

Final Report

Housing assistance and non-shelter outcomes

authored by

**Peter Phibbs with the assistance of Peter
Young**

**Australian Housing
and Urban Research Institute**

Sydney Research Centre

February 2005

ISBN: 1 920941 57 6 (final report)

ISBN: 1 877005 81 9 (project)



ACKNOWLEDGEMENTS

This material was produced with funding from the Australian Government and the Australian States and Territories. AHURI Ltd gratefully acknowledges the financial and other support it has received from the Australian, State and Territory governments, without which this work would not have been possible.

The project would have not have been possible without the support of the NSW Department of Housing and Queensland Department of Housing. We would also like to thank the interviewers: Barbara Hill and Narelle Thomas in Brisbane and Katie Hepworth in Sydney. Katie deserves a special thank you as the senior research assistant on the project (and senior organiser). Kate Fagan did an excellent job editing the Final Report.

DISCLAIMER

AHURI Ltd is an independent, non-political body which has supported this project as part of its programme of research into housing and urban development, which it hopes will be of value to policy-makers, researchers, industry and communities. The opinions in this publication reflect the views of the authors and do not necessarily reflect those of AHURI Ltd, its Board or its funding organisations. No responsibility is accepted by AHURI Ltd or its Board or its funders for the accuracy or omission of any statement, opinion, advice or information in this publication.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1 INTRODUCTION	1
2 LITERATURE REVIEW	3
2.1 Housing and Health	4
2.2 Housing and Crime	11
2.3 Housing and Employment.....	12
2.4 Housing and Education.....	15
2.5 Classifying Non-Shelter Outcomes.....	17
2.6 Recent AHURI Study Examining Non-shelter Outcomes of Public Housing	18
2.7 Conclusion	20
3 THE METHOD	21
3.1 The Best Laid Plans.....	22
3.2 Developing the Survey Instruments.....	23
3.3 The Survey Process	26
3.4 Survey Analysis	30
3.5 What are the Likely Results of this Study?	31
4 RESULTS OF THE T1 SURVEY: BRISBANE PUBLIC HOUSING TENANTS	33
4.1 Key Characteristics of Respondents at T1	33
4.2 What Changes Occurred when Respondents First Moved into Public Housing (T1)?.....	38
5 RESULTS OF THE T2 SURVEY: BRISBANE PUBLIC HOUSING TENANTS	44
5.1 Positive Outcomes for Tenants.....	44
5.2 Negative Outcomes for Tenants	69
5.3 Summary of Findings.....	70
6 CONCLUSION.....	75
6.1 Policy Implications of the Research.....	75
6.2 Reflecting on the Original Research Aims of the Study.....	80
6.3 Future Research Strategies.....	81
Appendix A: Survey Instruments and Forms	84
A1 Qualitative Instruments	84
A1.2: Interview schedule: educators.....	91
Quantitative Instruments.....	94
A2.2 Housing Survey Number 2.....	104

A3 Medicare Consent Form.....	113
Appendix B: Results from Sydney Surveys of Public and Community Housing tenants	115
B1 Reasons for the Poor Responses from Sydney	115
B2 Sydney Public Housing	116
B3 Community Housing.....	119
REFERENCES.....	120

LIST OF TABLES

Table 3.3.3: Survey Responses	29
Table 4.1.1-1: Household structure at T1 compared to total allocations.....	33
Table 4.1.1-2: Age distribution of dependants (at T1).....	34
Table 4.1.2-1: Type of dwelling (previous dwelling) and nature of tenure (at T1)	34
Table 4.1.2-2: Living arrangements at previous dwelling (at T1)	35
Table 4.1.3-1: What people liked least about their previous dwelling	35
Table 4.1.3-2: What people liked least about their previous neighbourhood	36
Table 4.1.3-3: What people liked most about their previous dwelling	36
Table 4.1.3-4: What people liked most about their previous neighbourhood	36
Table 4.1.4: Number of schools attended over the previous two years	37
Table 4.1.5: Employment status of adults in the T1 households.....	37
Table 4.1.6: Number of moves in the previous two years (at T1)	38
Table 4.2.1-1: Comparing dwelling types.....	39
Table 4.2.1-2: Household structure – previous and current dwelling (at T1)	39
Table 4.2.2-1: What is the biggest difference between this and previous neighbourhood? (at T1).....	40
Table 4.2.2-2: Why is the neighbourhood better or worse? (at T1).....	41
Table 4.2.2-3: What is the biggest difference between this and previous dwelling (at T1)?	41
Table 4.2.3-1: Comparison of noise levels in dwelling (at T1)	41
Table 4.2.3-2: Accessibility scores for a range of service/facilities (at T1).....	42
Table 4.2.4: Overall rating of new housing (at T1).....	43
Table 5.1.1: Household structure at T1 and T2.....	44
Table 5.1.2-1: What is the biggest difference between this and previous dwelling?	45
Table 5.1.2-2: What is good about the house? (at T2).....	46
Table 5.1.2-3: What doesn't work about the house? (at T2)	46
Table 5.1.2-4: How would you rate the quality of the dwelling? (at T2)	46
Table 5.1.3: Children playing outside in private space.....	47
Table 5.1.4-1: Comparison of the educational performance of children before and after moving into Public Housing.....	49
Table 5.1.4-2: Reasons for changed educational performance of children – better performance	50
Table 5.1.5: Employment status of adults in household T1 and T2	55
Table 5.1.6-1: Has your health and the health of others in the household changed between T1 and T2?	58
Table 5.1.6-2: Why the respondents' health has changed.....	59

Table 5.1.6-3: Why health of other people in the house has changed.....	60
Table 5.1.6-4: Compared to 1 year ago, how would you rate your health in general now? (at T2).....	61
Table 5.1.6-5: Changes in the use of Medicare services before and after public housing (Brisbane).....	61
Table 5.1.7-1: Use of government services before and after.....	63
Table 5.1.7-2: Why use of government and community sector agencies has changed.....	63
Table 5.1.8: Accessibility scores at T1 and T2.....	64
Table 5.1.9-1: Comparison of the quality of current and previous neighbourhood (at T1 and T2).....	65
Table 5.1.9-2: Why is the neighbourhood better/worse?	66
Table 5.1.10-1: How has your situation changed since you moved into the property?	67
Table 5.1.10-2: What has been the most important change for you since you have moved into the property?	67
Table 5.1.11: Overall rating of new housing (at T1 and T2).....	68
Table 6.1.2: Out of turn allocation arrangements for public housing.....	76
Table B2.1-1: Overall rating of new housing: Sydney (at T2)	116
Table B2.1-2: Comparison of the quality of the current and previous neighbourhood (at T1 and T2)	116
Table B2.2: Why respondents' health has changed.....	117
Table B2.3: Use of government and community services before and after	117
Table B2.4-1: How your situation has changed since you moved into the property	118
Table B2.4-2: What has been the most important change for you since you have moved into the property?	118

LIST OF FIGURES

Figure 2: A framework for examining non-shelter impacts.....	4
Figure 2.1: A Conceptual Model of Chronic Stress	8
Figure 2.1.2-2: Housing and health outcomes	11
Figure 2.2: Housing and crime outcomes	12
Figure 2.3: Housing and employment outcomes.....	15
Figure 2.5: Some possible non-shelter outcome (NSO) processes	19

LIST OF BOXES

Box 5.1.4: Example of change in educational performance after change in housing	51
Box 5.1.5: Example of change in employment after change in housing	55
Box 5.1.6-1: Example 1 of change in health after change in housing	59
Box 5.1.6-2: Example 2 of change in health after change in housing	60
Box 5.1.6-3: Example 3 of change in health after change in housing	62
Box 5.1.7: Example of negative impacts of change in housing	64
Box 5.1.9: Example of improvements after change in housing	66

EXECUTIVE SUMMARY

Commonwealth and State Governments spend very large amounts of money on housing assistance. They provide housing of particular types in particular locations, with specific affordability outcomes. The housing or shelter impacts of these interventions are reasonably well understood. However, given the capacity of housing to affect many other elements of people's lives, an important question is the extent to which housing assistance impacts on a range of what have become known as non-shelter outcomes.

For the purposes of this study, a framework was developed in which non-shelter outcomes could be examined. The framework classified non-shelter outcomes by "source of impact" — namely the dwelling, neighbours, area, community, tenure and amount of disposable income spent by the household on housing. Mechanisms for the generation of non-shelter outcomes were described for employment, health, education and crime.

The study's methods of investigation were a qualitative survey and formal survey instrument. This formal instrument was administered just after households received very significant levels of housing assistance (they moved into public housing (T1)) and again about six months later (T2). It was originally intended to undertake the main survey in Sydney and Brisbane. However, the Sydney survey exercise was hampered by a difficulty in recruiting respondents.

Despite some limitations with the survey process, it was considered that a number of non-shelter benefits of public housing were evident. These are described below.

Health

People reported an improvement in their health as a result of the change of housing. The main mechanisms they noted include:

- Eating better foods as a result of increased financial resources;
- Ability to prepare their own foods rather than buying take away food, since they now have a functioning kitchen;
- Improvement of conditions in their dwelling, ranging from less dust to the avoidance of stairs to trip on;
- Increased self esteem, often associated with independent living, which means people are now looking after themselves better;
- Extra income, which means they can participate in illness prevention programs such as joining a gym and getting more exercise;
- More support from neighbours;
- Reduced stress due to security of tenure and more income; and
- Improved access to medical resources.

It must be remembered that a significant number of households (see Table 4.2.1-2) were sharing with friends or relatives prior to moving into their public housing. These people often reported greatly reduced stress levels when moving into their public housing because they no longer had to endure an ongoing conflict with a parent or carer.

The analysis of the Medicare data revealed some interesting trends. There was an overall small decrease in the use of Medicare services — but the most interesting difference was between previously light users of the Medicare system and heavier users. Light users tended to *increase* their levels of usage whilst heavier users *reduced* both the number and cost of services after they moved into public housing.

Crime

People reported they felt safer and more secure in their public housing dwellings because they now had better security on their dwelling.¹ They were often unable to install these same security features in their previous dwelling because of a landlord's concerns, or because they were unsure about their length of tenure. People also felt more secure because they thought they were living in a safer neighbourhood. There are of course a number of exceptions to this general trend — for example one woman was living in a block of units where two residents had been stabbed the week before.

Employment

Respondents gave mixed messages about their experiences in the labour market. In some cases households used the extra disposable income generated by savings on rent to reduce their employment. This reduction allowed some people to provide extra care for a household member, or enabled more time to be spent with children. In other cases it gave people extra time out. Several households reduced their employment in order to undertake additional training. Another man was able to give up his part time job as a result of employment reductions, and began working for a charity on a full time basis. Households were aware that one benefit of reducing employment levels was a decrease in rent.

On the other side of the ledger, the increase in self esteem reported by some respondents meant they wanted to work on their career. Comments included, for example: “well I have got my housing organised, now it's time I got a good job organised”. A number of respondents reported they had invested their financial savings into establishing small businesses. The additional disposable income also meant respondents had additional resources available for job searches.

Note that the ambiguous findings about employment are consistent with previous research in the area.

¹ Note that a number of respondents complained about the costs they had to bear in installing security items in their dwellings.

Education

Education, in many ways, provides the clearest triggers for non-shelter outcomes. When pressed on the issue of why their children's performance had improved following relocation through housing assistance, respondents cited three main issues. The first really concerned the nature of the school, and included issues such as quality of teaching and having a more motivated group of peers. The second concerned changes at home. They ranged from increased happiness of the child now living in a good quality dwelling to a decrease in parental stress levels. The third issue was more pragmatic: improved performance occurred because children now had more space and could do their homework without disturbance from, or fighting with, their siblings. It must be noted that for many households, the current housing situation was in marked contrast to a very mobile past that included a number of school changes.

In general the findings are consistent with the literature. The main unexpected outcomes of the study relate firstly to the high profile of "stress" as an issue amongst respondents, and secondly to results that show very positive education impacts even in relatively short time periods. Both issues might be linked to the very negative housing situations of the respondents prior to their move into public housing, often characterised by frequent moves or sharing with friends/relatives. Both areas would appear to be fruitful areas of future research.

As this was the first major survey focussed on non-shelter outcomes, a number of suggestions are made about the conduct of future research. An emphasis on the use of administrative data sets is encouraged, in addition to undertaking future surveys in conjunction with State Housing Authorities.

1 INTRODUCTION

Commonwealth and State Governments spend very large amounts of money on housing assistance. They provide housing of particular types in particular locations, with specific affordability outcomes. The housing or shelter impacts of these interventions are reasonably well understood. However, given the capacity of housing to affect many other elements of people's lives (eg health, education etc), an important question is the extent to which housing assistance impacts on a range of what has become known as non-shelter outcomes.²

An understanding of non-shelter impacts is important for a variety of reasons. Firstly, if it can be shown that spending on housing has a variety of non-shelter benefits that may reduce the demand on government funds in the short, medium and long terms, this is an important argument to make when negotiating with Treasuries and others for housing assistance funds. Secondly, the type or "design" of housing assistance might have significant impacts on the multiplier between shelter and non-shelter benefits. This would have implications for State Housing Authorities (SHAs) and others in the delivery of housing assistance. Thirdly, the "multiplier" between shelter and non-shelter benefits might vary between different housing need groups. This outcome might affect the allocation process within SHAs.

The aims of this project include:

1. To describe the key non-shelter impacts of different modes of housing provision (such as public housing, private rental housing);
2. To examine how non-shelter impacts change as a result of different types of shelter provision (eg. flats, detached housing etc) and, to examine the interaction between these two groups of variables;
3. To understand how critical shelter and non-shelter aspects interact and to theorise about the causal connections between government housing assistance and a range of non-shelter outcomes, including employment outcomes and receipt of government support;
4. To use the outputs from the first three aims to describe the changed social and economic well-being of individuals and families before and after receipt of housing assistance and other housing changes (which include housing tenure, location and type);
5. To use the outputs from the first four aims to provide an impact analysis on the reduction/withdrawal of housing assistance;
6. To use the information on non-shelter impacts to construct a whole-of government cost-benefit analysis of the provision of housing assistance;

² The term was first used in the AHURI context in the 2001 AHURI research agenda.

7. To assess the benefits/disadvantages/outcomes of different tenures and forms of housing assistance for different socio-demographic groups and locations; and
8. To examine the relative importance of price and non-price characteristics of public rental housing for different socio-demographic groups of public housing tenants.

2 LITERATURE REVIEW

The Positioning Paper provided a detailed review of the literature. The aim of this section is not to repeat that review, but rather to update the framework for conceptualising the nature of non-shelter outcomes as described in the Positioning Paper. The section will also examine some key recent literature, especially related work in other AHURI research projects.

The Positioning Paper established a framework for conceptualising the nature of non-shelter outcomes. The framework has two advantages. First, it helps to classify the range of possible non-shelter outcomes of housing. Secondly, it provides an understanding of the potential drivers of non-shelter outcomes.

This framework recognises the relatively unique nature of housing as a good. Housing provides not only the benefits of shelter but also, through location, access to a further bundle of goods and services. Housing is a complex good. The fact that housing is provided in a fixed location means it can also generate a number of positive *or* negative local impacts. Moreover, since housing is usually the single most expensive outlay for low to middle income families, housing costs can affect a household's ability to purchase other goods and services.

In developing a framework it is useful to start with the characteristics of the dwelling. For example, a house that is cold and damp can have a direct impact on the health of its residents. A house that is not matched to the needs of the household occupying it (e.g., it is too small) can have dramatic impacts on factors like educational outcomes for children living in the house.

The next step in the hierarchy relates to locational outcomes. These include the nature of the area in which the house is located. Some resultant factors are local in effect (e.g., the impact of traffic noise on sleep) whilst others are more regionally based (e.g., access to tertiary education or major hospitals).³

The next part of the framework highlights the impacts of neighbours on non-shelter outcomes. In extreme cases it is clear that neighbours can have dramatic impacts on the health and wellbeing of residents. Given the magnitude of these impacts it is considered worthwhile to identify them as a separate component of the framework.

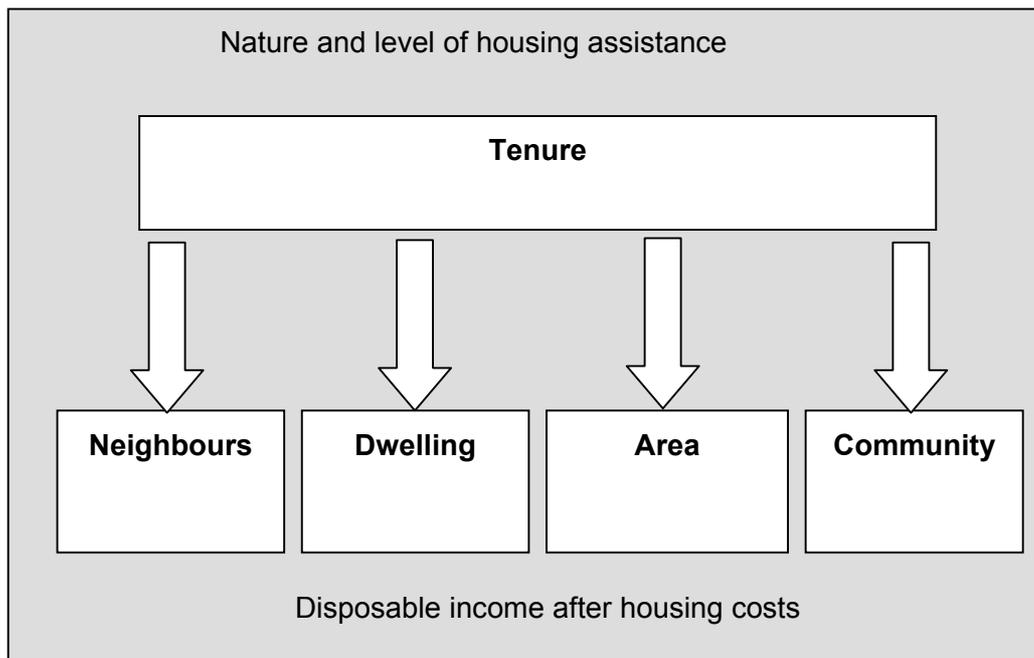
It is also clear from the literature that the local community can have an impact on non-shelter outcomes for households. For example, the nature of the local community can have major impacts on the expectations of young people.

³ A very useful source of literature about the impact of area, neighbours and community is contained in the US literature on the relocation of public housing tenants in both the Gatreux and Moving to Opportunity Programs. See for example Rosenbaum and Harris (2001) for a very positive view on the effects of relocation of poor households to more affluent suburbs, and Goetz (2002) for a less optimistic view.

Next, it is evident that characteristics of the tenure can have a significant impact on non-shelter impacts. For example, a major non-shelter impact relates to the instability of households operating in the private rental market.

A summary of this framework is shown in Figure 2 (over page). Once the overall framework is understood, it is possible to examine linkages between housing and a number of other important areas: health, crime, employment and education. Each of these will now be considered.

Figure 2: A framework for examining non-shelter impacts



2.1 Housing and Health

2.1.1. Overview

Several recent AHURI research projects and an AHURI consulting project provide a good summary of research findings on the relationship between housing and health. In particular, the recently released AHURI report “Do Housing Conditions Impact on Health Inequalities Between Australia’s Rich and Poor?”, prepared by the Australian National University Research Centre, examined the body of existing research on the link between housing and health and concluded that

[n]umerous reviews and studies in the academic literature point to an association between various aspects of housing and health. However, despite the evidence linking housing to health, the direction of causality between housing and health is often unclear. (Waters, 2001, p.iii)

The study also noted:

- Evidence suggests that overcrowded dwellings are associated with greater risk of infectious disease and poor mental health;
- People living in dwellings that are damp, cold or mouldy are at greater risk of respiratory conditions, meningococcal infection and asthma;
- There appears to be little quantitative work on this subject in Australia. (p.iii)

Another AHURI study (Mullins *et al.*, 2001) also examined the literature on the relationship between housing and health. This study made the following conclusions:

- Poor housing has a clear negative impact on residents' health, although the illnesses tend not to be among the most serious;
- The most significant impacts result from cold, dampness and mould;
- Overcrowding can cause mental illness;
- Homelessness can be caused by poor health, it causes ill health, and it aggravates poor health;
- Poorly designed housing predisposes accidents, with children and the elderly being particularly affected. Accidents took the form, for example, of falls and burns;
- There is an urgent need for far more research focusing on the causal link between housing quality and health. (p.24)⁴

These issues mainly relate to the nature of the dwelling. Bridge *et al.* (2003) identify a number of specific dwelling issues:

- Infection and enteric disease, with pest infestations (Howard, 1993);
- Enteric disease, with amount of space, sanitation, plumbing (Ineichen, 1993);

⁴ In a more recent AHURI study, McDonald and Merlo (2002) used a longitudinal survey, the Negotiating Life Course Survey, to examine the relationship between housing and other life outcomes. The circumstances of respondents were observed at only two points in time, at the original survey in 1996–97 and at re-survey in 2000.

The authors concluded that “[n]o statistically significant relationships between changes in tenure and changes in health status, self-worth or participation in voluntary work are found.” (p.1) However, as the authors were quick to point out, this research is based upon a nationally representative sample, and thus cannot be used to draw conclusions in regard to the low end of the housing market. Only 19 respondents moved into public housing during the time frame of the study. It is clear from the literature review that the relationship between shelter and non-shelter outcomes is not a straight-line relationship that extends across all income groups. Non-shelter outcomes are likely to be sharpest at the bottom of the end of the market, where housing conditions do work against households achieving appropriate outcomes in health, education and other areas.

- Pneumonia, tuberculosis, asthma, hayfever and respiratory infections, with mould, damp and poor ventilation (Mood, 1993);
- Burns, with cooking and heating design and provision (Ineichen, 1993);
- Fall injuries, with door, hall, stair, landing and bathroom design (Hill *et al.*, 2000);
- Puncture injuries, with window and door and shower glazing (Ranson, 1993).

It is clear however that a number of health issues also relate to neighbourhood and community factors. Many issues concerning stress (see below) relate to householders' perceptions about their neighbours and community. For example, if people live in communities that they perceive to be violent, their stress levels can be significantly higher than those experienced by people living in less violent communities (Rosenbaum *et al.*, 2002).

Different areas can also experience very different levels of health service provision. For example, parts of regional and rural Australia are very badly serviced by both specialists and, increasingly, general practitioners. In urban areas the level of bulk billing can vary greatly between areas. In the most extreme cases, the physical characteristics of some areas (e.g., the presence of known toxins) will lead to changes in health outcomes.

The issue of tenure is also important in relation to the issue of residential stability. When private tenants move they often face the issue of trying to find a new GP. Whilst medical records can be transferred, it often takes time for the doctor patient relationship to be re-established.

An increasingly important link is being made between housing and mental health, largely in connection with the generation of stress. This issue is explored in the next section.

2.1.2. Housing, stress and wellbeing

Recent research on stress has shown that minor daily stressors provide a more powerful prediction of psychological and physical symptoms than the more widely researched life events or crises (e.g., death of a relative, divorce, etc.). In the literature these minor daily stressors are often referred to as "hassles" or "chronic stressors". Kanner *et al.* (1981) define hassles as irritating, frustrating or distressing demands that to some degree characterise everyday transactions.

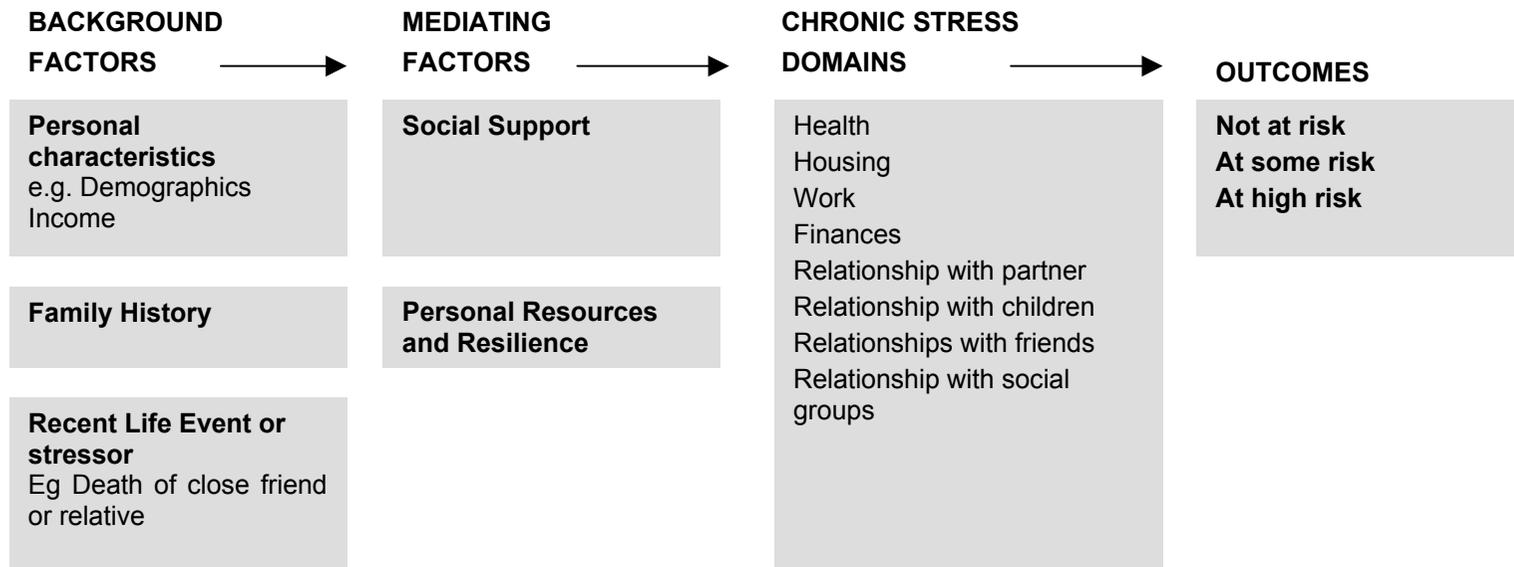
Reding and Wijnberg (2001, p.345) note that these stresses or hassles "may contribute to erosion of coping capacity". Self-reported minor daily stressors have been associated with poor physical health (Dykema *et al.*, 1995) and psychological distress (Chamberlain and Zika, 1990).

Reding and Wijnberg (2001, p.347) propose a conceptual model of chronic stress that is summarised in Figure 2.1.2-1 (over page). The figure shows the operation of chronic stress domains to be a significant contributor in stress outcomes for individuals. Chronic stress domains include a variety of issues such as work, household management, personal health, sexuality and housing. A number of authors have highlighted the importance of housing as a potential generator of chronic stress (see for example, Moos and Moos (1994) and Reding and Wijnberg (1999)). The importance of housing in understanding degrees of housing in understanding degrees of “chronic hassle” could be related to a number of factors:

- Many people, especially the unemployed, spend a lot of time in their house and are constantly reminded if their housing is inappropriate;
- Housing absorbs a large proportion of disposable income, and thus interacts with the key issue of inadequate resources/finances included in all hassle scales (Reding and Wijnberg, 2001, p.350);

The housing situation of many people on low incomes means they might lack control of their housing and hence spend a lot of time with others negotiating their housing situation.

