA payment cannot be dissociated from the primary payment under which the HA is received.

Finally, the analysis in this project should ideally be supplemented along a number of lines. First, analysis of additional HILDA data as it becomes available would prove useful. In this context, further refinements to the imputation process for estimating HA receipt as and where possible should be made. Moreover, the analysis should be supplemented with additional analysis of the labour force engagement of CRA recipients. One possible avenue being the examination of administrative data, in particular the FaCS longitudinal dataset, that documents the receipt of government payments over time. A key issue requiring additional analysis in any future research is the individual role of the different dimensions of HA measures. For example, any disincentive effects associated with high EMTRs would ideally be independently identified from any positive neighbourhood or location effects that may be associated with receipt of HA measures. The HILDA dataset, for example, contains information on income (including receipt of government payments) and family structure that may be used to calculate EMTRs faced by individuals and or households. Future work like that undertaken for this project may incorporate this additional information into the analysis.

1 INTRODUCTION

This paper represents the final report of a project examining the impact of housing assistance (HA) measures in Australia on the labour market activity of recipients. The study was motivated by a number of considerations. The first was a recognition that HA measures, both public housing and Commonwealth Rent Assistance (CRA), represent important social programs that benefit over one million Australians annually. In addition to assisting large numbers of individuals and households, such programs also represent large fiscal commitments on the part of governments. In 2002-03 expenditure on CRA was in the order of $1.8 billion.

It is also true that for such an important set of programs, there was little information on how these measures affected labour market behaviour. Much of the previous analysis that had examined the influence of HA measures on labour market behaviour had focussed on overseas programs. Given the unique nature of Australian HA programs, however, the results of that research cannot be directly applied to the Australian environment.

This project had a number of aims including reviewing overseas literature that examined the incentives for participation in the labour market created by alternative HA programs and the labour market outcomes of HA recipients. Further, the project sought to compare and document the labour market activities of HA recipients in Australia using the HILDA (Household Income and Labour Dynamics in Australia) dataset, and subsequently, to estimate a series of econometric models to identify the determinants of participation in the labour market (especially HA program parameters) by HA recipients.

The research questions posed in the project were:

- What poverty traps and incentives exist for individuals and households in receipt of HA in Australia to participate in the labour market?

- For households/individuals in receipt of benefits from a given HA program, how do poverty traps and related labour market incentives vary for individuals/households with different characteristics?

- How do poverty traps differ under different HA programs?

- What patterns of labour force activity and income support receipt are observed 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?

- How might housing assistance programs be structured to eliminate or minimise disincentives for recipients to engage in the labour force?

In the earlier positioning paper (Whelan 2004), the nature of poverty traps and related labour market incentives for HA recipients were discussed extensively. The analysis in this paper sheds further light on these questions by using estimates derived from the HILDA dataset and a set of econometric models that seek to answer how certain aspects of labour market behaviour are influenced by the receipt of HA measures.

The use of HILDA to identify the role of HA measures on labour market activity and outcomes presented some obstacles prior to the analysis stage. In particular, despite the rich nature of the HILDA data, information on the receipt of some

measures of HA is not included in the information available in HILDA. This report details how the analysis proceeds by inferring the receipt and amount of HA received by individuals in HILDA. In addition, the characteristics of and statistics describing the behavioural patterns of households and individuals identified as receiving HA in HILDA are set out. Further, a number of econometric issues are dealt with and specifications to be used when examining the impact of HA programs on labour market activity are described. Further, econometric estimates of the impact of HA receipt on two aspects of labour market behaviour are presented.

The conclusions of this paper can be summarised as follows. There is some evidence that HA measures, especially CRA, act to limit labour force participation. In terms of hours worked, however, there is no evidence that CRA has any impact on labour force participation. For public housing, there is some evidence that public housing tenure reduces labour force activity, both in terms of participation and hours worked. It should be stressed, however, that any conclusions dealing with public housing are based on a small sample and that additional work is required to confirm these results. The use of the HILDA dataset has proved fruitful. Additional information as further waves from the survey become available will be of use for extending and updating the analysis of the issues canvassed in this report.

The remainder of this report is arranged as follows. In chapter 2, a brief discussion is set out of the relationship between HA programs and labour market behaviour. The material in this chapter represents an abridged version of the material presented in the earlier positioning paper. Importantly, it provides some background so that the methodological approach in this report may be placed in its correct context. Following this, chapter 3 presents information on eligibility rules for the two main forms of HA programs in Australia, namely public housing and CRA. An explanation of how this information is used to identify HA recipients, in conjunction with the detailed data contained in HILDA, is set out in chapter 4. A further detailed description of the programming steps associated with identifying HA recipients in HILDA is provided in the Appendix. In chapter 5, some summary statistics describing the characteristics and behaviour of recipients of HA measures is set out. Following this, in chapter 6 the aspects of labour market behaviour analysed are described and specifications used when examining the impact of HA programs on labour market activity are set out. The results of the analysis are also set out in this chapter. Finally, chapter 7 contains some concluding comments as well as notes about future research in this area.

2 HOUSING ASSISTANCE MEASURES AND LABOUR MARKET OUTCOMES

In this chapter, the general theory or analytical framework used to analyse labour market behaviour is first described. 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. Following this, a brief overview of existing studies of HA programs on labour market outcomes is set out. This discussion draws heavily on overseas literature and is instructive for providing a framework with which to consider how HA programs in Australia may be analysed.

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 leisure and commodities purchased from earned (or unearned) income. 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 of commodities 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. As all income is spent, income simply corresponds to consumption of commodities. The amount of income earned is equal to the number of hours of worked (time endowment less the number of hours of leisure consumed) times the wage rate. Irrespective of how the individual's problem is presented (algebraically or graphically), 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 environment 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 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 economic characterisation of behaviour set out above. Consider a transfer that is exactly equal to the individual's earned income prior to receipt of the demogrant. For example, an individual who was originally working 20 hours per week at $10 per hour is given a demogrant of $200 per week. 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 consumption of leisure increases with income[1], 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.[2] Further, for those who continue to work in the presence of the demogrant the number of hours worked is likely to be less than that worked prior to receipt of the demogrant.

In a similar fashion to that described above, changes to wage rates may be analysed to identify how labour supply (labour force participation and the total number of hours worked) varies in response to a change in the price of leisure (see Benjamin, Gunderson and Riddell, 42-48). 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 (or social security) such as HA.

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 logically 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.

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

[2] 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.

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. 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 of the income support payment. 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 to substitute towards (i.e. 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 programs 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 resulting 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 no 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. In turn, there is little analysis of how the receipt of income support payments in the form of HA measures acts to curtail labour market activity (i.e. discourages individuals from participating in the labour force or from increasing the number of hours of work). This research will provide insight into this issue by examining the employment patterns of individuals in the HILDA dataset and estimating a series of econometric models that seeks to capture the effect of HA receipt on certain dimensions of labour force activity. An earlier positioning paper, by Whelan (2004), discussed the nature of HA programs in Australia, and the potential labour market disincentives they create. In the next section, the economic implications of HA programs are considered from a theoretical perspective. Following this, there is a discussion of some empirical analyses of HA programs.

2.3 Housing assistance programs and labour market behaviour

As indicated above, any transfer program is likely to have an effect on labour market behaviour through both income and substitution effects. However, there are additional issues that need to be considered when measuring the impact of HA measures on the labour market activity of recipients.

The first issue related to the nature of HA program benefits, and in particular, the fact that transfers are often 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). This is because 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 benefit 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 available 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 decides to relocate to an area with better employment prospects, the benefit 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 also true that the nature of HA may have positive impacts on labour market activity. For example, security of tenure in public housing may provide stability that facilitates participation in the labour market free of housing related disruptions. Likewise, demand subsidies that give recipients choice over location may facilitate relocation to regions with better employment prospects. On the other hand, if public housing is located in areas where employment opportunities are limited or where neighbourhood characteristics do not encourage labour market activity, then there may be negative impacts from receipt of HA. The identification of these alternative mechanisms by which HA programs is beyond the scope of this report. Nonetheless, it is an important area of research that should be investigated as part of any future research into the role of HA programs on labour market outcomes.

2.4 Empirical studies of the effect of HA programs on labour market outcomes

The majority of studies that have considered the effect of HA on labour market outcomes are based on overseas programs. In general, the overseas analyses have examined how HA measures impact on the employment behaviour and outcomes (labour force participation and hours worked) of HA recipients. When trying to infer lessons for Australia from the analysis 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. This reflects the fundamental differences in HA programs in Australia to those of other countries (see Hulse 2002; Olsen 2001; Peterson 2000; Priemus 2000).

Studies that have examined HA measures in the United States include Schone (1992), Ong (1998), Fischer (2000), Painter (2000) and Yelowitz (2001). There are numerous other studies that have also considered HA measures in the U.S., many of which are described in Whelan (2004). It should be stressed that HA programs in the United States are not entitlement programs and rationing applies to all forms of assistance. Nonetheless, the results of these studies are instructive in light of the model of economic behaviour posited above. For example, Schone (1992) demonstrates that under a realistic set of assumptions, participants in the in-kind transfer program (public housing) have weekly hours of work approximately 5 percent higher than non-participants. That is, public housing provides a positive benefit in terms of labour market activity levels. Similarly, Ong (1998) finds a small positive (but statistically insignificant) effect on hours worked for recipients of public housing compared to those renting in the private market. Further, recipients of some forms of HA 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* (page 786). The results of the analysis in Fischer (2000), however, suggest that federal rental subsidies reduce labour supply through both income and marginal tax (substitution) effects (page 165). That is, the high EMTRs faced by recipients of HA tend to reduce labour market activity.

A note of caution about interpreting the research in these papers and related papers is expressed by Shroder (2002). The data and techniques used in these studies are subject to a number of methodological problems that are often ignored or dealt with inadequately. These issues are canvassed at least partly in chapter 6 below. Notwithstanding these caveats, the studies provide some evidence on the predictions of the labour supply model described earlier. The evidence is not, however, unambiguous and ultimately can only be resolved with additional empirical analysis.

Analysis of HA measures in the United Kingdom includes that undertaken by Giles *et al*. (1997), Bingley and Walker (2001) and Wadsworth (1998). Like Giles *et al*. (1997), Brewer (2000) notes that the effect of HA programs in the United Kingdom is to 'dramatically reduce the financial incentive to work', with recipients facing high EMTRs. Further, Bingley and Walker (2001) find that HA has similar impacts on labour supply decisions as other transfer programs and suggests that there is little or no stigma attached to receipt of the benefits under the program. Assuming that the HA taper rate binds, an increase in the rate at which benefits are withdrawn is associated with a decrease in the proportion of individuals not working. This captures both an income effect (lower income from an increase in the

taper rate reducing the consumption of leisure) and a substitution effect (as increases in the taper or withdrawal rate lowers 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.

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). Housing assistance programs in Canada are discussed in Steele (1998). In Canada, 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. Unlike the United States, these HA benefits are not rationed. The role that HA measures may play in assisting households facing temporary labour market difficulties is discussed but Steele (1998) undertakes no explicit analysis of the impact of HA measures on observed labour market activity.

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 transiting from an important social security program, namely sole parent payment. This *may* be consistent with an employment disincentive effect associated with the large subsidy received by public housing recipients in NSW. On a more general level, Hulse *et al*. (2003) represents an important recent contribution to the literature on identifying the labour market implications of HA programs.

2.5 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 policy issue pertinent to this research is whether the design of transfer programs, such as HA, creates disincentives for individuals to engage in the labour market. Ultimately, the question is an empirical one. From a theoretical perspective HA measures may in fact induce additional labour market activity. Moreover, the discussion above has alluded to various pathways (such as tenure security) through which HA measures may in fact enhance total labour market activity. This research will explore this issue by examining the labour market behaviour of HA recipients in Australia. In the next chapter, the key features of HA programs in Australia are discussed. Interested readers should refer to the Whelan (2004) where the potential sources of disincentives to engage in labour market activity are further explored.

Prior to discussing the main sources of HA in Australia, it is should be noted that the analytical framework described above provides a somewhat stylised model of behaviour. It is, ultimately, an 'economic model of behaviour'. It has been observed, however, that decisions regarding labour market activity are shaped by a range of influences of which the economic considerations and constraints described above represent only one component (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 ELIGIBILITY FOR AND RECEIPT OF HOUSING ASSISTANCE MEASURES IN AUSTRALIA

It is important to stress that eligibility for and receipt of HA measures in Australia are two different concepts. Rationing is a common feature of HA programs outside Australia with the demand for assistance generally exceeding the amount of HA resources available. The two key HA programs in Australia differ markedly in this respect. In Australia, public housing is rationed with the limited amount of public housing stock subject to potentially long waiting lists. Conversely, CRA is a demand subsidy that is an entitlement program. That is, CRA is available to all those who are eligible. A brief overview of these programs is now presented.

3.1 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 (Australian Bureau of Statistics 2003). Public housing is available to individuals on low incomes and those with special needs. Individuals with a disability represent a disproportionately large share of occupants in total housing. Hence, whereas 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 individuals with a disability (SCRCSSP 2003, 16.9).

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 although a number of jurisdictions do not specify minimum ages. All applicants be must resident in the State or Territory. Income and assets limits for eligibility vary by State and Territory, and household size. Detailed information on eligibility rules for public housing, by State and Territory, are set out below in Table 1.

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 public housing is allocated to a tenant, 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 (Australian Capital Territory) has also introduced limited tenure with regular reviews for tenants commencing after January 2001. The Northern Territory (NT) also offers six month to 5-year leases with reviews of eligibility after the completion of each lease.

Table 1: Eligibility for public housing by jurisdiction

Jurisdiction	Eligibility	Income limits	Asset limits
NSW	Resident of NSW. Permanent residents & Australian citizens.	Household size - Total weekly household income (since 31-10-96) 1 person $395 2 people $500 3 people $580 4 people $665 + $55 pw for additional persons	
Victoria	Live in Victoria. Not own or part own a house, unit or flat. Australian citizen or permanent resident	Household size – Pre tax wkly household inc. (since 31-10-96) Single $332 Single (aged/disabled) $428 Couple (no kids) $553 Couple (no kids, aged/disabled) $716 1 or 2 adult + 1 child (<13/ 13-17) $602 + $89/120 pw child Single (aged/disab.) + 1 child (<13/ 13-17) $602 + $89/120 pw child Couple (aged/disab.) + 1 child $728 Couple (aged/disab.) + 2 child $740 Couple (aged/disab.) + 3 child (<13/ 13-17) $602 + $89/120 pw child	
Tasmania	Residents of Australia living in Tasmania; 16 years of age or older	Household size - Total wkly household income Single person - $332.00 Couple combined - $553.00 Single/couple + 1 child- $587.00 Additional children $34.00	Financial assets less than $34,472.60 (Dec 2003).

Jurisdiction	Eligibility	Income limits	Asset limits
Queensland	Qld resident and Aus. citizen; hold a Temp. Protection Visa; be, qualify or applying for perm. res. At least 18 years of age, with exceptions Not own or partly own: a residential home; caravan or mobile home or live-aboard boat permanently connected to utilities.	Single person, no children - $568 Single person (1 child), Couple (no children), 2 singles. - $704 Single person + 2 child, Couple + 1 child, Couple + one single, Two single people + 1 child, Three single people - $818 Single person + 3 or more child., Couple + 2 child., Three singles +1 child, Two single people + 2 child. Four single people - $932 Couple+ 3 or more child., Five singles, One couple + 2 child. + 1 single, Two couples with one or more children; One couple + one single person + 2 or more child; Other h/hold with five or more people inc. two adults. - $1045	
West Australia	Australian citizen or permanent resident. Live and receive income in WA. Not own prop./ land. Be 18 years of age or above.	Household size - Total wkly household inc. (able/disabled) 1 person (single inc., metro & country) $390/ 490 1 person (single inc., remote) $550/ 690 2 person (single inc., metro & country) $520/ 650 2 person (single inc., remote) $740/ 920 2 person (dual inc., metro & country) $600/ 750 2 person (dual inc., remote) $850/ 1060 3 person (single inc., metro & country) $630/ 780 3 person (single inc., remote) $880/ 1100 3 person (dual inc., metro & country) $720/ 900 3 person (dual inc., remote) $1010/ 1280 4 person (single inc., metro & country) $730/ 920 4 person (single inc., remote) $1030/ 1290 4 person (dual inc., metro & country) $840/ 1050 4 person (dual inc., remote) $1190/ 1480	Not have cash assets in excess of $35,600 (singles) or $59,400 (couples), $80,000 (Seniors 60 years plus singles or couples).

