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Housing and social inclusion: a household and local area analysis

authored by

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DATA NOTE

This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the authors and should not be attributed to either FaHCSIA or the Melbourne Institute.

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ACRONYMS

AHURI	Australian Housing and Urban Research Institute
ABS	Australian Bureau of Statistics
B-SEM	Bristol Social Exclusion Matrix
CASE	Centre for the Analysis of Social Exclusion
CD	Census Collection District
CUPSE	Community Understanding of Poverty and Social Exclusion
EU	European Union
GSS	General Social Survey
HILDA	Household, Income and Labour Dynamics in Australia
IRSD	Index of Relative Socio-economic Disadvantage
RA	Remoteness Area
SCQ	Self-Completion Questionnaire (HILDA survey)
SEIFA	Socio-Economic Index for Areas

EXECUTIVE SUMMARY

'Social inclusion' is a concept developed in reference to the related concept of '*social exclusion*', first developed in France to describe the situation of sub-groups within the population who did not have access to adequate social security (Peace 2001; Hayes et al. 2008). The concepts have gained wide acceptance internationally and more recently in the Australian context as a means of understanding and responding to poverty (for discussion, see Hayes et al. 2008; Hulse & Stone 2006). Within social exclusion and social inclusion frameworks, key realms of disadvantage are broader than income poverty and typically include dimensions such as access to services, health, material resources, economic participation and educational opportunity, as well as social and political participations (see e.g. Levitas et al. 2007).

This is the Final Report from an AHURI-funded research project that uses the social inclusion concept as a means of empirically investigating the relationships between housing and multiple forms of social and economic disadvantage experienced by Australian households. The project's overall aim is to investigate the nature of housing experience among socially included and excluded households, including in different types of local areas, and to contribute a housing perspective to social inclusion and exclusion research and policy nationally and internationally. The overarching research question is:

- How does housing relate to experiences of social inclusion/exclusion at the individual and household level and how does this relationship vary in more and less socially inclusive areas?

To address this we ask the following sub-questions:

- What is the relationship between social inclusion/exclusion and housing wellbeing, at the household level?
- Does this relationship vary systematically for different types of households?
- In what ways does this relationship vary for different geographic areas?
- How do residents' experiences of social inclusion/exclusion and housing wellbeing relate to local housing markets, labour markets and other local area characteristics?

Drawing upon the Positioning Paper (Stone & Reynolds 2012) in which we established the conceptual and methodological groundwork for the project, this Final Report presents findings of the empirical component of the research. The major focus is the empirical investigation of how various aspects of housing wellbeing relate to social inclusion and exclusion at both household and local area levels of analysis.

In this paper we build upon the extensive work on social indicators which has been undertaken across Europe, the UK and within various Australian agencies and universities under the umbrella frameworks of social inclusion and social exclusion, to empirically examine the ways in which numerous aspects of housing—an underdeveloped aspect of the social inclusion and exclusion research frameworks—relate to various forms of multiple disadvantage in other life domains. We do so using the Household, Income and Labour Dynamics in Australia (HILDA) survey Wave 9, which provides detailed accounts of the multiple domains of social inclusion and exclusion as well as rich housing data.

Key findings can be summarised into three umbrella themes: the extent and depth of social inclusion/exclusion across the Australian housing system, variation in housing

experience among different types of socially excluded households, and variation in the housing-social inclusion/exclusion nexus in different types of local areas.

The extent and depth of social inclusion/exclusion across the housing system

- *Most significantly, we find social exclusion is not confined to public housing and low-income private rental. Using a classification of non-excluded, marginally and deeply excluded households based on analysis of seven key domains of social exclusion, we find both 'marginal' and 'deep' forms of social exclusion distributed across* ***all housing tenures****.*
- Households who live in market-based tenures of home purchase, outright ownership and private rental are not immune from social exclusion.
- High proportions of households resident in public housing are socially excluded households (80%), followed by outright owners (41%); private rental (39%), and purchaser owner households (16%).
- Approximately equal proportions of outright owners and private renters can be considered to be socially excluded, yet there are different drivers of social exclusion in each case. Key drivers across tenures include low income, low formal education and poor health.