Figure 2.1: A Conceptual Model of Chronic Stress



Source: After Figure 1 in Reding and Wijnberg (2001)

If one accepts this theory, it would be expected that better quality housing would lead to better mental health outcomes, especially in relation to wellbeing. An interesting study by Evans *et al.* (2000) used two different approaches, including a longitudinal study to demonstrate that physical housing quality is a good predictor of mental health. They suggest the possible reasons behind the link are the proven environmental stressors of crowding and noise, and the issue of self-esteem.

Dunn and Hayes (2000) in a survey of two Vancouver neighbourhoods note the connection between housing and population health. They observe that housing plays a central role in routinised everyday life and is fundamentally bound up in one's sense of control over life circumstances. Moreover, the multiple, overlapping inequalities that follow from one's position in the housing market are argued to be second in magnitude only to inequalities generated in the realm of work (Badcock, 1984).

In noting how the degree of control over one's housing is important for health, Dunn and Hayes comment:

Studies of workplace organisation and health show that jobs with high demand and low control put workers at higher risk for a wide variety of adverse health outcomes (Karasek and Theorell, 1990). It follows that if demand and control are important dimensions of work life for health, they are likely to be important dimensions of home life too. (2000,p.575).

They use logistic regression to demonstrate that the meanings people invest in their homes, their satisfaction with their homes, and the amount of control they are able to exercise, all affect their self-reported health status. Dunn and Hayes conclude:

Our findings lend support to the contention that the multiplicity and overlapping of differentially distributed stressors (including both material, meaningful and spatial dimensions of housing) have the capacity to shape health and well-being systematically across the social hierarchy. (2000, p.584)

Their work on these meaningful dimensions of housing raises a related issue of the important link between housing and sense of self. Ridgway *et al.* (1994, p.413) describe the connection this way:

Shaping the environment, exploring values and making selections among options builds a sense of personal efficacy and competence.... [T]o a large degree, having and making choices... is synonymous with personal power. Empowerment is often found in the details of their mundane world. It comes from controlling access to personal space, from being able to alter one's environment and select one's daily routine, and having personal space that reflects and upholds one's identity and interests.

It is important to acknowledge a lack of existing research that can demonstrate causal links between housing and health. In a recent review of housing and health studies quoted in the British Medical Journal (Thompson *et al.*, 2001), the authors conclude:

Many studies showed health gains after the intervention, but the small study populations and lack of controlling for confounders limit the generalisability of these findings.... The lack of evidence linking housing and health may be attributable to pragmatic difficulties with housing studies as well as the political climate in the United Kingdom. A holistic approach is needed that recognises the multifactorial and complex nature of poor housing and deprivation. Large-scale studies that investigate the wider social context of housing interventions are required. (p.187)

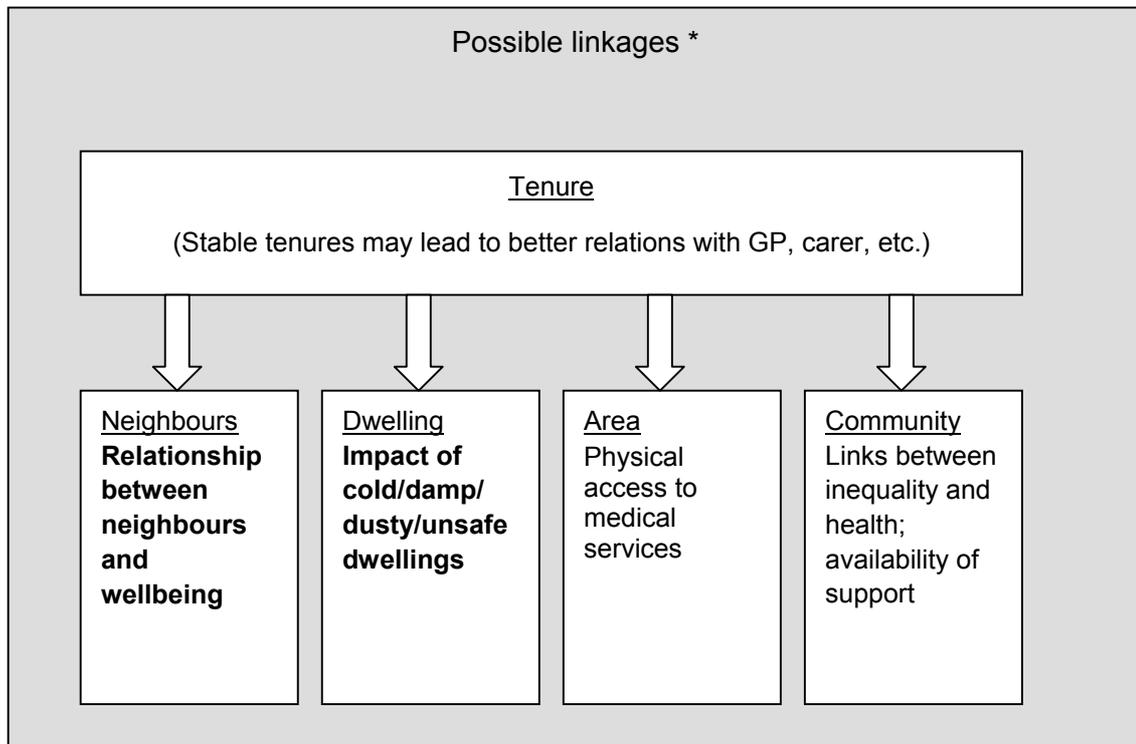
The most recent AHURI project to examine this issue reached a similar conclusion. Bridge *et al.* (2003) included a systematic review of the relationship between housing and non-shelter outcomes. In its findings on health, the study concluded:

Indeed research on housing and health though substantial remains limited in its ability to reliably model causality. Failure to demonstrate causality is unsurprising given the complexity of relationships noted above, the lack of control and comparison groups; and high prevalence of correlational research in combination with selection bias and poor control for demographic variables.

An important feature evident from the systematic review is the absence of research into the effects of housing assistance interventions *per se*. Though there is substantial research on housing and health relationships, it is rare for researchers to focus on a housing assistance program and identify and measure associated health outcomes. (p.vii-ix)

The linkages between housing and health are summarised in Figure 2.1.2-2.

Figure 2.1.2-2: Housing and health outcomes



2.2 Housing and Crime

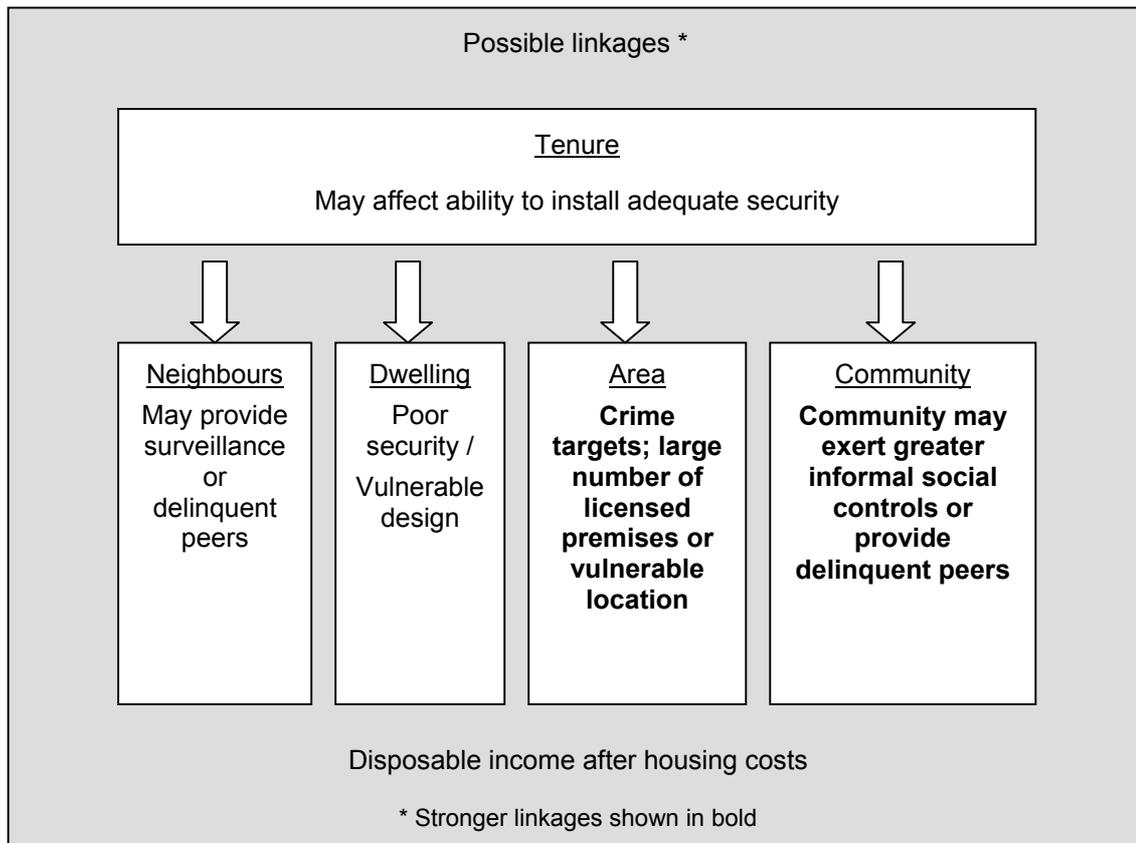
The review of the literature in the positioning paper on housing crime reached the following conclusions:

- Housing *per se* does not cause crime;
- Low income housing areas, and public housing estates in particular, tend to have a higher incidence of crime and a disproportionate concentration of those with criminal records;
- While architecture and urban design may have some influence on preventing and reducing crime, their influence is limited because the causes of crime are rooted in a complex interplay of socio-cultural, socio-economic, and socio-political forces;
- Community mobilisation, and thus the use of local social networks, may contribute to the prevention and reduction of some crimes in residential areas.

These findings are consistent with other AHURI research, notably Mullins (2001) and Bridge *et al.* (2003).

The possible linkages between housing and crime are summarised in Figure 2.2.

Figure 2.2: Housing and crime outcomes



2.3 Housing and Employment

2.3.1. Tenure

The stability provided by secure tenure is important. As Bryson (2000) has concluded:

Having a secure place to live makes it easier to cope with other parts of life that may make one lose a job. By contrast, having to move, especially often, simply makes it harder to keep a job. (pp.22-23)

Through the use of focus groups involving applicants, tenants and ex-tenants, the Queensland Department of Housing's Bayside Public Housing Client Survey (Epic Pty Ltd *et al.*, 2000) explored whether public housing facilitates or constrains the participation of its clients in employment, education and other services. In the Bayside study, a number of participants felt their stable public housing address would help the process of applying for a job. However, in one case there was some concern that the stigma associated with being a public tenant in a particular area would generate some concerns for potential employers.

Bridge *et al.* (2003, p.vii) also consider that tenure type may impact on the ability and/or willingness of a household to migrate from a region with high unemployment to a region with low unemployment. Hence local unemployment outcomes may be adversely affected by household immobility. There is consistent evidence that public housing tenure reduces household mobility (relative to private rental).

2.3.2. *The dwelling*

Whilst the nature of the dwelling may not seem very significant, the quality of tenants' housing may impact on their self-esteem and sense of worth, and hence indirectly affect preparedness or capacity to seek work. A comment made by low-income renters in a qualitative study (EPIC, 2001) indicated that the quality of a dwelling was a particular issue for the unemployed, since for financial reasons they often spent long periods in the dwelling.

2.3.3. *The area*

The location of housing and its access to public transport, for example, may affect a tenant's opportunities to work, opportunities to travel to work, and job seeking activities. Hence, the provision of public housing in areas that offer few work opportunities may have significantly different labour force outcomes than the provision of similar housing in other areas. Bridge *et al.* (2003, p.vii) also make the point that the probability of terminating an employment relationship (quitting) and therefore becoming unemployed is increased if an individual is faced with longer commutes to the workplace as a result of placement in public housing.

The proximity of housing to services such as job assistance programs and to affordable services such as childcare may also influence tenants' prospects of seeking and finding work. Proximity to childcare may have a significant affect on the ability of sole parents to join or stay in the job market.

2.3.4. *The community*

The Positioning Paper explores in detail the evidence associated with the relationship between community effects and employment. In general Section 2.3.4 concludes that where there are large concentrations of households with low levels of employment, such as those of public housing tenants, there might be negative impacts on the probability of tenants finding employment, in comparison to more mixed tenure communities.

2.3.5. *Disposable income after housing costs*

Employment can also be affected by the disposable income after housing costs since it will influence tenants' need to supplement their income through work, and their ability to afford costs associated with working – such as travel to work, requisite clothing or childcare.

A tenant's understanding of the effects that increasing personal income through work may have on income maintenance entitlements, taxation and rent levels (where rent is income-based) may also influence their desire to work. It is possible that in some circumstances, rent policy may operate as a work disincentive. For example, it has been suggested that in Australia, rent policy can be an impediment to employment.

Recent studies have contributed to the understanding of the impacts of housing assistance, including its impact on employment choices. The Queensland Department of Housing's Bayside Public Housing Client Survey (Epic Pty Ltd *et al.*, 2000) noted one tenant reported giving up a part time job in order to reduce her public housing rent.

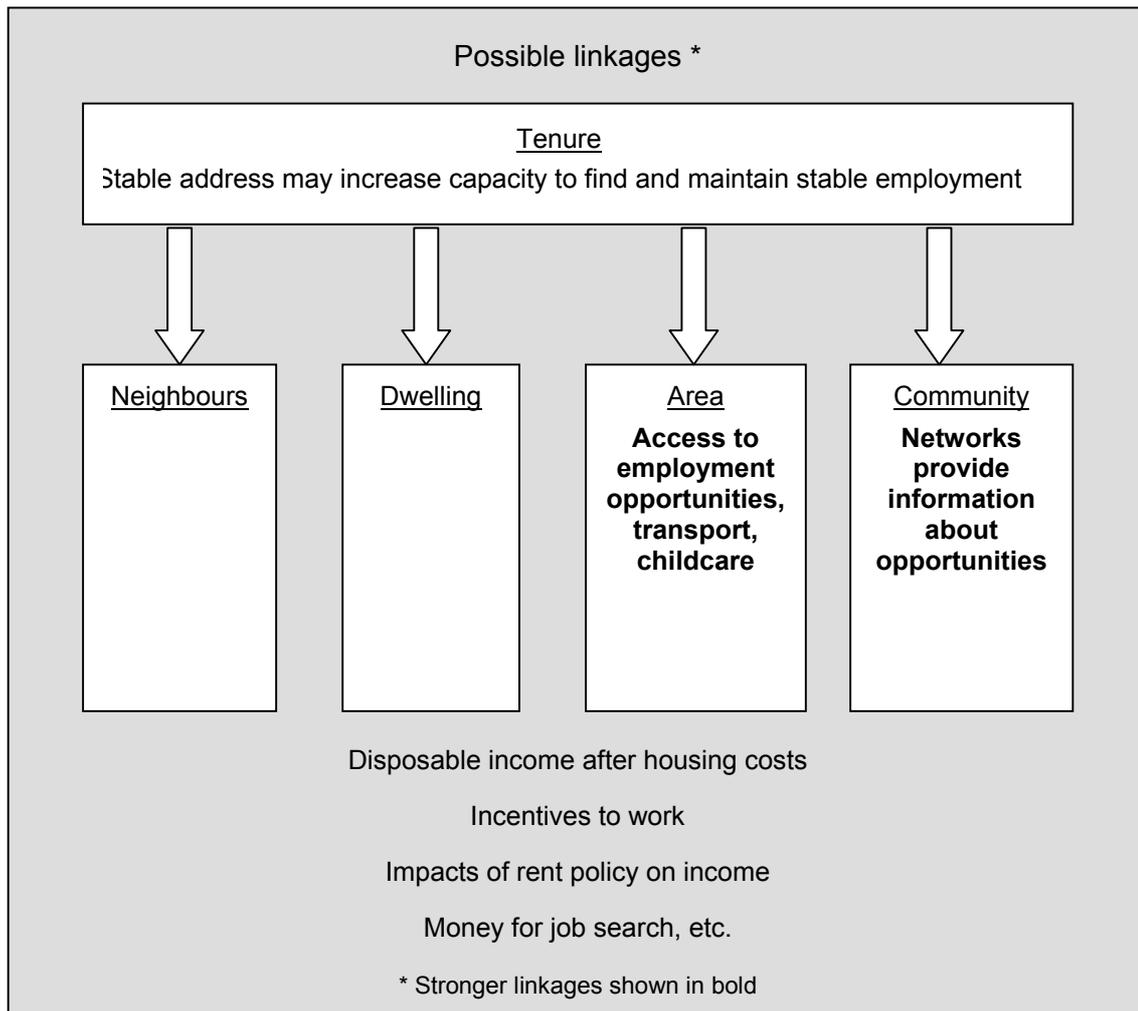
The impact of housing subsidies and of public housing in particular on the employment of tenants has attracted some attention overseas, with studies reaching different conclusions. One recent United States study (Fischer, 2000, p.36) concluded:

Rental subsidies do in fact substantially reduce hours worked and labour force participation among recipients.... A smaller, more broadly distributed subsidy would reduce the number of families exposed to the most extreme distortions of work incentives, and could also reduce the overall effect of subsidies on labour supply.

Bridge *et al.* (2003, p.vi) consider that "housing assistance measures can contribute to unemployment/poverty traps by increasing marginal effective tax rates, thereby blunting the incentive to participate in labour markets". A more recent AHURI study (Hulse and Randolph, 2004) specifically addressed the issue of Work Disincentives and Housing Assistance. The authors concluded after undertaking a survey of unemployed renters that "government rental housing assistance does contribute to work disincentives" (p.i). However, they also reported that a clear majority (71%) said they would still take a job if they only came out "about even" in terms of net income.

The possible linkages between housing and employment are summarised in Figure 2.3 (over page).

Figure 2.3: Housing and employment outcomes



2.4 Housing and Education

A detailed review of the literature examining the relationship between housing and educational outcomes is provided in the Positioning Paper. The main findings are outlined below.

2.4.1. The dwelling

Size of dwelling appears to be the most important element affecting a link between housing and educational issues. Overcrowding and lack of private space are key features that inhibit cognitive development and learning.

2.4.2. The area

The area can affect educational outcomes through the quality of local resources, especially local schools. Whilst the variation in school quality in Australia is not as great as some other countries, this can still be a significant issue.

Other issues related to the area include noise levels. Traffic and other noises can contribute to language development delays and also lead to broken sleep, which can affect concentration levels in class.

2.4.3. *The community*

The community impacts relate to neighbourhood effects and the role of peers. Where housing assistance programs have enabled households to move to “better neighbourhoods”, educational benefits were due partly to differences in schools. However, role models and social norms were also an important factor for both adults and children. Having a peer group with more positive attitudes to education and also a larger number of working adults to act as role models both appear to have positive impacts on educational outcomes.

2.4.4. *Tenure*

Housing stability is a key issue that can be considered under the heading of tenure. There is evidence to suggest that changes in address leading to changes in schools can have negative impacts on educational outcomes. In a review by the General Accounting Office in the US (GAO, 1994) it was found that of the nation’s third-graders who have changed schools frequently, 41% are low achievers in reading compared with 26% of third graders who never changed schools. Looking at the issue of high school completion, Havenman *et al.* (1991) report a similar finding, stating that moving one’s residence has a significant negative impact on high school completion rates.

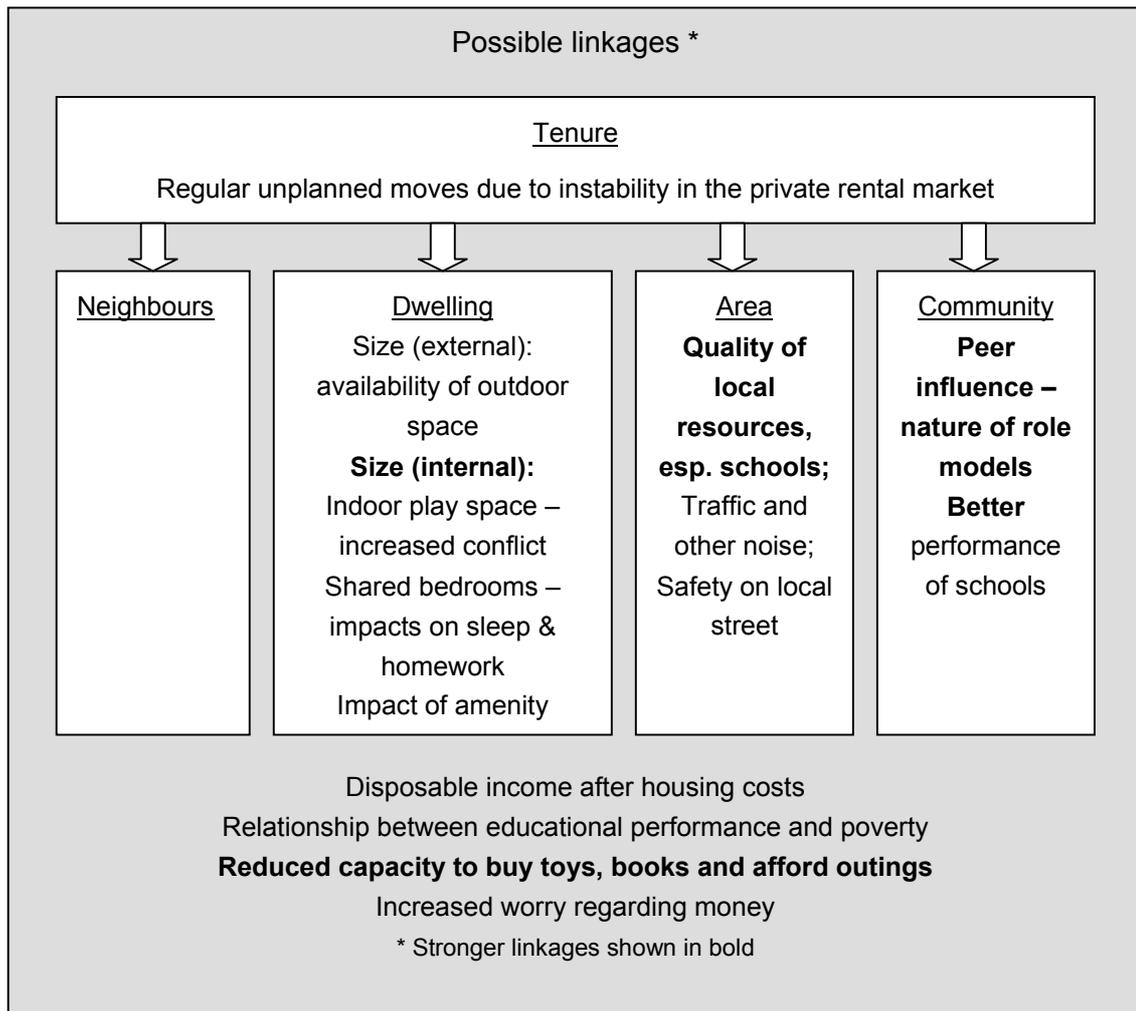
In the recent study, Bridge *et al.* (2003) summarise the relationship between housing assistance and education in the following way:

Housing assistance impacts on educational outcomes through effects on crowding, security and safety at the household level, and through access to schools and peer group effects at the neighbourhood level. Conclusions that emerge from a review of the literature are:

- Identifying the influence of HA policy and the separate dimensions of HA measures on education outcomes is difficult in light of the multitude of influences that impact on education outcomes.
- The empirical evidence, both in Australia and the US, suggests that the receipt of HA measures *per se* is not associated with poorer educational outcomes. Poor education outcomes is associated with other characteristics, measured and unmeasured, of HA recipients. (p.viii)

The possible linkages between housing and education are summarised in Figure 2.4.

Figure 2.4: Housing and educational outcomes



2.5 Classifying Non-Shelter Outcomes

In addition to a classification organised according to the source of the impact (dwelling, area, etc.) and type (education, etc.), it is important to classify non-shelter outcomes by process.

A number of possible processes are outlined in Figure 2.5 (over page). In the most straightforward case, non-shelter outcomes happen as soon as the housing change occurs (e.g., a reduction in crime as a result of an improvement in physical security). Other impacts require a change in attitude of the householders before non-shelter outcomes occur. In yet other cases, a change in behaviour as well as a change in attitude is required (e.g., a better health outcome as a result of a householder changing their diet). In the case where the non-shelter outcomes have the most difficult path, however, both a change in attitude and behaviour as well as action by a third party are required (e.g., a change in self esteem resulting from housing assistance leads to the householder undertaking a training program which requires the action of an employer to result in a change in employment).

In the absence of additional impacting factors, you would expect the first type of non-shelter outcome to be more readily identifiable than the last, given the path to the generation of the non-shelter outcome is “shorter”. In cases where action of a third party is required, it might be particularly difficult to establish non-shelter outcomes.

2.6 Recent AHURI Study Examining Non-shelter Outcomes of Public Housing

A recent research report by Burke, Neskey and Ralston (2004) uses a retrospective technique to try to assess the impact of public housing. A mail survey was sent to 300 households who had moved into public housing in Victoria in the last twelve months. Responses were received from 60 households. The tenants were asked to describe how public housing had helped them. The areas where public housing had made the most difference were:

- Feeling more settled (77% of respondents reported that public housing had helped);
- To make my children feel more settled (62%);
- To manage my money better (58%);
- To feel more confident (57%); and
- To enjoy better health (50%).

Only 19% of respondents thought public housing had improved their job prospects, although 40% of respondents indicated that living in public housing had helped them to start or continue education and/or training.

Although this is obviously only a small sample, it does provide an indication of the potential non-shelter benefits of housing for new public housing tenants.

Figure 2.5: Some possible non-shelter outcome (NSO) processes

Housing assistance → Housing change → NSO

(e.g. reduction in crime as a result of public housing having better physical security)

Housing assistance → Housing change → Attitude change → NSO

(e.g. change in interest in education of a child in public housing leading to better educational outcomes)

Housing assistance → Housing change → Attitude change → Change in behaviour → NSO

(e.g. change in self esteem resulting from housing assistance leads to a change of diet that leads to better health outcomes)

Housing assistance → Housing change → Attitude change → Change in behaviour → Action of 3rd party → NSO

(e.g. change in self esteem resulting from housing assistance leads to a training program but requires the action of an employer to result in a change in employment)

Source: Author with reference to Galster and Zobel (1998)

2.7 Conclusion

The literature review revealed the following:

- The non-shelter impacts could be classified functionally into impacts related to tenure, dwelling, area, neighbours, community and after housing income levels;
- There was a widespread literature on the relationship between shelter and non-shelter outcomes, but the literature was predominantly from overseas (mainly the UK and the USA);
- The different housing and welfare frameworks in other countries means that the findings of international studies may not be directly comparable;
- Only a limited amount of the literature generated clear causal relationships between shelter and non-shelter impacts, and in many cases this was because of the complexity of the relationships;
- The relationships between housing and non-shelter outcomes are not “linear”. Links that are evident at the bottom end of the housing market may not be obvious in other segments;
- The process of generation of a non-shelter outcome can be direct or can require changes in behaviours of the affected households, as well as actions by third parties;
- Recent, relevant quantitative work done in Australia has been sponsored mainly by AHURI. However, the work was limited to examining cross-sectional data generated by previous studies and a snapshot survey of 60 public housing tenants in Victoria.