Jurisdiction	Eligibility	Income limits		Asset limits
South Australia	Living in SA; Have an independent inc.; Not fully or partly own any residential property Have a need for housing that cannot be met by any other form of housing (eg private rental).	Household size - Single person - Single person with 1 child - Single person with 2 children - Single person with 3 children - Single person with 4 or more children - Couple - Couple with 1 child - Couple with 2 children - Couple with 3 children - Couple with 4 or more children -	Total wkly household income $581.00 $760.00 $849.00 $938.00 $1073.00 $760.00 $849.00 $938.00 $1073.00 $1207.00	Households headed by a single person - $257,500 Households headed by a couple - $320,500
Australian Capital Territory	You must be 16 years or older; Australian citizen or a permanent resident You must not own any residential property	Household size - Single Applicant Family of two persons and joint tenancies - Family of three or more persons - for additional person	Total gross wkly household income $506 $844 $844 + $84 each	Personal assets (not counting furniture, clothing and one vehicle) must not be worth more than $40,000
Northern Territory	Do not owns or partly owns a residential; Permanent resident status or Australian Citizen; You must reside in the NT while being allocated public housing.	No. people in household - pre tax income limit 1 - 2 - 3 - 4 - 5 - 6 -	$529 per wk $686 per wk $801 per wk $916 per wk $1031 per wk $1146 per wk	No. people in h/hold - assessable assets 1 - $38,100 2 - $54,500 3 - $86,500 4 - $86,500 5 - $86,500 6 - $86,500

Table 1 – Sources and notes

NSW: http://www.housing.nsw.gov.au/

Note that Household income is the total gross income (i.e. before tax) of all household members including wages, pensions and allowances and interest on investments.

Vic: http://hnb.dhs.vic.gov.au/ooh/oohninte.nsf/frameset/Ooh?Opendocument

Note that Household income is the total gross income (i.e. before tax). Detailed information on which payments are included as part of income can be found at in the Allocations Manual, Applications and eligibility at (http://hnb.dhs.vic.gov.au/ooh/oohninte.nsf/frameset/Ooh?Opendocument).

Qld: http://www.publichousing.qld.gov.au/renting_a_home/dept_housing/applying_ph/index.htm

The weekly assessable income is the combined income of all household members. Some income, such as certain allowances paid by Centrelink, is not included as assessable weekly income.

WA: http://www.housing.wa.gov.au/index_IE.cfm

Detailed information on which benefits are counted can be found at http://www.housing.wa.gov.au/index_IE.cfm. Income is assessed on a gross weekly (before tax) basis. When assessing eligibility, any benefit or allowance that is counted by Centrelink or DVA in assessing a benefit, and a wage/salary for applicants in paid employment.

SA: http://www.housingtrust.sa.gov.au/site/page.asp?swId=1&pgId=5

A full list of assessable and non-assessable income can be found at (http://www.housingtrust.sa.gov.au/resources/assessable%20and%20nonassessable%20income.pdf)

Tasmania: http://www.dhhs.tas.gov.au/housing/renting/index.html

Also, personal correspondence Maryanne Lewis, email received 26-11-03.

ACT: http://www.dhcs.act.gov.au/hcs/Services/PublicHousing/Application/Eligibility.htm

See detailed information on assessable income and public housing policy more generally at (http://www.dhcs.act.gov.au/hcs/Policy/Eligibility.html#Income)

NT: http://www.dcdsca.nt.gov.au/dcdsca/intranet.nsf/pages/PublicHousing . Income includes gross household income from all sources except payments for special purposes

Some additional discussion of public housing in Australia can be found in Whelan (2004).

3.2 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). The discussion here will focus on eligibility rules and levels of CRA.

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 (pension, benefit or allowance, and/or are qualified to receive Family Tax Benefit-A at more than the base rate), from the Commonwealth government (Department of Family and Community Services, 2004, 3.8.1.10)[3]. 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.

(Source: Centrelink website,
http://www.centrelink.gov.au/internet/internet.nsf/payments/qual_how_ra.htm).

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 (see FaCS 2004 3.8.1.80.);

- 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;

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[3] References such as this throughout the text refer to *Guide to Social Security Law* on the Department of Family and Community Services website, accessible at <http://www.facs.gov.au/guide/ssguide/readersn.htm.>, herafter, such references are cited as FaCS 2004.

- mooring fees for a vessel,

(source: Centrelink website, accessed on 21 April 2004,
http://www.centrelink.gov.au/internet/internet.nsf/payments/rent_assistance.htm).

Eligibility for CRA payments requires that the customer be paying rent above a specified minimum threshold amount (FaCS 2004, 1.2.7.10). CRA is paid fortnightly with the customer's main payment at the rate of $0.75 for every dollar of rent paid above the minimum threshold, up to a maximum rate of assistance. The rent thresholds and maximum CRA payments vary depending on family type. For single customers without children, the maximum rate also varies according to whether or not accommodation is shared with others. For these 'sharers', the maximum level of CRA is set at a rate of two-thirds the maximum rate otherwise payable. Where sharers are entitled to receive less than the maximum rate, they receive the same as non-sharers.

Further, payment levels vary 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. The key parameters describing the payment of CRA are set out in Table 2. Rates are indexed twice annually.

Table 2: Commonwealth Rent Assistance payment levels (20 September 2003)

	Maximum rate of CRA	Minimum rent threshold	Rent at which maximum rate of CRA is payable
CRA payable under Social Security Act			
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
CRA payable under Family Assistance Act			
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: Department of Family and Community Services (2003b)

3.3 Summary

There are two main forms of HA available in Australia, namely public housing and CRA. Whereas the former is rationed, the latter is entitlement program available to a range of individuals that receive other government transfers. In the next chapter, the information on the programs described above, together with additional information, is used to identify recipients of HA in the HILDA dataset.

4 IDENTIFYING HOUSING ASSISTANCE RECIPIENTS IN HILDA

The HILDA dataset is a longitudinal dataset that contains information collected at both the household and the individual level. In the household file, information is available on various household characteristics such as the number of household members and their ages, geographical location and tenure status. Information on tenure status, and in particular who the household rents from, facilitates the identification of public housing households. Similarly, individual files provide detailed information on individuals such as personal characteristics, income including receipt of government payments (pensions, allowances or benefits), and the individual's family relationships. This information is used to identify the CRA recipients and impute the amount of CRA that an individual is entitled to receive.

With respect to both public housing and CRA it is possible to compare the number and characteristics of recipients identified from HILDA with other published sources. Such comparisons are set out below as a check on the robustness of the HA recipient identification process.

In the discussion below, variables in the HILDA dataset used to identify HA recipients are identified using italics. These variables generally refer to wave 1 HILDA data, that is, the data collected in 2001. Second wave data (collected in 2002 and released early in 2004) generally includes analogous variables that can be used to infer the number of recipients and the amount of CRA received for 2002. Additional detail on the identification of HA recipients in HILDA including extracts of the SAS code used to identify HA recipients can be found in the Appendix.

4.1 Public housing recipients

Households that reside in public housing are identified explicitly in HILDA. In particular, each household is initially asked if they own, rent or live rent free (*AHSTENUR*).[4] Households that identify themselves as renters are subsequently asked from whom they rent (*AHSLLORD*). If the household reports that it rents from a government housing authority this is interpreted as meaning that the household resides in public housing and is therefore a public housing household.

The results of the identifying public housing households in HILDA in this manner are set out in tables 3 and 4. In tables 3 and 4 the figures derived from HILDA (waves 1 and 2) are presented with other published sources for 2001 and 2002 for comparison purposes. In deriving the means in tables 3 and 4, household weights provided in the HILDA dataset are provided. Weights are used to reflect the probability that a given household is included in the sample and allow the selected sample to have 'weighted characteristics' mirroring those of the total population. Note that the criterion for being counted as a public sector household is only that the household rents from a public housing authority. Further, additional information on the characteristics of the households are set out in the next chapter.

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[4] Where a word is written in upper case italics, this denotes the actual variable name given in the HILDA dataset.

Table 3: Number of Public Housing Households, 2001

	State								
	NSW	Victoria	Qld	South Australia	West Australia	Tas.	NT	ACT	Total
ABS*									
Total number	128,200	65,300	50,700	51,800	32,600	13,200	6,000	11,500	359,300
Proportion total[a]	5.9	4.1	4.7	9.5	5.4	6.5	9.4	10.2	5.6
Average rent ($ per fortnight)[a]	134	150	150	142	136	128	228	146	142
HILDA#									
Total	102,247	70,305	56,250	65,465	37,142	12,875	3,970	9,288	357,540
Proportion total	4.18	3.85	3.99	10.67	4.99	6.76	7.41	7.53	4.83
Average rent ($ fortnight)	187	166	151	144	157.5	110	246	201	164
Sample size (unweighted)	98	70	68	74	41	16	3	9	379

Sources and notes:

* Australian Bureau of Statistics (2002), p. 185.

HILDA figures –own calculations.

[a] Figures are for 2000.

Table 4: Number of Public Housing Households, 2002

	State								
	NSW	Victoria	Qld	South Australia	West Australia	Tas.	NT	ACT	Total
ABS*									
Total number	127,800	64,700	50,200	49,100	32,600	12,700	6,100	11,200	354,100
Proportion total	5.30	3.80	3.40	10.70	4.50	5.90	13.20	10.10	5.10
Average rent ($ fortnight)	na	na	na	na	na	na	na	na	na
HILDA#									
Total	111,452	66,114	53,356	63,800	39,977	12,232	8,044	10,938	369,915
Proportion total	4.46	3.57	3.68	10.40	5.25	6.40	15.44	8.90	4.85
Average rent ($ fortnight)	198	169	154	166	166	130	281	204	177
Sample size (unweighted)	95	56	61	71	39	15	6	10	353

Sources and notes:

* Australian Bureau of Statistics (2002), p. 165.

HILDA figures –own calculations.

na – not available

There are a number of noteworthy aspects of the figures presented in tables 3 and 4. First, although the total number of public housing households identified in HILDA corresponds closely to that in other published sources, there is some discrepancy in the numbers reported in some states. In particular, there are too few public housing households in New South Wales, offset by too many in South Australia. For the smaller states and territories, the figures in tables 3 and 4 should be treated cautiously. As the sample sizes indicate, there are a limited number of observations that report public housing status for Tasmania, the Northern Territory and the ACT. The econometric analysis presented in chapter 6 takes account of this by combining observations for Tasmania, the Northern Territory and the ACT.

Further, there is some discrepancy associated with the reported amounts of fortnightly rent paid by public housing households in HILDA and other published sources. In particular, the amount of rent reported for public housing households in NSW is significantly greater than that reported elsewhere. The figures in HILDA are derived using reported monthly rent levels converted to a fortnightly measure (*AHSRNT*). Note that the figures from HILDA and other published sources differ slightly in their timing. Nonetheless, the inconsistency for NSW warrants some additional analysis in the future. The discrepancy may be associated with uncertainty on the part of some households in HILDA whether they are tenants of a State Housing Authority and are therefore correctly classified as public housing tenants.[5]

4.2 Commonwealth Rent Assistance recipients

The identification of CRA recipients in HILDA proceeds via a number of steps. One difficulty is the nature of 'unit' that is eligible to receive CRA payments and the unit of analysis for the purpose of the HILDA dataset. The eligibility rules for CRA mean that the following categories of individuals/ families are potentially eligible to receive CRA:

1. Certain categories of individuals, including individuals who are part of a larger family group, in receipt of a payment (pension, benefit or allowance) from the Commonwealth government.

2. Lone and two parent families with dependents, where they are receiving more than the base rate of Family Tax Benefit Part A.

Further, as noted previously the individual/ family must be paying rent in the private rental market at a rate greater than the relevant threshold level. The rent threshold level is largely a function of family structure as is the maximum amount of CRA receivable.

The identification of individuals/ families eligible for CRA proceeds by applying the eligibility rules using the information available in HILDA. During this imputation process it is necessary to make a series of assumptions that allow CRA receipt to be identified, and the amount of CRA to be estimated. As HILDA provides information at the individual and household level, identification of CRA recipients requires that this information be merged. A broad outline of the process is described below. A detailed description of the coding approach adopted in SAS is set out in the Appendix. Results of the CRA identification process is then set out in

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[5] Martin Burgess, an officer of FaCS, has made note of the potential confusion of some individuals as to whether they are correctly characterised as public housing tenants in communications forwarded to me (email dated 28/06/04).

tables 5 to 7 where the number and categories of CRA recipients is compared with figures in other published sources.

The HILDA datasets contains a number of separate datasets including the individual file and the household file. Both datasets are used to impute the receipt and, if received, the amount of CRA. If individuals are identified as receiving a benefit, allowance or pension that qualifies them for CRA they can be readily identified given the detailed information on government payments available in the individual data files in HILDA. Most, but not all, recipients of benefits, pensions or government allowances (government payment recipients) are eligible to receive CRA provided other conditions for eligibility are met such as rent levels in excess of the rent threshold. After identifying government payment recipients, this information is merged with household information describing tenure status and the structure of family relationships in the household.

After merging information about the individual with data from the household file, it is possible to identify if an individual resides in a household that rents privately. As discussed above, HILDA contains detailed information on who the household rents from (*AHSLLORD*) including the categories for which CRA is payable such as a private landlord, caravan park owner/operator and manager of a complex or village. For the purpose of identifying CRA recipients, the individuals/ families paying rent to a 'Government Housing Authority' were the only group of renters considered to be excluded from CRA eligibility based on who rent was payable to.

The definition of household used in HILDA is 'a group of individuals who usually reside and eat together' (Watson and Wooden 2002, p. 4). Also available in the HILDA household file is information on families within the household. The definition of household in HILDA is similar to that used by the ABS and families are defined in the same way as the ABS. Hence, a family is two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationships or other blood relationship. The important point to note is that a household may consist of more than one family. Of use for the CRA imputation exercise is that HILDA contains information on the receipt of FTB-A *by families* within the household. Information on receipt of FTB-A, in addition to family structure (age and number of dependent children in the family) is also recorded on the household file.

Although identification of households that rent privately allows some CRA eligible recipients to be identified, it is also true that an important group of potentially CRA eligible individuals/ family units are difficult to detect. In particular, HILDA does not allow those individuals who are considered to be boarders or lodgers to be readily identified and their CRA status to be determined. It is true that information is available on whether any, and if so which, household members pay board to another household member (*AHSBRD*). However, it is not possible to identify how much board is paid and therefore determine eligibility for CRA. The inability to identify this group will tend to result in an underestimate of the number of CRA recipients identified during the imputation process.

As described above, the HILDA dataset allows the identification of households that rent, and the family relationships within the household. This information plays a key role in identifying individual/ family units in receipt of CRA and the amount of CRA received. After merging the HILDA household file with the individual file it is possible to identify whether individuals receive a government payment that entitles

them to CRA. Additionally, it is possible to identify those individuals in households that receive FTB-A using the `FTBRAE11- FTBRAE13` variables in the HILDA household file. These variables identify whether families (and therefore individuals) within the household receive an FTB-A payment that may entitle them to receive CRA.

As noted above it is possible to identify households that pay rent in the private rental market, or at least pay rent to parties other than government housing authorities and are, therefore, potentially eligible for CRA. One difficulty at this point is the issue of identifying how much rent individuals (or family units) pay in multi-member (family) households. It is necessary to make a number of assumptions to infer the fortnightly rent payments that are relevant for identifying the eligibility for and amount of CRA that is received. The first step is to convert information on the amount of monthly rent paid by the household (*AHSRNT*) into a fortnightly equivalent. Next, it is then necessary to divide fortnightly rent amongst the members of the household. This may be done in a variety of ways such as allocating rent equally between adults or adult equivalents in the household. The latter approach is that which is taken in the present study.

First, the number of adult equivalents in the household is identified. For this purpose an adult equivalent scale is used that gives each member of the household a certain 'value'. In particular, for each family within the household the first adult is given a value of 1, the second adult a value of 0.7, and dependent children a value of 0.4. The size of a family is then the sum of the values given to family members. In turn, the total 'size' of the household will be the sum of the size of all families within the household. The amount of rent paid by each family/ individual is then considered to be equal to the proportionate value of the family size to total household size computed using the 'adult equivalent scale'.

The steps described above are consistent with the approach of Centrelink when it allocates the total rent paid by a household between its members for the purpose of calculating CRA entitlements. That is, the rent is allocated amongst members of a household so that the total rent claimed for CRA purposes by members of the household is no greater than the total rent paid by the household. The simplifying assumption adopted in the process described above is that household rent is allocated to member families/ individuals in the household proportionately on the basis of number of 'adult equivalents'.

Following this, individuals that are members of households who rent privately from a landlord and are not involved in a rent-buy arrangement are considered to be households for whom RA is possible. That is, these households are given a variable *raposs=1*, indicating that receipt of CRA 'is possible'. For each individual, it is then possible to set the rent threshold (*rntthold*) based on the CRA eligibility rules, using information on the individual's relationships with other household members. For example, individuals who are part of a couple without dependent children are given a rent threshold of $129.40 per fortnight.[6] This is compared to the rent attributed to the individual by the process described above. If the individual is a member of a household for which RA is possible (*raposs*), and the fortnightly rent (*fortrent*) exceeds the rent threshold the individual is identified as CRA eligible (*rael*=1).

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[6] This figure corresponds to the amount a couple without children had to pay in rent on a fortnightly basis prior to being eligible for CRA as at September 2001, the time period corresponding to when interviews for the first wave of the HILDA data collection was undertaken.

Amongst CRA eligible individuals, the level of CRA is calculated as $0.75 in each dollar of rent over and above the threshold, up to the CRA maximum allowed for each type of individual (*maxCRA*). Hence, the imputed amounts of CRA payments can then be identified for each individual in the HILDA dataset.

The procedure described above represents the key steps in identifying CRA recipients and the amounts of CRA received. There are, however, a number of additional steps that are necessary prior to making any comparison with other published data. First, it is essential to avoid double counting of some recipients. For example, both partners in a couple may be identified as being eligible to receive CRA by virtue of the fact that the family receives FTB-A payments. In general, CRA is payable to the female in such a situation. Hence, the male partner's eligibility and amount of CRA must be removed for this purpose. Similarly, where both partners in a couple family receive a government payment, it will generally be the case that the amount of CRA received by each is one half that of which a couple is entitled. Hence, the calculated amount of CRA must be adjusted for situations in which both individuals in a couple are entitled to receive CRA. Following these adjustments, it is possible to identify the total number of individuals as CRA recipients in HILDA. Further, for each individual it is possible to identify the amount of rent paid and the level of fortnightly CRA payments.

The results of the imputation process on numbers of CRA beneficiaries described above are set out in tables 5 to 7 below. Figures were derived for both the first (2001) and second (2002) waves of HILDA and those figures compared to other published sources. Verifying that the imputation process identifies CRA recipients reasonably accurately proceeds by comparing the number of CRA recipients identified by payment type, along with the amount of rent and CRA payable. For 2001 (Table 5), a number of patterns are clear. First, although the number of aged pensioners is underestimated when compared to other published figures (141,170 identified in HILDA compared to 178,894 according to other published sources), the average rent paid and CRA received for each beneficiary category matches the FaCS figures relatively closely. A similar underestimate is apparent for recipients of Disability Support Pension (DSP). The exact source of the discrepancy between the total number of CRA recipients derived from the imputation process using HILDA and the FaCS figures for these recipient groups is, however, unclear at this point

The main interest for this project is how CRA affects labour market activity for groups such as Newstart Allowance (NSA) and Parenting Payment (PP) recipients. It is for these groups that we might expect the labour market disincentive effects of HA to be more pronounced and for whom policy makers will have the greatest concern. Hence, it is these groups where a close correspondence between the CRA recipients identified in HILDA and those in other published figures is sought. For NSA recipients, the number identified as receiving CRA from HILDA is approximately 75% of the number identified in other published sources (156,000 versus 200,937). Further, although the level of fortnightly rent paid identified using HILDA is somewhat higher than that reported by FaCS ($250.81 versus $206.74), the level of CRA is similar. For PP-partnered and PP-single recipients, the number of CRA recipients identified using HILDA is similar to that in other published sources. The amount of CRA calculated using HILDA is, however, lower (higher) for PP-partnered (PP-single) recipients. Similar patterns are apparent for those identified as receiving CRA by virtue of receipt of Youth Allowance. Despite the discrepancies, the number of CRA recipients identified using HILDA is reasonable and provides grounds for proceeding with the analysis.

Table 5: CRA recipients 2001 – by payment type

Payment	FACS*			HILDA		
	Customers fortnight	*Average rent*	*Average RA*	*Customers fortnight*	*Average rent*	*Average RA*
Age pension	178,894	$221.35	$53.25	141,170	$227.31	$47.01
Carer payment	10,299	$241.79	$59.06	22,743	302.75	$72.39
DSP	156,928	$206.42	$63.91	109,929	$248.63	$59.20
Wife pension	7,662	$268.04	$46.08	4,796	$309.90	$44.36
Sickness allowance	3,283	$234.44	$61.87	9,062	$311.76	$93.14
Youth allowance	92,493	$181.68	$52.84	93,415	$217.99	$55.34
Newstart allowance	200,937	$206.74	$58.69	156,000	$250.81	$62.92
Newstart MAA	6,208	$221.79	$55.80	3,897	$284.62	$56.71
MAA	54	$205.52	$50.60	-	-	-
Partner allowance	7,544	$287.57	$39.12	15,999	$276.94	$54.42
FTB-A	88,904	$344.97	$68.42	116,986	$344.92	$93.29
Parenting payment-partnered	64,134	$321.08	$88.89	66,603	$329.46	$71.07
Parenting payment-single	193,360	$280.81	$81.17	173,988	$290.47	$93.60
Special benefit	6,515	$219.80	$47.96	7,343	$201.31	$54.65
Widow B pension	843	$209.65	$68.66	-	-	-
Widow allowance	9,907	$214.28	$66.68	6,483	$190.87	$62.44
Bereavement allowance	12	$284.97	$75.67	-	-	-
Other				2,154	$243.41	$79.46
Total	**1,029,064**	**240.36**	**64.78**	**901,009**	**270.91**	**68.39**

Sources and notes:

Department of Family and Community Services (2002), p. 73.

HILDA – own calculations

Table 6: CRA recipients 2001 – by income unit/ family type

Income unit type	FACS*			HILDA		
	Customers per fortnight	Average CRA ($ fortnight)	Average rent ($ fortnight)	Customers per fortnight	Average rent ($ fortnight)	Average CRA ($ fortnight)
Single, no dependants	530,408	190	60	285,579	198.40	57.76
Couple, no dependants	74,304	267	66	159,972	299.97	48.57
Couple, 1 or 2 dependants	102,956	328	76	146,536	328.73	75.27
Couple, >2 dependants	43,866	341	86	73,129	345.31	79.16
Single, 1 or 2 dependants	185,348	276	77	192,120	293.63	89.43
Single, >2 dependants	34,570	307	91	43,673	325.89	108.54
Other	4,872					
Total	**976,333**	**237**	**68**	**901,009**	**270.91**	**68.06**

Sources and notes:

Australian Bureau of Statistics (2002b). Note, figures are derived from Family and Community Services sources.

HILDA – own calculations

Tables 6 also provides information as at 2001 on total numbers of recipients, fortnightly rent and CRA payments computed using HILDA and other published sources but provided by income unit/ family type. Table 7 provides similar figures for 2002. Both tables contain a number of patterns. First, the total number of CRA recipients and fortnightly CRA payments correspond relatively closely for both the HILDA and other published data. This suggests that the imputation procedure is reasonably accurate. Note that this is despite the fact that the level of rent identified using HILDA is somewhat higher than that reported in other published sources.

Table 7: CRA recipients 2002 – by income unit/ family type

Income unit type	FACS*			HILDA		
	Customers per fortnight	*Average rent ($ fortnight)*	*Average CRA ($ fortnight)*	*Customers per fortnight*	*Average rent ($ fortnight)*	*Average CRA ($ fortnight)*
Single, no dependants	512,426	203	65	355,431	216.40	63.05
Couple, no dependants	74,547	281	69	145,147	317.63	50.15
Couple, 1 or 2 dependants	95,687	350	80	157,939	342.27	78.45
Couple, >2 dependants	40,655	364	90	82,579	344.31	81.31
Single, 1 or 2 dependants	181,102	294	81	163,442	293.27	93.55
Single, >2 dependants	34,715	325	94	39,843	355.88	104.14
Other	4,745					
Total	**943,877**	**253**	**72**	**944,380**	**283.38**	**72.33**

Sources and notes:

FaCS – Australian Bureau of Statistics, Year Book Australia 2002, Catalogue no. 1301.0.

HILDA – own calculations

A key feature for the figures in tables 6 and 7 is that HILDA data underestimate the number of singles with no dependants compared with the figures derived from FaCS. The reverse is true of couples (HILDA overestimate the numbers in this category). This is true for both 2001 and 2002, though the problem is more pronounced for the earlier period. The discrepancies in the number of CRA recipients by income unit/ family type for the HILDA and FaCS data makes it difficult to compare the amount of rent paid and CRA levels for each group.

One further note should be made. Communications with Martin Burgess and Callum McKenzie from FaCS suggest a source of the discrepancy between imputed rates of CRA for FTB-A recipients with the FaCS figures. In particular, reductions to CRA payments generally arise due to the fact that the income or maintenance income tests are almost always applied.[7] To the extent that this is not adequately taken account of during the imputation process, the amount of CRA received will tend to be overstated in the imputation process.

4.3 Summary

In this chapter, the usefulness of the HILDA data as a tool with which to analyse the impact of HA programs on labour market behaviour in Australia has been considered. A number of conclusions follow from the discussion presented in this chapter. First, using the weights provided in HILDA the number of households identified as 'public housing households' corresponds in an acceptable manner to

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[7] I would like to note the many useful comments received from officers of FaCS during this project. Where possible, comments designed to improve the quality of the work have been incorporated, such as those relating to payments for sharers provisions.

the true value for Australia. It is nonetheless true that the unweighted sample of public housing households is only approximately 380 (Table 3). The relatively small sample size has a number of implications. It tends to limit the type of analysis that may be undertaken and to reduce the accuracy of estimates derived from the data. Despite these considerations, it is important to emphasise that it does not preclude analysis of the labour market behaviour of public housing tenants using the HILDA data. Other studies that have considered similar issues in the United States such as Ong (1998) and Fischer (2000) also exploits samples that contain similar numbers of public housing recipients'

The second aspect of this chapter is the description and results of the CRA imputation process in the HILDA data. Such a procedure is required by virtue of the fact that CRA receipt is not reported in the HILDA data. Despite the difficulties of identifying HA recipients using the HILDA data, the results of the imputation process are encouraging and provide grounds on which the analysis can proceed. The total number of CRA recipients is reasonably accurate, as is the amount of CRA that is received. These figures provide a sound basis for analysis of the behavioural implications in the labour market of HA receipt. Nonetheless, future work on this issue should proceed so that additional use can be made of the HILDA dataset for CRA related analysis.

5 CHARACTERISTICS AND LABOUR MARKET BEHAVIOUR OF HOUSING ASSISTANCE RECIPIENTS

Features of the HILDA dataset used to identify HA recipients have been described in the previous chapter. Those features of the data used in this chapter to describe the characteristics and behaviour of HA recipients in Australia, namely public housing households and recipients of CRA identified using the imputation process described in chapter 4.

In this chapter some insight is provided into the relationship between HA measures and labour market activity. In chapter 2 it was pointed out that HA measures might have ambiguous effects on labour market behaviour that can only be resolved with appropriate empirical analysis. The results presented in this chapter throw some light on the effect of HA on labour market outcomes. For example:

- public housing tenants tend to have weaker labour market attachment compared to the population as a whole;

- public housing tenants appear to be located in areas where socio-economic opportunities are more limited;

- labour market outcomes exhibited by CRA recipients, like those for public housing tenants, indicate weaker labour market activity than the population as a whole.

However, given that CRA is an entitlement program for those in receipt of another government payment the separate role of HA measures on labour market behaviour is difficult to assess accurately without additional analysis. To this end, econometric analysis that examines the causal relationship between HA and labour market outcomes is described further in chapter 6.

5.1 Public housing households

In Table 8 details are set out of the income and household condition of public housing households in addition to households renting in the private rental market. The latter group represents a natural comparison group for public housing households. Table 9 provides information on household structure (presence of children and spouse), along with some measures of household socio-economic status.

Table 8 contains information on gross and disposable household income for public and private renters. Gross (or total) income includes the income from all private and public sources, excluding windfall or irregular income sources. Disposable household income adjusts total income to take account of taxes paid and transfers received by the household. The final set of figures in Table 8 gives an indication of the external state of the dwelling measured on a scale from 1 (very good/ excellent) to 5 (very poor/ derelict), as determined by the HILDA interviewer.

A number of patterns are evident from Table 8. First, public renter households generally have lower total and disposable income levels compared to households that rent from parties other than a government housing authority. This is consistent with *a priori* expectations as low income levels are in general a prerequisite to qualifying for public housing. Interestingly, the difference between total and

disposable household income for public renters is somewhat smaller than that for the private renter households. This pattern emerges for two reasons. First, the progressive nature of the tax/ transfer system means that higher income households will be taxed proportionately more than low-income households. Second, public renter households may be expected to exhibit high dependence on public transfers. This may, in part, reflect the fact that public housing dwellings are disproportionately occupied by disabled individuals. In turn, these households pay little in the way of taxes so that disposable income corresponds closely to gross household income.

A caveat that should be applied to the figures presented in Table 8 relates to figures for the smaller states (especially Tasmania) and the territories. As noted in chapter 4 the HILDA dataset contains very few public tenants (a total of 3) in Tasmania, the Northern Territory and the ACT. Notwithstanding the use of weights to take account of the non-representative nature of the sample, it is clear that the figures should be treated cautiously. For example, an average household income of over $76,000 is recorded for public renters in the Northern Territory. To take account of this, in the subsequent analysis reported in chapter 6, HILDA respondents in Tasmania and the two territories were grouped together. It is also interesting to note that the average external condition of the household as assessed by the HILDA interviewer is similar for both public (2.33) and private renter households (2.35).

In Table 9, some measures of household structure and socio-economic status for public and private renters are set out. First, note that the presence of children is similar in public rental, private rental and other households. At the same time, all households (including owner occupied dwellings) are, on average, slightly larger than public and private rental households. In terms of household structure, households that rent (either public or private) are far more likely to consist of singles with or without dependent children. Hence, whereas 25 per cent of all households are lone person households, the proportion is 39 and 33 per cent for public housing and private rental households respectively. Similarly, households that rent are far less likely to be households where there is a couple with or without dependent children. These findings are not unexpected as 'All households' will consist of a large proportion of owner-occupiers which are more likely to be associated with couples that have additional resources at their disposal.