There is a very limited amount of Australian evidence on links between housing and non-shelter outcomes. This is a key finding of the review — and this study has aimed to address this research gap. Bridge *et al.* (2003, p.xv) reach very similar conclusions.

3 THE METHOD

The Positioning Paper reviewed the range of possible methods that could be used within this study (Phibbs and Young, 2002, pp.35-37). In the end it was considered that a longitudinal study using a prospective method was most appropriate. For the purposes of such a design, researchers begin measurements at T_1 and follow the sample up to T_t .

It was decided to measure non-shelter outcomes in both public and community housing. The original intention was to interview households just prior to, and just after, receiving housing assistance.

Sampling

The Public Housing sample was stratified by a number of variables including:

- City (equal numbers from Sydney and Brisbane). The use of two cities will allow a range of affordability issues to be examined;
- Household type (singles less than 40; older singles; single parents; two parent families). The differences here are largely to explore the range of possible impacts examined in the literature (e.g., if only singles are examined, educational outcomes could not be examined);
- Location: estate/other, tenure mix of neighbourhood (predominantly owned/private rental/ public rental), level of disadvantage of suburb. The differences here will enable a variety of dwelling, area and community variables to be examined.

The Community Housing sample was to be based entirely in the Sydney Region. However, the difficulties in recruiting these households and the small sample meant that no stratification was possible.

In addition to interviews with households, a companion investigation of in-depth qualitative research was undertaken. Semi-structured, tape-recorded, in-depth interviews were conducted. They were sampled purposively to reflect the range and variability of characteristics and circumstances of households receiving assistance. The focus of analysis was on understanding the nature of linkages between housing and non-shelter outcomes. Via accounts of what people actually do in practice, it was possible to tease out complex links between housing circumstances and non-shelter outcomes, and ways in which specific housing features impact on non-shelter impacts.

In order to test the survey instruments and the surveying approach, four focus groups were undertaken: two with public housing tenants and two with community housing tenants. There were approximately 8 participants in each group.

3.1 The Best Laid Plans

This was the first major longitudinal study of non-shelter housing outcomes in Australia. Detailed investigation of the options during the first part of the study, as well as experience as the project unfolded, meant that some of the original research methodology had to be changed.

3.1.1. *The before and after interviews*

The original proposal described a research process where households were interviewed just prior to housing allocation, and then six months later, in order to provide a before and after comparison.

However, it was not possible to persevere with this “before and after” approach, largely because of the way the allocation system works in public housing. The major problem concerned the fact that it is not possible to accurately estimate when someone on the waiting list will get housed. The allocation rate for different housing types in different areas is difficult to predict. Originally, the study intended to interview people near and at the top of the waiting list. However, if the rate at which vacancies become available slows in a particular area, then people will be interviewed too long before they are actually allocated public housing. In cases when the rate of vacancies in an area is faster than anticipated, the household on the waiting list might be offered a house whilst arrangements for an interview are still being finalised. In this case, the household is likely to be so busy organising a move that they are unlikely to be able to participate in a long interview. As a result it was necessary to change the interview strategy for the public housing samples. Households were interviewed just after they moved into public housing (usually 2 to 3 weeks after) and then six months later. This increased the amount of retrospectivity in the survey process: people had to try and recall their circumstances at the time before their move. Whilst it is not considered that this presents too many difficulties, given the nature of the questions and the short interval (i.e., 2 to 3 weeks), it does have an impact on the study’s use of the health and wellbeing self assessment instrument.

In the case of community housing a more fundamental change in research methods was required. The public housing “model” of contacting households just after they moved in proved unfeasible, owing to the decentralised model of community housing allocations and the very slow rate of allocations. A retrospective model has instead been developed for this group. This model interviews tenants after they have been allocated for about twelve months and uses a retrospective instrument.

3.1.2. *Sample targets*

For ethical/privacy reasons, the survey used an “opt-in” model: households were contacted by letter and asked if they wanted to “opt in” to the study. If so, they contacted the University using a 1 800 number. Despite the availability of cash inducements, recruiting was difficult. The original survey plan was to interview 175

households in Brisbane, 175 households in Sydney and 70 households living in Community Housing. It was not possible to meet the household targets, however — except in the case of Brisbane. A discussion of reasons for such large differences between Brisbane and the other target groups is contained in Appendix B.

3.1.3. The use of diaries

The original proposal suggested the use of household diaries to record a variety of information, especially interactions with the medical system and the Government and community welfare sectors. During testing of some draft instruments with the focus groups, however, it became clear that diaries would not be effective with this target group and hence were abandoned. Members of the focus groups indicated tenants would not be interested in keeping accurate and detailed written records and that if they were asked to do so they would be likely to withdraw from the study. In the case of interactions with the medical system the diary was replaced with Medicare records obtained through a separate consent process (see Section 3.4.4).

3.1.4. Time interval

The original proposal suggested a time interval of 3 months between contact with clients. Discussions with reference groups⁵ and focus groups indicated this was too short, however, and a six month interval was adopted.

Other than these small changes, the study ran completely to plan.

3.2 Developing the Survey Instruments

The survey instruments for the study were developed over a 4 month period. Themes were developed from the literature review. Five instruments were developed:

1. Two semi-structured instruments for the qualitative component of this study;
2. A survey of public housing tenants just after they moved into public housing (called the T1 survey);
3. A survey of public tenants after they had lived in public housing for about 6 months (called the T2 survey); and
4. A survey of community housing tenants.

3.2.1. Developing the qualitative instrument

It was the deliberate intention of the research strategy to complement the large scale surveys with a small qualitative study. The idea of the qualitative component of the study was to shed light on “what is going on” between housing and non-shelter outcomes rather than to test a specific hypothesis (Bouma, 2000, p.91). As suggested by Mason (1996):

⁵ Advice was obtained from separate reference groups from Queensland Department of Housing and the NSW Department of Housing.

[Q]ualitative methods are usually used when the object of study is some form of social process or meaning or experience which needs to be understood and explained in a rounded way, rather than by attempting to understand causal patterns. (p.96)

It was decided to choose a sample of households who had experienced a change in housing within the last 6-18 months. Note that this means the target population for the qualitative study was different than the public tenants survey. This difference was intentional: it was considered that tenants who had been in their properties for this period would be able to describe a range of non-shelter outcomes. The size of the sample was set with consideration to the likely diversity of cases and capacity to generalise more broadly. Miles & Huberman (1994) suggest that a study with more than 15 cases may become unwieldy (p.30).

Interviews were planned as semi-structured, in-depth interviews intended to last between one and two hours. They were conducted in the subject's own home. Where more than one adult was involved in parenting children in the household, these other adults also were invited to be interviewed. Such interviews were conducted separately in order that their recall was not affected by hearing the recall of their partner.

The approach taken in designing the interviews was developed with consideration given to the Grounded Theory method as outlined by Strauss & Corbin (1990). In particular the interviews began with unprompted, open-ended questions that simply sought to record the subjects' primary recollections and interpretations of their move from private rental housing into public rental housing. The intention of these early questions was to learn about what mattered most to the subjects in relation to these moves. As Strauss suggests, it is important to "begin with an area of study and what is relevant to that area (be) allowed to emerge." (p.23)

The full interview schedule is included in Appendix A. As can be seen, the interviews were to commence with an introduction to the purpose and area of study, relayed so as to reinforce that the goal was to build a better understanding rather than prove or test a hypothesis. Issues of confidentiality were addressed at the outset, and permission to tape record interviews for subsequent transcription was sought.⁶ Subjects were then given an opportunity to ask questions before the interview commenced.

The interview began with the collection of base line data such as household structure, past and current housing, and children's ages and year levels at school. This information was collected in order to categorise subjects according to the nature of the change in their housing circumstances when they moved into public housing.

⁶ All interviewees agreed to tape recording of the interviews.

Following this stage, the interview then focused on asking subjects to recall life in their last home before they moved into public housing. They were asked what aspects of their last home stand out for them now, and what life was like for their family in their last home. These early questions were asked with little or no prompting, in order that the responses reflected as far as possible the issues that mattered most to the subjects. Subjects were then asked to talk about their move into their current home – what were their hopes and expectations regarding this move, have these expectations been met, and in what ways if any has life changed since the move? Again these questions were designed so as to gain insight into the importance and role played for these households by key aspects of housing.

The interviews then moved to address more specific aspects of the change in housing and possible impacts, assuming these aspects had not already been covered in the earlier questions. Subjects were asked about the impacts of their move on relationships, health, and employment or participation; and about the impact of changes of particular aspects of their housing, including reduced cost, and the increased security of tenure. As the interviews drew to conclusion, subjects were asked about a number of specific relationships between aspects of housing and aspects of schooling identified in earlier studies. These questions were deliberately left until the end of the interview so as not to influence or shape recollections during the earlier part of the interview.

3.2.2. Developing the other instruments

The remaining three instruments were developed using a similar process. The literature was used to organise a series of themes. These themes were developed into questions using an iterative process between members of the study team. A draft survey was then taken to a reference group in each State comprising State Housing Authority (SHA) staff. The outcome of this process was a survey form that was tested with two focus groups of State Housing Authority tenants and two focus groups of community housing tenants.

A standard health self-assessment instrument was also used: the SF36. This instrument is widely used (including by the Australian Bureau of Statistics) to examine eight dimensions of health by questionnaire: physical functioning, role physical, bodily pain, general health, vitality, social functioning, role emotional and mental health.

The final surveys were then piloted with four public housing tenants. Some small changes were made on the basis of language and points of clarification in the wording.

3.3 The Survey Process

3.3.1. *Qualitative interviews: public tenants*

In order to recruit a target sample of 10–15 households, invitations were sent to 110 public housing tenants from one inner-urban Area Office of the Queensland Department of Housing.⁷ The qualitative interviews particularly aimed to explore the relationship between education and housing outcomes. For this reason households were required to have school-aged children. Also, since the literature demonstrates that some non-shelter outcomes were most likely to occur when households are living in better neighbourhoods, it was decided to interview households living in the top SEIFA quartile,⁸ i.e., areas that are rated by the ABS as in the top 25% of Brisbane suburbs.

In summary, the criteria used for selecting the mailing list was:

1. School aged children;
2. Household address in a suburb rated in the top SEIFA quartile.

These criteria yielded a list of 440 households. Every fourth household from this list was selected to make up a mailing list of 110.

In order to maintain public tenant privacy, the mail-out to tenants was undertaken by the Queensland Department of Housing. Letters were prepared from the General Manager of Public Housing, introducing the research project and stressing that participation was purely voluntary and would in no way affect the recipient's tenancy.

Accompanying this Departmental letter was a letter from the University of Sydney providing further details of the research project, and inviting recipients to telephone a free-call number to find out more about the project and to register to participate if interested. The letter also advised that participants would receive a family movie pass as a gesture of thanks for their time.

From a mail-out of 110 letters, 22 telephone calls were received, and 14 households volunteered and were chosen to participate in the study. Previous housing details were checked when tenants rang to register to participate in this study, in order to ensure at least 50% of sample households had moved to their current suburb of low disadvantage from suburbs of high disadvantage (defined as suburbs in the bottom two SEIFA quartiles). This target was achieved.

⁷ A companion survey in NSW did not take place because of recruitment problems experienced in that State.

⁸ The Socio-Economic Indexes for Areas (SEIFA) are groupings that provide a comprehensive profile of the Australian people constructed by the ABS. Using data from the 1996 Census of Population and Housing indexes have been constructed to summarise the social and economic conditions of Australia. In this case, Index Number 1: the Urban Index of Disadvantage was used. Details are available in ABS (1998).

Of the 14 households, 12 were single parent families. In all but one case, interviews were conducted with one adult member of the household. In one case, two separate interviews were conducted so as to better elicit the views of both partners. All participants had school-aged children. The sample provided a good mix of households who moved from less advantaged to more advantaged suburbs (four households), and from more advantaged to less advantaged suburbs (three). There was also a good variety of households who have had reasonably stable housing over the past five years (seven who had moved less than twice), and those who have moved relatively often (four who had moved four or more times). Three of the households moved from housing close to family and friends to housing no longer close to these supports, providing good opportunity to explore the importance of this aspect of their housing.

3.3.2. Interviews with educators

Interviews were also conducted with two primary school principals (interviewed separately) and a deputy principal and remedial teacher (interviewed together), in order to supplement the insights gained through the literature review phase of this study. These interviews were therefore largely intended as one strategy in the preparation for interviews with public housing tenants. The interviews with educators were designed to explore specific relationships between aspects of housing and schooling that had been identified in earlier studies, and to consider the applicability of these results in an Australian context.

Subjects for these interviews were selected through stratified sampling: one was selected from the northern outskirts of Brisbane, one from the southern outskirts, and one from a middle ring suburb. Outer suburb schools were chosen, as their catchments were primarily suburbs with relatively low land values and relatively high levels of disadvantage (in the third or fourth quartile of Statistical Local Areas using the SEIFA index). These schools were considered more likely to see the impacts of high levels of disadvantage and poor quality housing.

The middle ring suburb school was chosen as a suburb in transition: one that has serviced a catchment of relatively high disadvantage (third quartile on the SEIFA index), but nonetheless is changing through the process of gentrification. This current school population — comprising students from both advantaged and disadvantaged backgrounds — was hoped to provide an opportunity to explore a hypothesis from the literature that children from poorer families benefit from attending schools with a variety of other children, as compared to a more homogenous population of similarly disadvantaged students.

Subjects were recruited via letter and follow-up phone calls. All three schools approached agreed to participate. While these interviews commenced with a less directive question about possible linkages between housing and schooling, the balance of time was spent exploring specific possible linkages, such as crowding, cost, neighbourhood and amenity. Appendix A shows the schedule for these interviews.

3.3.3. The State Housing Authority tenants

To protect the anonymity of housing residents, initial contact with tenants was not made by the interviewers. At no time were the researchers provided with details of new Public Housing residents. In both Brisbane and Sydney, case officers discussed the study with their clients at the allocation meeting, explaining its purpose and aims. Following this initial discussion, residents then received a letter of introduction from their respective housing organisations and an information sheet compiled by the researchers. The information sheet further explained the purpose of the study, while letting interested residents know how they could contact the researchers. Brisbane tenants received this information sheet in the mail within the first two weeks of moving into their new housing, whilst in Sydney the information was included as part of the Information Pack given to new residents. The reason for following up the initial discussion with the case officer via an information sheet was to remind people of the study after the initial stress of the move had passed.

Interested residents could contact the researchers by calling a 1800 number listed on the information sheet. This free-call number was used so that administration of the surveys could be concentrated in Sydney without Brisbane residents incurring STD costs. By calling the 1800 number, interested residents could register with the study, or ask further questions about its operation. As the first contact that residents had with the study was through Department of Housing it was important to stress that the research was completely independent of that organisation, and that they would remain anonymous. As questions were related to the tenant's experience of housing and the service they had received directly from the Department, it was important to let them know they would not be able to be identified in any way by their answers in order to ensure an honest response. The researchers then ensured residents had moved into Public Housing from the private rental market. Some Sydney people who contacted researchers had not moved from the private rental market but were being transferred from one Department property to another, and as such were not able to take part in the study. Following this, details of new residents were recorded, and they were informed that an interviewer would contact them within a fortnight to arrange a time to visit their house and conduct the survey. The administration was controlled by one of the interviewers in Sydney, who then passed on details of Brisbane tenants to the interviewers in that city.

When designing the procedure for administering this first stage, researchers were aware it would result in a fairly high non-response rate. As will be discussed below, this hypothesis was confirmed by the actual response rate of residents, which was quite low. Also, the researchers assumed the typically high non-response rate for this method of contacting potential respondents would be exacerbated by the life situations of people on the housing list. Most of the people are in high stress situations, even if simply as a result of moving house. It was decided therefore to provide an incentive for people to take part in the first survey, and to convince them to participate in the second survey 6 months later. The incentive took the form of a

cash payment. Considering that once people had decided to participate in the first round of surveys they were quite likely to agree to do the second, the payment for the first survey was \$25, whilst for the second survey respondents received \$15.

The total number of responses is shown in Table 3.3.3.

Table 3.3.3: Survey Responses

	Sydney	Brisbane	Community Housing
T1	26	178	n/a
T2	18	151	n/a
Com. Housing			15
Not contactable after T1	6	21	n/a

n/a: not applicable

One hundred and fifty one households from Brisbane and eighteen households from Sydney participated in both stages of the study, compared to one hundred and seventy eight and twenty-six, from Brisbane and Sydney respectively, in the first survey. Given the larger population, the study had initially aimed and expected to get more people from Sydney than Brisbane. Although a poor response rate had been predicted and therefore accounted for in the design of the study, the duration of the initial contact period also had to be extended.

Along with the high non-response rate, there was difficulty in recontacting people to take part in the second survey. As all those contacted agreed to be surveyed a second time, it can be surmised that the drop out rate was not a result of people *not* wanting to take part in the second survey. The biggest issue appears to be the disconnection of phones during the period between the two surveys. All those whose original numbers did not work at the time of the second interview were sent a letter explaining that the study no longer had their phone numbers, and asking them to recontact the researchers on the same 1800 number. At the end of this process there were still 21 people in Brisbane who had not got back in contact. It is assumed that some had simply left public housing for various reasons.

3.3.4. Community Housing

The procedure for contacting Community Housing tenants and collecting details of interested residents was similar to that for Public Housing. However, getting in contact with Community Housing residents was more complicated than for Public Housing. Several reasons can be given: the providers are much smaller, tend to be quite localised, and work independently of one another. The researchers liaised with the National Community Housing Forum (NCHF), a peak organisation that assists the various Community Housing providers. NCHF were responsible for contacting the different housing providers and informing them of the study. It was then up to each housing provider to decide how best to contact their tenants. Although it was determined to be the only way to contact tenants, this method meant the response

rate from each area was determined by the willingness of individual organisations to get involved.

3.4 Survey Analysis

3.4.1. Qualitative interviews

Analysis began by firstly categorising aspects of interviews by theme and sub-theme. This occurred through the gradual building of a checklist matrix highlighting themes identified in each interview. For example, the first transcript was reviewed and themes identified and added to a matrix. The second interview transcript was then reviewed, and occurrences of themes identified in the first interview were checked off. New themes not present in the first interview were added to the list of themes. This amended list of themes was then used as the basis for reviewing the third transcript, and so on. The end result of this process was a checklist matrix listing interviewees on the y-axis, and themes across the x-axis.

3.4.2. Survey data

Survey data was coded and then analysed using SPSS V10. Whilst the original proposal discussed the use of path analysis and some other techniques, the reduction in sample size made some of these techniques inappropriate because the cell sizes needed to meet the assumptions of these tests were not available. This report used a more conventional survey analysis of frequencies (filtered for appropriate cases where necessary), and the use of cross tabulations with a Pearson Chi square test to test for significance. A logistic regression analysis was also used to identify factors that affect households' overall evaluation of their housing.

When coding the survey results for open-ended questions a multiple response method was used. The data for these questions was analysed using the multiple response analysis option in SPSS. One person coded all the surveys.

Valid percentages are used (i.e., missing cases are excluded from the calculation of percentages) and in the case of multiple response questions the percentage of responses (not the percentage of cases) are reported. The total number of responses is reported at the bottom of each table.

When making generalisations from survey results to the wider population, standard errors of the estimates should be considered. Probability theory states that in 95 percent of samples, the population percentage will be within plus or minus two standard error units of the sample percentage. That is, if we are trying to make generalisations from our sample, we should allow plus or minus two standard errors to 'convert' the sample results to population results. For example, if we were trying to convert to a population percentage the sample percentage of T1 households who thought they were in better housing *after* they moved into public housing, we would have to allow the actual result plus or minus twice double the standard error of

7.5%⁹ (De Vauss, 2002, pp.80-81). Whilst this statistic is not mentioned against every table, readers should take it into account when trying to generalise from sample results to the population.

3.4.3. *The SF36*

The original intention was to use self-assessment before *and* after admission to public housing, and then compare scores on the dimensions of health. However, once the survey method changed to talking to households *after* they were housed, it was not possible to continue with this strategy. The SF36 was still used to look for a change in self assessed health status over time.¹⁰ However, it was not possible to compare T1 and T2, given that T1 involved the stressful experience of moving. The only health question used in T2 asked respondents to assess their health compared to 12 months previously.

3.4.4. *Medicare records*

Researchers obtained access to Medicare records by getting tenants to sign an authorisation (see Appendix A). In order to say something meaningful about the comparison, it is important to examine a period 12 months before and about 12 months after their access to housing. Access thus was requested for the year before the study and then up to June 2003. About 80 percent of respondents agree to participate in this component of the survey. The Health Insurance Commission provided for each Medicare Number the total number of services and the benefits paid per month.

3.5 What are the Likely Results of this Study?

Based on the findings of the literature review, it is useful to now consider the likely results of the survey.

3.5.1. *Employment*

The nature of the respondents must be considered first. As clients of the public housing system they are relatively poor performers in the labour market. (If the situation were otherwise, they would not pass the income test that is an eligibility requirement.) Therefore, one could hypothesise that for some respondents, the non-shelter outcomes of housing in the area of employment are likely to be small. For example, if an individual has a poor labour market history and is long-term unemployed (e.g., no-one in their family has had a job for two generations), it is unlikely that the view of employers (the third party) will change as a result of a change in address. When this issue is coupled with evidence from the literature showing that:

⁹ Formula for standard error is $(p.q/n)^{1/2}$ where p is the percentage in the category of interest of the variable, q is the percent of the remaining categories of the variable, and n is the number of cases in the sample.

¹⁰ It hopefully will be possible to continue surveying Brisbane tenants (T3, etc.) in order to develop a time series of their health status.

1. for some households the rent/income link may discourage labour force participation, and
2. when training is required the time lag before employment outcomes change is likely to be considerable, it would appear that measurable employment outcomes might be quite small — especially given the short period between T1 and T2.

3.5.2. *Health*

A number of possible issues could be considered here:

3. Some clients of public housing may have poor labour market records because of their chronic health problems (Wiggers *et al.*, 2001). In these cases it would be likely that changes in health resulting from housing changes may be masked or swamped by the existing condition;
4. Changes in health outcomes resulting from dwelling improvements will not be universal but will depend on the nature of the previous dwelling and the characteristics of the occupants (e.g., young and old people will experience different impacts);
5. Changes in mental health and wellbeing might be more widespread, although these impacts might be largest where there is a marked lack of control with the previous housing.

As a result you could expect some quite marked health changes in health outcomes but the results will be uneven across the sample.

3.5.3. *Education*

Household composition will obviously affect educational impacts. It would appear the largest non-shelter outcomes might occur where forced address changes were common *before* assistance was provided, and resultant changes in the quality of the neighbourhood were the largest.

You would thus expect most impacts to be positive — although the unsettling nature of the address change may be an issue. The size of the impact may vary. For some households the six-month period between interviews might be too short for significant changes to be evident.

3.5.4. *Crime*

Changes in non-shelter outcomes will depend on:

1. The quality of physical security in the previous dwellings; and
2. The relative crime rates of previous and current neighbourhoods.

As a result you could expect that non-shelter outcomes relating to crime will be uneven across households.

4 RESULTS OF THE T1 SURVEY: BRISBANE PUBLIC HOUSING TENANTS

Sections 4 and 5 respectively describe the results of the Brisbane surveys at T1 and T2. In both sections, T1 refers to the initial survey undertaken when tenants first move to public housing. T2 indicates the second survey undertaken about 6 months later.¹¹ Since surveys were carried out over an extended period, some T1 surveys were still being undertaken after T2 surveys had begun. Results from the qualitative interviews are included in appropriate sub-sections, in an attempt to describe and understand the main transmission mechanisms of non-shelter outcomes. Section 4.1 describes some key characteristics of the respondents by examining data at T1.

4.1 Key Characteristics of Respondents at T1

4.1.1. Who are the respondents?

The household structure of tenants at time T1 is shown in Table 4.1.1-1. Note the predominance of single parents and single people, which generally reflects the demographic structure of allocations made in relevant Brisbane regions over the same period¹² (although single persons *are* slightly over-represented).

Table 4.1.1-1: Household structure at T1 compared to total allocations

	Valid T1 %	Total SHA allocations in same period %
Single person, living alone	55	47
Single person, living with 1 or more children	32	35
Couple living without children	5	4
Couple living with 1 or more children	6	7
Group home of unrelated adults	2	7
Total	100.0	

N=178

Sixty-nine households in the sample had a total of 116 dependants, 99 of which attended school. The age breakdown of the dependants is shown in Table 4.1.1-2 (below). Note that 49% of the dependants were female.

¹¹ Note: because of issues in contacting tenants, this period could be longer than 6 months.

¹² Sourced from Queensland Department of Housing as a special data request.

Table 4.1.1-2: Age distribution of dependants (at T1)

Age	% of dependants	% Males in age cohort	% Females in age cohort
0-4	29	60	40
5-9	33	49	51
10-14	16	37	63
15-19	21	42	58
20 and over	1	0	100
Total	100	51	49

4.1.2. Where did respondents live before they moved into public housing?

The majority of respondents were living in separate houses before they moved into public housing and living in the private rental market (see Table 4.1.2-1).

Table 4.1.2-1: Type of dwelling (previous dwelling) and nature of tenure (at T1)

Type of dwelling	Valid percent	Tenure	Valid percent
Separate house	52.2	Owner/purchasers	2
Terrace, semi-detached	7.3	Private rental (agent)	75
Flat, unit/apartment	37.1	Private rental (friends/family)	16
Caravan, mobile home	3.4	Boarding House	5
		Other	2
Total	100.0		100

N=178

Eighty one percent of the respondents were receiving Commonwealth Rent Assistance.

Before moving into public housing only 61% of households were living as separate households. Some were living with friends, family or shared housing. About 6 percent were living in emergency housing (see Table 4.1.2-2).

Table 4.1.2-2: Living arrangements at previous dwelling (at T1)

	Valid percent
Staying with Family	16.9
Staying with Friends	2.8
Shared Housing	12.4
Emergency Accommodation	5.6
Living Alone as a Family	61.8
Total	100.0

N=178

4.1.3. *What did respondents like and dislike about their previous dwelling and previous neighbourhood?*

In T1 respondents were asked to identify what they liked least about their previous dwelling and previous neighbourhoods. Questions were open-ended and people could provide more than one response. The results are shown in Tables 4.1.3-1 and 4.1.3-2 (over page). As mentioned in Section 3, in most cases reported results are the percent of total responses, rather than a percentage of cases or respondents. Note that only responses greater than 5% of total responses are separately identified. Note also that the response “nothing” means the respondent has made the statement “nothing”, and this does not indicate a non-response.

Table 4.1.3-1: What people liked least about their previous dwelling

Issue	Percent of responses*
Quality of house/maintenance	16
Size	10
Lack of privacy	8
Noisy	6
High rent	6
Nothing	5
Other	49
Total	100

Greater than 5% identified separately. 222 total responses.

Table 4.1.3-2: What people liked least about their previous neighbourhood

Issue	Percent of responses*
Noisy	20
Nothing	17
Safety	15
Neighbours	9
Bad Public transport	8
Other	22
Total	100

* Greater than 5% identified separately. 199 total responses.

Respondents' concerns about their previous dwelling included concerns about house quality and maintenance, dwelling size, and lack of privacy. At the neighbourhood level, respondents were concerned about noise and safety issues. Compared to issues about their previous dwelling, a relatively large proportion of respondents indicated there was nothing in particular they "liked least" about their previous neighbourhood.

Respondents were also asked to identify things they liked most about their previous dwelling and neighbourhood. Results are summarised in Table 4.1.3-3 and 4.1.3-4.

Table 4.1.3-3: What people liked most about their previous dwelling

Issue	Percent of responses*
Size	14
Location	13
Nothing	8
Quality of house/maintenance	8
Close to amenities/services	7
Other	50
Total	100

* Greater than 5% identified separately. 227 total responses.

Table 4.1.3-4: What people liked most about their previous neighbourhood

Issue	Percent of responses*
Location	18
Neighbours	18
Close to amenities/services	14
Quiet	12
Sense of community	6
Other	32
Total	100.0

* Greater than 5%. 234 total responses.

In terms of dwelling characteristics they liked, respondents nominated dwelling size and location issues as most prominent. In relation to neighbourhood characteristics, location again was prominent as a positive feature, as were “the neighbours” and the sense of community. The quiet character of the previous neighbourhood was also appreciated.

4.1.4. How many schools have they attended over the last two years?

As mentioned above, sixty-nine households in the sample had a total of 116 dependants, 99 of whom were at school. Respondents were asked to identify how many schools their dependants had attended in the previous two years. The results are shown in Table 4.1.4.

Table 4.1.4: Number of schools attended over the previous two years

Number	Percent *
1	36
2	24
3	14
4	10
5 or more	16
Total	100

*99 total responses

Table 4.1.4 shows evidence of the mobility of the respondent group. Whilst some movement of students between primary and secondary school generally will occur, about 40% of children were changing schools 3 or more times over a two year period. The interviews with school staff in Section 4 identified this frequent movement as a risk factor in the education of children.

4.1.5. What is the employment status of the adults at T1?

Table 4.1.5 shows the employment status of adults in the T1 households. A relatively small percentage only is in the workforce.

Table 4.1.5: Employment status of adults in the T1 households

Category	Percent
Part time employment	0
Full time	5
Unemployed	11
Retired	27
Unpaid/voluntary work	24
Unable to work	19
Full time study	14
Total	4

N=169

4.1.6. How many times have respondents moved in the last 2 years?

Respondents were asked at T1 how many times they had moved in the last two years. The minimum number of moves (i.e., a move into public housing) was one. The average number of moves was 2.2 moves for the entire sample and 2.3 moves for households with dependants.

Table 4.1.6: Number of moves in the previous two years (at T1)

Number of moves	All households %	Households with Dependants%
1.00	41	49
2.00	31	17
3.00	12	16
4.00	7	4
5.00	6	9
6.00 and over	4	6
Total	100.0	100.0

N=178

4.1.7. Summary

The respondents demonstrated high mobility levels before they moved into public housing, both for themselves and for school attendance of their children. Most were previously operating in the private rental market with about 80% receiving Commonwealth Rent Assistance. Some households were sharing with friends and relatives before moving into public housing. They had mixed view about their previous housing, with the largest area of concern associated with dwelling quality and noise levels in their neighbourhood.

4.2 What Changes Occurred when Respondents First Moved into Public Housing (T1)?

This section examines changes when households first moved into public housing. All these changes are recorded at T1.

4.2.1. *What change in dwelling type and household type occurred when people moved into public housing?*

Table 4.2.1-1: Comparing dwelling types

Dwelling type	Previous dwelling %	Public dwelling %
Separate house	52	24
Terrace, semi-detached, town house	7	14
Flat, unit/apartment	37	62
Caravan, mobile home	3	0
Total	100.0	100.0

N=178

Table 4.2.1-1 shows that respondents moving into public housing were more likely than previously to live in medium density housing. There was also a small decrease in persons per bedroom (it fell from 1.2 persons per bedroom to 1.05 persons per bedroom), although this was likely to be based largely on the greater proportion of households that were living alone.

Table 4.2.1-2: Household structure – previous and current dwelling (at T1)

Household structure	Previous dwelling	Public dwelling
Single person, living alone	29	55
Single person, living with 1 or more children	21	32
Couple living without children	6	5
Couple living with 1 or more children	10	6
Group home of unrelated adults	12	2
Single person without children living with relatives	7	0
Single person with children living with relatives	5	0
Other	9	0
Total	100	100.0

N=178

Table 4.2.1-2 shows that when households moved into public housing, in many cases they stopped living with friends and relatives. This allowed them to form households with immediate family, or sometimes to live on their own. In a number of cases respondents mentioned that this was a major improvement, since they had been living in crowded conditions or with elderly parents who were not coping. As a result the average household size decreased from 3.3 persons to 1.9.

4.2.2. What did respondents claim was the largest difference between their existing and previous situation at T1?

Responses to the questions “what is the largest difference between this neighbourhood and your previous neighbourhood?” and “what is the largest difference between this dwelling and your previous dwelling?” are shown below. In general, respondents are positive about their new dwellings and neighbourhoods. In regard to neighbourhood issues, respondents were positive about quietness and convenience, but were also concerned about increased noise. In terms of dwelling issues, the major difference was the improved quality of the dwelling. Probably as a result of no longer living with family and friends, about 10 percent of respondents also reported increased privacy.

Table 4.2.2-1: What is the biggest difference between this and previous neighbourhood? (at T1)

Issue	Percent of responses*
Quieter	17
More convenient	12
Noisier	12
Safer	8
Sense of community	7
Better area	6
Other	38
Total	100

*Greater than 5% identified separately N=178

When asked a specific question about the difference in quality between current and previous neighbourhoods, 45% reported the new neighbourhood as better, 21% as worse, and 26% about the same.

Table 4.2.2-2 shows responses to the question of “why the neighbourhood is better or worse”. A safer neighbourhood appears to be the main reason why respondents consider their new neighbourhood is better, although the fact that the area is “better maintained” is also important. Interestingly, safety is the main reason they perceive their neighbourhood is better.

Table 4.2.2-2: Why is the neighbourhood better or worse? (at T1)

Issue	Percent of responses*
Safer	21
Better maintained area	10
Quieter	9
More convenient	8
Less safe	7
Sense of community	6
Other	39
Total	100

*Greater than 5% identified separately. 221 total responses.

Table 4.2.2-3 shows that the biggest difference between new and previous dwellings related to dwelling quality and maintenance. Privacy issues were also important, probably reflecting the relatively large numbers of households who shared with friends and relatives prior to moving into public housing.

Table 4.2.2-3: What is the biggest difference between this and previous dwelling (at T1)?

Issue	Percent of responses*
Better quality /maintenance	22
Less space	17
More space	14
Privacy/was own place	11
Better security	10
Other	26
Total	100

*Greater than 5% identified separately N=178

4.2.3. *What other differences exist between current and previous situations?*

Differences in noise levels and accessibility to services and facilities were also asked about at T1. The results are reported in Table 4.2.3-1 and Table 4.2.3-2 (over page).

Table 4.2.3-1: Comparison of noise levels in dwelling (at T1)

Current compared to previous dwelling	Percent
More noisy	35
About the same	15
Quieter than before	50
Total	100.0

N=176

Table 4.2.3-2: Accessibility scores for a range of service/facilities (at T1)

Service/facility	Accessibility score T1*
Work/looking for work	5
Relative/friends	-1
Childcare	-2
School	-2
Training/education	7
Recreation for adults	10
Recreation for kids	11
Health services	2
Community support services	11
Centrelink	-2
Food shops	28
Other shops	20

*Score = percentage of respondents closer to the service minus the percentage further away, i.e., larger positive numbers indicate improved accessibility and negative numbers indicate a decrease in accessibility.

In the area of noise, as for various other issues, there are some winners and losers. The net effect seems to indicate more winners than losers (see Table 4.2.3-1).

Respondents were asked to indicate whether current housing is more accessible to work, friends and a variety of other services. Respondents could indicate whether the particular service is further away, closer, or about the same. An accessibility score was calculated by subtracting the percentage of respondents who were further away from the percentage who indicated they were closer. For example, if 50 percent of households reported better accessibility to child-care and 30 percent reported worse accessibility, the overall score would be +20. A positive score thus indicates better access in the new dwelling, while a negative score indicates worse access. Accessibility scores are shown in Table 4.2.3-2. Respondents report improved accessibility for all services/facilities, with the exception of access to relatives/friends, childcare, school and Centrelink. Perhaps these reduced accessibilities reflect the new neighbourhood effect: i.e., people moving to a new neighbourhood but still using facilities, such as schools, that are located in their old neighbourhood. If so, the accessibility scores could be expected to improve at T2.

4.2.4. Summary

Respondents generally greeted the move into public housing in positive ways. People were able to form smaller households, and shared less with relatives and friends. Respondents were generally positive about their new dwellings, especially in relation to the quality of the dwelling. Some negative comments were recorded in relation to space. Respondents also considered that they had moved into a better neighbourhood, which they perceived to be safer than their previous neighbourhood.

A key finding was improved accessibility of the respondents to most services and facilities.

As a result of these reasonably positive judgements, it is not surprising that when asked how they would compare their new housing to their previous housing overall, about two thirds (65%) of respondents reported they felt their new housing was a great deal better, and 17 percent considered it a little better (see Table 4.2.4). About 11 percent of respondents considered their new housing to be a little worse or a lot worse.

Table 4.2.4: Overall rating of new housing (at T1)

Overall rating of new housing	Percent
A great deal better	64
A little better	19
About the same	7
A little worse	5
A lot worse	5
Total	100.0

N=175

These findings have a number of implications for the measurement of non-shelter outcomes. Firstly, reported changes in dwelling quality and perception of neighbourhood will allow us to measure dwelling and neighbourhood based non-shelter outcomes, if they are present. Secondly, the high levels of mobility for clients prior to public housing will allow us to measure the impacts of increased stability resulting from a change in tenure.

5 RESULTS OF THE T2 SURVEY: BRISBANE PUBLIC HOUSING TENANTS

5.1 Positive Outcomes for Tenants

5.1.1. Overview

The T2 survey aimed to test whether initial observations about the differences between old and new dwellings were maintained after people had lived in their new dwelling and neighbourhood for a while. It also attempted specifically to measure some of the non-shelter outcomes described in the literature review, especially in the areas of health, education and employment.

In nine percent of the households (13 households), there had been a change in household composition — i.e., someone else had moved in or someone had moved out. The changes were relatively minor:

- Two single person households became single parent households;
- One single person household became a couple household;
- Two couple households became single person households;
- One couple household acquired relatives;
- One group home of unrelated adults became a single person household; and
- The number of children changed in six more households.

As a result, household structure remained almost identical between T1 and T2 (see Table 5.1.1).

Table 5.1.1: Household structure at T1 and T2

Household structure	Public dwelling (T1)	Public dwelling (T2)
Single person, living alone	55	56
Single person, living with 1 or more children	32	31
Couple living without children	5	5
Couple living with 1 or more children	6	6
Group home of unrelated adults	2	1
Single person without children living with relatives	0	0
Single person with children living with relatives	0	0
Other	0	1
Total	100.0	100.0

T1: N=178 T2: N=151

Attrition of the sample was also an issue. At T2 the sample data involved 27 fewer households. In order to explore the likely impact of changes, a number of T1 tables were reproduced using as the population the T1 households that survived into T2. In no case was there a change in any percentage responses greater than 1%. In some cases these adjusted T1 scores are published in the tables. However, because of these small differences, this process was not made universal in this section.

5.1.2. Dwelling issues

Table 5.1.2-1 shows the biggest differences identified by respondents between current and previous dwellings at T1 and T2. There are similar broad patterns between T1 and T2. Possibly due to greater familiarity with the dwelling, however, there are a larger variety of responses at T2. The fact that tenants were better off financially receives more attention at T2 — by this stage, tenants perhaps have had a chance to save some money or establish new spending patterns since T1. In addition, tenants are now aware of the benefits of their location. This was less apparent at T1, perhaps because tenants hadn't yet fully appreciated the service/amenities opportunities.

Table 5.1.2-2 shows respondents' answers when a specific question is asked about positive features of the new dwelling. Dwelling quality and locational characteristics are once again the most important issues. The most significant negative characteristics identified are size and traffic noise (see Table 5.1.2-3). Note that 20 percent of responses indicated there was nothing about the new house that didn't work.

Table 5.1.2-1: What is the biggest difference between this and previous dwelling?

Issue	Percent of responses* (T1)	Percent of responses* (T2)
Better quality /maintenance	22	8
Less space	17	10
More space	14	5
Privacy/was own place	11	9
Better security	10	3
Lower rent/financially better off		10
Close to amenities		6
Other	26	49
Total	100	100

*Greater than 5% identified separately. T2: Number of responses = 224

Table 5.1.2-2: What is good about the house? (at T2)

Issue	Percent of responses*
Close to amenities/family/friends	12
Location	12
Quality of house	11
Size	10
Neighbours	6
Rent	5
Garden	5
Other	39
Total	100

*Greater than 5% identified separately. Number of responses = 303

Table 5.1.2-3: What doesn't work about the house? (at T2)

Issue	Percent of responses* (at T2)
Nothing	12
Size	12
Traffic and noise	12
Poor facilities	13
Other	51
Total	100

*Greater than 5% identified separately. Number of responses = 193

When asked to rate the quality of their new dwelling 90 percent rated it as excellent or good.

Table 5.1.2-4: How would you rate the quality of the dwelling? (at T2)

Issue	Percent of responses* (T2)
Excellent	32
Good	58
Fair	9
Poor	1
Total	100

N=151

5.1.3. Children

A number of questions were directed to respondents about issues relating to children. Note that the number of households with children decreased as a result of the smaller sample at T2. Also, there were some non-responses to questions on school outcomes. In total, 41 households reported findings on 60 school-aged children.

Respondents were asked if their children now play outside in their private or shared private space more, less or about the same as they did in their previous dwelling. Table 5.1.3 shows over half the respondents indicated that children played outside more, with 21 percent of respondents indicating their children played outside less.

Table 5.1.3: Children playing outside in private space

	Percent of responses
More	56
Less	21
About the same	23
Total	100.0

N=41

5.1.4. Education

Respondents were asked if their children attended the same school at T2 that they attended at T1. Ninety two percent of respondents indicated they were at the same school. This stable pattern of school attendance is in contrast to the frequent changes of schools reported previously in Table 4.1.4.

Before examining the survey results on educational performance, it is important to examine the impact of these frequent changes of schools and housing on children. The negative impact of transience on children’s education was a recurring theme in the qualitative interviews. For example, one mother estimated her teenage daughter had missed one month of school last year, largely due to the impacts of changing suburbs and schools. Other parents also identified the loss of friendships for their children as a major disadvantage of moving house. Some tried to mitigate against this effect by maintaining the children at the same school. One parent travelled 4.5 hours each day to maintain school consistency.

One mother, who had changed school four times in the first three years of her son’s schooling due to changing domestic arrangements, and an offer of public housing outside their last school’s catchment, had this to say:

I look and I think, yes, it has affected him. It probably wasn’t very stable for him and I think a lot of that, he has had problems.... I think it’s making new friends for him, getting used to more teachers. William doesn’t like change. William is a child that really hates change. You can’t move his bedroom around. He hates change. So for him probably to go from school to school to school has been very hard and making new friends. — Suzanne

The impact of transience on educational outcomes was also discussed in interviews with educators. The three teachers interviewed identified stability as one of the most important aspects of housing’s impact on education. From their

perspective, the main effect of moving was the interruption of remediation of at-risk children. Teachers described the time taken to understand the exact nature of a child's learning difficulties and to develop and implement appropriate interventions as "wasted" when children moved schools. These senior teachers (two Principals and a Deputy Principal) were sceptical about the capacity of the Education system to appropriately communicate such information about these children quickly to their next school environment, and also were concerned about the impacts on these children of changes in school routines and styles:

Yes, and I think a lot of times, the kids that we're looking at having the most disruption are the ones who are very transient, very mobile. I mean, we have kids who come in here, not as much now but we used to have Army as well.... And the thing was that if you had a kid, say out of one of those areas that had learning difficulties, by the time you'd actually got on top of it and were working, had a program sorted out, their three year tenure was up and they were moving on to somewhere else, and you'd be concerned about what would happen at the next step for that child.

This same theme came up in the other two interviews with teachers. As a teacher from an outer north side school noted:

That issue though, of the family just having to move on because they haven't met their rental obligations, is a very disheartening one because you see children who are just starting to make progress because they've been here for a while and then off they go, and you know that their education will now falter because it will take some time for them to be picked up. They may not have the same resources in the next school and they just fall behind. You know, each school does things a little differently so the work that's been started in a particular place won't be continued at the next place. So stability of housing is critical, I think. Even though we don't have a large number of transient children in our school, the ones that have had multiple schools that they've attended prior to coming here, inevitably their results are well down on the kids who have been here over a long period of time.

Another issue raised in qualitative interviews was the issue of space for study. Carol noted her teenage daughter had to do her homework on the kitchen table, as there was not enough room in her bedroom to place a desk. While this may have allowed opportunity for the mother to be more involved in the homework process, the presence of three younger siblings may also have made the kitchen a less than ideal venue to undertake high school homework, because of noise and other interruptions. Carol noted that one of the educational benefits of the new housing was increased study space for her daughter.

Educational performance was examined in the main survey by asking respondents to comment on their children’s performance over their last term of school. Respondents were able to identify four performance categories:

- Outstanding;
- Good;
- Fair;
- Experiencing difficulty.

They were then asked to indicate whether this performance was better or worse than in the term before they moved into public housing. Performance was estimated on two measures:

1. Subject performance: that is their performance in school subjects (which might be based on their school report); and
2. Motivation performance: their level of motivation.

Table 5.1.4-1 shows the results of the comparison of performance before and after their move.

Table 5.1.4-1: Comparison of the educational performance of children before and after moving into Public Housing

	Subject Performance (%)	Motivation Performance (%)
Better	53	45
Worse	7	10
About the same	40	45
Total	100	100

N=60

Respondents indicated there had been a significant improvement in educational performance after the move into public housing. Where the performance was better or worse, respondents were asked to suggest why.¹³ Table 5.1.4-2 presents the results of this question.

¹³ The answers to this question were pre-coded on the basis of the extensive research on this issue in the qualitative component of the study.

Table 5.1.4-2: Reasons for changed educational performance of children – better performance

Reason	Percent of responses
1. Better teacher	13
2. Better school	12
3. More motivated group of friends	18
4. Things are better at home	24
5. Child is happier	25
6. Other	9

Number of responses =89

The first two reasons could be related to a change of school — but in some cases, the student may simply have changed teacher. The third reason was described earlier in the community category in Figure 2.4: the child’s peer group has changed. The most important reasons relate to issues at home that have made the child happier. Respondents identified factors such as: “family tension had decreased”, the child “now had a private space to do their homework”, “the child felt settled and had a group of friends in the neighbourhood”, and “there is more space at home”. Some of these issues are explored in more detail in Section 5.1.6 (below) on Health. Or in other words, the bundle of goods that housing could provide — from the dwelling to the community — were all involved in improving outcomes for the child.

Only a small number of responses provided reasons for worse performance, with the main issue being that respondents thought the student now had a worse teacher.

Box 5.1.4: Example of change in educational performance after change in housing

Marina is a single parent with 4 children. Before moving into public housing she had lived in a refuge. She is now living in a 3-bedroom house with a large yard in a quiet street. Before moving into public housing she had moved 5 times in 2 years with the shortest tenancy lasting 2 weeks. She thinks that her new housing is a great deal better than her old housing.

She considers that each of her 4 children are doing better at school as a result of both improvements at the school and in her situation at home. She says that all her children are happier. She thinks that her children's health has improved because of the new stability of their situation.

Her use of Government and community agencies has decreased for two reasons. First, she is financially better off. Second, a greater sense of security has made her feel more in control, and as a result has meant she no longer feels she has to see a counsellor.

5.1.5. Employment issues

The qualitative interviews explored in detail the relationship between gaining access to public housing and work. The interviews suggested possible pathways between housing and work — some unique to public housing (in particular the work disincentive of an income based rent policy), and some more generally applicable. Some parents were glad to give up work when their housing costs decreased, in order to spend more time supporting their children. For others work provided a needed break from single parenting, and a means of reducing isolation and feeling more confident.

In light of the very high effective marginal tax rate faced by public tenants (that is, the cumulative effects of rent increasing and income support payments decreasing as a result of additional earned income), one would expect that such tenants would not be inclined to seek employment. This was a consideration for a number of tenants interviewed for this study, as suggested by the following examples:

- I: So does that figure in your thinking? When you're thinking about work, do you take the rent policy into account?
- Mary: Yes. Well, the rent policy and the Centrelink policy, so most people don't want to work for three dollars an hour, besides it probably isn't worth your while, and it doesn't really have to be constructed that way because other countries don't — it's a poverty trap.
- I: Have you made decisions not to take work opportunities because you've worked out how much you'd be worse off or better off?

Mary: Yes. Yes. It's not worth your while, and also it usually involves some kind of cost of time and effort for me.

Martha: I had a part-time job at McDonalds last year or the year before maybe and it just wasn't worth it. It really wasn't worth it. The rent went up, the pension went down, three hours of cleaning.... I found that completely exhausting, and then because of my age, they dropped my hours and then because I receive a pension I'm taxed at the highest rate because it's considered my second income, so at the end of each week I was ahead ten dollars but that didn't cover the cost of cleaning the uniform or the petrol. It was crazy and they treated me poorly.

For single parents such as Martha, the poor financial returns from working were not worth the time taken away from her children, or the impact of her work-related tiredness when she did have time with her kids. This theme recurred in other interviews.

For others, however, the financial disincentives inherent in public housing and Centrelink policies were balanced by other considerations. For some people, work is a means of building relationships and overcoming isolation. For others work is a way of gaining a sense of identity and self-worth. These other factors seem to be as important if not more important than financial gain for some interviewees, as the following examples show:

Cassie: Yes, it [work] gives me a different... I get to socialise with different people and there at work I'm not Tania's mum, where around here, I'm Tania's mum.

I: It's sort of a different role in a sense, isn't it?

Cassie: At the school, I'm Tania's mum. But yes, work gave me the first time because I'd been Tania's mum, you know, it's one of those Catch 22s that all women have, you're either somebody's mother, somebody's wife or somebody's daughter. It's very rare that you can be you, so women get lost, and I know when I first, I'd been with this man eight, nine years so it was always Cassie and Steve, Cassie and Steve so I had no real sense of me, so work gave me back a chance to be who I am. And I think it's good for my daughter too because I can go out and be me and come back and be her mum. It gives me a break, and any single mum or single dad who says they don't need a break from their kids is a liar. You do. It's all right for couples because one can walk away and the other one can stay and they can have a life away from the kids where when it's you, you've got no one to dump the kids on.

I Is that a consideration? Like when you're thinking about working or not working, is that a consideration, the issue of rent?

Connie: No, but your self-esteem is much better when you're working. Your self-esteem is so much higher. Like being stuck at home is no fun. It's no fun whatsoever.

Two interviews shed light on another aspect of the relationship between housing and employment. Cassie felt the sense of stability and community resulting from living in a fairly stable and supportive neighbourhood helped to provide her with a base from which to think about retraining and future work options. Similarly Katherine felt she was much more able to think about participation in work and community activities now her previously unstable housing situation had been resolved:

Cassie: For somebody maybe like me, who thinks that this [public housing] gave me the security and this gave me everything I needed to let me go to where I needed to go. And there's a lot of parents around, there's quite a few in here that I know, one guy has gone to college, because they got the kids settled in school and everything and then they decided well, it's time for me. I don't have to worry about home, I don't have to worry about this, let's move on.

I: Is that something that you've talked to other tenants here about?

Cassie: Yes, well especially with the one that I'm friendly with here. She went back to school. She felt comfortable. I know other people, not living in this housing but who do live in [public] housing and a lot of them have gone back to study and things like that.

I: So is that [the income based rent policy] sort of a disincentive?

Kath: Yes. Mmm. I guess too, and this is just my belief, I think that it's really important for children to see their parents going to work otherwise you just repeat the cycle with your children of them not going, and I guess that's been the other motivating factor for me is for them to see, for my kids to see that this is the way the world goes round and as I say, I guess that's the second, you know... But it does de-motivate you when you know that you're going to earn a hundred dollars and at the end of the day you're going to lose twenty-five to the Department of Housing and fifty to... You know, you're going to lose fifty cents in the dollar after you get to a certain point.

I: Since you've moved here and the improvements in terms of your health and stuff, has that changed your capacity to work or your motivation to work? Do you feel more like going to work?

Kath: It's really interesting you should talk about that. I feel more like committing myself to community activities. I guess that's the reason you're here, and I also feel, I've just applied to one of the women's refuges for volunteer work which I would never have dreamt of before.

I: What brought that on? What led to your deciding to do that?

Kath: Honestly, I can say you feel like you're in a part of a community, this is a community. You feel like you belong for the first time in many years. As I say, a lot of houses were flats, there were flats all around them, even though it was a house, so there was no sense of community there because your neighbour's there today and gone tomorrow.

Talking with Adam, another public tenant, about this issue helped to illustrate the impacts of a bad housing solution on work. Because his public housing is so far from his supports in East Brisbane, he has been unable to continue to work. In contrast to Cassie, who is able to use neighbours and her mother around the corner for child-care while she works, Adam now considers himself to be chronically unemployed, in part because of his housing related isolation:

Adam: Work is largely restricted because I don't have the support with Irene. All of these things are becoming chronic problems and I'm chronically unemployed now because I don't have the fundamental basis of support. I don't have that support network, and no matter how much I say to people until I'm blue in the face about moving closer to support so that I can go back study, so that I can have a job and hold down a job and need that support, they don't want to know about it. All they want to know about is the fact that "do you have cheap housing, that's it" and that's not enough.

Finally, access to employment can be affected by housing location. Cassie works odd hours during evenings and weekends. This is made possible partly by childcare support close to where she lives, and partly because of good public transport options (she lives very close to a main transport corridor). In contrast, Carol is aware that her move from Stafford (a middle ring Brisbane suburb) to Bracken Ridge (an outer ring suburb) reduces the capacity for her and her teenage daughter to find work.

These interviews have revealed the range of issues identified in Figure 2.3 (shown earlier). The range of responses indicates that some non-shelter impacts on employment are positive and some are negative. The impact of housing on self-esteem was very interesting: once a household's housing situation had stabilised, people had an ability to focus on their own development issues.

Table 5.1.5 examines the employment status of adults in households at T1 and T2 derived from the surveys.