One point of particular note is the large proportion of public renter households that are lone parents without dependent children (14 per cent) compared to all households and the subset of private renters (7 per cent). This pattern may reflect the disproportionately large share of public sector rental households occupied by disabled individuals.

Table 9 also presents a set of numbers that give an indication of the socio-economic status of the region in which the household resides. 'Disadvantage' is a decile index of relative economic disadvantage of the household where 1 represents the most disadvantaged and 10 the most advantaged. A low score indicates that the household is located in regions or areas that contain many low income persons or unskilled individuals. 'Economic resources' is a similar measure that captures the profile of the economic resources of households within the area occupied by the household. Also based on a decile range of 1 to 10, a low score indicates that the area where the household/dwelling is located contains a relatively large number of low income households and smaller dwellings. Finally, 'Education and occupation' capture the educational and occupational structure of

communities. Hence, a low score is indicative of the household being located in an area in which there are many individuals with low education attainment, people employed in unskilled occupations or who are unemployed.

Table 8: Public and private renting households, income and rent, 2001

	State								
	NSW	*Victoria*	*Qld*	*South Australia*	*West Australia*	*Tas.*	*NT*	*ACT*	*Total*
Public renters									
Total h/hold income ($ p.a.)	28,176	28,903	27,139	20,916	29,741	26,638	76,072	19,673	27,244
Dis. h/hold income ($ p.a.)	24,787	24,519	23,589	18,763	25,990	22,543	59,620	18,136	23,700
Average rent ($ fortnight)	187	166	151	144	157	110	246	201	164
Household condition	2.54	2.36	2.24	2.04	2.51	2.34	1.26	1.97	2.33
Private renters									
Total h/hold income ($ p.a.)	51,465	46,321	47,439	40,612	40,166	30,717	54,234	80,731	47,555
Dis. h/hold income ($ p.a.)	39,992	37,089	37,608	32,437	32,177	25,614	41,474	59,260	37500
Average rent ($ fortnight)	400	315	324	259	277	227	464	488	341
Household condition	*2.50*	*2.23*	*2.18*	*2.37*	*2.50*	*2.74*	*1.75*	*1.83*	*2.35*

Sources and notes:

HILDA figures –own calculations.

Table 9: Household structure, 2001

	All households	Public renters	Private renters
Number	*7,405,669*	*357,540*	*1,8371575*
Socio-economic status			
Disadvantage	5.64	3.09	5.25
Economic resources	5.26	3.30	5.00
Education & occupation	5.77	3.07	5.28
Household composition			
Children < 4	0.14	0.15	0.16
Children 5-9	0.14	0.13	0.14
Children 10-14	0.14	0.13	0.12
No. persons (15+)	2.02	1.74	1.77
Household type			
Couple without dependent children	0.33	0.18	0.22
Couple with dependent children	0.27	0.15	0.18
Lone parent without dependant children	0.03	0.18	0.03
Lone parent with dependent children	0.07	0.07	0.14
Lone person	0.25	0.39	0.33
Other	0.05	0.04	0.11

The clear implication of measures of socio-economic status reported in Table 9 is that public renter households are located in areas with limited socio-economic opportunities. Such a situation may affect individuals in public housing adversely through deleterious neighbourhood effects, or simply a lack of opportunities to engage in gainful employment. Although beyond the scope of this project, a useful future exercise would be to identify the separate role that each of these considerations plays in the labour market and more general socio-economic outcomes of public housing tenants.

5.2 Characteristics of Commonwealth Rent Assistance recipients

Tables 10 to 11 provide information on the characteristics of CRA recipients. In column (1) of each Table, all individuals in HILDA are shown. Column (2) shows figures for all CRA recipients. Column (3) shows CRA recipients who receive a government pension, benefit or allowance (government payment recipients excluding those collecting CRA by virtue of receiving FTA-B only. This subset of CRA recipients dependent on government payments are potentially of more interest from a policy perspective in relation to work disincentive effects which may be exacerbated by receipt of CRA. For example, recipients of government

payments such as Newstart Allowance or Parenting Payment may exhibit long term dependence on government payments that will potentially be exacerbated by the receipt of CRA. It is also true that FTB-A recipients are likely to face somewhat different incentives than other individuals and in particular, higher EMTRs compared to other government payment recipients.[8] Hence, separating these two groups may provide additional insight into the labour market implications of CRA.

For comparison purposes, other groups whose characteristics and behaviour may be of interest are also included in tables 10 to 11. Recipients of government pensions, benefits or allowances *who do not receive CRA* are included in column (4). This group provides a natural comparison group against which the behaviour of CRA recipients, especially those in column (3), may be assessed. Also included in the tables (column 5) are figures for individuals who belong to a public housing household (public housing tenants).

As our primary interest is the impact of receiving CRA on labour market behaviour, Table 11 includes a smaller subset of the population. In particular, only working age non-disabled individuals are considered when constructing these tables.

Initially, the discussion will consider the characteristics of the entire population. That is, the figures in Table 10. If we consider all individuals in this population, the average age of the HILDA respondent is approximately 46 years and around 49 per cent are male (column 1 of Table 11). The geographical distribution of the population corresponds reasonably closely to that of Australia in general, so that approximately one-third of the population resides in New South Wales. In terms of education, around 19 per cent report having a university education (bachelor or higher degree) and almost one-third less than high school education (year 12 or its equivalent). Similarly, 71 per cent of the entire population are Australian born; 95 per cent report having siblings; and, the average number of siblings is slightly more than 3.

Two variables in Table 10 are of particular note. The first is 'father unemployed' which gives the proportion of individuals who report that their father was unemployed for a significant period of time while they were growing up. Hence, amongst all individuals (column 1) 12 per cent of HILDA respondents report that their father was unemployed for a significant period of time while they were growing up. The second variable of interest is 'father's status'. For each respondent in the HILDA dataset, there is a measure of his or her father's occupational status. In particular, there is a measure of the socio-economic status of the individual's father when the respondent in the HILDA dataset was age 14.[9] The figure for 'father's status' captures in an ordinal manner (using a ratings scale from 0 to 100) the socio-economic status of the occupation the HILDA respondent's father was engaged in.

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[8] I acknowledge the role of Gavin Wood in pointing out this result from analysis using the Survey of Income and Housing Costs.

[9] This is based on the ANU4 occupational status scale that relates an individual's occupation and his market income. The ANU4 occupational status scale is a measure ranging between 0 and 100 where a higher score indicates that the father's occupation placed him at a 'higher point' in the socio-economic ranking of occupations. For example, Jones and McMillan (2001) report that on this scale medical practitioners scored 100 and electricians 42.8.

Comparing across columns in Table 10 a number of patterns are apparent. First, at 40 to 41 years of age, CRA recipients tend to be younger than the population as a whole (46 years) , whereas those benefit recipients not receiving CRA are substantially older (59 years). This reflects the fact that many benefit recipients not collecting CRA will in fact be aged pensioners. Further, as might be expected, CRA recipients are somewhat less likely to be married (41 and 37 per cent in columns 2 and 3 respectively) compared with the population as a whole. The absence of a spouse removes a potential source of income and increase the likelihood that an individual will be observed collecting income support, including CRA. It is also noticeable that only 44 per cent of public housing tenants report being married (column 5), a figure that is substantially below that of the population as a whole.

A number of results in Table 10 are of particular relevance. First, CRA recipients (32 and 36 per cent), other benefit recipients (49 per cent) and public housing tenants (47 per cent) are all far more likely to report the presence of a long term health condition compared to the population as a whole (23 per cent). This result is not unexpected as it reflects the higher dependency on income support measures among that group of individuals who exhibit incapacity of some form. Further, it is noteworthy that the groups in columns (2) to (5) tend to have a greater number of siblings on average and are more likely to report their father experiencing spells of unemployment while they were growing up.

While comparisons like those in Table 10 are of interest, arguably it is the group of work ready individuals who are of the most relevance from a policy perspective. Hence, the figures in Table 11 show the characteristics of working age non-disabled individuals. The groups in Table 11 are all somewhat younger than the corresponding groups in Table 10 reflecting the exclusion of those at retirement age or above. Thus, only between 8 of the working age non-disabled population report a long term health condition, substantially below the 23 per cent reported for the whole population in Table 10.

Table 10: Characteristics - all individuals, 2001

	All individuals (1)	CRA recipients		Benefit recip's not recv'ing RA (4)	Public housing tenants (5)
		All (2)	Benefit recipients (3)		
Age (years)	46.12	40.37	41.55	59.37	48.57
Proportion male	0.49	0.33	0.37	0.43	0.44
Married	0.70	0.41	0.37	0.58	0.44
Number children	1.88	1.99	1.93	2.46	2.28
State					
NSW	0.33	0.30	0.30	0.32	0.32
Victoria	0.25	0.20	0.20	0.26	0.20
Queensland	0.19	0.27	0.26	0.19	0.15
South Australia	0.08	0.08	0.08	0.11	0.15
West Australia	0.10	0.11	0.12	0.09	0.11
Tasmania	0.02	0.04	0.04	0.03	0.03

		CRA recipients			
ACT	0.02	0.00	0.00	0.01	0.03
NT	0.01	0.00	0.00	0.00	0.02
Long term health cond.	0.23	0.32	0.36	0.49	0.47
Education					
Higher degree	0.07	0.01	0.01	0.02	0.05
Bachelor degree	0.12	0.06	0.05	0.04	0.06
Other post second.	0.36	0.34	0.34	0.29	0.24
High school	0.10	0.15	0.14	0.07	0.11
< high school	0.31	0.40	0.40	0.53	0.50
Ethnicity					
Australian born	0.71	0.72	0.74	0.69	0.64
Imm.–Eng. speak	0.12	0.13	0.12	0.11	0.10
Immigrant – non English speaking	0.17	0.15	0.14	0.20	0.25
Indigenous	0.01	0.04	0.04	0.02	0.06
Siblings	0.95	0.96	0.96	0.93	0.96
Number siblings	3.03	3.45	3.54	3.60	3.99
Father unemployed	0.12	0.17	0.18	0.14	0.14
Father's status (0 to 100)	45.58	46.72	48.01	36.56	37.19
Family type					
Coup. no children	0.39	0.17	0.19	0.49	0.25
Coup. with children	0.32	0.24	0.18	0.13	0.20
Single no children	0.18	0.23	0.27	0.27	0.39
Sing. with child.	0.06	0.27	0.26	0.07	0.15
Other	0.05	0.09	0.10	0.03	0.02

A number of patterns emerge when comparing the different groups in Table 11. For example, CRA recipients tend to be younger (34 years of age) than the population of working age non-disabled individuals as a whole (40 years of age). They are also substantially more likely to be female and unmarried. Such a pattern is consistent with *a priori* expectations. CRA recipients are, by definition, renting in the private rental market. Young unattached individuals are less likely to be in home ownership and therefore more likely to be eligible for CRA. This is reflected further in the family types of CRA recipients. Amongst all CRA recipients (column 2) and those collecting a government payment (column 3), approximately 53 per cent and 60 per cent are singles with or without children. By comparison, among the working aged-non disabled population as a whole only around 20 per cent of individuals are single (column 1).

The set of CRA recipients in Table 11 exhibit a similar education profile to that of the general population of working age non-disabled individuals, though they are more likely to suffer a long-term health condition (between 12 and 14 per cent compared to 8 per cent), albeit not one that can be characterised as work limiting. Patterns of immigrant and indigenous status are similar across CRA recipients and the population as a whole, though the former group contains a higher proportion of indigenous individuals (4 percent versus 1 percent).

As noted above, for each individual in the HILDA dataset, there is a measure of how many siblings the individual has, and whether or not the individual's father experienced significant spells of unemployment while she/he was growing up. These measures will be more fully exploited in the analysis presented in the next chapter. At this point, it is hypothesised that if an individual's father experienced significant spells of unemployment while the individual was growing up, the individual may be less likely to be observed in home ownership and therefore more likely to be receiving CRA. The rationale for this is that protracted unemployment may be indicative of lower resources available to the individual's father and therefore the household she/he grew up in. In turn, this may imply a lower probability that an individual is observed in home ownership. Lower household resources may limit the extent of bequests or gifts an individual receives and therefore reduce the likelihood that homeownership is facilitated through these paths. In a similar fashion, the absence of or fewer siblings may be associated with larger gifts or bequests from parents. In turn, this may point to a greater possibility that the individual is a homeowner, and is therefore less likely to be reliant on CRA.

A similar argument may be made in relation to the 'father's status' variable that is described above. There is some indication in Table 11 that the relationship between father's occupational status and the presence of siblings is consistent with that which is hypothesised above. For example, for CRA recipients who are benefit recipients (column 3) 'father's status' (42.7) is less than that of the population as a whole (45.8). CRA recipients are slightly more likely to have siblings than the population of working aged non-disabled individuals as a whole. In particular, they have more siblings (3.43 and 3.48 in columns 2 and 3 respectively) than the population of all working age non-disabled individuals (2.88 in column 1). 18 and 19 percent of CRA recipients had a father who suffered prolonged periods of unemployment while they were growing up compared to 10 per cent for all working age non-disabled individuals,

Table 11: Characteristics – working age non-disabled individuals, 2001

| | All individuals (1) | CRA recipients | | Benefit recip's not recv'ing RA (4) | Public housing tenants (5) |
		All (2)	Benefit recipients (3)		
Age	40.38	33.52	33.82	43.75	39.03
Male	0.50	0.26	0.32	0.30	0.41
Married	0.75	0.41	0.32	0.61	0.55
Number children	1.68	1.98	1.85	2.32	1.91
State					
NSW	0.34	0.34	0.33	0.28	0.29
Victoria	0.25	0.18	0.19	0.27	0.20
Queensland	0.19	0.26	0.24	0.18	0.17
South Australia	0.07	0.08	0.09	0.13	0.14
West Australia	0.10	0.10	0.11	0.10	0.13
Tasmania	0.02	0.03	0.03	0.03	0.02
ACT	0.02	0.00	0.00	0.01	0.02
NT	0.01	0.00	0.00	0.00	0.03
Long term health cond.	0.08	0.12	0.14	0.14	0.14
Education					
Higher degree	0.09	0.01	0.01	0.04	0.08
Bachelor degree	0.16	0.07	0.07	0.07	0.10
Other post second.	0.38	0.36	0.38	0.35	0.27
High school	0.11	0.15	0.14	0.10	0.12
< High school	0.23	0.38	0.38	0.41	0.39
Ethnicity					
Australian born	0.71	0.70	0.74	0.67	0.64
Imm. –Eng. speak	0.12	0.12	0.09	0.09	0.07
Immigrant – non English speaking	0.17	0.18	0.17	0.24	0.29
Indigenous	0.01	0.04	0.05	0.03	0.07
Siblings	0.96	0.97	0.97	0.95	0.96
Number siblings	2.88	3.43	3.48	3.59	4.04
Father unemployed	0.10	0.18	0.19	0.13	0.15
Fathers status	45.82	41.73	42.70	38.68	36.63
Family type					
Coup. no children	0.33	0.07	0.09	0.29	0.21
Coup. + children	0.42	0.33	0.23	0.33	0.34
Single no children	0.13	0.13	0.17	0.14	0.23
Sing. with child.	0.06	0.40	0.43	0.21	0.21
Other	0.05	0.06	0.08	0.03	0.00

The HILDA respondent's family type is also set out in Table 12. As expected, CRA recipients (columns 2 and 3) contain fewer couple families than the population as a whole and a substantially larger proportion of single families with and without children. This reflects the relatively high reliance on government payments among this group of individuals, and therefore eligibility for and receipt of CRA.