Table 5.1.5: Employment status of adults in household T1 and T2

Category	Percent T1 *	Percent T2
Part time employment	0	1
Full time	5	5
Unemployed	11	9
Retired	27	26
Unpaid/voluntary work	24	23
Unable to work	19	26
Full time study	14	10
Total	100	100

The table shows greatest changes in the “unable to work” category, which had increased, and the “full time study” category which had decreased. Overall however, there had not been large changes – due partly, perhaps, to the short time interval between T1 and T2.

Box 5.1.5: Example of change in employment after change in housing

Alfonso lived in a boarding house before he moved into public housing. He had moved 8 times in the 2 years before he moved into public housing. He now lives in a one bedroom unit and is saving about \$35 per week on rent. He thinks that the change in housing led to an increase in his self-esteem. He has been able to get a full time job, has paid off all his debts and has purchased a car. He feels the most important change has been his financial security, although he also thinks that a new sense of independence and his security of tenure are important.

Respondents were also asked to identify why their work situation had changed. The main reasons were that the person felt less stress and/or were more stable, or that they had improved access to public transport. Some indicated that their increased income meant they could afford to extend their job search. Others indicated that as a result of their additional disposable income, they didn't need to work or work as much. It would appear difficult to draw any firm conclusions about changes in employment on the basis of this data. Talking to respondents, it would appear that the time lag is too short to measure employment outcomes for those who had begun job searching and/or entered training.

This discussion identifies some possible pathways from housing to employment. The public housing rent policy¹⁴ may reduce financial benefits, and therefore incentive to work, for some people. Stable housing and a sense of community may help provide some people with supports needed to undertake training and work; and the sense of belonging may provide motivation to become more engaged in the community. Practical issues such as proximity to public transport and work opportunities may also play a part. Feeling that more pressing, basic needs have been met — such as food and shelter — may also liberate some people to consider longer-term issues, such as training and employment.

5.1.6. Health

Some qualitative interviews identified specific health consequences directly associated with poorly designed and maintained housing. Asthma associated with dust and mould came up on a number of occasions. Parents were able to identify periods of time when asthma attacks and visits to the doctor increased after moves into poorly maintained housing. Some parents also reported children being injured due to poorly repaired housing:

Jenny: Both the houses that we had where they hadn't been maintained — well, the carpets were like in really bad condition and my oldest daughter who had asthma when she was a baby but had virtually grown out of it, but being in those places, she had regular asthma attacks, so she had to go back on to being fairly regularly medicated, whereas here with no carpeting and like no really old curtains, she hasn't had any asthma in the time we've been here.

I: So she's not on medication any more?

Jenny: No. No.

I: Were there other aspects of health that you noticed were impacted or affected by living in those two houses? Did you or the daughters get...

Jenny: Sarah seemed to regularly get minor injuries around the house because of the bad maintenance, like the second one we had, for some reason it had a ramp at the back where normally you'd have stairs but they'd used the wrong sort of nails and the heads of them would keep coming up out of the boards and one of them, no twice, they went into the soles of her feet, and she had her foot cut open with the thing in the carpeting because it hadn't been maintained properly, and the stairs on that place

¹⁴ Most housing authorities charge public housing rent at the rate of 25% of household income.

too, the place at Strathpine, were really worn. A couple of them had to be, well, probably the whole lot of them should have been replaced but the owner would only replace about four or five, and yes, they both got really bad splinters from them too. So I'd say maintenance has an effect as far as minor... Well, if it was really badly maintained I suppose you could have had accidents but we haven't had any health issues here at all.

I: Would you say that you're going to the doctor less often now?

Jenny: Oh yes. Yes. I haven't taken the kids to the doctor this year at all probably.

Financial impacts of expensive private rental housing also might be a contributor to stress-related illnesses, as well as poor diet. Katherine believed her recent halving of her anti-depressant medication was a direct result of reduced pressure from her housing situation being finally resolved. This family had been relying on emergency assistance from welfare agencies once every three months due to housing related poverty.

Kath addressed the impacts of increased stability on health and wellbeing, attributing these benefits to recently stabilised housing for the family. Benefits included changes in her own health, and a change in her son's behaviour such that her doctor revised an earlier diagnosis of attention deficit disorder:

For me in particular, I have suffered from depression which in the last, like serious depression where I've been on Prozac and everything and I've actually been, on my doctor's advice, halved my dose of Prozac because it's more... I just feel more stable and my children's behaviour, one of them was actually diagnosed with ADHD and since we've moved here, they've actually said, no it's not.

During the qualitative interviews, positive impacts of a more stable address on connecting with neighbours and the local community also emerged as a theme. Parents discussed the strengthening of relationships with neighbours as a result of housing stability:

Yes, yes, I think the thing is it's like, I think housing is about staying around for a while, don't you? You know, I think the longer you... I think it's good when you start know your neighbours a bit and feel as if you, I think belonging, and like you go down the shops here and the fish and chips man or the bottlo and newsagent, there's about six shops... I actually feel about belonging is when you actually can go down there and say "Hi" and you go to the shops here and there's a few shops I go, like the

same coffee shop at Toowong, he says, “Hi.” Of course it’s good for his business! But it’s about belonging, so that other aspect, positive thing about, what do you call that?— because that’s about that belonging thing, isn’t it? Being part of the community. — Mary

The mother who had moved six times in the past five years described a lack of incentive to invest in relationships with neighbours in the past, as they knew they would soon be moving on:

It’s really wasting time to get involved with people around you because you’re not going to be there that long anyhow. — Kath

It would seem transience might reduce the motivation to build relationships with neighbours, thereby increasing isolation and reducing social supports. This isolation may contribute to stress and negative health impacts for both adults and children. A variety of studies have shown there is a strong link between positive associations with neighbours and others in the local community, and self-reported wellbeing (see, for example, Dunn and Hayes, 2000).

Health issues were examined in three ways in the main survey. First, people in the T2 interview were asked why their health, or the health of other people in the house, has changed since the last interview. Second, participants were asked to fill out a health and wellbeing self-assessment instrument called SF36. The change in the interview process, however, made this instrument less useful¹⁵ in describing health changes over time. The third was the use of Medicare records.

Table 5.1.6-1 shows the outcomes of the first of these approaches. It reports the percentage of respondents who indicate that they or others in their household have experienced a change in their health between T1 and T2. An interesting feature of this table is that respondents indicate their health has changed much more than other people in the dwelling.

Table 5.1.6-1: Has your health and the health of others in the household changed between T1 and T2?

	Your health	Health of others In the household
Yes	68	33
No	32	67
Total	100	100

Your health N=148 Others N=61

Respondents were asked why there had been changes in health. The results are summarised in Table 5.1.6-2:

¹⁵ This issue is discussed in the section on the data analysis in Section 3.

Table 5.1.6-2: Why the respondents' health has changed

Reason	Percent of responses*
Condition degenerating/new condition	29
More stress	10
Less stress	9
Better care of self (access to gym/more exercise)	8
Change in housing	8
Other	36
Total	100

*Greater than 5% identified separately. Number of responses = 139

Box 5.1.6-1: Example 1 of change in health after change in housing

Anna and Ricardo were previously sharing housing with Ricardo's mother. They were paying \$50 per week rent to her to rent a bedroom in a 4-bedroom house with large yard. They are now living in a 2 bedroom apartment and are paying \$82.50 rent per week. Whilst noting that their new apartment is a bit small, they think the neighbours are "too close" and they feel they live in a worse neighbourhood, overall they rate their new housing as a great deal better. They think the most important change has been their new independence. They think that their improved health and reduced doctors' visits could be connected to the reduced stress in their lives — they had previously spent a lot of time arguing with Ricardo's mother.

The most common reason for a change in the respondent's health is a degenerating condition or a new condition. Stress is an important factor in both improvements and decline in health. "People looking after themselves better" seems to relate to improvements in self-esteem, changes in income, and changes in living conditions. For example, a number of respondents reported they now had more money to buy healthier foods. Other respondents reported they now had access to a kitchen that allowed them to prepare fresh food.

When asked about the health of others in the house, only a small number of responses were given. Again, a degenerating or new condition is the most important factor. The change in housing is mentioned explicitly — but note that the role of estates in providing a bad environment is mentioned also.

Table 5.1.6-3: Why health of other people in the house has changed

Reason	Percent of responses*
Condition degenerating/new condition	15
Change in housing	15
More alcoholics in estate than previous neighbourhood exacerbating existing condition	12
Loneliness	12
Better care of self (access to gym/more exercise)	8
Control over environment has produced stability	8
Other	30
Total	100

*Greater than 5% identified separately. Number of responses 26

Box 5.1.6-2: Example 2 of change in health after change in housing

Anne lives on her own. She previously lived in a house that was divided into five flats and she had lived there for about two years. Although she liked the neighbours at her previous dwelling, and its convenient location to public transport, she did not like the traffic noise or the construction noise and dust related to nearby developments. She was also concerned at the level of crime in the area. Her rent was \$105 per week and she was getting rent assistance from Centrelink.

She moved into a one bedroom apartment for \$51 per week. She thinks that the area is friendlier than her previous area and is much quieter. She also likes her apartment, which she describes as much more modern and cleaner than her last home. She can't think of anything that is wrong with it. She thinks her health has improved as a result of her new housing. She thinks the major changes for her in addition to her health has been her increased safety and her security of tenure.

At T2, only one question from the SF36 form gave useable data: "Compared to 1 year ago, how would you rate your health in general now?" The responses to this question are shown in Table 5.1.6-4 below. This is a good "before and after question" since 12 months previously, T2 placed all respondents in pre-public housing. Note that there are 165 responses to this question since in some households multiple SF36 forms were filled in (for the partner of the respondent).

Table 5.1.6-4: Compared to 1 year ago, how would you rate your health in general now? (at T2)

	Percent
Much Better Now	18
Somewhat Better Now	23
About the Same	44
Somewhat Worse Now	12
Much Worse Now	3
Total	100

N=164

About 41 percent of respondents indicated they thought their health was better, 44 the same, and 15 percent worse.

The third health data source, Medicare data, provides an interesting supplement to the views recorded in survey work. The results are summarised in Table 5.1.6-5.

Table 5.1.6-5: Changes in the use of Medicare services before and after public housing (Brisbane)

	Average services per month before public housing	Average services per month after public housing	Average benefits per month before public housing	Average benefits per month after public housing
Total sample (N=130)	1.92	1.86	\$60.96	\$58.66
Light users*(N=42)	0.46	0.95	\$13.46	\$28.88
Heavy users (N=22)	4.32	3.39	\$152.36	\$106.23

* where average services per month before public housing is less than 1

** where average services per month before public housing is greater than 3

Source: Authors' analysis of data provided by the Health Insurance Commission.

For the entire sample there was a small reduction in the average number of services used per month (3%) and the average benefits paid per month (4%). Most interesting results are produced when the total sample is split into those who were light users of Medicare services before moving into public housing (using less than 1 service per month over a 12 month period), and those who were heavy users (defined as averaging over 3 services per month over the twelve month period). For light users, there was a large increase in both the average number of services a month (105%) and the average benefits paid per month (115%). For heavy users of Medicare services, there was a marked reduction in the average number of services (22%) and the average benefits paid per month (30%) after the household had moved into public housing.

These findings would suggest that public housing is helping to moderate the use of medical services by heavier users of Medicare services. Perhaps this is because people suffering chronic stress are heavy users of medical services. For some households, access to public housing apparently increases their access to medical services, due to proximity and more stable residential location. Some respondents also mentioned that improvements in self-esteem meant they were motivated to deal with some long standing health issues. This is an issue that warrants further investigation.

Looking again at Table 5.1.6-4, some potential pathways from housing to health seem reasonably clear. In Australia, asthma may be a key housing related health condition in the same way that respiratory tract infections have been identified as a key housing related illness in colder climates, such as those of the United Kingdom. The significance of stress as a health issue is also important. The literature review addressed the key role of housing as a source of chronic stress, and the views of respondents seem to support this contention.

Box 5.1.6-3: Example 3 of change in health after change in housing

Allan lives on his own in a 1 bedroom unit in a villa development. He likes his new apartment because he thinks it is easy to clean and it is in very good condition. He has also saved a lot of rent at his new apartment (his rent is about \$75 per week cheaper). He also likes that his new home has not been robbed – his previous property had very little security and he had been robbed twice in a 6 month period. He had moved 4 times in the two years before he moved into public housing. He likes the neighbourhood though he is concerned by a neighbour who complains about the noise from his TV. He would also like to get involved with some gardening at his new home but he has been told by some long term residents of the development that there are no vacancies.

With the savings in rent payments since he moved in, he was able to increase his job searching and he now has a part time job. He has found that since he moved to his new neighbourhood he was able to get away from a stressful domestic situation and that has led to improvements in his health. He has been able to both reduce his medication and his visits to the doctor.

5.1.7. Use of government services

Question six of the T2 survey asked respondents to indicate whether their use of government and community agencies had increased, decreased or stayed the same with changes in housing. The results are shown in Table 5.1.7-1.

Table 5.1.7-1: Use of government services before and after

	Valid Percent
Increased	11
Decreased	10
About the same	18
Don't use/before and now	61
Total	100

N=150

The table shows there is less interaction with government and community agencies than probably had been assumed amongst those on the waiting list. In terms of increasing and decreasing use of the services, equal numbers of respondents appeared in each group.

Respondents were asked to explain any changes in service use (see Table 5.1.7-2). Respondents reported that decreased use of services was associated with an improved financial situation, lower stress, and better financial management as a result of automatic housing cost deductions. Increased use of services was associated with better information about availability (often because of Qld Department of Housing staff or other public housing tenants), deterioration in health, financial decline, or a need to get help with one-off expenses (such as moving or upgrading their dwelling).

Table 5.1.7-2: Why use of government and community sector agencies has changed

Reason	Percent of responses*
Financially better off	24
More aware of what's available	12
Health has worsened	9
Less stress	6
Needed help with one off purchase (some associated with move)	6
Financially worse off	6
Can better manage my income since housing payments automatically deducted	6

*Greater than 5% identified separately. Number of responses 34.

Box 5.1.7: Example of negative impacts of change in housing

Antoine lived alone in a 2 bedroom unit and is now living in a 1 bedroom unit. His rent has stayed about the same. However he is very concerned because the location of his new unit is not appropriate to his needs. He thinks it is very badly served by public transport. He is also concerned that it has not got as many facilities as his previous unit.

He thinks that his new dwelling has led to him becoming socially isolated, which has had a negative impact on his health. He thinks he always feels miserable and has asked the Department for a transfer but he has been refused. He rates his new housing (compared to his previous housing) as a lot worse.

5.1.8. Accessibility

Respondents at T2 were again asked to rate accessibility at their new housing compared to their previous housing. The same scoring system was used as previously and the results are recorded in Table 5.1.8 (over page).

Table 5.1.8: Accessibility scores at T1 and T2

Service/facility	Accessibility score T1*	Accessibility score T2*	Change in accessibility between T2 and T1
Work/looking for work	5	6	1
Relative/friends	-1	7	8
Childcare	-2	-3	-1
School	-2	-1	1
Training/education	7	5	-2
Recreation for adults	10	25	15
Recreation for kids	11	11	0
Health services	2	19	17
Community support services	11	2	-9
Centrelink	-2	10	8
Food shops	28	35	7
Other shops	20	30	10

*The score is a percentage of respondents closer to the service minus the percentage further away, i.e., larger positive numbers indicate improved accessibility and negative numbers indicate a decrease in accessibility.

T1: N=178 T2: N=150. Note 'not applicable' is a valid response.

Overall it appears accessibility has improved at T2, especially for recreation for adults, health services and other shops. As people have become more familiar with their local area, they perhaps have identified facilities/services that they could use.

A key issue highlighted by respondents who felt negative about their new housing concerned location. In the qualitative surveys, Adam was particularly negative about the impact of what he regarded as an unsuitable location in relation to access to his friends when he was first allocated public housing:

My main gripe at the time was the fact that I was offered housing which was completely removed from all of my friends, all of my social support and that really, that completely isolated us because like all of my friends at that stage were in East Brisbane, so anybody that I'd used to help me at that stage was around East Brisbane. When we moved out to Enoggera, suddenly we had no friends. Nobody could be bothered coming out to see us. We were completely on our own. So not only did I not have family but I didn't have friends around me any more and it was a case of like, you know, I used to have friends who used to pick up Irene from childcare if I had to stay back at work. I couldn't do that any more, that wasn't an option, and so suddenly my ability to even stay in work was even less of an option because I had less support.... Suddenly you're completely isolated, you're away from your friends, you're away from your support network.... But what they don't realise is they're setting up a lot of long-term social problems by denying people their access to their support.

5.1.9. Neighbourhood issues

Table 5.1.9-1 shows responses to a question comparing current and previous neighbourhoods, recorded at T1 and T2. The results are remarkably consistent, with positive responses outweighing “worse” by about 2 to 1. This result indicates that households have been able to make reliable judgements about the quality of their neighbourhoods quite soon after moving into an area. It also supports the hypothesis that respondents are reliable, given their ability to generate similar responses about 6 months apart.

Respondents were also asked why their neighbourhoods were better or worse (see Table 5.1.9-2). The table shows that whilst responses again are similar, the sense of community — particularly regarding neighbours (as respondents have got to know their neighbours) — has become more important over time.

Table 5.1.9-1: Comparison of the quality of current and previous neighbourhood (at T1 and T2)

Issue	Percent at T1	Percent at T2
Better	46	47
Worse	21	22
About the same	30	29
Living in the same n'hood	3	3
Total	100	100

T1: N=178 T2: N=150

Table 5.1.9-2: Why is the neighbourhood better/worse?

Issue	Percent of responses T1*	Percent of responses T2
Safer	21	11
Better-maintained area/better area	10	6
Quieter	9	14
More convenient	8	6
Less safe	7	6
Sense of community	6	9
Better neighbours	-	15
Other	39	33
Total	100	100

*Greater than 5% identified separately. Number of responses: T1 =221, T2 =162

Box 5.1.9: Example of improvements after change in housing

David, Bill and Adrian previously shared a one bedroom unit in a badly maintained house with violent and noisy neighbours. They were paying \$105 per week for the unit. They now live in a 3 bedroom house in a quiet suburban street with pleasant neighbours and describe it like “living in heaven”. They all have reduced stress levels and feel safe personally. They know that their possessions are safe and that they have more private space. Their family now comes to visit them. Bill now cooks because there are good kitchen facilities available. Adrian thinks that he now takes less medication and that his lung and sinus condition has greatly improved.

5.1.10. Differences since moving into new property

Question 9a of the survey asks respondents if there are any other differences on which they would like to comment, concerning changes in their situation since they moved into the property. Some interpreted this question as a chance to list *all* changes they could identify. These responses are shown in Table 5.1.10-1. The respondents were then asked to identify the most important change (see Table 5.1.10-2). Security of tenure is the most important, followed by the related issue of “control over own environment”. Financial security is again an important element but was not the prime consideration and was not as important as security of tenure. It is interesting that respondents often identify the link between housing and mental wellbeing, and value the control over life choices provided by new housing.

When the responses in Table 5.1.10-1 are cross-tabulated with living arrangements in previous dwellings, there is a significant relationship (at the 99% level). This is due mainly to the large number of previously sharing households who rate “control of their environment” as the most important factor. There is also a significant relationship (at the 99% level) between responses in Table 5.1.10-1 and

household structure. In this case, a large number of people who are living alone appreciate the increased control over their environment provided by public housing.

Table 5.1.10-1: How has your situation changed since you moved into the property?

Factor	Percent of responses*
Security of tenure	27
More financially secure ¹⁶	24
Feel safer/more secure	14
Less stressed/depressed	6
Physical health is better	5
Control over own environment	5
Other	19
Total	100

*Greater than 5% identified separately. Number of responses = 305

Table 5.1.10-2: What has been the most important change for you since you have moved into the property?

Factor	Percent of responses*
Security of tenure	22
Control over own environment	20
Less depressed/better emotional wellbeing	10
More financially secure	10
Close to amenities/family	5
Other	33
Total	100

*Greater than 5% identified separately. Number of responses = 202

5.1.11. Overall rating

Respondents considered in 98 percent of cases that their expectations about public housing had been met. However, it must be remembered that those whose expectations had not been met may have moved out between T1 and T2, and may comprise some of the sample that could not be recontacted at T2.

The respondents were also asked to rate their new housing compared to their previous housing. Table 5.1.11 (over page) shows the responses at T2. Responses at T1 are included for comparative purposes.

Over the period T1-T2, a smaller proportion of respondents considered their housing to be worse or a lot worse, and a larger proportion thought their housing was about the same. Again, it is possible those who perceived their housing to be a lot worse may have left public housing. In order to test this hypothesis the T1 frequency results were run again, this time omitting households who did not

¹⁶ The average difference in rents was \$51 per week per household.

participate in T2. The results are shown in the third column of Table 5.1.11, and are very close to those shown in the first column. It thus appears that over time, respondents have softened their attitude and readjusted the rating of their housing. Looking at this issue another way, of the 18 respondents who rated their housing as worse or a lot worse at T1, at least 14 were still in public housing at T2 (i.e., they answered the second survey). Of these 14, nine had improved their rating of the housing.

The responses show a high level of satisfaction with respondents' new housing. Only about 10 percent categorised it as either "a little" or "a lot worse" at T1, which reduced to 4 percent by T2.

Table 5.1.11: Overall rating of new housing (at T1 and T2)

Overall rating of new housing	Percent at T1	Percent at T2	Percent at adjusted T1*
A great deal better	64	63	65
A little better	19	20	18
About the same	7	13	7
A little worse	5	2	4
A lot worse	5	2	5
Total	100.0	100	100

T1: N=178. T2: N=150. *Only T1 households that participated in T2 are included.

In order to investigate the key factors impacting overall on respondents, assessment logistic regression analysis was undertaken with those respondents who identified their new housing as "a great deal better" or "not a great deal better". The co-variables tested were: the differences in rent between the public housing property and their previous property; the household structure; the rating of the neighbourhood; and the rating of the dwelling. The outputs of the model are shown below.

The total number of cases was 150 cases. The variables in the resulting equation are shown below. The equation shows the best predictor to be the respondents' views on dwelling quality and neighbourhood quality. The differences in rent between the public housing dwelling and their previous dwelling are not significant.

----- Variables in the Equation -----							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
RENT_DIF	.0039	.0032	1.4970	1	.2211	.0000	1.0039
HOU_STRU	.3627	.1953	3.4479	1	.0633	.0916	1.4373
NEIGHBOURHOOD	.4344	.2092	4.3128	1	.0378	.1158	1.5440
DWELQUAL	.8635	.3333	6.7125	1	.0096	.1653	2.3715
Constant	-3.9334	.9226	18.1783	1	.0000		

5.2 Negative Outcomes for Tenants

The use of aggregate results in the survey tends to disguise the negative side of the housing situation experienced by many new public housing tenants. Respondents expressed a number of negative non-shelter outcomes in the study, that fall into several categories.

5.2.1. Neighbour issues

The strongest negative impacts concern households who have been located next to what the respondents describe as “unsuitable neighbours”. The problems range from issues about noise or the neighbours being too intrusive, to issues of what the respondents considered was “victimisation”. Respondents reported this led to loss of sleep and increased stress levels. This was a particular issue in the case of respondents living on estates.

5.2.2. Area/location issues

Some respondents considered they had been put in an inappropriate location that meant they were isolated from friends, relatives and, in some cases, employment.

5.2.3. Set-up cost issues

Some respondents complained that the costs of setting up their household had seriously eroded their limited savings. They had spent money on floor coverings, cupboards, and security for their dwelling.

5.2.4. Self-esteem issues

The findings in Sections 4 and 5 report an increase in self-esteem as a result of changes in housing. In some other cases however, such as where the person had ended up in public housing after a financial crisis (i.e., a business had gone bankrupt), the respondents were quite disturbed by their new status as public housing tenants.

5.2.5. Community issues

Some respondents indicated they considered they had moved into a worse neighbourhood and that this caused them concern, particularly around safety issues.

5.3 Summary of Findings

5.3.1. Overview

Despite the limitations of the survey and problems with response rates, there does seem clear evidence demonstrating the existence of non-shelter outcomes.

According to survey results, public housing tenants who participated in the study perceive that the major benefits of their change in housing far exceed the immediate issue of shelter. That is, they value things that go beyond the provision of a dwelling. For example, they value the increased security of tenure available in their public dwelling, and the fact that they now have some control over their own environment. They also acknowledge that, on the whole, they are less depressed and consider they have better emotional wellbeing. Their experiences in public housing contrast markedly to some of their experiences in the private rental market where they often have been frequent movers, resulting in a number of associated problems including disjointed schooling for their children and a lack of engagement with the surrounding community.

Put differently, it is clear that for many respondents in the surveys there is a clear product distinction between receiving rent assistance as a private renter and living in public housing.

One compelling finding of the study involves the impact of the stress of inappropriate housing. For many respondents, the cumulative day-to-day stress in their lives seems to be so great that they are having trouble functioning. This appears to be a particular issue when children are involved, possibly because of additional stress issues relating to dealing with children living in inappropriate housing. Environmental psychologists refer to a concept of “environmental load”: when someone is overloaded, their ability to undertake even straightforward tasks is inhibited (Bell *et al.*, 1996, pp.118-120). For many respondents, the improved housing seems to be reducing their environmental load to the point where they can start dealing with a number of other issues in their lives — including employment, health issues, etc.

On the whole the respondents were very positive about their experience. About 80 percent of respondents rated their new housing at least as “better”, with about 60 percent of respondents indicating their new housing was “a great deal better”. They reported positive changes in their life stemming from reductions in stress as a result of (a) the security of tenure and (b) the control over environment that they were now experiencing. Many reported improved emotional wellbeing, and a reduction in their depression levels, to be the most significant changes resulting from their move. They also felt their financial situation had improved.

However, the results must be qualified by a number of factors:

- The sample is small;
- The survey could suffer from respondent bias, whereby public tenants are over optimistic;

- There is no control group; and
- The time between gaining public housing and the final interview is relatively short.

Despite these limitations, the researchers are confident about the existence of a number of non-shelter benefits. This confidence is based on a number of factors:

- Support from the literature¹⁷;
- A clear story from the qualitative research and literature that identifies a number of triggers that help explain processes involved in generation of non-shelter benefits;
- The identification of a similar pattern of results in both Brisbane and Sydney; and
- Support for the health findings from the survey by data from the Health Insurance Commission.

5.3.2. Tracking the main non-shelter outcomes

This section attempts to summarise the study's findings in relation to main non-shelter outcomes.

Health

People report an improvement in their health as a result of the change of housing. The main mechanisms they report include:

- Eating better foods as a result of increased financial resources;
- Ability to prepare their own foods rather than buying take away food, since they now have a functioning kitchen;
- Improvement of conditions in their dwelling, ranging from less dust to the avoidance of stairs to trip on;
- Increased self esteem, often associated with independent living, which means people are now looking after themselves better;
- Extra income, which means they can participate in illness prevention programs such as joining a gym and getting more exercise;
- More support from neighbours;
- Reduced stress due to security of tenure and more income; and
- Improved access to medical resources.

It must be remembered that a significant number of households (see Table 4.2.1-2) were sharing with friends or relatives prior to moving into their public housing.

¹⁷ Of particular comfort here is the similarity between the survey results and the findings of Burke et al (2004) reported in section 2.6.

These people often reported greatly reduced stress levels when moving into their public housing because they no longer had to endure an ongoing conflict with a parent or carer.

The analysis of the Medicare data revealed some interesting trends. There was an overall small decrease in the use of Medicare services — but the most interesting difference was between previously light users of the Medicare system and heavier users. Light users tended to *increase* their levels of usage whilst heavier users *reduced* both the number and cost of services after they moved into public housing.

Crime

People reported they felt safer and more secure in their public housing dwellings because they now had better security on their dwelling.¹⁸ They were often unable to install these same security features in their previous dwelling because of a landlord's concerns, or because they were unsure about their length of tenure. People also felt more secure because they thought they were living in a safer neighbourhood. There are of course a number of exceptions to this general trend — for example one woman was living in a block of units where two residents had been stabbed the week before.

Employment

Respondents gave mixed messages about their experiences in the labour market. In some cases households used the extra disposable income generated by savings on rent to reduce their employment. This reduction allowed some people to provide extra care for a household member, or enabled more time to be spent with children. In other cases it gave people extra time out. Several households reduced their employment in order to undertake additional training. Another man was able to give up his part time job as a result of employment reductions, and began working for a charity on a full time basis. Households were aware that one benefit of reducing employment levels was a decrease in rent.

On the other side of the ledger, the increase in self esteem reported by some respondents meant they wanted to work on their career. Comments included, for example: “well I have got my housing organised, now it's time I got a good job organised”. A number of respondents reported they had invested their financial savings into establishing small businesses. The additional disposable income also meant respondents had additional resources available for job searches.

Note that the ambiguous findings about employment are consistent with previous research in the area.

¹⁸ Note that a number of respondents complained about the costs they had to bear in installing security items in their dwellings.

Education

Education, in many ways, provides the clearest triggers for non-shelter outcomes. When pressed on the issue of why their children's performance had improved following relocation through housing assistance, respondents cited three main issues. The first really concerned the nature of the school, and included issues such as quality of teaching and having a more motivated group of peers. The second concerned changes at home. They ranged from increased happiness of the child now living in a good quality dwelling to a decrease in parental stress levels. The third issue was more pragmatic: improved performance occurred because children now had more space and could do their homework without disturbance from, or fighting with, their siblings. It must be noted that for many households, the current housing situation was in marked contrast to a very mobile past that included a number of school changes.

In general the findings are consistent with the literature. The main unexpected outcomes of the study relate firstly to the high profile of "stress" as an issue amongst respondents, and secondly to results that show very positive education impacts even in relatively short time periods. Both issues might be linked to the very negative housing situations of the respondents prior to their move into public housing, often characterised by frequent moves or sharing with friends/relatives. Both areas would appear to be fruitful areas of future research.

5.3.3. What generates the triggers for non-shelter impacts?

It is worth reflecting on the specific nature of changes in housing situations that seem to generate non-shelter benefits for households. Isolating the main triggers for non-shelter benefits would enable housing assistance products to be targeted in order to maximise non-shelter benefits.

One important caveat of this discussion is to note that households included in this study have all *selected* public housing as a housing choice. We know from previous research (see Burke *et al.*, 2004) that certain types of households are attracted to public housing. Many young people who perceive as "positive" the regular changes of address that occur in the private rental market, for example, would be unlikely to apply for public housing. Consequently, conclusions drawn in relation to that issue should not be generalised to the broader population.

The study's results indicate that the nature and magnitude of non-shelter outcomes depend on degrees of difference in the nature of the housing before and after housing assistance, and characteristics of the household itself. Key housing variables appear to be: changes in housing stability, change in dwelling quality, and the change in neighbourhood quality.

- Changes in housing stability are a very significant generator of non-shelter benefits. Given available knowledge on the physical and emotional costs of moving house, this is probably not a surprising finding. But this study has underlined the vulnerability to frequent moves of households in the private rental market. This is a particular issue for households with children, who must deal with the added issue of disruptions to their schooling and disturbance of social networks.
- Changes in the quality of the dwelling are significant — especially around issues of size, the presence of illness triggers (e.g., dust), ability to get the dwelling repaired and ability to modify the dwelling (both issues of control).
- Changes in the quality of the neighbourhood include practical issues such as the location of shops and services, and access to employment opportunities and transport. Equally important however are access to social and support networks and residents' perceptions of whether they are in "a good neighbourhood". This last issue is a particular concern for households with children.

The most significant household characteristics would appear to be the presence or absence of children, and what could be called the "life situation" of the household's occupants. If the household is categorised as having "complex needs", the ability of a change in housing to generate non-shelter benefits can be compromised by the dominance of other issues. For example, if a person is the victim of abuse and is suffering from a mental illness, the ability of a change in housing to unlock other benefits (e.g., a change in employment) is likely to be limited.

To a large extent, these findings would mirror the situation of households in the broader housing market and are not altogether unexpected. Policy implications of the findings are discussed in the next and final chapter.

6 CONCLUSION

This concluding chapter tries to accomplish three tasks. It reflects first on the policy implications of the research. Second, it reports on the original aims of the study. Finally, it tries to examine lessons from this study about further research on non-shelter outcomes.

6.1 Policy Implications of the Research

There are a number of policy implications of the research that address issues of housing choice, the targeting of public housing, and what forms of assistance to offer.

6.1.1. *Housing choice*

It is clear from research that people have very different views on the non-shelter outcomes of their particular housing situation. A non-shelter benefit to some households can be a non-shelter cost to other households. This means that if the aim is to maximise the non-shelter benefits to households, then choice for households must be maximised. The choice should involve both the nature and location of the dwelling. Obviously, the amount of choice must be traded off against the costs of providing this choice.

6.1.2. *Targeting Public Housing*

While a range of possible policy implications have emerged from this study, we have chosen to focus on housing and children's schooling. This study has highlighted the connection between housing and education. The impact of frequent moves on educational outcomes appears especially to be an issue. There are two very immediate policy implications from this research: *who to target* for priority access to public housing, and *what other forms of housing assistance* to offer.

Who to prioritise for assistance?

As funding through the Commonwealth-State Housing Agreement (CSHA) declines, housing authorities are increasingly required to make difficult policy decisions about prioritising access to public rental housing. "Wait turn" access to public housing is being replaced by needs-based allocations, to ensure that those in greatest need get fastest access to increasingly scarce stocks of public rental housing. Over the page is a table summarising the basis for making a priority or out of turn allocation to public housing in all Australian States and Territories.¹⁹

¹⁹ Many housing authorities also provide priority allocations to facilitate stock redevelopment, or to maximise use of stock (for example to reduce under-utilisation). These criteria have not been included in this table.

Table 6.1.2: Out of turn allocation arrangements for public housing

State/ territory	Basis for allocating out of turn	Source
Qld	<p>Homeless or at risk of homeless</p> <p>Medical condition affected by present housing</p> <p>Current housing unsuitable because of a disability</p> <p>Threat of violence makes present housing unsuitable</p> <p>Improved housing needed to return custody of child, or avert custody being removed</p> <p>Victims of major crime or harassment</p> <p>Current housing affected by natural disaster</p>	<p>Application for priority housing – Department of Housing web site</p>
NSW	<p>Homeless or at risk of homeless</p> <p>At risk of coming to harm from violence, sexual assault or child abuse</p> <p>Current housing is very unsatisfactory (crowding, repair, essential facilities)</p> <p>To return a child to custody</p> <p>Severe medical condition or disability</p>	<p>“Priority Housing Fact Sheet” September 2002 – Housing NSW web site</p>
Vic	<p>Police Witness Protection</p> <p>Natural disaster</p> <p>Recurring homelessness (actual or at-risk of)</p> <p>Disability or long term illness requiring special housing</p> <p>At risk of homelessness</p> <p>Inappropriate housing (overcrowded, prevents reunification of parents and children, risk of violence, serious health problem)</p>	<p>“Allocations Manual”, version 2.10 September 2003 – Office of Housing web site</p>
Tas	<p>Housing adequacy (homeless, substandard quality, insecure)</p> <p>Housing affordability</p> <p>Housing appropriateness (match of housing to personal needs, for example family violence, need for modifications, ill-health, requirements for stability, and locational disadvantage)</p> <p>Exceptional need</p>	<p>“Overview of the Housing Assessment System”, September 2003 – document provided by Housing Tasmania</p>
SA	<p>Urgent housing need (homeless or at risk of homeless)</p> <p>Facing long term barriers to accessing or maintaining housing</p>	<p>“Waiting List Information” – South Australian Housing Trust web site</p>

State/ territory	Basis for allocating out of turn	Source
WA	Medical condition caused or aggravated by housing, or requiring housing close to treatment Domestic or family violence Racial harassment Accommodation to take a child out of care	“Applying for Priority Housing Assistance” – HomesWest web site
NT	Serious medical or social problems (such as family violence or sexual assault) Homelessness Disability	Public Rental Housing: Priority Housing – DCDSCA web site
ACT	Homeless or living in emergency housing Facing imminent eviction At risk of domestic violence Rent is greater than 40% of income Medical need Serious overcrowding	“Early Allocation” – Housing ACT Fact Sheet 15/10/03 – DHCS web site

These policies all have a number of common dimensions:

1. An *aspect of housing* (too small, too expensive, very poor condition); and
2. A *household characteristic* (ill-health, disability, victim of violence, very low income);

Resulting in:

1. A *non-shelter consequence* or impact (illness, violence, reduced quality of life or opportunity);

Based on:

1. An implicit assumption about the *role or importance of housing*.

Underlying many of these policies are unstated views about the importance or role of housing. For example, those housing authorities that provide priority allocation on the basis of medical grounds must presumably view poor housing as a possible contributor to ill health (and improved housing as an appropriate strategy to contribute to improved health). Similarly, those that prioritise on the basis of reuniting families are presumably operating within a broader child protection policy that views good housing as a contributor to child safety and development.

The results of this study indicate that housing may, in some cases, have a role to play in facilitating or impeding educational attainment. Using the framework suggested above, the following therefore could be usefully considered for inclusion in priority allocation policies:

1. Households living in unstable housing and/or a history of frequent moves (an *aspect of housing*); and

2. Households with a child requiring school based remediation (a *household characteristic*).

Such a policy may result in:

1. Improved school attainment levels and retention rates (*non-shelter impact*).

Because:

1. Unstable housing and changing schools is thought to reduce the effectiveness of school based remediation strategies (a *role of housing*).

Not all children living in unstable housing who require school-based remediation will necessarily benefit from stable housing, however. For example, some children with learning needs may live in an area where required remediation support is not available, or where a school environment is not conducive to that child's particular needs (e.g., if the child's class already has a number of other children with learning and/or behavioural problems). In such a case, stable housing in a *different area* may be most beneficial educationally.

This latter discussion highlights the need for such a housing allocation policy to be developed in partnership with education experts. Implementing such a policy would certainly require housing authorities to work in partnership with the education system to identify those children for whom unstable housing is likely to result in an educational detriment, and to determine the most helpful educational context suited to that child's needs. While many local housing authority offices are familiar with working in partnership with local welfare providers, such a policy would require a broadening of both their local networks (to include local schools), and their understanding of their role (to include enabling of school success).

What forms of assistance to offer?

As well as contributing to policy-making about whom to prioritise for public housing assistance, this research also illuminates the importance of one particular aspect of housing: *housing stability*.

Much attention has been paid in the past to the problem of housing affordability. In many cases, housing need is defined purely in terms of housing cost as a proportion of household income. This study suggests, however, that the instability experienced by some households in the private rental market may be a key contributor to a number of non-shelter outcomes — such as stress and poor educational attainment. In some cases housing instability may indeed be a product of housing affordability (for example, rent arrears leading to eviction). But in other cases, the inherent short-term nature of the private rental market may be contributing to the high rates of movement we observed.

As CSHA funding declines, housing authorities are under increasing pressure to find more efficient ways of meeting housing need. One approach is to evolve more sophisticated processes by which to determine the most pressing aspects of housing (i.e., to discover which specific aspects of housing matter most to particular

clients) — and to thereby develop a wider range of products and services targeted specifically to those aspects of housing. By only targeting the most significant aspects of housing, housing authorities may effectively be able to assist more households for a given cost.

At present most housing authorities have a limited range of housing assistance measures, broadly categorised as either multi-need or single-need specific:

	Example of program	Aspect(s) of housing need targeted
Multi-need:	Public housing, community housing, Aboriginal and Torres Strait Islander housing	Housing cost, affordability, appropriateness, stability
Single-need:	Rent assistance Bond loan	Housing affordability Housing access

This research suggests that a single need program just targeting housing instability associated with short-term private rental leases may be a useful complement to the range of housing assistance measures offered currently by housing authorities. As more and more households become long-term private renters, this may become especially important.²⁰

In summary, the current study suggests there may be benefits in:

1. Increasing the level of choice in housing assistance programs;
2. Reviewing public housing allocation policies with a view to improving educational outcomes for children, especially children with learning difficulties;
3. Developing housing assistance products that focus on increasing residential stability, such as products aimed at increasing the length of residential leases to reduce the number of times children in highly mobile private rental households change schools;
4. Providing rental subsidies targeted at maintaining primary school students at the one school (particularly children requiring school based remediation); and
5. Education departments developing programs aimed at reducing the impact of frequent moves on educational performance through such mechanisms as better case management of children with learning difficulties when they change schools, and better monitoring of children who are frequent school movers.

²⁰ Wulff and Maher (1998) suggest that 40% of private renters are now long-term renters – that is, they have rented privately for more than 10 years (p.89).

6.2 Reflecting on the Original Research Aims of the Study

Due to the necessary change in research strategy detailed earlier, it has not been possible for this study to address in detail each of the aims listed in Section 1 of this report. A description of what *could* and what *could not* be achieved for each of the research objectives follows.

1. To describe the key non-shelter impacts of different modes of housing provision:

The key non-shelter impacts of public housing versus private rental assistance have been described. A reduction in sample size meant it was not possible to explore the differences across different modes of housing provision, other than the comparison between assistance in the private rental market and public housing assistance.

2. To examine how non-shelter impacts change as a result of different types of shelter provision, i.e., to examine the interaction between these two groups of variables:

No evidence emerged to suggest that different types of dwelling (separate house, flat, etc.) have an impact on the two clearest non-shelter impacts — education and health. However, there is a significant relationship²¹ (at 99%) between change in educational performance and the self assessed quality of the dwelling (for both subject and motivation performance). This relationship is not repeated for health outcomes. There is no relationship between the self-assessed quality of the neighbourhood and any non-shelter outcome variable.

3. To understand how critical shelter and non-shelter aspects interact and to theorise about the causal connections between government housing assistance and a range of non-shelter outcomes including employment outcomes and receipt of government support:

The connection between these two issues has been explored in detail in the literature review, in the qualitative findings, and in this section. The clearest connection would appear to be in the area of education. In health, some possible connections certainly have been suggested by this study, but they await further examination.

4. To use the outputs from the first three aims to describe the changed social and economic well-being of individuals and families before and after receipt of housing assistance and other housing changes which include tenure, location and type:

The findings in Section 5 and the discussion in Section 6 describe changes in economic and social wellbeing as a result of changes in tenure and housing assistance.

²¹ Significant at the 99% level using a chi-squared test.

5. To use the outputs from the first four aims to provide an impact analysis on the reduction/withdrawal of housing assistance:

The withdrawal of housing assistance, or asking these households to return to the private rental market, would in most cases seriously compromise the economic and social wellbeing of household members. A number of households have dropped out of the study, however, and some are likely to have withdrawn from public housing because they found the form of assistance did not meet their needs.

6. To use the information on non-shelter impacts to construct a whole-of-government cost-benefit analysis of the provision of housing assistance:

This task has not been possible in this study. It is seen to form the basis of a subsequent study that will build on the output of this and related work, in addition to King's work (2002) on the lifetime impacts of housing assistance.

7. To assess the benefits/disadvantages/outcomes of different tenures and forms of housing assistance for different socio-demographic groups and locations:

The reduction in sample size did not make this task possible in any comprehensive fashion. However, an analysis of the Brisbane results shows that there is a significant relationship (at 99%) between the overall self-assessment of housing outcomes and household type. In general, households who have been more negative about the housing outcomes (where housing has been "worse" or "a lot worse" than previous housing) do not have dependants. Issues about location have already been addressed.

8. To examine the relative importance of price and non-price characteristics of public rental housing for different socio-demographic groups of public housing tenants:

The analyses of Sections 5 and 6 would suggest that price characteristics of public housing are not the most important benefits of housing assistance to households. No-price benefits — security of tenure and a sense of independence, for example — are more important than price. Indeed, the qualitative study reported that some tenants would be prepared to pay market rents because they saw security of tenure as the main benefit of their housing.

6.3 Future Research Strategies

This study has generated some interesting findings in relation to non-shelter outcomes. It has also suffered from a number of limitations, however — which might suggest useful pointers for future research directions. It is considered that a number of research strategies can be undertaken to improve our knowledge of non-shelter outcomes:

1. Increase the use of administrative data sets

Use of administrative data sets can be more cost-effective than collecting primary data. They also have the advantage of allowing a much broader coverage. In this survey the use of Medicare data provided an important supplement to the survey data. Outcomes from the Basic Skills Test could be combined with data on tenure, for example, to further investigate the relationship between housing and educational outcomes.²² Where possible, adding a housing variable to administrative data sets would assist with this task.

2. The use of longitudinal studies

Mullins and Western (2001, p.48) in a cross-sectional study that explores non-shelter outcomes reach the following conclusion:

Public housing tenants appear to be considerably worse off than these low-income private tenants, suggesting that government assistance did not – in terms of these broad outcomes – have any marked positive effect. Public housing tenants are worse off with regard to social exclusion, perceived quality of life, the health index, perceived health, anomie, fear of crime, and education.

The findings of this study contradict these findings. In general, cross sectional studies, especially studies with small samples, are not reliable in measuring non-shelter outcomes. The use of further longitudinal studies is encouraged — for example, the use of HILDA by housing researchers may be a fruitful area of further research.

3. The use of control groups

With the increasing emphasis on evidence-based policy, there is greater pressure to follow an essentially medical model, and to use randomised control studies. For example, in the Campbell Systematic Review Protocol, a study is deemed methodologically robust and worthy of inclusion in a literature review if the study utilises a methodology based on a randomised control or quasi-randomised control experiment or trial form, where a no-treatment control group is included (Bridges *et al.*, 2002, p.10). However, given the large number of variables that appear to interact with the generation of non-shelter outcomes, it would not seem possible in any practical sense to be able to select a control group. This point was made by King (2000), and the current study supports his findings.

²² AHURI has funded the preliminary phase of a study that involves tracking Education Queensland results.

4. Undertake an ongoing evaluation with the assistance of State Housing Authorities

A clear lesson from this study is that evaluation studies are most successful when the SHA is involved closely. A rolling national evaluation study undertaken in conjunction with SHAs, and focusing on a subset of the issues in this project, would provide a more robust evidence base for future discussions about housing assistance. The study would include the use of administrative data sets such as Basic Skills Test results and Medicare data.

5. Continuing to track the Brisbane respondents in this study

It would seem worthwhile to fund a study that examined the outcomes for the Brisbane public housing tenants at some time in the future (T3).

It is hoped that the adoption of some of these strategies will provide greater insights into this important but under-researched housing issue.

Appendix A: Survey Instruments and Forms

A1 Qualitative Instruments

A1.1 Interview schedule: tenants

Household code (date of interview plus letter – a, b, c, etc.):

Introduction to research

- Thank you for agreeing to see me.
- Reminder that everything that you tell me in this interview will remain confidential. I will use a code rather than names to identify households, and there will be no way of identifying you or your family through the report from this research.
- I would like to tape record this interview so as to be sure that I don't miss anything that you say. I will also take some notes. The interview could take about one hour.
- I am interviewing up to 10 or 12 households over the next 6 months. Once I have finished the interviews I will write up a summary of the interviews and send this to you for your information.
- The purpose of the research is to help to better understand the changes that happen in peoples' lives as a result of moving into public housing. One area that we are particularly interested in is the impact of these moves on children and their schooling. My goal is to see whether there is a link, and if there is a link to understand why. I am not trying to prove something.
- Do you have any questions before we start? If you have any questions afterwards you can ring me on the same number that you rang to register to be part of this research (*offer number again if they don't have it*).
- I would like to start by getting some details about your household and housing history. This is the boring bit before we start to discuss your move into public housing.

Household details

Age and gender of adults:

Adult	Gender	Age
A1		
A2		
A3		

Age, sex and year level of kids:

Child	Gender	Age	Year at school
C1			
C2			
C3			
C4			
C5			
C6			
C7			

Current housing details

Suburb name:

Postcode:

Number of bedrooms:

Age and gender of children sharing bedrooms:

Bedroom	Gender	Age
1		
2		
3		
4		

Separate indoor play space: Yes/No

Private outdoor play space: Yes/No

Street noise (select):

- Noisier than average
- Average
- Quieter than average

Current weekly rent:

Housing history

It would help us to have a history of your housing over the two years before moving into this home:

Month and year				
Moved in	Moved out	Suburb	Postcode known	if

(If remembering details of the moves is difficult, ask for suburb of last home, and approximate number of moves in that period.)

Details of last home before moving into public housing

Suburb and postcode (if known): _____

Were you collecting rent assistance: Yes/ No

If yes, how much? _____

Thank you – that’s the end of the first section of the interview. I’d now like to talk about your last home before you moved here, and then talk about how things have been since moving into this home.

Questions

Last home

I would like to start by asking you to remember back to your housing before you moved into this home. What things stand out in your mind about your last home?

What was life like for your family in your last home?

Moving and the new home

Could you tell me about your move from that home into your current home?

- How did you feel about moving?
- What was the move like?
- What were you hoping the move would bring?

How does this new home compare with your expectations?

What changes have you noticed for you and your family since moving?

What effects do you think the move has had for your (partner and) child(ren)?

What have been the biggest differences between your current home and your last home? Think about the neighbourhood as well as the home itself.

Relationships

What impacts if any did your move have on your relationships? Do you still keep in touch with friends and family since your move?

How about kids’ friendships? Do they still keep in touch with their old friends? Have they made new friends? What have these changes meant for them?

Money

What has the reduction in your rent meant for you?

Security

Where do you expect to be living in five years time?

Living in public housing involves different tenancy conditions to the private rental market – such as an automatically renewing lease, and rent levels that change with your income. How do you feel about these aspects of your current housing?

Health

How has your health been since moving into this home?

Do you think you and your family are sick more or less often now than you were in your last home? Do you have any thoughts on the reasons for this difference?

Do you visit the doctor more or less often now than you did in your last housing? Do you have any thoughts on the reasons for this difference?

Training and Employment (almost finished)

Do you have time for any paid or voluntary work these days, or maybe re-training?

Thinking back to when you were living in your last home, has your involvement in paid or voluntary work changed since that time? If there has been a change, do you have any thoughts on the reasons for the difference?

School

Have your children changed school as a result of the move? If they have, what differences have you observed between their last school and their current school?

Have you noticed any changes in their attitudes towards school since the move? If so, what do you think may have caused these changes?

Do you have any sense of whether your children's marks have changed at all since moving? If so, what do you think may have caused these changes?

If the following issues have not come up:

Have there been any impacts on your children associated with changes in friendships or classmates when you moved home?

Are you aware of any changes associated with your new home that might have had an effect on their schooling?

(If necessary prompt in relation to where homework is undertaken now, bedroom sharing arrangements and impact on sleep, the mood of the family since the move.)

Finishing up

Is there anything else that you would like to tell me about your past or present home?

Given the discussion we have had today, what stands out for you as the 3 most important impacts of moving into public housing?

- Check that notes are complete.
- Thanks for your time.
- Please ring me if you have any questions about this research project.

A1.2: Interview schedule: educators

Date:

School name:

Suburb:

Staff member:

Position:

Background

- Thank you for agreeing to see me. The goal of this research is to try to understand the ways in which aspects of housing might impact on schooling. By “housing” I mean the physical dwelling and yard – its size, amenity, repair, etc.; the neighbourhood; and also the cost and security of tenure of housing, including the considering the effects of transience.
- I will soon be interviewing parents who have recently moved into public rental housing, to discuss the effects of this move on a range of aspects of their lives, including the impact on their children’s schooling. In preparation for these interviews, I am meeting with educators from a range of different schools to discuss the sorts of housing related impacts that you may have observed in your work.
- I expect that this interview will last about 30 minutes. I would like to tape record this discussion to ensure that I don’t miss anything that you say.

- You or your school will not be identified in the write up of these interviews. Information will be collated with other interviews, and if you are cited it will be attributed to an educator from a primary/secondary school in a disadvantaged/mixed community from an urban fringe/middle urban/inner urban area.
- Any questions before we start?

Questions

The literature I have read to date suggests that some aspects of housing can impact directly on schooling, and other aspects can impact indirectly via an intermediary such as health.

I would like to start by getting your views on the aspects of housing that you think most affect schooling, as well as your views on the reasons or mechanisms by which these aspects of housing impact on schooling.

(No prompting – goal is to learn about their priority issues)

Neighbourhood

I am interested in your views on the role that neighbourhood plays in relation to schooling.

Mobility

Studies suggest that mobility or transience can have both positive and negative impacts on schooling and child development. Could you tell me about your observations of the impacts of transience on schooling?

Crowding

It may be difficult for teachers to know whether children come from overcrowded homes, although children from large, low income families, and those living in caravans or mobile homes may well be living in crowded housing. I would be interested in your observations about the effects of crowding on kids and their schooling.

Housing and neighbourhood amenity

I am interested in your views about whether living in poor quality or poorly maintained housing, or in a street or suburb that appears run down and poorly maintained, impacts on children's self image? Do you think poor housing amenity may impact on schooling?

Noise

Are you aware of any of your children who live in unusually noisy environments, such as on a busy road? How would you characterise the behaviour and attending abilities of these children?

Health

One of the intermediaries between housing and schooling may be health – that is, families who live in inappropriate or insecure housing may be less healthy, and their children may be absent from school more often. Do you have any views on this theory?

Cost

Another possible intermediary is housing cost and poverty, as there seems to be a lot of research to suggest that children of poorer families are less likely to achieve academically. I am interested in your experiences relating to family poverty and schooling, and in particular the ways in which poverty may make it harder for children to succeed at school.

Key issue

Given the discussion we have had, I was wondering what you consider to be the most important aspect of housing in relation to schooling, and why?

Thank you for your time. Do you have any questions before we finish? Please feel free to ring me if you think of any questions after today.

Quantitative Instruments

A2.1 Housing Survey Number 1

Introduction

The aims of this research project are to measure the impact of changed housing circumstances on people's lives. In particular, the study is trying to measure the impact of changed housing circumstances on health, on children's education, on employment and the interaction with government agencies. It will do this by interviewing people at the start of their tenancy and then at a later date to see if the factors listed change.