The second comparison to be made in Table 12 is that between CRA recipients who are benefit recipients in column (3) and benefit recipients not receiving CRA (ie. non CRA recipients in column 4). As noted previously, it is possible to think of the latter group as the control group against which the behaviour of CRA recipients may be measured. In both cases, individuals are recipients of a government pension, benefit or allowance. A comparison of these two groups *potentially* facilitates the identification of the impact of CRA payments on the labour market behaviour of government benefit recipients. Note that benefit recipients may not receive CRA for a number of reasons. First, they may be homeowners or public housing tenants in which case they will be ineligible for CRA. Alternatively, it may be that rent levels are below the rent threshold and the individual is therefore ineligible to receive any CRA.

Examining the figures in Table 12, CRA recipients tend to be younger (approximately 34 years) and less likely to be partnered (41 and 32 per cent for columns 2 and 3 respectively) compared to non-CRA benefit recipients in column 4. Interestingly, CRA recipients are more likely to be located in New South Wales (NSW). Only 28 per cent of benefit recipients not receiving CRA are located in NSW, whereas approximately 33 per cent of CRA recipients are located in NSW. Such an outcome possibly reflects, in part, the relatively high cost of home-ownership in NSW and rent levels, especially in Sydney. Hence, government payment/benefit recipients in NSW are more likely to receive CRA compared to those located in other regions of Australia.

It is also true that benefit recipients not receiving CRA are marginally less likely to have siblings but on average have slightly more siblings (3.59, column 4) compared CRA recipients (3.48, column 3). The former relationship is consistent with the hypothesised relationship between homeownership (and therefore reliance on CRA) and the presence of siblings discussed previously. On the other hand, the mean socio-economic status of the fathers of non-CRA benefit recipients (38.68) is actually lower than that of CRA recipients (42.70). This is inconsistent with the hypothesised relationship discussed previously. That is, previously it was suggested that a higher value or measure of the socio-economic status of the father's occupation would mean the individual was less likely to be observed to be in receipt of CRA. The exact implications of this are difficult to assess, as the difference in means for this variable across groups does not control for other confounding factors, such as age differences and variation in family structure between these groups. Further analysis of this will be undertaken in chapter 6. It should be noted, however, that CRA recipients are more likely to have had fathers who experienced spells of unemployment while they were growing up compared to benefit recipients not collecting CRA.

Differences in family structure between CRA recipients and non-CRA benefit recipients are similar to those identified above. That is, CRA recipients are less likely to be childless couples (7 to 9 percent versus 29 per cent) and more likely to be singles with and without children.

5.2.1 Labour market behaviour

Tables 12 and 13 contain details on the labour market behaviour of individuals in the HILDA dataset. As was the case previously, separate figures are provided for all individuals in the HILDA dataset (Table 12) and working age non-disabled individuals (Table 13). The discussion here will focus on the figures presented in Table 13 that consider the set of 'work ready' individuals.

Table 12: Labour market behaviour and housing status – all individuals, 2001

	All individuals (1)	CRA recipients		Benefit recip's not recv'ing RA (4)	Public housing tenants (5)
		All (2)	Benefit recipients (3)		
Receives wage/ salary	0.56	0.23	0.20	0.10	0.28
Amt received by those rec.ing wages ($ per wk)	775	342	268	325	507
Weekly hours by those working	39.31	24.79	21.71	23.62	33.59
Receives govt payment (pens/ ben/ allowance)	0.31	0.88	1.00	1.00	0.74
Amt received by those rec.ing govt. payment ($ p.a.)	8,851	9,651	9,678	8,836	8,639
Labour force activity					
Employed full time	0.45	0.08	0.05	0.09	0.18
Employed part-time	0.17	0.17	0.17	0.05	0.12
Unemployed	0.04	0.16	0.18	0.11	0.07
Not in labour force	0.35	0.59	0.60	0.72	0.63
Housing tenure					
Public housing tenant	0.04	0.00	0.00	0.12	1.00
Private renter	0.23	1.00	1.00	0.05	0.00
Fortnightly rent for private renters ($)	336	303	294	185	187

The first comparison will be between CRA recipients (columns 2 and 3) and all individuals in this population (column 1). As expected, CRA recipients are far less likely to be receiving a wage or salary compared to the population as a whole (between 30 and 28 percent of CRA recipients received a salary versus 73 per cent for the whole population). For those who are working, they tend to work fewer hours and earn a lower amount. In addition, CRA recipients who receive government payments receive a higher amount (approximately $9,500 per annum in columns 2 and 3) than the amount received by those in the whole population that receive payments (approximately $8,250 in column 1). This is consistent with the supplementary nature of CRA payments for those already receiving other government payments.

The second comparison is between CRA recipients receiving benefits (column 3) and benefit recipients not receiving CRA (column 4). For both of these groups, the proportion of individuals that report receiving wages or salaries is equal (28 percent), and amongst those who are working the weekly wages and hours of work is similar. It is true, however, that a larger proportion of CRA recipients (24 percent) report being unemployed compared with non-CRA recipients (15 percent). This pattern is reversed, however, for those who characterise themselves as out of the labour force. As expected, given the receipt of CRA, CRA recipients receive approximately $1,700 more in government payments compared with non-CRA recipients.

Table 13: Labour market behaviour and housing status – working age non-disabled individuals, 2001

	All individuals (1)	CRA recipients		Benefit recip's not recv'ing RA (4)	Public housing tenants (5)
		All (2)	Benefit recipients (3)		
Receives wage/ salary	0.73	0.30	0.28	0.28	0.53
Amt received by those rec.ing wages ($ p.a.)	809	368	272	278	569
Weekly hours by those working	40.18	25.53	21.89	22.25	34.49
Receives govt payment (pens/ ben/ allowance)	0.13	0.80	1.00	1.00	0.48
Amt received by those rec.ing govt. payment ($ p.a.)	8,251	9,474	9,526	7,884	8,459
Labour force activity					
Employed full time	0.60	0.12	0.07	0.07	0.35
Employed part-time	0.20	0.22	0.24	0.26	0.20
Unemployed	0.04	0.19	0.24	0.15	0.09
Not in labour force	0.17	0.47	0.45	0.52	0.36
Housing tenure					
Public housing tenant	0.02	0.00	0.00	0.15	1.00
Private renter	0.26	1.00	1.00	0.05	0.00
Fortnightly rent for private renters ($)	369	326	314	177	223

Also of interest in Table 13 are the labour force patterns of public housing tenants (column 5). It is noteworthy that a high proportion of working age, non-disabled individuals in public housing report receipt of wages and salaries (53 per cent). This is substantially higher than that for the benefit recipient groups irrespective of whether they receive CRA (columns 3 and 4). Moreover, public housing tenants tend to work more hours (34.49 hours) and report higher weekly wages ($569) than the benefit recipient groups. Nonetheless, the labour market activity of public housing tenants suggests they have a weaker attachment to the labour force as a

group compared to the population of working age non-disabled individuals as a whole. Hence, the proportion reporting that they work either full time or part time is approximately 55 percent compared to 80 percent for the population as a whole. Moreover, average hours are lower for public housing tenants who do work (34.5 hours) compared to the population as a whole (approximately 40 hours in column 1). One noteworthy feature of the figures in Table 13 is the comparison between public housing tenants and CRA recipients. For example, public housing tenants in Table 13 have higher rates of participation in the labour force (column 5) compared to those receiving CRA (columns 2 and 3). Full-time or part-time work by public housing recipients is at 55 per cent compared to between 31 (column 3) and 34 per cent (column 2) for CRA recipients. These figures are consistent with patterns found in other data sources such as the Survey of Income and Housing Costs (SIHC).[10]

5.3 Summary

The discussion in this chapter points to a number of conclusions. First, recipients of HA (CRA and public housing) tend to have characteristics consistent with *a priori* expectations. Hence, CRA recipients for example tend to be younger and more likely to be unattached. Further, HA recipients in general tend to have poorer education levels than others. Similarly, a measure of the status of their father's occupation when the individual was aged 14 suggests that HA recipients grew up in households where the father's occupation was consistent with a lower socio-economic status. More importantly, they were likely to have grown up in households where the father suffered prolonged periods of unemployment.

The figures in this chapter provide some insight into the implications of receipt of HA on labour market outcomes. For public housing tenants, there is some evidence to suggest that labour market attachment is weaker compared to the population as a whole. On the other hand, public housing tenants exhibit labour market engagement levels that exceed those of CRA recipients (Table 13). Amongst CRA recipients, labour force activity is clearly weaker than that of the general population. However, given that CRA is an entitlement program for those in receipt of a government, pension, benefit or allowance, it is not clear how HA in the form of CRA affects labour market activity *per se*. Benefit recipients receiving and not receiving CRA exhibit similar patterns of engagement in the labour market.

It is difficult to assess the causal relationship between HA receipt and labour market activity from the results presented in this chapter. Strong conclusions are difficult by virtue of the fact that examining unadjusted means does not allow the identification of the separate effect of HA measures on labour market behaviour. This requires more advanced analytical techniques and is discussed in the next chapter.

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[10] Personal communication with Gavin Wood (30 August 2004). Note that although the patterns are similar, the absolute values differ somewhat between the authors' figures derived from HILDA and those from the SIHC.

6 RECEIPT OF HOUSING ASSISTANCE AND LABOUR MARKET BEHAVIOUR

This chapter seeks to identify what effect, if any, the receipt of HA measures has on labour market activity. It considers the effect of HA on 2 measures of labour market outcomes, namely labour force participation and hours worked among those who participate in the labour market. A number of econometric models are presented and methodological issues are also dealt with during the course of the discussion before results are presented.

6.1 Methodology and results

The modelling approach described below facilitates some analysis of the role of poverty traps and related labour market incentives of HA programs. Ideally, the analysis of HA programs would identify the specific role of Effective Marginal Tax Rates (EMTRs) and the disincentives that they create for labour market activity. As noted in chapter 2, it is also possible that the labour market impacts of HA may arise through other potential pathways such as security of tenure created by public housing.

The role of EMTRs is of particular relevance, however, given it was the notion of poverty and low income traps that was in part the motivation for the project. Yelowitz (2001), for example focuses on the location of 'notches' in the budget constraints of HA recipients and assessing the impact of the shape of the individual's budget constraint on his or her labour market activity. In the context of the present analysis, a similar approach would require substantial additional work than what has already been undertaken in this project. Information on an individual's payment rates when in receipt of a government payment, own and spousal earned and unearned income, and, in the case of public renters, the level of rent paid relative to the market rent. At the same time it should be recognised that such an approach would represent a useful extension of the work in this project.

The approach adopted here represents a 'reduced form' approach in that the role of HA receipt will be assessed for its impact on two aspects of labour market activity, namely labour force participation and hours worked. To the extent that poverty or low income traps create disincentives to individuals to engage in paid work, either by undertaking any employment or by increasing hours worked, the analysis will provide insight into the existence and nature of labour market disincentives created by HA programs.

For the reasons canvassed in the earlier positioning paper and in chapter 2, there are a number of reasons why we might expect the receipt of HA measures to affect the labour market activity of recipients. These relate to the income and substitution effects of transfer programs. Moreover, as discussed in the positioning paper it is an empirical question what the net impact of receipt of HA is on labour market activity.

6.1.1 Labour force participation

A number of approaches to modelling the role of HA measures on labour force participation have been applied in the literature (see for example Moffitt 1992). The approach adopted in the analysis here follows previous studies that that examined HA programs in the United States by using a reduced form approach to labour force participation. In effect, an individual will be assumed to participate in the

labour force if the utility associated with participation is greater than the utility from non-participation. Note that labour force participation here (and in all subsequent analysis) is defined as working a positive number of hours, rather than working or searching for work. This model can be captured with the following simple specification:

$$LFP^* = X'\beta + Z'\gamma + \varepsilon \qquad (1)$$

where $LFP = 1 \ if \ LFP^* \geq 0 \ and \ LFP = 0 \ if \ LFP^* \leq 0$. The vector X captures the heterogeneity of preferences with respect to work and is a function of the individual's characteristics such as age, gender and education level. Similarly, Z captures HA program participation (either receipt of CRA and or public housing). The error term (ε) is assumed to be normally distributed. In essence, the right hand side of (1) is interpreted as the difference between utility associated with labour force participation and non-participation. If this exceeds zero, the individual is observed in employment ($LFP^* \geq 0 \ so \ LFP = 1$). The vectors β and γ are parameters to be estimated. Although (1) may be estimated using ordinary least squares, the non-normality of the error term requires that another approach such as probit is used to ensure consistent and unbiased estimates of the parameters.

A number of issues arise when estimating a specification such as that set out in (1). In particular, if HA program participation is determined by the same unobservable characteristics that determine labour force participation, the Z variable is endogenous and the parameter(s) that measure the effect of the receipt of HA on labour force participation (γ) are likely to be biased and inefficient. The problem is analogous to the selection issue in econometric analysis. Individuals who are not likely to participate in the labour force also choose to or are selected to participate in HA programs. Failing to take account of this selection into the HA program results in an incorrect estimate of the impact of HA program participation on labour force participation. A number of strategies are proposed to deal with this problem.

First, the sample used in a number of estimations will be limited to government payment (pension, allowance and benefit) recipients. That is, rather than taking the working age non-disabled population and identifying the effect of HA receipt on labour force participation, only the set of government payment recipients will be used. The rationale for such an approach is two-fold. First, this should ameliorate, to some extent, the endogeneity problem given that CRA is an 'add on' for government payment recipients. The sample of individuals chosen for analysis will have selected themselves into government payment programs. Such an approach will allow the identification of what role, if any, the receipt of the additional payment in the form of CRA impacts on the labour force participation decision for the group of benefit recipients. The second reason for using such an approach is that arguably, it is the impact of HA receipt (especially CRA) over and above other government payments on labour market behaviour that is of interest for policy purposes. The discussion in chapter 5 indicated that benefit recipients have a substantially lower propensity to participate in the labour market than do others in the population. Amongst this group, however, the specification set out above will provide insight into how the additional benefits offered by HA programs, such as CRA, affect the labour force participation decision.

Although the use of benefit participants should ameliorate the problem of endogeneity, it is still possible that amongst government payment recipients individuals will 'select into HA programs'. In turn, estimates of the effect of CRA on labour force participation in (1) may be incorrect (biased). As a specification check, models of the joint decision to participate in the labour market (*LFP**) and HA programs (*P**) will be estimated. In particular:

$$LFP^* = X_1'\beta_1 + P\gamma + \varepsilon \qquad\qquad (2a)$$

$$P^* = X_2'\beta_2 + \mu \qquad\qquad (2b)$$

where the first equation, (2a), has a similar meaning as equation (1) above. Further, equation (2b) captures the decision to participate in the HA program. In equation (1), HA program participation was captured using the Z variable. In equations (2a) and (2b), HA program participation is captured using P so that $P = 1$ *if* $P^* \geq 0$ and $P = 0$ *if* $P^* \leq 0$. The vector X_1 captures the heterogeneity of preferences with respect to participation in the labour force. Similarly, X_2 captures the determinants of participation in the HA program and is a function of the individual's characteristics such as age, gender and education level. Holly *et al.* (1998) sets out a procedure by which such a model may be estimated.

Identifying the parameters in β_1, β_2 *and* γ requires that some variables be included in the vector X_2 but not included in X_1. Ideally, these variables should influence the decision to participate in the HA program but not the labour force participation decision. That is, these variables should influence participation in the labour force only indirectly through the effect on the participation in the HA program. A number of different variables were used for this purpose including whether the individual's father was unemployed for a period of 6 months or more and the number of siblings the individual has.

The rationale for the choice of these two variables was presented in the previous chapter. In short, if an individual's father had substantial spells of unemployment over time then the level of wealth available in the household is likely to be lower. In turn, there will be a lower probability that the individual (the respondent in the HILDA dataset) received bequests or gifts from their parents, thereby reducing the likelihood of homeownership. In the absence of homeownership, the individual will be more likely to be observed in receipt of HA measures. Analogous reasoning suggests that the smaller the number of siblings the HILDA respondent reports having, the greater the likelihood that the individual will have received gifts or bequests that increase the probability of home ownership.

The results of the modelling exercise are shown in Table 14 below. Columns (1) and (2) give results for a simple model where all individuals (including public tenants) are included, and a measure of HA receipt (*Housing Assistance=1* if the individual was identified as having received CRA or was a public housing tenant) incorporated into the model. In columns (3) to (6) public housing tenants are excluded from the analysis, hence the smaller sample size reported for the specifications in those columns. Further, in columns (3) to (6) the measure of HA receipt (Rarec) is equal to unity if the individual is identified as a CRA recipient, and zero otherwise.

To facilitate easier interpretation of the coefficients in the probit model (column 1), the marginal effects computed at the mean of the variables are shown in column (2). The marginal effects convert the probit parameter estimates into the effect on the probability that an individual is observed to be participating in the labour force. For example, the coefficient of -0.035 on male in column (2) indicates that, all other things equal (ceteris paribus), males are 3.5 per cent less likely to be observed working compared to females (the omitted category).

A number of interesting results emerge from the analysis presented in Table 14. First, as expected, the presence of an infant child (Less than five years old) reduces the probability that an individual is observed to work in a statistically significant manner. The marginal effect is estimated to be equal to approximately 13 per cent. That is, the presence of an infant child reduces the likelihood that an individual is observed working by approximately 13 per cent, *all other things equal*. Similarly, relative to the omitted category of a higher degree, those with an education level that is less than high school are less likely to participate in the labour force (by approximately 24 per cent, *all other things equal*). Also, individuals born in Australia are more likely to be observed participating in the labour force.

However of most interest is the effect of receipt of a housing assistance measure, either CRA or public housing (the coefficient on Housing assist). This coefficient of -0.06 suggests that receipt of such a benefit reduces the probability of working by approximately six percent, *all other things equal*. The result is statistically significant at the 10 percent level.

The results presented in columns 3 and 4 repeat this exercise, this time using a sample that excludes public housing tenants. Thus, the measure of housing assistance receipt in this case is now the receipt of CRA. The results are similar to those reported for the models reported in columns 1 and 2. In this case, however, the marginal effect of CRA receipt is somewhat higher at approximately 8.3 per cent. The result is also statistically significant at the 5 percent level. As noted previously, however, these results may also suffer from the problem of endogeneity which may lead to biased estimates of the effect of HA on labour force participation.

Table 14: Labour force participation estimates

	Univariate probit		Univariate probit		Bivariate probit	
	Coeffs (1)	Marginal effects (2)	Coeffs (3)	Marginal effects (4)	CRA equation	LFP equation
Age	0.0211 (0.0300)	0.0077	0.0218 (0.0316)	0.0079	0.0205 (0.0341)	0.0222 (0.0305)
Age^2	-0.0004 (0.0004)	-0.0001	-0.0004 (0.0004)	-0.0001	-0.0008* (0.0004)	-0.0005 (0.0004)
Male	-0.0970 (0.1036)	-0.0350	-0.1678 (0.1103)	-0.0603	0.4535*** (0.1161)	-0.0382 (0.1467)
Married	-0.1115 (0.0976)	-0.0407	-0.2169** (0.1037)	-0.0793	-0.8586*** (0.1040)	-0.4352*** (0.1693)
Child < 5	-0.3780*** (0.1142)	-0.1315	-0.3072** (0.1204)	-0.1082	0.3317*** (0.1225)	-0.1879 (0.1506)

	Univariate probit		Univariate probit		Bivariate probit	
	Coeffs (1)	Marginal effects (2)	Coeffs (3)	Marginal effects (4)	CRA equation	LFP equation
Child (5 – 14)	0.1370 (0.1048)	0.0502	0.1651 (0.1110)	0.0606	0.0635 (0.1149)	0.1675 (0.1076)
Health condition	-0.0402 (0.1299)	0.0145	-0.0792 (0.1402)	-0.0285	0.2597* (0.1479)	0.0009 (0.1469)
Higher degree	0.1362 (0.3178)	0.0509	-0.0879 (0.3635)	-0.0315	-0.6063 (0.4556)	-0.2446 (0.3664)
Certificate	-0.2829 (0.1765)	-0.101	-.3243* (0.1810)	-0.1161	-0.0410 (0.1938)	-0.3157* (0.1781)
High School	-.2714 (0.2065)	-0.0939	-.2821 (0.2144)	-0.0977	0.0805 (0.2248)	-0.2453 (0.2109)
< High school	-0.6808*** (0.1768)	-0.2388	-0.7600*** (0.1828)	-0.2645	0.0753 (0.1948)	-0.6860*** (0.2019)
Australian born	0.4589*** (0.1284)	0.1585	0.5097*** (0.1390)	0.1750	-0.0950 (0.1446)	0.4340*** (0.1584)
Migrant (Eng speaking country)	0.3416** (0.1832)	0.1302	0.3781* (0.1940)	0.1447	0.0407 (0.2048)	0.3454* (0.1926)
Indigenous	-0.6067** (0.2659)	-0.1872	-0.5155* (0.2970)	-0.1643	0.3887 (0.2892)	-0.3374 (0.3230)
NSW	-0.3486 (0.2241)	-0.1214	-0.4412* (0.2330)	-0.1521	0.5472** (0.2503)	-0.2587 (0.2678)
Vic	-0.0392 (0.2220)	-0.0142	-0.1368 (0.2315)	-0.0492	0.1817 (0.2518)	-0.0697 (0.2301)
Qld	-0.1032 (0.2226)	-0.0371	-0.1695 (0.2308)	-0.0606	0.6099** (0.2486)	0.0107 (0.2559)
SA	-0.1176 (0.2354)	-0.0420	-0.2061 (0.2457)	-0.0727	0.4960* (0.2658)	-0.0612 (0.2617)
WA	0.0657 (0.2432)	0.0242	0.0470 (0.2543)	0.0173	0.4906* (0.2790)	0.1740 (0.2600)
Number siblings	-0.0023 (0.0175)	-0.0008	-0.0068 (0.0196)	-0.0024	0.0517*** (0.0197)	
Father unemp.ed	-0.1772 (0.1279)	-0.0627	-0.1400 (0.1327)	-0.0501	0.0710 (0.1344)	
Housing assist.	-0.1640* (0.0994)	-0.0596				
Rarec			-0.2304**	-0.0833		-1.0391**

	Univariate probit		Univariate probit		Bivariate probit	
	Coeffs (1)	Marginal effects (2)	Coeffs (3)	Marginal effects (4)	CRA equation	LFP equation
			(0.1088)			(0.5214)
Constant	-0.1456 (0.6617)		-0.0378 (0.6969)		-0.2222 (0.7415)	0.3795 (0.7456)
rho					0.5036 (0.3375)	
Sample size	931		845		845	
Psuedo R^2	0.0725		0.0846			

Notes for Table 14:

The marginal effects of the continuous variables are calculated at the mean. For the discrete variables, marginal effects are calculated by changing the value of the variable from 0 to 1. * denotes significance at the 10 percent level; ** denotes significance at the 5 percent level; and, *** denotes significance at the 1 percent level.

To overcome the problem of endogeneity a bivariate probit model has been estimated, the results of which are set out in columns 5 and 6 of Table 14. The coefficients of the bivariate probit model are difficult to interpret and as a result, to capture the effect of CRA receipt on labour force participation the approach taken corresponds to that described in Greene (1998). In essence, this approach asks what the average predicted probability that an individual is observed to work is as we change CRA status from non-receipt to receipt. By taking an average of the difference in the probability of participating in the labour force when we change CRA status in this way, it is possible to identify the 'average treatment effect' of CRA receipt. This average treatment effect gives an approximate impact of CRA receipt on labour force participation. The estimates on this measure were found to be large, exceeding 30 per cent. Moreover, the results of the estimation in Table 14 suggests that the problem of endogeneity is not significant given that the estimate of rho, the correlation coefficient between the error terms in the two equations in the bivariate probit, is not significantly different from zero.

In light of these results, the probit results reported in columns 3 and 4 of Table 14 are taken to more accurately reflect the likely impact of CRA receipt on labour force participation. The figure in column 3 (-0.2304) corresponds to a marginal effect on the probability of labour force participation of -0.08 or negative 8 per cent (column 4). Hence, the results suggest that receipt of CRA reduces the probability that an individual in receipt of government payments is in the labour force by approximately 8 per cent among government benefit recipients. These results suggest that there is *some* evidence CRA receipt reduces labour force participation.

6.1.2 Hours of work

Another dimension of labour force activity that may be impacted by the receipt of HA measures is the number of hours of work or employment actually undertaken. Although this will be equal to zero for those who choose not to participate in the

labour force, the choice of hours for those participating in the labour force may vary. In light of the additional information hours of work conveys over and above an examination of the participation decision, an analysis of the hours of work observed among a set of HILDA respondents is presented below.

Modeling the choice of hours of employment presents a number of issues similar to those discussed above in relation to the labour force participation decision. In addition, another problem is that many individuals will be observed to choose zero hours of work or employment. Estimation of an hours relationship by ordinary least squares (OLS) when the dependent variable is equal to zero in many cases will result in biased and inefficient estimates. Following Painter (2001) and Ong (1998), the approach used to estimate the choice of hours will be a tobit specification of the following form:

$$H_i = X_i^{'}\beta + Z_i^{'}\gamma + \varepsilon_i \qquad if \ \ RHS > 0 \qquad\qquad (3)$$
$$H_i = 0 \qquad\qquad otherwise$$

where H represents hours of work per week. The vector X captures the heterogeneity of preferences with respect to hours of work and is a function of the individual's characteristics such as age, gender and education level. Similarly, the Z vector captures program participation (either receipt of CRA and or public housing). As was previously the case, the vectors β and γ are parameters to be estimated using a maximum likelihood procedure that takes account of the left censoring of the dependent variable. The 'left censoring' issue reflects the fact that reported hours of work cannot be less than zero so that many observations will be 'censored' on the left.

The issue of endogeneity of the HA participation program variable also arises when estimating a specification such as that set out in (3). In particular, if HA program participation is determined by the same unobservable characteristics that determine hours of work, the Z variable is endogenous and the parameter(s) in γ are likely to be biased and inefficient. This problem will be partly ameliorated by limiting the sample of individuals used in the estimation of (3) to government payment recipients. For similar reasons to those discussed above, this will limit the problem caused by selection into the HA program and its relationship to choice of hours of work.

A second approach will also be used to eliminate the endogeneity associated with the HA program participation variable. Following Greene (2003, 787-89), 'treatment effect' models will be estimated. These models take the following form:

$$H_i = X_i^{'}\beta + Z_i^{'}\gamma + \varepsilon_i \qquad\qquad (4a)$$
$$Z_i^{'} = w_i^{'}\delta + u_i \qquad\qquad (4b)$$
$$Z_i^{'} = 1 \ if \ \ Z_i^{'} > 0, \ 0 \ otherwise.$$

In this model, equation (4b) captures whether the individual has been 'treated', which in the present context refers to the receipt of HA. Estimation of a model such as that set out in (4a)-(4b) requires that determinants of whether the individual is 'treated' be identified. Again, it is proposed to use a measure of whether or not the individual's father suffered extensive periods of unemployment and or the number

of siblings for this purpose. The rationale for the use of these variables has been canvassed previously.

The results in Table 15 are arranged as follows. In column 1 a tobit model capturing the effect of HA receipt (either CRA or public housing) for all individuals in the sample is presented. The sample of individuals in column (1) are those in receipt of a government payment (pension, benefit or allowance), including those who reside in public housing. This mirrors the specification set out in column 1 and 2 of Table 14. In columns 2 and 3, results from a sample that excludes public housing tenants and uses receipt of CRA (Rarec) as a measure of HA receipt are set out.

The results are in general consistent with *a priori* expectations. For example, those with an infant child work less hours (approximately 10 less hours) compared to those without children less than 14 years of age. Indigenous individuals also work substantially fewer hours on average, *all other things equal*. The large negative coefficient on this variable (-19.57) suggests that a number of factors that have not been accounted for may be influencing the reported impact of indigenous status on hours of work. In the model that includes both CRA recipients and public housing tenants (column 1), there is only limited evidence that receipt of HA reduces hours worked. The coefficient on the HA variable in this equation (column 1) is just statistically significantly different from zero at the 10 per cent level. In comparison, there is stronger evidence that receipt of CRA reduces the hours worked in a significant manner as revealed in the sample that excludes public housing recipients (column 2). The estimates suggest that individuals in the sample in receipt of CRA work approximately 6 hours less per week than government benefit recipients who did not receive CRA, *all other things equal*.

As noted previously, however, the results presented in column 2 of Table 15 may present problems because the receipt of CRA is endogenously determined. That is, individuals select into CRA. To take account of this, a 'treatment effects' model as discussed above was estimated and the results presented in column3 of Table 15. The determinant of treatment being whether the individual's father suffered a pronounced period(s) of unemployment at some point in time while the individual was growing up. It is now the case that the receipt of CRA has no impact on hours worked as the negative coefficient on this variable is not statistically different from zero. This suggests that receipt of CRA does not affect the number of hours worked among government benefit recipients. A caveat should be noted with these results. One source of endogeneity, in particular the self-selection by individuals to participate in the labour force or not has been ignored. To take account of this would require a substantially more complex modelling framework. Although out of the scope of this project, such an extension of this would be a useful extension of the work described above.

Table 13: Hours of work estimates

	Tobit model	Tobit model	Treatment effects model
Age	1.5799* (0.8097)	1.5922* (0.8514)	0.8250*** (0.3130)
Age^2	-0.0222** (0.0097)	-0.0219** (0.0103)	-0.0107*** (0.0037)
Male	-0.1044 (2.8078)	-1.7983 (2.9844)	-0.0965 (1.1047)
Married	-1.7735 (2.6317)	-4.1112 (2.7877)	-0.8572 (1.0485)
Child < 5	-9.9766*** (3.1042)	-8.2390** (3.2501)	-3.0642** (1.1292)
Child (5 – 14)	2.5231 (2.8318)	3.1730 (2.9836)	0.7545 (1.1272)
Health condition	0.2305 (3.5366)	-0.6046 (3.8161)	0.2524 (1.4036)
Higher degree	5.8012 (8.2188)	1.0466 (9.3099)	2.1556 (3.7182)
Certificate	-3.8596 (4.5943)	-4.7293 (4.6733)	-0.8013 (1.8627)
High School	5.8698 (5.4051)	-5.6792 (5.5645)	-1.9496 (2.2036)
< High school	-16.0537*** (4.6570)	-18.076*** (4.7860)	-5.2559*** (1.8454)
Australian born	12.9116*** (3.5548)	13.7828*** (3.8433)	3.7110*** (1.3039)
Migrant (Eng speaking country)	8.3075* (5.0212)	8.9529* (5.3159)	1.4318 (1.8911)
Indigenous	-19.5703** (7.4608)	-17.4244** (8.2804)	-5.5220** (2.7488)
NSW	-9.6263 (5.9321)	11.7669* (6.1037)	-4.3299** (2.3740)
Vic	-2.8676 (5.8506)	-5.0229 (6.0352)	-3.0539 (2.3813)
Qld	-1.9122 (5.8757)	-3.2741 (6.0257)	-1.28289 (2.3683)
SA	-2.2465 (6.2345)	-3.9503 (6.4402)	-1.6908 (2.5061)
WA	1.1608 (6.4278)	0.4042 (6.6490)	-1.0656 (2.6230)
Number siblings	0.2550 (0.4734)	0.2844 (0.5287)	
Father unemp.ed	-3.2925 (3.4667)	-2.3224 (3.5814)	
HA	-4.4669* (2.6678)		

	Tobit model	Tobit model	Treatment effects model
Rarec		-6.0640** (2.9037)	-3.1271 (6.7834)
Constant	-29.0558 (17.6923)	-26.8330 (18.5675)	-1.9251 (7.5610)
Sample size	931	845	845
Treatment eqn.			
Father un.emped			0.2635** (0.1194)
Constant			-0.2920*** (0.0476)

Labour market behaviour before and after receipt of public housing

A key advantage of the HILDA dataset is that it tracks individuals over time, allowing changes in behaviour to be associated with changes in lifestyle situations. In particular, individuals in the sample and their labour market activity can be identified in both 2001 and 2002. Following Fischer (2000), individuals who exit and enter public housing have been identified and their labour market behaviour (in terms of labour force participation and hours of work amongst those who work) prior to entry and post-exit from public housing, are compared. The results of this analysis are set out below in Table 16.