The first interview – as soon as practicable after being housed:

Interviewer explains the purpose of the survey. Careful not to raise the idea that the right answer is one where housing has an impact.

The first thing we need to know is a bit about your previous housing:

Was it:

- A separate house _____
- Terrace, semi-detached house or townhouse _____
- Flat, unit, apartment or bedsit _____
- Flat unit or apartment attached to a house _____
- Caravan, mobile home _____
- How many bedrooms: _____

Was it

- Being purchased or owned by you _____
- Rented (from an agent/landlord) _____
- Rented from a family member/relative _____
- A boarding house _____

What were your living arrangements with the previous dwelling?

- Staying with family _____
- Staying with friends _____
- Shared housing _____
- Emergency accommodation _____
- Living alone as a family _____
- None of the above _____

If it was rented:

- How much you were paying per week (in rent?) _____

(NB: 'you' refers to individuals if in shared housing, otherwise it is the household)

- Were you getting rent assistance from Centrelink? Yes / No
- Were you assisted in renting this property through Rentstart (Bond assistance and advanced rent from the Department of Housing) Yes/No
- Did it have any outdoor space (including balconies): Yes / No:

If Yes:

	Small shared space
	Large shared space
	Small yard
	Large yard
	Balcony

How often did your children play outside in this outdoor space:

Daily / Once or twice a week / Occasionally / Almost never

What did you like most about your previous dwelling?

What did you like least about your previous dwelling?

What did you like most about your previous neighbourhood?

What did you like least about your previous neighbourhood?

How would you describe the traffic and neighbourhood (including aircraft noise) noise levels in your previous dwelling:

Very noisy / Moderately noisy / A little noisy / Fairly Quiet / Very Quiet

Why did you move into public housing?

Please tick all that apply

- Offered low or lower rent..... 01
- Security of tenure / not having to move..... 02
- Was homeless / in a refuge / staying with friends, etc 03
- Was in a violent / dangerous situation 04
- Couldn't afford private rental..... 05
- Couldn't get a private rental home 06
- Wanted to live in this area / meant could afford to live in area..... 07
- Previous housing was poor quality / this is a better house 08
- Other (Please specify) 09

Now I need to know something about this house.

Interviewer to fill in:

- A separate house _____
- Terrace, semi-detached house or townhouse _____
- Flat, unit apartment or bedsit _____
- Flat unit or apartment attached to a house _____
- If it is a flat: How many units in the development? _____
- Is it part of a public housing estate? Yes / No
- How many bedrooms has it got? _____
- How much are you paying per week (in rent?) _____

(Check that there is no confusion between weekly and fortnightly rent)

What do you think is the largest difference between this neighbourhood and your previous neighbourhood?

What do you think is the largest difference between the this dwelling and your previous dwelling?

Does it have any outdoor space(including balcony): Yes / No

If Yes:

	Small shared space
	Large shared space
	Small yard
	Large yard
	Balcony

Can you tell me who is living here?

(Dependants are defined as everyone less than 15 and those over 15 in full time study)

For each of the dependant I need to know their age and what year they are in at school (if applicable) or where they are studying.

	Adu1	Adu2	Adu3	Adu4		Dep 1	Dep 2	Dep 3	Dep 4	Dep 5	Dep 6	Dep 7	Dep 8
Sex					Sex								
					Age								
					School/TA FE/Uni								
Prev dwell													

Age: insert current age and single person living alone (show age categories card for single person living alone)

Sex: M for male, F for female

School/Tafe/Uni: Refers to current education: Insert Year (1 to 12), K for kindergarten and F for finished school. Insert T if child is currently in tertiary education (University, TAFE etc.)

Previous dwelling: Place x if the occupant wasn't living in the previous dwelling.

Were any of the people living here now, not living in the previous dwelling?

(mark x in table)

How many people in total were living in the previous dwelling?

- Adults _____
- Dependants _____

Interviewer to code:

- Which best describes the household?

	PD	CD
Single person, living alone	<input type="checkbox"/>	<input type="checkbox"/>
Single person, living with one or more children	<input type="checkbox"/>	<input type="checkbox"/>
Couple living without children	<input type="checkbox"/>	<input type="checkbox"/>
Couple living with one or more children	<input type="checkbox"/>	<input type="checkbox"/>
Group home of unrelated adults	<input type="checkbox"/>	<input type="checkbox"/>
Single person without children, living with relatives	<input type="checkbox"/>	<input type="checkbox"/>
Single person with one or more children, living with relatives	<input type="checkbox"/>	<input type="checkbox"/>
Couple without children, living with relatives	<input type="checkbox"/>	<input type="checkbox"/>
Couple with one or more children, living with relatives	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

(For both previous and current dwelling)

How would you describe the traffic and neighbourhood noise levels in your current dwelling compared to your last dwelling:

More noisy / About the same / Quieter than before

It would help us to have a history of your housing over the last two years:

Month and year		Suburb	Postcode if known
Moved in	Moved out		

Now I have some questions about your school aged children:

Are your/will your children attend the same school now that you have moved? Yes / No

For each of your children, how do you think they performed at school over the last term before they moved? The choices are:

- O Outstanding
- OK OK
- ED Experiencing difficulty

We want to see how they are going on two scales:

1. Their performance in their school subjects (you might base this on their school report)
2. Their level of motivation

How many schools have each of your children attended over the last two years?
(Includes current school)

	Dep 1	Dep 2	Dep 3	Dep 4	Dep 5	Dep 6	Dep 7	Dep 8
Initials of child								
Same school (y/n)								
Subject Performance in last term								
Motivation performance in last term								
Schools in 2 years								

Now I have a question about the adults in the house.

For each of the adults of working age in the house (who aren't in full time study), in the month before you moved were they working:

	Adult 1	Adult 2	Adult 3	Adult 4
Full time				
Unemployed				
Retired				
Unpaid work				
Voluntary work				
Part time/Casual				
% of Full Time for PT				
Unable to Work				

Where the worker is PT please indicate the proportion of a full time job that they worked. For example, if they work one day a week, the proportion is 20%. Please align the adult numbers (adult 1, adult 2 etc) with the adults in the occupants table.

Health

An important issue that has been identified in other research is that changes in housing can affect health outcomes. We would like to investigate this issue in two ways. The first is to ask you some questions about your health. The second is to see how much you have used medical services. In this second option we will ask your permission to access your Medicare and Pharmaceutical Benefits to see if your visits to the doctor etc have changed.

Hand out health survey form to each available adult (18+)

Medicare Data

Rather than getting you to write down details of each of your visits to the hospital/doctor, you can provide us with permission to access your Medicare data. We would only access to your **total number** of visits and the total amount of the Medicare charges for the twelve months before you moved into the property (in three month intervals), and the twelve months afterwards. We would not know the details of any individual visit. For example, we would not know the names of doctors you visited, or the nature of the conditions you received treatment for. If this is OK with you, you need to fill out the Medicare release form.

If you do not want to give us permission, we have finished the section on health services.

Travel

We would like to find out if your current housing is more accessible (i.e. you can get there in a shorter time) or less accessible (it takes you longer to get there) to work, friends and family, etc. than your previous housing. Could you indicate whether you are now living closer to, further or about the same:

	F, C, S, NA
Work/Looking for work*	
Relatives/friends	
Childcare	
School	
Training/education	
Recreation for adults	
Recreation for kids	
Health services	
Community support services	
Centrelink	
Food shops	
Other shops	

F-Further away C- Closer, S- About the same, NA not applicable

*this could be different for different members of the household so try to take an average.

The Neighbourhood

Compared to your previous neighbourhood or area in which you lived, can you comment on the quality of this neighbourhood or area:

	Better
	Worse
	About the same
	Living in same neighbourhood now

If better or worse, please explain why:

Overall how would you rate your new housing compared to your previous housing:
A great deal better / A little better / About the same / A little worse / A lot worse

MANY THANKS FOR YOUR HELP – WE WILL CONTACT YOU TO ARRANGE
A FOLLOW UP INTERVIEW. PLEASE MAIL THIS CARD BACK IF YOU MOVE
OUT.

A2.2 Housing Survey Number 2

Introduction

Thanks for letting me talk to you again. The aims of this research project are to measure the impact of changed housing circumstances on people's lives. In particular, the study is trying to measure the impact of changed housing circumstances on health, on children's education, on employment and the interaction with government agencies. Now that you have been in your new house for a period of time we would like to ask you some more questions.

Now that you have been living in this dwelling for a while what do you think is the largest difference between the two dwellings (this dwelling and your previous dwelling)?

Here is a list of the people who were living here when I first interviewed you. Has anyone moved out or is anyone new?

Yes / No

If yes, please fill in:

Can you tell me who is living here?

	Adu1	Adu2	Adu3	Adu4		Dep1	Dep2	Dep3	Dep4	Dep5	Dep6	Dep7	Dep8
Sex					Sex								
					Age								
					School								
New													
Moved out													

Age: Only required for child, insert current age

Sex: M for male, F for female

School: Refers to current education: Insert Year (1 to 12), K for kindergarten and F for finished school. Insert T if child is currently in tertiary education (University, TAFE etc)

Previous dwelling: Place x if the occupant wasn't living in the previous dwelling.

Interviewer to code:

Which best describes the household now?

- Single person, living alone 02 01
- Single person, living with one or more children..... 0 022
- Couple living without children 02 02
- Couple living with one or more..... 04
- Group home of unrelated adults..... 05
- Single person living with relatives 05
- Single person with children, living with relatives 05
- Couple without children living with relatives..... 06
- Couple with one or more children living with relatives 07
- Other 08

(For current home)

Now I have some questions about the children (if children live in the house):

Do the children play outside (in their private/shared private space) more, less or about the same as at the previous dwelling?

More / Less / About the Same

For each of the children are they still at the same school as last time?

For each of the children, how do you think they performed at school over the last term? The choices are:

- O Outstanding
- G Good
- F Fair
- ED Experiencing difficulty

Is this better or worse than last time? (For the term before they moved)

	Dep 1	Dep 2	Dep 3	Dep 4	Dep 5	Dep 6	Dep 7	Dep 8
Initials of child								
Same school (y/n)								
Subject performance in last term (see below)								
Compared to last interview (B/W/S)								
Motivation Performance in last term (see below)								
Compared to last interview (B/W/S)								

B-Better, W-Worse, S- About the same

If better or worse can you suggest why (tick all that apply):

	Dep1	Dep2	Dep3	Dep4	Dep5	Dep6	Dep7	Dep8
BETTER								
Better teacher								
Better school								
More motivated group of friends								
Things are better at home								
Child is happier								
Other								
WORSE								
Worse teacher								
Worse school								
Less motivated group of friends								
Things are worse at home								
Child is not settled								
Other								

Please specify other:

Now I have a question about the adults in the house:

For each of the adults of working age in the house (who aren't in full time study) can you indicate their work patterns over the last month?

	Adult 1	Adult 2	Adult 3	Adult 4
Full time				
Unemployed				
Retired				
Unpaid work				
Voluntary work				
Part time/Casual				
<i>% of Full Time for PT</i>				
Unable to Work				

Where the worker is PT please indicate the proportion of a full time job that they worked. For example, if they work one day a week, the proportion is 20%. Please align the adult numbers (adult 1, adult 2 etc) with the adults in the occupants table.

If this has changed from first interview:

Why has this changed?

Health

Remember last time I told you that an important issue that has been identified in other research is that changes in housing can affect health outcomes. I would like to ask you some questions about your health.

(Self-administered health survey to those over 18)

(See separate Health Survey)

Is there any reason why your health has changed since the last interview?

Do you think the health of other people in the house has changed since the last interview?

Use of Government and Community Housing

One of the issues we are trying to investigate is the extent which changed housing affects the level of interaction with Government and community sector agencies.

Looking at the list of agencies, do you think that your use of these services has increased, decreased or stayed about the same since our last interview?

Increased

Decreased

About the same

If it is changed do you have you any ideas why

Travel

We would like to find out if your current housing is closer or further away from work, friends and family etc than your previous housing. Could you indicate whether you are now living closer to:

	F, C, S, NA
Work/Looking for work*	
Relatives/friends	
Childcare	
School	
Training/education	
Recreation for adults	
Recreation for kids	
Health services	
Community support services	
Centrelink	
Food shops	
Other shops	

F-Further away C- Closer, S- About the same, NA not applicable

***this could be different for different members of the household so try to take an average.**

The Neighbourhood

Compared to your previous neighbourhood or local area, can you comment on the quality of this neighbourhood?

	Better
	Worse
	About the same
	Living in same neighbourhood now

If better or worse can you please describe why?

Any other ways your situation has changed?

Are there any other differences you would like to comment on about how your situation has changed since you moved into this property?

(Prompt if necessary)

What do you think has been the most important change for you since moving into the property?

In the first survey you said you moved into public housing because:

Do you think your expectations have been met?

Yes

No

Not sure

Why?

Overall how would you rate your new housing compared to your previous housing:
A great deal better / A little better / About the same / A little worse / A lot worse

Thank you.

A3 Medicare Consent Form

I authorise the Health Insurance Commission to release some of my Medicare data to the research project, "Housing Assistance and Non-Shelter Outcomes," being undertaken by the University of Sydney AHURI Research Centre. The data that I authorise to be released is the number of visits that I make to doctors, and the total amount of the Medicare rebate. I do not authorise the release of any details regarding my health care other than this information. For example, I do not authorise the release of information such as the name of my doctor, or details of treatments I receive.

I understand that the Housing Assistance and Non-Shelter Outcomes project will have access to some information about my Medicare service use which individually identifies me. Below is an example of the information that will be provided to the researchers:

Example only:

Month	Patient name	Number of visits	Total Medicare rebates for month
September	Mr John Smith	3	\$183.75
October	Mr John Smith	1	\$35.00

I understand that the purpose of this research project is to measure the changes in health expenditure that may result from changes in peoples' housing.

I consent to the Health Insurance Commission releasing personally identifying information about the services I access from 1 July 2000 until 30 June 2002 (or the completion of this project, which ever occurs first), to the Housing Assistance and Non-Shelter Outcomes project.

I understand that I can withdraw my consent to participate in the Housing Assistance and Non-Shelter Outcomes project at any time and that should I wish to withdraw from the Study, I can withdraw my consent to the release of my Medicare information by:

. telephoning the Study on 1800 880 422

or

. telephoning the Health Insurance Commission on 02 612 46891

or

. completing a form supplied by the Study and sending it to either the Study or to the Manager, Privacy and FOI, PO Box 1001, Tuggeranong, ACT 2901.

Before signing this document, I have been given the opportunity to ask any questions about the Study, the type of information that is to be collected and how this information is to be used.

I understand that the information about the services used by me may be collected, stored and analysed only for the purposes of the Housing Assistance and Non-Shelter Outcomes project.

I understand and consent that the results of the Study may be published provided that my name and Medicare number are not released and that I cannot be identified in any way from the materials published.

PERSONAL DETAILS:

FAMILY NAME

GIVEN NAME/S

DATE OF BIRTH SEX

MEDICARE CARD NUMBER

PARTICIPANT'S SIGNATURE

SIGNED

DATED

Appendix B: Results from Sydney Surveys of Public and Community Housing tenants

B1 Reasons for the Poor Responses from Sydney

There have been two probable reasons for the large differences between Sydney and Brisbane:

1. In the case of the Brisbane sample, a senior member of Queensland Department of Housing was involved in the study by the way of undertaking a Masters thesis by research.²³ As a result, he was able to put a considerable amount of time into a process of informing staff in regional offices about the nature of the research. This process involved briefings at special meetings and ongoing support. Staff became committed to the study as a result of this process.²⁴ Whilst a similar process was attempted in Sydney using ex-employees of the Department to undertake this role it was never as effective. We did not get an opportunity to visit the regional offices as we did in Brisbane. The Sydney regional managers did not adopt a comparable enthusiasm for the study. Also, it appears that Sydney client service staff members were busier than Brisbane staff and had less time to talk to incoming tenants about the project. When we discussed these issues with NSW Department of Housing research staff, they indicated that participation of Sydney tenants is a common problem with their research.
2. The main issue, however, appears to involve the relative state of mind of Brisbane and Sydney households. To be housed in Sydney at present you need to have “complex needs”, and most allocations are from the “crisis” rather than “wait turn” list. People likely have difficulty in engaging with the idea of participating in a research project, given the multiple issues they are facing — especially the stressful nature of moving. They might also feel anxious in talking to strangers about these issues. In Sydney, for example, on a number of occasions appointments were made with people who were not at home when the interviewer called.

In the case of community housing, providers were contacted and asked to recruit households who were in the population. Despite the assistance of a peak organisation (the NCHF), the providers did not show a great deal of enthusiasm for the study and seemed to consider it an intrusion into their tenants’ lives.

Sections B2 and B3 contain the findings of the Sydney Public Housing and Community Housing research. Whilst both surveys suffered from low response rates, it is considered a brief analysis of the results will provide some useful comparative information for the study.

²³ Peter Young, the co-author of this report.

²⁴ For example, one of the Brisbane regional managers became involved in the reference group in the Department that prepared the survey instrument.

B2 Sydney Public Housing

Only 18 completed interviews at T2 and 26 at T1 are available, but it is worth examining a few broad issues.

The Sydney sample was in central and western Sydney. In general, it would be fair to say that the quality of dwellings and neighbourhoods were not as good as in Brisbane. In the Brisbane interviewer's assessment of the interior quality of dwellings, for example, only one dwelling was rated poor — whilst in the Sydney sample, 28 percent of dwellings were rated as poor.

B2.1 Housing and neighbourhood rating

When asked to rate their new housing compared to their previous housing, the respondents' answers in Sydney were not dissimilar to the Queensland results. The main difference was a larger proportion of dwellings that were perceived to be "a lot worse" (2 to 17 percent).

Table B2.1-1: Overall rating of new housing: Sydney (at T2)

Overall rating of new housing	Percent at T2	Percent at T2 Brisbane
A great deal better	61	63
A little better	17	20
About the same	6	13
A little worse	0	2
A lot worse	17	2
Total	100	100

Sydney N=18

Table B2.1-2 reports on the rating of the current versus previous dwelling. In the case of Sydney a smaller proportion of respondents noted a better neighbourhood outcome. However, this was partly because more respondents remained in the same area when moving into public housing.

Table B2.1-2: Comparison of the quality of the current and previous neighbourhood (at T1 and T2)

	Percent at T2	Percent at T2 (Brisbane)
Better	28	47
Worse	28	22
About the same	33	29
Living in the same n'hood	11	3
Total	100	100

Sydney N=18

B2.2 Health

About 90% of Sydney respondents reported that their health had changed (compared to about 70% in Brisbane). The reasons why respondents' health had changed were similar for Sydney and Brisbane, although in the Sydney case, the issue of change in housing and change in depression levels were much more pronounced (see Table B2.2 over page).

Table B2.2: Why respondents' health has changed

Reason	Percent of responses	Percent of responses* Brisbane
Condition degenerating/new condition	14	29
More stress	10	10
Less stress	3	9
Better care of self (access to gym/more exercise)	-	8
Change in housing	17	8
Control over environment	7	4
Less depressed	17	4
More depressed	10	4

* Greater than 5% in either city with the corresponding percentage included

N=29

B2.3 Use of government services

Table B2.3 shows a comparison of changing use of government services in Sydney and Brisbane.

Table B2.3: Use of government and community services before and after

	Percent	Percent Brisbane
Increased	11	11
Decreased	22	10
About the same	50	18
Don't use/before and now	17	61
Total	100	100

Sydney N=18

The table shows that a larger percentage of respondents had decreased their use of Government and community services in Sydney but a marked difference was the much lower proportion of Sydney respondents who had not used the services before or after their change in housing. This probably reflects the different nature of the new tenants in both cities.

B2.4 Differences since you moved into this property

Table B2.4-1 shows ways that respondents' situations had changed since they moved into the public dwelling in Sydney, and compares it with results from Brisbane.

Table B2.4-1: How your situation has changed since you moved into the property

Factor	Percent of responses	Percent of responses Brisbane*
Security of tenure	4	27
More financially secure	18	24
Feel safer/more secure		14
Less stressed/depressed	25	6
Physical health is better	4	5
Control over own environment	7	5
Better house	7	2

* Greater than 5% in either city with the corresponding percentage included
Sydney N=29 Brisbane N=305

The results are broadly comparable — but in the Sydney case, the issue of security of tenure is less important and stress and depression much more important.

When respondents were asked to identify “the most important change for you since you moved into the property”, again the results are broadly similar, although security of tenure is less important in Sydney. Interestingly, with different interviewers, different cities, and open-ended questions, the responses are similar after allowing for (a) some variations resulting from the nature of the differences in the case study areas, and (b) the nature of the intake into public housing in the respective states. Note the almost identical responses for the rating of financial security.

Table B2.4-2: What has been the most important change for you since you have moved into the property?

Factor	Percent of responses	Percent of responses* Brisbane
Security of tenure	5	22
Control over own environment	14	20
Less depressed/better emotional wellbeing	18	10
More financially secure	9	10
Close to amenities/family	-	5
Other	54	33
Total	100	100

* Greater than 5% in either city with the corresponding percentage included

B3 Community Housing

The response rate for community housing numbers was too small to make any detailed analysis. However, similar patterns were evident in the data. About 70% of respondents considered that their health or the health of others in the household had changed, largely as a result of greater control over their environment.

When asked to rate their new housing compared to their previous housing, about half said it was “a great deal better” and about 10 percent said “a lot worse”. The other interesting result was that about 80% of respondents indicated that their housing provider had supported them, with a range of issues — through helpful advice from staff, to helping with rent payments when the tenants have been in financial difficulties.

REFERENCES

- Alexander, K. L., Entwisle, D.R., *et al.* (1996). "Children in Motion: School Transfers and Elementary School Performance." *The Journal of Educational Research*. 90(1).
- ABS. (1998). Information Paper. "Census of Population and Housing: Socio-Economic Indexes for Areas." Australia Cat No 2039.0. Canberra.
- Badcock, B. (1984). *Unfairly Structured Cities*. Blackwell, Oxford.
- Barrow, M. and Bachan, R. (1997). "The Real Cost of Poor Homes." Research Findings No.10, Royal Institute of Chartered Surveyors (RICS). London.
- Bartlett, S. (1997). "Housing as a Factor in the Socialization of Children: A Critical Review of the Literature." *Merrill-Palmer Quarterly*. 43(2): pp.169-198.
- Bartlett, S. (1997). "No Place to Play: Implications for the Interaction of Parents and Children." *Journal of Children and Poverty*. 3(1): pp.37-48.
- Bartlett, S. (1998). "Does Inadequate Housing Perpetuate Children's Poverty?" *Childhood*. 5(4): pp.403-420.
- Bassuk, E. (1991). "Homeless Families." *Scientific American*. December, 1991
- Bell, P., Greene, T., Fisher, J. and Baum, A. (1996). *Environmental Psychology*. Harcourt Brace College Publishers. 4th Edition.
- Blackman, T., *et al.* (1989). "Housing and Health: A Case Study of Two Areas in West Belfast." *Journal of Social Policy*. 18(1).
- Boardman, B. (1991). *Fuel Poverty*. Belhaven Press, London.
- Boehm, T. P. and A. M. Schlottmann (1999). "Does Home Ownership by Parents Have an Economic Impact on Their Children?" *Journal of Housing Economics*. 8: pp.217-232.
- Bouma, G.D. (2000). *The Research Process*. Oxford University Press, South Melbourne. 4th Edition.
- Bradley, R. H. and Caldwell, B. M. (1984). "The Relation of Infants' Home Environments to Achievement Test Performance in First Grade: A Follow-up Study." *Child Development*. 55(3): pp.803-809.
- Bradley, R. H. and Caldwell, B. M. (1984). "174 Children: A Study of the Relationship between Home Environment and Cognitive Development during the First 5 Years." In A. W. Gottfried (ed.) *Home Environment and Early Cognitive Development: Longitudinal Research*. Academic Press Inc, New York, pp.5-55.
- Bratt, R. (2002). "Housing and Family Well Being." *Housing Studies*. 17(1): pp13-26.

- Bridge, C., Flatau, P., Whelan, S., Wood, G., and Yates, J. (2003). "Housing Assistance and Non-Shelter Outcomes." Final Report. AHURI Sydney Research Centre, AHURI Western Australia Research Centre.
- Brooks-Gunn, J., Duncan, G. J., *et al.* (1993). "Do Neighbourhoods Influence Child and Adolescent Development?" *American Journal of Sociology*. 99(2): pp.353-395.
- Brown, A. and Orthner, D. K. (1990). "Relocation and Personal Well-Being Among Early Adolescents." *Journal of Early Adolescence*. 10(3): pp.366-381.
- Brown, H. (1991). "Housing and Adolescents with Drug Related Problems." Taskforce Community Involvement Centre, Melbourne.
- Brown, M., *et al.* (1972). "Criminal Offences in an Urban Area and their Associated Variables." *British Journal of Criminology*. 12(3).
- Bryson, D. (2000). "Welfare and Housing. How can the Housing Programs help Welfare Recipients?" National Housing Law Project, Oakland, California.
- Burke, T., Hancock, L. and Newton, P. (1984). "A roof over their heads: Housing issues and families in Australia." Institute of Family Studies, Melbourne.
- Burke, T., Neske, C. & Ralston, L. (2004). "Entering Rental Housing." Final Report. AHURI Swinburne-Monash Research Centre.
- Burkhardt, G. (1989). "The productivity issue in educational organisations: some educational implications of efficiency campaigns." In *Research and future development of education in Australia*. Unpublished papers presented at the annual conference of the Australian Association for Research in Education held at the University of Adelaide, 28 Nov-2 Dec 1989.
- Burns, A., Homel, R., *et al.* (1984). "Conditions of Life and Parental Values." *Australian Journal of Psychology*. 36(2): pp.219-237.
- Byrne, D., *et al.* (1986). *Housing and Health: The Relationship Between Housing Conditions and the Health of Council Tenants*. Gower, Aldershot.
- Carr-Hill, R., *et al.* (1993). "Poor Housing: Poor Health?" Unpublished report funded by the Department of the Environment, ACT.
- Cass, B. (1991). "The housing needs of women and children." Discussion Paper prepared for the National Housing Strategy. Canberra, AGPS.
- Chamberlain, K. and Zika, S. (1990). "The minor events approach to stress: Support for the use of daily hassles." *British Journal of Psychology*. 81: pp.469-481.
- Chazan, M. (1973). "Disadvantage and Nursery Schooling." *Special Education*. 62(3): pp19-23.
- Christie, M. (1985). *Aboriginal perspectives on experience and learning: the role of language in Aboriginal education*. Deakin University Press, Geelong, Vic.