Table 14: Labour force behaviour of public housing tenants

	Public housing entrants		Public housing exiters	
	LFP	*Wkly Hrs wked*	*LFP*	*Wkly Hrs wked*
2001	0.46	14.44	0.56	20.15
2002	0.39	12.71	0.55	21.99
Difference	-0.07	-1.73	-0.01	1.84
Sample size	43		48	

The results of this exercise shed some light on the impact of public housing tenancy on labour market behaviour. Table 16 indicates that 46 per cent of public housing entrants participated in the labour force in 2001, and of this group, only 39 per cent were participating in 2002. Similarly, public housing entrants worked on average 14.4 hours per week in 2001, but this declined to 12.7 hours per week in 2002. This suggests that entry to public housing diminishes labour force participation and average weekly hours worked. The low rates of participation and hours worked may reflect, at least in part, the allocation policies associated with public housing whereby those who are have some well defined need are given priority for this type of assistance. In turn, however, following allocation to a public housing tenancy there is no longer a need, or as pronounced a need, for

participation in the labour market given the rental subsidies associated with public housing. This may reflect the 'income effect' associated with the receipt of public housing.

Table 16 also shows that the rate of participation for public housing exiters was significantly higher at 56 per cent in 2001 and 55 per cent in 2002. This indicates that for those who exit public housing, labour force participation remains largely unchanged. By comparison, weekly hours worked amongst those who work increases by almost two hours. While interesting, these results in Table 16 should be treated carefully. There is only a limited number of public housing entrants and exiters in the years examined in the HILDA dataset. Statistical tests (t tests) of the difference in hours worked and proportion of entrants or exiters working show that the differences reported in Table 16 are not statistically significant. This reflects, in part, the small number of movers in each year of between 40 to 50. Additional analysis along these lines would, however, be extremely useful in the future. Moreover, in addition to drawing on a larger sample of individuals it would also be possible to examine employment patterns from a number of years prior to and after the transition to or from public housing. Similar to the analysis is undertaken in Fischer (2000), this would be a useful extension of the analysis presented above.

6.2 Summary

The results of the analysis in this chapter can be summarised as follows. There is some evidence that receipt of CRA reduces the likelihood that an individual is observed to be participating in the labour force. Conversely, the analysis of hours worked suggests that once the potential endogeneity of CRA receipt is taken into account receipt of HA measures does not affect hours worked. For public housing recipients, there is some evidence that entry to public housing coincides with a reduction in labour force participation and hours worked amongst those working. Similarly, those exiting public housing exhibit an increase in hours worked in the year after they have left public housing. The results for the public housing need to be treated cautiously, however, as they are based on a small set of individuals observed to enter or exit this form of tenure. Moreover, the changes are not found to be statistically significant and warrant additional analysis over time as more waves of HILDA become available.

There are a number of ways that the analysis in this chapter could be extended. Identifying the distinct roles of EMTRs and other dimensions of HA would be a useful first step. The HILDA dataset is one possible source that may be utilised for this purpose as it contains detailed information on individual and household incomes. It may be possible to use such information to infer the EMTRs and or replacement rates faced by HA recipients. In turn, it may be feasible to identify separately the various pathways by which HA influences labour market outcomes including financial or economic incentives (EMTRs and replacement rates), neighbourhood effects and the impact of security of tenure in public housing. Another useful extension would be an analysis of public housing tenant's labour market behaviour in the periods prior to and after entry or exit from public housing. As noted above, analysis such as this will be possible over time as the HILDA dataset incorporates additional waves.

7 CONCLUSIONS AND POLICY IMPLICATIONS

The results of the discussion and analysis presented in this report can be summarised as follows. First, the examination of the economic model describing labour market activity in chapter 2 suggested that there are grounds for believing that the receipt of HA measures may be associated with disincentives to be actively engaged in the labour market. At the same time, however, it was clear from the discussion that the extent of any disincentive was an empirical question that could only be addressed with appropriate analysis of data. Moreover, it is also true that HA programs may actually enhance labour market activity through a variety of mechanisms such as stability of tenure. The evidence from the analysis of HA programs from overseas was ambiguous, with some research identifying a positive effect on labour market activity from HA receipt and others finding a negative or zero impact in terms of hours worked and or labour force participation. In Australia, very little evidence exists of the effect of HA programs on labour market outcomes.

The discussion in chapters 3 and 4 point to the usefulness of the HILDA dataset for the analysis of HA programs. The HILDA dataset contains a plethora of information that can be exploited to examine housing related issues. By the same token, the analysis presented in chapter 5 makes clear that the HILDA dataset contains some important limitations. A series of simplifying assumptions are required when utilising this resource for the type of analysis conducted in this project. This is not unusual when undertaking economic analysis. Nonetheless, it is also true that the results derived from the analysis undertaken in this project may be further refined over time with investment of sufficient effort. Further consultation with staff from the Department of Family and Community Services would be particularly useful in this regard. It should be acknowledged that the comments that have been provided by officers of the Department of Family and Community Services as part of this project have proved useful throughout the course of the project.

The individuals and households identified as receiving HA measures, either in the form of CRA or public housing, have characteristics that are largely consistent with *a priori* expectations. Hence, as discussed in chapter 5 public housing households tend to have lower income levels than those in the private rental market, and also be located in areas with relatively low levels of socio-economic advantage. Similarly, CRA recipients tend to have lower labour force attachment compared to the general population of working age non-disabled individuals. Given CRA is a supplementary payment to private renters receiving some form of government payment, this is consistent with *a priori* expectations. It is also important to stress that CRA recipients in this sub group of the population (working age non-disabled individuals) have similar patterns of engagement in the labour force as the set of government payment recipients that does not receive CRA.

In terms of the role of HA measures on labour market behaviour as analysed in chapter 6, a number of conclusions arise from the analysis. First, using a model of discrete choice in which individuals are modelled as participating in the labour force or not, there is *some* evidence that receipt of CRA reduces the likelihood that an individual is observed to be engaging in paid employment. Conversely, the analysis of hours worked using the tobit framework, which takes account of the fact that a large number of individuals will choose to work zero hours, suggests that receipt of HA measures, especially CRA, does not impact on the choice of hours

worked. Once the potential endogeneity of participation in the HA program is taken into account, the analysis indicates that receipt of HA does not reduce the number of hours worked.

For working age non-disabled public housing tenants the engagement in the labour force is more limited than that of a comparable population that do not reside in public housing (Table 13). It is also true, however, that working age non-disabled public housing tenants exhibit higher rates of labour market engagement compared to the same group of CRA recipients. Moreover, there is *some* evidence that entry to public housing coincides with a reduction in labour force participation and hours worked amongst those working. Similarly, those exiting public housing tend to increase hours worked in the year after they have left public housing. As highlighted in chapter 6, the results for the public housing entrants and exiters should be interpreted cautiously. They are based on a small set of individuals observed to enter or exit this form of tenure and the changes are not found to be statistically significant. Additional analysis of this using a longer time frame would be a useful first step in gaining greater insight into this aspect of the labour force behaviour of HA recipients. With additional waves of HILDA being released, such an analysis should become feasible over time.

The analysis in this project has provided some insight into the impact of HA measures on labour market activity and outcomes of recipients. These results from the analysis suggest that the programs do not, *per se*, have a sizeable or substantial impact on labour market activity for recipients of the HA measures. It should be stressed for example that the receipt of CRA is conditional on the receipt of other government payments. To the extent that individuals in receipt of CRA face labour market disincentives such as poverty traps or low income traps, this will in part reflect those of the primary payment that is paid in conjunction with CRA. Hence, reducing the disincentives for recipients of HA programs to engage in the labour force (especially CRA recipients) cannot be dissociated with the broader question of how to limit the disincentives from income support programs more generally.

In terms of the original research questions posed by the project, the following conclusions may be set out. As regards the nature of the poverty traps and incentives for individuals and households in receipt of HA in Australia to participate in the labour market, this issue was canvassed in Whelan (2004). For example, one consequence of the payment of CRA is that recipients often 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 as CRA is generally the last payment to be withdrawn (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) likewise 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 chapter 2, prolonging the high EMTRs faced by individuals potentially acts as a disincentive to increase labour market activity.

The nature and range over which the disincentives apply vary according to the payment received by the individual or household that entitles them to CRA. Hence, for recipients of CRA by virtue of receiving FTB-A at a rate greater than the base

rate, both FTB-A payments and CRA are reduced on a proportional basis. This 'stacking' of withdrawal rates tends to increase the EMTRs faced by those who receive HA by virtue of the receipt of FTB-A. On the other hand, where CRA is paid by virtue of the receipt of a pension, benefit or allowance, CRA is the last payment to be withdrawn and as noted above the range of earned income over which the individual faces high EMTRs is prolonged.

Similarly, in Whelan (2004) it was also noted how labour market incentives for public housing tenants differ to those associated with 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. Whereas CRA tends to prolong the range of high EMTRs, public housing rent setting procedures tend to increase the EMTR faced by the HA recipient.

The analysis reported in chapters 5 and 6 of this report have addressed the questions relating to the patterns of labour force activity and income support receipt observed among beneficiaries of HA in Australia; and, the determinants of participation in the labour force of HA recipients, especially as they relate to the receipt of HA benefits. The results of this analysis are canvassed above. It is important to note that the approach taken in this project is essentially a reduced form approach in which the role of the receipt of HA measures on certain dimensions of labour market activity has been considered.

Ideally, separate identification of the various pathways by which HA measures may influence labour market behaviour should be investigated. Hence, questions investigating the separate role of high EMTRs produced by the 'stacking' of taper rates under public housing rent setting rules; the prolonging of relatively high EMTRs under CRA; and, any indirect costs or benefits associated with locational aspects of HA measures (fixed location under public housing and location choice under CRA), warrant further investigation. In the latter case, for example, the evidence in this report suggests that public renters are located in areas of relatively low socio-economic opportunities (Table 9). The end result may be that residents of public housing households face limited employment opportunities or deleterious neighbourhood effects that tend to limit engagement in the labour market.

The final research question concerned the issue of how HA programs may be structured to eliminate or minimise disincentives for recipients to engage in the labour force. The analysis undertaken for this project provides some insights into this question. First, it is noticeable that the more limited engagement of public housing tenants compared to the population as a whole may largely be explained by the allocation criteria by which tenure in public housing is granted. Public housing tenants exhibit a disproportionately high incidence of disability that result in less labour market engagement than the general population. However, when confined to working age non-disabled individuals the amount of labour market activity is greater than that of CRA recipients, but less than that of the working age

non-disabled population in general (see tables 11 and 13). With limited availability, arguably it is not appropriate to improve the engagement of public housing tenants in the labour market by selecting a more 'work ready' set of individuals for this type of assistance. Nonetheless, the stacking of taper/ withdrawal rates represents a potential source of labour market disincentives that could possibly be addressed by reconsidering the relationship of income and asset tests where the public housing tenant is also in receipt of a government payment. This will, at least in part, ameliorate the potentially high EMTRs faced by public housing recipients.

With respect to CRA, mitigating any labour market disincentives linked to the HA payment can not be dissociated from the primary payment under which the HA is received. Indeed, efforts to allay the disincentive effects associated with these programs has been the subject of Commonwealth government concern as expressed in recent attempts at welfare reform as demonstrated by the McClure report (Reference Group on Welfare Reform, 2000, see too Dawkins 2002). On this issue, the problems of high EMTRs which apply over an extended range of earned income may need to be addressed. Nonetheless, the analysis undertaken in this project suggests that CRA *per se* may not be a large cause for concern in this respect.

Finally, the analysis in this project should ideally be supplemented along a number of lines. First, analysis of additional HILDA data as it becomes available would prove useful. Further refinements to the imputation process as and where possible should be made. Moreover, the analysis should be supplemented with additional analysis of the labour force engagement of CRA recipients. One possible avenue being the examination of administrative data, in particular the FaCS longitudinal dataset, that documents the receipt of government payments over time.

Moreover, as highlighted at a number of points in this report the analysis may be extended by considering the alternative pathways by which HA measures impact on labour market activity. Location aspects of HA measures (whether fixed as with public housing or allowing mobility with demand subsidies like CRA); the role of EMTRs; or, the impact of neighbourhood effects that arise in public housing, may all be considered in the future.

APPENDIX

The discussion below excludes the steps associated with identifying public housing recipients and focuses on eligibility for and calculation of CRA payments.

1. In the HILDA household file, identify the size of the household. This is done by counting the number of couples, singles and dependent children in the household using the information contained in `AHHRIH01-AHHRIH12`. This allows the size of the household to be identified by assigning a value of 1 for each single adult, 0.7 for the second member of a couple, and 0.4 for any dependent children. The household size is recorded in the variable `hhsize`.

2. For each family in a HILDA household, count the number of young (*ychild*) and old children (*ochild*). Up to 3 families are identified in a HILDA household. The number of children and their ages are used to identify the base rate of FTB-A for each family. If the family reports receipt of FTB-A (`ABNFTAF1`- `ABNFTAF3`) greater than the base rate of FTB-A calculated for that family, then it is identified as FTB-A eligible (`FTBRAEl1`- `FTBRAEl3`).

3. A series of steps then identifies if the household rents from a 'Public Housing Authority' (`AHSLLORD=3`) and therefore should be considered to be a public housing household (`pubhous=1;`). That is:

4. if AHSLLORD=**3** then *pubhous*=**1**; else *pubhous*=**0**;

5. Next, the household file information is merged with the individual file information.

6. *Next, take the individual person file and identify benefit recipients. If the individual is a benefit recipient for the purpose of RA, **then benrecpt=1; else benrecpt.***

7. Merge the individual and household files. Individuals are matched with information on the household to which they are part of, and only those individuals residing in that rent are retained. That is, only those individuals in households that satisfy the following criteria are retained:

8. if AHSTENUR=**2**;

9. For each individual who is member of a household that rents, the size of the family s/he belongs to is calculated using the 'adult equivalent approach' described for households above. In most cases a household contains only a single family. For multi-family households however, it is necessary to calculate the size of each family as this is necessary for allocating total household rent among families. The family size is saved as the variable `famsize`.

10. Next, households that rent privately are identified as being CRA possible households. That is, households renting from a government housing authority (`AHSLLORD`) or involved in a rent-buy agreement (`AHSRNTBY`) are considered not to be in a position in which CRA is possible.

11. if (*AHSLLORD* ne **3** and *AHSRNTBY*=**2**) then do; *raposs*=**1**; end;

12. Note that households that rent from a 'Government Housing Authority' are not considered to be potentially eligible for CRA (3.8.1.80). This matching of the individual and household files allows household characteristics relevant for the purpose of CRA eligibility to be matched to individuals.

13. It should be stressed that some tenants in housing pay rent to a government housing authority but are still considered to be eligible for CRA. For example, DIMIA clients, households that receive disability housing (see 3.8.1.80 and 3.8.1.108). Greg Hall has pointed out that these clients can not be identified from the information available in HILDA on who the household pays rent to. It should be noted that this will lead to an under estimate of the number of CRA recipients in the imputation process.

14. It is also true that a series of rules exist for people in accommodation for older people. (3.8.1.102). In particular, these are individuals in retirement villages granny flats. Note that there are special rules for individuals depending on whether or not they have paid for a life interest in the accommodation and the entry contribution associated with this. If no entry contribution is paid, then eligibility for RA will be dependent on whether the individual enters into a 'normal' rental type agreement. The ability to identify these is limited by the questions in HILDA about whether the household is a renter and if so, who the landlord is.

15. For each individual, there is the household information attached. Can use this and in particular AHHRIH (relationship in household) to identify the relevant minimum rent level (the rent threshold) for RA purposes. Note, historical RA rates and threshold levels are identified at the following website: http://www.facs.gov.au/guide/ssguide/52610.htm#5.2.6.10A

16. and are set out in Appendix One. The rent threshold (*rntthold*) is defined using information about the individual's relationship to other members of the household (*AHHRIH*). The rent threshold for each individual is identified as follows:

if 1<=AHHRIH<=2 then do; rntthold=155; end;

if 3<=AHHRIH<=4 then do; rntthold =129; end;

if 5<=AHHRIH<=6 then do; rntthold =105; end;

if (AHHRIH=7 or 10<=AHHRIH<=13) then do; rntthold =79; end;

Note, correct way to do this because even for members of couples, the amount of rent paid by any one individual is considered to be that paid for both.

Following this, the amount of rent paid by each individual is computed in a series of steps that allocates total household rent amongst the families within the household. For the moment, the individual is considered to pay all the rent payable by the family to which s/he belongs. First, monthly household rent (*AHSRNT*) is converted into a fortnightly payment (*rentpaid*). This is then allocated to each individual in the HILDA so as to define fortnightly rent for CRA purposes. That is, a new variable (*fortrent*). Fortrent is defined as that proportion of total household rent payable by the family of which the individual is a member, where the proportion is determined by the adult equivalent size of the family divided by the adult equivalent size of the household.

Following this, information is used on the household structure (number and status of individuals in the form of variables *AHHTYPE* and *AHHRIH*) to

impute to each individual the amount of rent they are liable for CRA purposes. The difficulty here is that the household as opposed to the individual is asked about rent levels. Hence, total household rent must be allocated between members of a household to determine eligibility and entitlement to CRA. The manner in which families/individuals have been allocated a portion of the total rent paid by the household is to use a crude adult equivalent scale (AES). In particular, the first adult in the household has been assigned a value of 1, subsequent adults a value of 0.7, and dependent children a value of 0.4. Similar rules have been used to determine the size of the family. The proportion of rent that is paid' by each family unit is then allocated according to the relative size of the family compared to household size. Note that this approach is consistent with the rules set out in 3.8.1.108 that deal with the amount of rent that may be claimed by constituent members of a household. In particular, the rule is that the total amount of rent that may is claimed by the individuals separately must not exceed the total amount paid by the household.

It is then necessary to identify how much CRA any one individual may be paid. The Social Security Act (SSA) requires that CRA be paid at a rate that takes into account the family structure and size of the household. In the case of couples, account must also be taken of whether the partner also receives a benefit/allowance or pension. It is important to identify how the level of rent that is considered to be paid by individuals is handled. The CRA calculation rules were applied as follows:

CRA may be received for payments for board and lodging, or at least lodging (3.8.1.70). Board is defined as the provision of meals on a regular basis in connection with the provision of lodging. The amount paid for lodging is considered to be rent for the purpose of CRA. in general, two-thirds of the total amount paid for board and lodging is considered to represent rent (3.8.1.70). In the HILDA dataset, although there is information on whether members of the household pay board to others, there is no information on how much is paid. Hence, it is not possible to identify this group of CRA recipients.

In terms of the amount of rent upon which CRA payable, some information is provided in 3.8.1.108. For individuals who sub-let in co-operative or community housing, CRA is payable on the amount of rent paid by the customer. Similalrly, for disability program accommodation CRA is payable even if the accommodation is owned by the stahe Housing Authority and rent is paid to this group. It is not possible to distinguish the various types of landlords as insufficient detail is provided in HILDA. For this group CRA is payable on the rent paid, but not fees for maintenance and service.

Eligibility for CRA (*rael*=**1**) follows from a situation in which a family for whom CRA is possible (*raposs*=**1**) pays fortnightly rent in excess of the relevant CRA threshold. The level of CRA benefit (*raben*) is initially set at 75 cents in every dollar that fortnightly rent exceeds the rent threshold. That is:

```
if raposs=1 and fortrent=>rntthold then rael=1; else rael=0;

if fortrent ge 0 ;

if rael=1 then
```

```
  do;

    raben=(fortrent-rntthold)*0.75 ;

  end;
```

CRA payments are, however, capped or set at a maximum level that depends on family circumstances and structure. The maximum level of CRA was identified (*maxCRA*) as a function of family circumstances. The amount of CRA benefits (*raamt*) is then set at the lower value of *raben* and *maxCRA*.

```
if (1<=AHHRIH<=2 or 5<=AHHRIH<=6) and (FTBKIDS<=2) then do;
maxCRA=105.00 ; end;

if (1<=AHHRIH<=2 or 5<=AHHRIH<=6) and (FTBKIDS>2) then do;
maxCRA=118.72 ; end;

if 3<=AHHRIH<=4 then do; maxCRA=84.40 ; end;

if (AHHRIH=7 or 10<=AHHRIH<=13) then do; maxCRA=89.60 ; end;


if raben>0 and (1<=AHHRIH<=7 or 10<=AHHRIH<=13) then do;
raamt=min(raben,maxCRA); end;
```

At this point, CRA eligible individuals have been identified and the amount of CRA for which they are eligible has been calculated. However, it is necessary at this point to undertake some adjustments to avoid double counting of benefits for some individuals. In particular, it is necessary to avoid double counting of couple parents where the household receives CRA by virtue of the fact that the family receives FTB-A. Generally, only one parent receives CRA in this case. Similarly, when both members of a couple receive CRA by virtue of receipt of a benefit/ allowance or pension it is necessary to ensure that the calculated amount of CRA for each individual is adjusted to reflect the fact that the other member of the couple may also receives CRA.

17. Adjusting for double counting

The first step is to create two datasets, one consisting of the male parent and one consisting of female parents in couple families, where the family is eligible for CRA by virtue of FTB-A receipt. The male and female parent datasets are merged so that in couple families where CRA is received as a result of FTB-A receipt, only the female is identified as receiving CRA. This avoids double counting associated with identifying both parents as CRA eligible in these cases.

The female parent in these cases is then identified as being CRA eligible by defining a variable as follows:

```
  if FTBCRA=1 then FTBARCPT=1; else FTBARCPT=0;

/*Tags families receiving CRA by virtue of FTB-A as FTBARCPT=1,
*/
```

```
/*FTBARCPT=0 otherwise*/
```

That is, for females in couples families receiving CRA by virtue of FTB-A receipt alone, CRA receipt is denoted by the variable e variable `FTBARCPT=1.`

A similar procedure is then applied to couples where CRA is available by virtue of a Commonwealth government payment (pension, allowance or benefit) receipt. In particular, where members of a couple both receive a payment, the amount of CRA (`raamt`) imputed to each member of the couple receiving the payment is set equal to one half the available to the couple in total.

Individual type	Threshold	Rent	CRA, inc. maximum
Single no kids	That for a single without any children (79.40)[11]	A proportionate share of the total paid by the household	75% of rent above the threshold, up to specified maximum. ($89.60)[12]
Single with kids	That for a single with children ($104.58)[13]	A proportionate share of the total paid by the household	75% of rent above the threshold, up to specified max. Depends on number of children ($105.00/ 118.72)[14]

[11] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D2 (Module D)

Bereavement Allowance; Parenting Payment-Single(?); Widow B Pension – s. 1066-D1 (Module D)

Youth Allowance recipients – s. 1067G-D2 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F1A (Module F)

Parenting Payment-Single(?) – s. 1068AD1 (Module D)

[12] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D5 (Module D)

Bereavement Allowance; Parenting Payment-Single(?); Widow B Pension – s. 1066-D4 (Module D)

Youth Allowance recipients – s. 1067G-D6 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F15 (Module F)

Parenting Payment-Single(?) – s. 1068AD1 (Module D)

[13] *References*:

The figure is derived from the maximum rates for a single with AFP (additional family payments) children, see Table at 5.2.6.10 (*Guide to the Social Security Law*). Note that this figure corresponds to the amounts listed under the guideline for FAA payments at the Family Assistance Guide, 3.1.4.30. See too FTB recipients – s. 13(1), Schedule 1, Division 3 (check this)

[14] *References*:

The figures are derived from the maximum rates for a single with AFP (additional family payments) children, see Table at 5.2.6.10 (*Guide to the Social Security Law*). Note that this figure corresponds to the amounts listed under the guideline for FAA payments at the Family Assistance Guide, 3.1.4.30.

Individual type	Threshold	Rent	CRA, inc. maximum
Couple with no children, partner does not receive CRA	That for a couple with no children, $129.40[15]	A proportionate share of the total paid by the household. Note, all rent paid by the couple is deemed payable by the individual.[16]	75% of rent above the threshold, up to specified max. for a couple with no children (84.40)[17]
Couple with no children, partner does receive CRA	That for a couple with no children, $129.40[18]	A proportionate share of the total paid by the household. All rent paid by the couple is deemed payable by the individual.	One half of 75% of rent above the threshold, up to one-half of the specified max. for a couple with no children (42.20)[19]

Parenting Payment Pension (Single) – s. 1068A-D3 (Module D)

FTB recipients – s. 14, Schedule 1, Division 3.

[15] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D2 (Module D)

Youth Allowance recipients – s. 1067G-D2 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F1A (Module F)

Parenting Payment-Partnered – s. 1068B-F2 (Module F)

[16] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D7 (Module D)

Youth Allowance recipients – s. 1067G-D9 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F18 (Module F)

Parenting Payment-Partnered – s. 1068B-F8 (Module F)

[17] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D5 (Module D)

Youth Allowance recipients – s. 1067G-D6 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F15 (Module F)

Parenting Payment-Partnered – s. 1068B-F6 (Module F)

[18] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D2 (Module D)

Youth Allowance recipients – s. 1067G-D6 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F15 (Module F)

Parenting Payment-Partnered – s. 1068B-F6 (Module F)

[19] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D5 (Module D)

Individual type	Threshold	Rent	CRA, inc. maximum
Couple with children, partner does not receive CRA	That for a couple with children, $129.40/ $154.84[20]	A proportionate share of the total paid by the household. Note, all rent paid by the couple is deemed payable by the individual.[21]	Amt. depends on the no. children (1 or 2/ 3) ($105/ $118.72)[22]
Couple with children, partner does receive CRA	That for a couple with children, $154.84 [23]	A proportionate share of the total paid by the household. Note, all rent paid by the couple is deemed payable by the individual.	One half of 75% of rent above the threshold, up to one-half of the specified max. for a couple with children. Amt. depends on the number of children (1 or 2/ 3) ($52.50/ $59.36)[24]

Youth Allowance recipients – s. 1067G-D6 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F15 (Module F)

Parenting Payment-Partnered – s. 1068B-F6 (Module F)

[20] *References*:

In general there is no specific category of threshold values when the individual is partnered, has dependent children **and** the partner does not receive a rent increased pension. Under the FAA, rent thresholds are $154.84 per fortnight for individuals who are partnered and have full care of the children (Family Assistance Guide 3.1.4.30). For other cases when the individual is collecting a pension/allowance/benefit, when the individual has a partner who does not have a rent increased pension the rent threshold is set at $129.40, and at the higher rate ($154.84) if the partner has dependent children.

[21] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D7 (Module D)

Youth Allowance recipients – s. 1067G-D9 (Module D)

Mature Age Allowance; Newstart Allowance recipients; Partner Allowance; Sickness Allowance; Widow Allowance – s. 1068-F18 (Module F)

Parenting Payment-Partnered – s. 1068B-F8 (Module F)

[22] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D5 (Module D)

Parenting Payment-Partnered – s. 1068B-F6 (Module F)

Under the FAA, CRA maximums are $105.00 & $118.72 per fortnight for individuals who are partnered and have full care of the children (Family Assistance Guide 3.1.4.30).

[23] *References*:

Age pensioners; Carer payment recipients and DSP recipients (not blind) – s. 1064-D2 (Module D)

One final adjustment was required to identify where members of a couple may have been able to claim CRA either by virtue of a pension/benefit/allowance receipt, or because of receipt of FTB-A at a rate greater than the base rate.

Special rules apply for young singles (3.8.1.104). In general young single individuals living in the principal home of a parent are not eligible for CRA. Eligibility will depend partly on whether the individual lives in the principal home of the parent. The principal home of the parent does not include an investment property or a self contained dwelling separate from the rest of the house. In particular, single NSA customers less than 25 years of age are not eligible to receive CA when living in the principal residence of a parent. On the other hand, DSP customers aged over 21 can receive CRA when living in the principal home of parents. A YA customer can receive CRA if they are:

- independent but not an accommodated independent person. That is a person, who has never been a member of a YA couple and has never had any children (natural or adoptive)

- a dependent YA recipient (so that there YA is parentally means tested) and required to live away from home.

Special rules also apply for couples (3.8.1.106). The general rules are set out in the Table below.

Couple/ family status	CRA rule applied
One member couple receives FTB-A > base rate.	CRA paid in total to FTB recipient based on couples rent.
Pensioner couple with both members eligible for CRA	Each receives CRA at ½ rate but calculated re total rent paid by couple.
One of a couple receives RA under the Veteran's Entitlement Act	Paid to partner on pension at ½ total amount payable.
One member couple receives pension and the other a benefit or allowance	CRA paid in total to pensioner partner, based on total rent paid by couple
Both members of couple receive benefit or allowance	Each paid at ½ rate based on total rent paid by couple.

There are also special provisions for situations where an individual is on a nil rate of benefits due to employment income. In general, the entry onto the nil rate period will have no effect on amount of CRA paid. Details are given in 3.8.1.106, however, given there is not sufficient information in HILDA to identify if an individual has entered an 'Employment income nil rate period, it is not possible to incorporate this information into the determination of CRA levels.

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[24] *References*:

Age pensioners – s. 1064-D7 (Module D)

DSP recipients – s. 1064-D7 (Module D

FTB recipients – s. 15, Schedule 1, Division 3 (Note that under the FTB legislation the amount paid is double that for the other groups.

There are also special rules for sharers (3.8.1.110). From 1996 sharers provisions were instigated that meant that single people who share accommodation are paid CRA at a maximum rate equal to two thirds the rate of singles living alone. All singles without dependents who share a major area of their accommodation with others (effectively do not have an exclusive right to use a bathroom, kitchen and bedroom) are considered sharers and may be subject o the sharers provisions. Exclusions include DSP and Carer Payment customers, those living in caravan parks or marinas, boarding houses, hotels and similar accommodation.

A single parent who shares with a recipient child only (a child that receives a social security payment but does not receive CRA), is not subject to the sharer provisions. However, if they share with another unrelated person then all members of the households are subject to the sharers provisions. The maximum rate for sharers is two-thirds of the normal maximum rate. Where a sharer is entitled to less than the maximum sharers rate, they receive the same as a non-sharer. For a single person with a dependent child the sharers provisions do not apply, but they will apply to any one else in the household who shares the accommodation. Finally, when the accommodation is shared by a single parent and an independent child who receives a salary or wage, the sharers provisions do apply. With limited information on the manner in which household amenities are shared in HILDA, the ability to identify how the sharer rules apply is limited.

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