- Clark, A. (1996). "Policy and Provision for the Schooling of Children Living in Temporary Accommodation: Exploring the Difficulties." *Children and Society*. 10: pp.293-304.
- Cleveland, H. H., Jacobson, C.K., *et al.* (2000). "Genetic and Shared Environmental Contributions to the Relationship between the Home Environment and Child and Adolescent Achievement." *Intelligence*. 28(1): pp.69-86.
- Clough, H. (1991). "Somewhere That's Home." COMPASS Accommodation Support Service, Melbourne.
- Cohen, S., Glass, D.C., *et al.* (1973). "Apartment Noise, Auditory Discrimination, and Reading Ability in Children." *Journal of Experimental Social Psychology*. 9(5): pp.407-422.
- Coll, C. G., Buckner, J. C., *et al.* (1998). "The Developmental Status and Adaptive Behavior of Homeless and Low-Income Housing Infants and Toddlers." *American Journal of Public Health*. 88(9): pp.1371-1374.
- Coopers and Lybrand. W.D Scott. (1985). "Study into Homelessness and Inadequate Housing." Vol. 1, AGPS, Canberra.
- Cowie, C. *et al.* (1998). "Blood Lead Levels in Preschool Children in Eastern Sydney." *Australian and New Zealand Journal of Public Health*. 21(7): pp.755-761.
- Crane, H. (1990). "Speaking from Experience. Working with Homeless Families." Shelter/LFMC/ MA/ SHAC, London.
- Crane, J. (1996). "Effects of Home Environment, SES, and Maternal Test Scores on Mathematics Achievement." *The Journal of Educational Research*. 89(5): pp.305-314.
- Dales, R., *et al.* (1991a). "Respiratory health effects of home dampness and molds among Canadian children." *American Journal of Epidemiology*, 134: pp.196-203.
- Dales, R., *et al.* (1991b). "Adverse health effects among adults exposed to home dampness and molds." *American Journal of Epidemiology*. 134: pp.505-510.
- Danermark, B. and Ekstrom, M. (1988). "Relocation and Health Effects on the Elderly." *Journal of Sociology and Social Welfare*.
- Daniels, C. (1991). *Aboriginal pedagogy: Aboriginal teachers speak out*. Deakin University Press, Geelong, Vic.
- Davie, R., Butler, N., *et al.* (1972). "National Child Development Study (1958 Cohort)." Longman, in association with The National Children's Bureau, London.
- De Vauss, D.A. (2002). *Surveys in Social Research*. Allen & Unwin, Sydney. 5th Edition.

- Dixon, D. (1992). "Effects of Homelessness on the Community." Draft paper prepared for the Ministerial Advisory Committee on Homelessness and Housing.
- Duncan, G. J. and Ludwig, J. (2000). "Can Housing Vouchers Help Poor Children?" Washington DC, The Brookings Institute.
- Duncan, G. J. and Raudenbush, S. W. (1999). "Assessing the Effects of Context in Studies of Child and Youth Development." *Educational Psychologist*. 34(1): pp.29-41.
- Dunn, J. and Hayes, M. (2000). "Social inequality, population health and housing: a study of two Vancouver neighbourhoods." *Social Science and Medicine*. 51: pp563-587.
- Dykema, J., Bergbower, K. and Peterson, C. (1995). "Pessimistic explanatory style, stress and illness." *Journal of Social and Clinical Psychology*. 14(4): pp.357-371. *Education Digest*. (1996). 62(3).
- Epic P/L, R. Kennedy and Company and V Tippett and Associates. (2000). "The Bayside Public Housing Client Survey." Report to the Queensland Department of Housing.
- Evans, G., Chan, H., Wells, N. and Saltzman, H. (2000). "Housing Quality and Mental Health." *Journal of Consulting and Clinical Psychology*. 68(3): pp 526-530.
- Everett, A. and Telfer, R. (1983). "Living and Learning - Rapid Community Growth and its Consequences in Newcastle, NSW." Australian Family Research Conference, ANU. Institute of Family Studies, Canberra.
- Faulkner-Hill, D. (1996-97). "The Link Between Health, Education and Shelter." *Welfare in Australia*. 25: pp.12-17.
- Fischer, W. (2000). "Labour Supply Effects of Federal Rental Subsidies." *Journal of Housing Economics*. 9(3): pp.150-74.
- Flood, J., Newton, P.W. and Wulff, M. (1992). "Spatial Equality, Internal Migration and Social Justice." AGPS, Canberra.
- Folds, R. (1987). *Whitefella school: education and Aboriginal resistance*. Allen & Unwin, Sydney.
- Freeman, H. (1984). *Mental Health and the Environment*. Churchill Livingstone, London.
- Gabe, J., and Williams, P. (1987). "Women, housing and mental health." In R. Burrige and D. Ormandy (eds.) *Unhealthy Housing. Research, Remedies and Reform*. E. and F.N. Spon, London.
- Galster, G. and Zobel, A. (1998). "Will Dispersed Housing Programmes Reduce Social Problems in the US?" *Housing Studies* 13(5): pp.605-622.

- Garner, C. L. and Raudenbush, S. W. (1991). "Neighborhood Effects on Educational Attainment: A Multilevel Analysis." *Sociology of Education*. 64: pp.251-262.
- Geddes, E. (1993). "The Impact of Socio-economic and Locational Disadvantage of Health Outcomes and Cost." The Centre for South Australian Economic Studies.
- General Accounting Office. (1994). "Elementary School Children – Many Change School Frequently, Harming Their Education." Report to the Honorable Marcy Kaptur, House of Representatives. United States General Accounting Office, Washington.
- General Accounting Office. (1998). "Welfare reform changes will further shape the roles of housing agencies and HUD." pp.34-35.
- Gesler, W. (1980). "Spatial Variations in Morbidity and Their Relationship with Community Characteristics in Central Harlem Health District." *Social Science and Medicine*. pp.387-396.
- Giroult, E. (1986). "Health Aspects of Housing and Town Planning." Report. World Health Organisation.
- Goering, J. and Kraft, J. (1999). "Moving to Opportunity for Fair Housing Demonstration Program: Current Status and Initial Findings." September 1999. USA, HUD.
- Goetz, E. (2002). "Forced Relocation vs Voluntary Mobility: The Effects of Dispersal Programmes on Households." *Housing Studies*. 17(1): pp107-123.
- Gold, R. (1970). "Urban Violence and Contemporary Defensive Cities." AIP Journal. May 1970.
- Gonzales, N. A., Cauce, A. M., *et al.* (1996). "Family, Peer and Neighborhood Influences on Academic Achievement among African-American Adolescents: One-Year Prospective Effects." *American Journal of Community Psychology*. 24(3): pp.365-387.
- Gottfried, A. E., Fleming, J. S., *et al.* (1998). "Role of Cognitively Stimulating Home Environment in Children's Academic Intrinsic Motivation: A Longitudinal Study." *Child Development*. 69(5): pp.1448-1460.
- Gottfried, A. W. and A. E. Gottfried (1984). Home Environment and Cognitive Development in Young Children of Middle-Socioeconomic-Status Families. In A. W. Gottfried (ed). *Home Environment and Early Cognitive Development: Longitudinal Research*. Academic Press Inc., New York, pp.57-115.
- Gottfried, A. W. (ed.) (1984). *Home Environment and Early Cognitive Development: Longitudinal Research*. Developmental Psychology Series Academic Press Inc., New York.
- Green, R. and White, M. (1994). "Measuring the Benefits of Homeowning: Effects on Children." Working Paper No. 93, University of Chicago.

- Harding, A. and Szukalska, A. (2000). "Social Policy Matters: The Changing Face of Child Poverty in Australia, 1982 to 1997/98." 7th Australian Institute of Family Studies Conference, Sydney, NATSEM.
- Harris, S. (1990). *Two-way Aboriginal schooling: education and cultural survival*. Aboriginal Studies Press, Canberra.
- Harvey, D. (1973). *Social justice and the city*. Edward Arnold, London.
- Havenman R, Wolfe, B. and Spaulding, J. (1991). "Childhood Events and Circumstances Influencing High School Completion." *Demography*. 28(1): pp133-168.
- Haynes, R. (1991). "Inequalities in Health and Health Service Use: Evidence from the General Household Survey." *Social Science and Medicine*. p. 361.
- Herman, H. (1991). "Homelessness and Severe Mental Disorders: Where to From Here?" Paper Presented to Working with the Homeless Mentally Ill Seminar. October 1991, Brisbane.
- Hertzman, C. and Wiens, M. (1996). "Child Development and Long-Term Outcomes: A Population Health Perspective and Summary of Successful Interventions." *Social Science and Medicine* 43(7): 1083-1095.
- Hill, K., Smith, R., Murray, K., Sims, J., Gough, J., Darzins, P., *et al.* (2000). "An analysis of research on preventing falls and falls injury in older people: community, residential aged care and acute care settings." National Ageing Research Institute, Commonwealth Dept of Health and Aged Care Injury Prevention Section, ACT.
- Hirst, C. (1989). "Forced Exit." Salvation Army, Melbourne.
- HMI. (1990). "A Survey of the Education of Children Living in Temporary Accommodation." Her Majesty's Inspectorate, Department of Education and Science, London
- Hopton, J. and Hunt, S. (1996). "The Health Effects of Improvements to Housing: A Longitudinal Study." *Housing Studies* 11(2): pp.271-286.
- Hosen, H. (1978). "Mould in Allergy." *Journal of Asthma Research*. 15: pp.151-156.
- House of Representatives Standing Committee on Aboriginal Affairs. (1979). "Aboriginal Health." AGPS, Canberra.
- Hout, M. and Lucas, S. (1996). "Narrowing the Income Gap Between Rich and Poor." *Chronicle of Higher Education*, 11 August, p.B1.
- Howard, M. (1993). "The effects on human health of pest infestations in houses." In R.Burridge and D. Ormandy (eds.), *Unhealthy Housing: Research, Remedies and Reform*. London: E. and F.N. Spon. pp. 3-22.

- Hulse, K. and Randolph, B. (2004). "Work Disincentives and Housing Assistance." Final Report. UNSW-UWS Research Centre, AHURI.
- Hunt, S. (1990). "Emotional distress and bad housing design." *Health and Hygiene*. 11: pp.72-79.
- Hunt, S. and McKenna, S. (1992). "The impact of housing quality on mental and physical health." *Housing Review*. 41(3): pp. 47-49.
- Ineichen, B. (1993). *Homes and Health: How Housing and Health Interact*. E. and F.N. Spon, London.
- Isaacs and Dunn. (1993). "Health and Housing – Seasonality in New Zealand Mortality." *Australian Journal of Public Health*. March 1993.
- Izzo, C. V., Weissberg, R. P., et al. (1999). "A Longitudinal Assessment of Teacher Perceptions of Parent Involvement in Children's Education and School Performance." *American Journal of Community Psychology*. 27(6): pp.817-839.
- Johnson, J. (1987). *Life Events as Stressors in Childhood and Adolescence*. Newbury Park, Sage.
- Jones, R. (1993). "The Housing Need of Indigenous Australians." Report to ATSIC. ANU, Canberra.
- Kamien, M. (1976). "Housing and Health in an Aboriginal Community in Bourke, New South Wales." *Australian Journal of Social Issues*. 11(3): pp187-200.
- Kanner, A.D., Coyne, J.C., Schaeffer, C. and Lazarus, R.S. (1981). "Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events." *Journal of Behavioural Medicine*. 4: pp1-39.
- Kaufman, J. E. and Rosenbaum, J.E. (1992). "The Education and Employment of Low-Income Black Youth in White Suburbs." *Educational Evaluation and Policy Analysis*. 14(3): pp.229-240.
- Kearns, R., Smith, C. and Abbott, M. (1990). "The Stress of Incipient Homelessness." *Housing Studies*. 7(4): pp.280-297.
- Kearns, A., et al. (1990). "Another Day in Paradise? Life on the Margins in Urban New Zealand." *Social Science and Medicine*. p369.
- Keeves, J. P. (1972). "Educational Environment and School Achievement: A Multivariate Study of the Contributions of the Home, the School and the Peer Group to Change in Mathematics and Science Performance during the First Year at Secondary School." Melbourne, Australian Council for Educational Research.
- Kellet, J. (1989). "Health and Housing." *Journal of Psychosomatic Research*. 33: pp.255-268.
- Kennedy, R. (1996). "The Demand for Disability Support Services." Ageing and Disability Department, ACT.

- Kenway, J., *et al.* (1997). *Answering back: girls, boys and feminism in schools*. Allen & Unwin, Sydney.
- King, A. (2001). "Housing Assistance: a Lifetime perspective, National Centre for Social and Economic Modelling." Report to AHURI.
- King, A. (2001). "The Use of a Control Group in a study of non-shelter outcomes." Report to the Australian Housing Research Council, Canberra.
- Kutty, R., *et al.* (1993). "How Socio-economic Status Affects Birth and Death Rates in Rural Kerala, India: Results of a Health Study." *International Journal of Health Services*. 23(2): pp. 373-386.
- Ladd, H. F. and Ludwig, J. (1997). "Federal Housing Assistance, Residential Relocation, and Educational Opportunities: Evidence from Baltimore." *State and Local Public Policy*. 87(2): pp.272-277.
- Lay, E. (1995). "Investigation of Factors Affecting the Education of Young Children with Particular Emphasis on Socio-economic Disadvantage." University of Newcastle.
- Lepore, S. J., Evans, G. W., *et al.* (1991). "Social Hassles and Psychological Health in the Context of Chronic Crowding." *Journal of Health and Social Behaviour*. 32: pp.357-367.
- Levy, D. and Duncan, G. J. (2000). "Using Sibling Samples to Assess the Effect of Childhood Family Income on Completed Schooling." Chicago, Joint Center for Poverty Research, Northwestern University/University of Chicago.
- Lewis, A. (1994). "Education is the only way out of poverty." *Phi Delta Kappan*. 76(3): p180.
- Light, A., *et al.* (1995). "The effects of interrupted schooling on wages." *Journal of Human Resources*. 30(3): p472.
- Lin, Yangjing. (1996). "Occupational outcomes for students earning two-year college degrees: income, status, and equity." *Journal of Higher Education*. 67(4): p446.
- Locke, M. and Constable, M. (1974). *The Kids Don't Notice*. Shelter, London.
- Maher, C. and Whitelaw, J. (1995). "Internal migration in Australia 1986-1991: residential mobility and urban development." Australian Govt. Pub. Service, Canberra.
- Malin, M. (1990). "Visibility and Invisibility of Aboriginal Students in an Urban Classroom." *Australian Journal of Education*. 34(3): pp 312-329.
- Martin, C., *et al.* (1987). "Housing conditions and ill health." *British Medical Journal*. 294:pp. 1125-1127.
- Mason, J. (1996). *Qualitative Research*. Sage Publications, London.

- Matka, E. (1997). "Public Housing and Crime in Sydney." NSW Bureau of Crime Statistics and Research.
- Mawby, R. (1977). "Defensible Space: A Theoretical and Empirical Appraisal." *Urban Studies*, 14: pp.169-179.
- Mayer, S. E. and Jencks, C. (1989). "Growing Up in Poor Neighborhoods: How Much Does it Matter?" *Science* 243(4897): pp.1441-1445.
- McCaugghey, J. (1992). "Where Now. A Study of Homeless Families in the 1990's." Australian Institute of Family Studies Policy, Background Paper No. 8, Melbourne: Australian Institute of Family Studies.
- McDonald, P. and Merlo, R. (2002). "Housing and its association with other life outcomes." Final Report. AHURI Ltd.
- Miles, M.B. and Huberman, A.M. (1994). *Qualitative Data Analysis*. Sage, CA.
- Molnar, J. M., W. R. Rath, *et al.* (1990). "Constantly Compromised: The Impact of Homelessness on Children." *Journal of Social Issues*. 46(4): pp.109-124.
- Mood, E.W. (1993). "Fundamentals of healthful housing: their application in the 21st Century." In R. Burrige and D. Ormandy (eds.), *Unhealthy Housing: Research, Remedies and Reform*. E. and F.N. Spon, London, pp.303-337.
- Moos, R. and Moos, B. (1994). *Life Stressors and Social Resources Inventory (Adult Form Manual)*. Psychological Assessment Resources. Odessa, Florida.
- Morris, P. A., Huston, A. C., *et al.* (2001). *How Welfare and Work Policies Affect Children: A Synthesis of Research*. Manpower Demonstration Research Corporation, New York.
- Morrison, J. (2000). "More Than Just a Home...The Experience of Some Public Housing Tenants." Queensland Department of Housing, Brisbane.
- Mullins, P., Western, J. and Broadbent, B. (2001). "The links between housing and nine key socio cultural factors: a review of the evidence." Positioning Paper. AHURI Ltd, Melbourne.
- Murray, L., *et al.* "Homelessness, Schooling and Attainment: A Preliminary Assessment of 'Disruption Indicators' on Children's Performance in the Early Years of Schooling."
- Nash, I. (1996). "Youth exodus costs 350m pounds." *Times Educational Supplement*. n4157, March 1, pA25(1).
- National Housing Strategy. (1991a). "Aboriginal and Torres Strait Islander Housing Discussion Package." AGPS, Canberra.
- National Housing Strategy. (1991b). "Framework for reform." AGPS, Canberra.
- National Housing Strategy. (1991c). "Issues Paper No 2: The affordability of Australian Housing." AGPS, Canberra.

- National Health Strategy. (1992). "Enough to Make You Sick: How Income and Environment Affect Health." Research Paper No. 1. APGS, Canberra.
- National Housing Strategy. (1992). "National Housing Strategy: agenda for action." AGPS, Canberra.
- National Shelter Submission. (1997). "Senate Community Affairs References Committee Inquiry into Housing Assistance." May 1997.
- Neil, C. and Fopp, R. (1992). "Homeless in Australia: Causes and Consequences." CSIRO Australia.
- Neil, C., and Fopp, R. (1994). "Homelessness in Australia: Causes and Consequences." CSIRO Division of Building, Construction and Engineering, Victorian Ministerial Advisory Committee on Homelessness and Housing.
- Nelson, P. S., Simoni, J. M., *et al.* (1996). "Mobility and School Functioning in the Early Grades." *The Journal of Educational Research*. 89(6): pp.365-369.
- Newman, O. (1972). *Defensible Space: Crime Prevention through Urban Design*. MacMillan, New York.
- North, C. (1996). "Go Home and Rest? The Use of an Accident and Emergency Department by Homeless People." Shelter UK.
- Parke, R. D. (1978). "Children's Home Environments: Social and Cognitive Effects. Children and the Environment." In I. Altman and J. F. Wohlwill (eds.) *Home Environments*. Plenum Press, New York, pp. 33-81.
- Patrikakou, E. (1997). "A Model of Parental Attitudes and the Academic Achievement of Adolescents." *Journal of Research & Development in Education*. 31(1): pp. 7-26.
- Phibbs, P. (2000). "The Social and Economic Impacts of Unmet Needs." Technical Paper Number 2. Research and Policy Unit, Queensland, Department of Housing.
- Phibbs, P. and Young, P. (2002). "Housing assistance and non-shelter outcomes." Positioning Paper. AHURI Sydney Research Centre.
- Philip, G. (1988). "Social Class, Social Disadvantage and Child Health." *Children and Society*. 2(1).
- Phillips, G. (1998). "The Housing Needs of Special Groups: A Case study of people with HIV/AIDS." Unpublished PhD thesis, University of Sydney.
- Pholeros, P. (1993). *Housing for Health: Towards a Healthy Living Environment for Aboriginal Australia*. Bridge Printery.
- Pinkney, S., and Ewing, S. (1997). "The economic costs and benefits of school-based early intervention: responding to youth homelessness." Centre for Youth Affairs Research and Development.

- Platt, *et al.* (1989). "Damp housing, mould growth and symptomatic health state." *British Medical Journal*. 298: pp.1673-1678.
- Power, S., Whitty, G. and Youdell, D. (1995). "No place to learn: Homelessness and education." Shelter UK, London.
- Ranson, R. (1993). "Accidents at home: the modern epidemic." In R. Burrige and D.Ormandy (eds.). *Unhealthy Housing: Research, Remedies and Reform*. E. and F.N. Spon, London. pp. 233-254.
- Reding, K. and Wijnberg, M. (2001). "Chronic Stress: A Conceptual Perspective." *Families in Society*. 82(4): pp345-354.
- Reingold, D.A., Van Ryzin, G. and Ronda, M. "Does Urban Public Housing Diminish the Social Capital and Labour Force Activity of its Tenants?" *Journal of Policy Analysis and Management*. (20)3.
- Ridgway, P., Simpson, A., Wittman F. & Wheeler, G. (1994). "Home making and community building: notes on empowerment and place." *Journal of Mental Health Administration*. 21(4): pp. 407-418.
- Roberts, E. (1995). *Neighborhood Social Environments and the Distribution of Low Birthweights*. Chicago, University of Illinois.
- Ropers, R.H. (1981). *The Invisible Homeless*. Insight Books, New York.
- Rosenbaum, J. E. (1991). "Black Pioneers - Do Their Moves to the Suburbs Increase Economic Opportunity for Mothers and Children?" *Housing Policy Debate*. 2(4): pp.1179-1213.
- Rosenbaum, E. and Harris, L. (2001). "Residential Mobility and Opportunities: Early Impacts of Moving to Opportunity Demonstration Program." *Chicago Housing Policy Debate*. 12(2): pp.321-346.
- Rosenbaum, J., Reynolds, L. and Deluca, S. (2002). "How do Places Matter? The Geography of Opportunity, Self-efficacy and a Look Inside the Black Box of Residential Mobility." *Housing Studies*. 17(1): pp71-82.
- Rubin, D. H., C. J. Erickson, *et al.* (1996). "Cognitive and Academic Functioning of Homeless Children Compared with Housed Children." *Pediatrics*. 97(3): pp.289-294.
- Sampson, R.J., Raudenbush, S.W. and Earls, F. (1997). "Neighbourhoods and violent crime: A multilevel study of collective efficacy." *Science*. 277: pp918-924.
- Saunders, P. (1996). *Poverty, Income Distribution and Health: An Australian Study*. University of New South Wales.
- Sawhill, I. V. (1999). "Investing in Children: Children's Roundtable Report #1 - April 1999." Washington DC, Brookings Institute.
- Schmitz, S. (1992). "Three Strikes and You're Out: Academic Failure and the Children of Public Housing." *Journal of Education*. 174(3): pp.41 - 54.

- Sharfstein, J. and Sandel, M. (1998). "Inadequate Housing." *Journal of Housing and Community Development*. 55(4): pp14-24.
- Sluzki, C. E. (1992). "Disruption and Reconstruction of Networks Following Migration/Relocation." *Family Systems Medicine*. 10(4): pp.359-363.
- Smith, C. A., *et al.* (1993). "Housing Stressors, Social Support and Psychological Distress." *Social Science and Medicine*. 37(5): pp.603-612.
- Smith, S., and Mallinson, S. (1997). "Housing for Health in a Post-Welfare State." *Housing Studies*. 12(2): pp173-200.
- Spinalo, T. (1976). *The Social and Cost Implications of Design: Housing*. University of New South Wales, 1976.
- Strachan, D. (1993). "Dampness, mould growth and respiratory morbidity in children and the home environment." *Family Practice*. 3: pp.137-142.
- Strauss, A. and Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. SAGE Publications, Newbury Park.
- Stubbs, J. (1996). "Social Cost Benefit Analysis of NSW Department of Housing's Neighbourhood Improvement Program – Case Study: Airlds." For NSW Department of Housing, March, 1996.
- Susser, E. (1988). "Unravelling the Causes of Homelessness and of its Association with Mental Illness." In Cooper, B. and Heigason, T. (eds). *Prevention of Mental Disorders*. Routledge, London.
- Tewksbury, R. (1996). "Environmental and interactional barriers to job satisfaction for postsecondary correctional educators." *Prison Journal*. 76(3): p275.
- Thompson, H., Petticrew, M., and Morrison, D. (2001). "Health effects of housing improvement: systematic review of intervention studies." *British Medical Journal*. 323: pp.187-190
- Thornicroft, G. (1991). "Social deprivation and rates of treated mental disorder: Developing statistical models to predict psychiatric service utilization." *British Journal of Psychiatry*. 158: pp. 475-84.
- Thorns, D. (1987). "The Production of Homelessness: From Individual Failure to System Inadequacies." *Housing Studies*. 4(4): pp253-266.
- Tobin, R., *et al.* (1987). "Significance of fungi in indoor air: Report to a Working Party." *Canadian Journal of Public Health*. 78, Suppl., pp. 1-14.
- Torzillo, P. and Kerr, C. "Contemporary issues in Aboriginal public health." In Reid J. and Trompf, P. (eds). *The health of Aboriginal Australia*. Harcourt Brace Jovanovich, Sydney, pp.326-380.
- Townsend, P. and Davidson, N. (1982) *Inequalities in Health: The Black Report*. Penguin.

- Varady, D. P. and Walker, C. C. (1999). "Vouchering Out Distressed Subsidized Developments: Does Moving Lead to Enhanced Feelings of Safety?" *Environment and Behaviour* 31(1): pp.3-27.
- Waters, A-M. (2001). "Do Housing Conditions Impact on Health Inequalities Between Australia's Rich and Poor?" Final Report. AHURI ANU Research Centre, October 2001.
- Watson, S. with Austerberry, H. (1986). *Housing and Homelessness*. Routledge and Kegan Paul, London.
- Whitman, B., *et al.* (1990). "Homelessness and Cognitive Performance in Children: A Possible Link." *Social-Work*. 35(6): pp516-19.
- Wiggers, J., Radvan, D., Clover, K., Hazell, T., Alexander, J. and Considine, R. (2001). "Public housing, public health: health needs of public housing tenants." *Australian and New Zealand Journal of Public Health*. 259(2): pp.111-114.
- Wilner, D. M., Walkley, R.P., *et al.* (1962). "The Housing Environment and Family Life: A Longitudinal Study of the Effects of Housing on Morbidity and Mental Health." The Johns Hopkins Press, Baltimore.
- Wright, J. D. (1990). "Poor People, Poor Health: The Health Status of the Homeless." *Journal of Social Issues*. 46(4): pp.49-64.
- Wulff, M. and Maher, C. (1998). "Long term renters in the Australian Housing Market." *Housing Studies* 13(1): pp 83-98.
- Young Women's Housing Collective. (1991). "Do You Feel Safe Here?" Pamphlet. Melbourne: Young Women's Housing Collective.
- Young, P. (2001). "Housing for Children: A Case for Non-Shelter Policy Drivers in Housing Assistance." Paper presented to Housing Imaginations: the Housing Studies Association Autumn 2001 Conference. Cardiff, United Kingdom.
- Young, P. (2002). *Non-Shelter Outcomes of Housing: A Case Study of the Relationships Between Housing and Children's Schooling*. M.Phil. Thesis, University of Sydney.
- Zima, B. T., K. B. Wells, *et al.* (1996). "Mental Health Problems among Homeless Mothers: Relationship to Service Use and Child Mental Health Problems." *General Psychiatry* 53(4): pp.332-338.

AHURI Research Centres

Queensland Research Centre
RMIT-NATSEM Research Centre
Southern Research Centre
Swinburne-Monash Research Centre
Sydney Research Centre
UNSW-UWS Research Centre
Western Australia Research Centre

Affiliates

Charles Darwin University
National Community Housing Forum



Australian Housing and Urban Research Institute
Level 1 114 Flinders Street, Melbourne Victoria 3000
Phone +61 3 9660 2300 Fax +61 3 9663 5488
Email information@ahuri.edu.au Web www.ahuri.edu.au