Variation in housing experiences among socially excluded households

- *A second key finding is that housing tenure is associated with somewhat different types of housing wellbeing outcomes for socially excluded households, measured in terms of affordability, adequacy, resident satisfaction, mobility and dwelling type/size.*

    1. Issues of housing affordability and ongoing housing stress are strongly and significantly related to the experience of social exclusion for purchaser owners and private renters.
    2. Issues of satisfaction with housing and home tend to divide owners from renters, with outright owners and purchase owners tending to be more satisfied. For private and public renters, issues of dissatisfaction with housing are related to social exclusion experiences, suggesting significant housing trade-offs may be being made by these households.
    3. The relationship between mobility, housing tenure and social exclusion is complex and warrants further future investigation. For some households experiencing social exclusion, some levels of mobility are positive. This is particularly so for private renters and purchaser owners.

Variation in the housing-social inclusion/exclusion nexus in different types of local areas

- A third key finding is that socially excluded households ('marginally' and 'deeply' excluded households combined) are widely distributed across local areas, including those characterised by high and lower levels of relative disadvantage.

    1. Around 50 per cent of socially excluded households in the HILDA survey data reside within the bottom third of disadvantaged areas using the ABS Index of Disadvantage, with a further half living in more affluent, less disadvantaged areas.
    2. Metropolitan areas appear to offer socially excluded households greater capacity to live outside areas characterised by highest levels of disadvantage, although in part this reflects historical house prices.

3. In regional areas, socially excluded households tend to be more concentrated in areas of high relative disadvantage, but this is more pronounced in some tenures than others, particularly for public renters.
4. Regional areas provide opportunity for socially excluded households to escape from issues of housing affordability, with relatively lower levels of housing stress found outside of major metropolitan areas.
5. As is the case for all research relating to poverty and disadvantage, it is important to note that the approach used here is based on statistical analyses of complex, multi-dimensional concepts and relationships. As is the case for all poverty and disadvantage research, findings of the research must be read with a good understanding of the measurement approach being used.

Policy implications arising from the research are relevant to the housing policy arena specifically as well as to welfare policy more broadly.

Exploring social inclusion and exclusion via a multi-dimensional approach points to the need for housing policy to be integrated with other key welfare policies and programs. Further:

- → Socially excluded households are not confined to those with precarious housing (such as homelessness) nor to rental tenures. Significant numbers of households experiencing multiple forms of disadvantage are found in all tenures across the Australian housing system, although with different support needs.
- → Various forms of poor housing outcomes (affordability, adequacy, satisfaction, mobility and size/type) are experienced across tenures, indicating the need for housing-related support for households living within residual tenures (social housing and low-income private rental), as well as for home purchasers and outright owners, although the type of support required will vary.
- → Joined-up policy based on concepts such as social inclusion and exclusion needs to take account of housing experience both as a potential form of disadvantage and as a means of ameliorating other forms of disadvantage.
- → Policy measures need to target socially excluded households living outside of rental tenures (public housing and low-income private rental) in addition to those renting publicly or in receipt of private rental assistance, although the type of assistance required will vary.
- → In addition to focusing on local areas characterised by entrenched, concentrated disadvantage, joined-up policy responses to disadvantage also need to address issues of geographically dispersed social exclusion.
- → Taken together, the findings indicate an ongoing need for both household-based and place-based initiatives to support socially excluded households and to enhance the living environments in which many live.

The measurement and monitoring of social inclusion/exclusion

- → Housing is an underdeveloped aspect of social inclusion and exclusion measurement nationally and internationally. This is particularly so for research investigating relationships between domains of social inclusion and/or exclusion.
- → Findings support the significance of housing indicators within a social inclusion/exclusion framework and imply that housing experience needs to feature as a regular part of social inclusion and exclusion measurement and monitoring.
- → Housing tenure, affordability and mobility are key indicators of housing that can be included within a comprehensive suite of social inclusion/exclusion measures.

- → Additional housing measures that can be included in social inclusion/exclusion measurement frameworks are housing quality, housing satisfaction and housing adequacy (these may be particularly important for households experiencing deep social exclusion).
- → Indicators relating to the characteristics of housing markets within local areas remain a significantly underdeveloped aspect of social inclusion/exclusion measurement that warrants future investigation and development.

In summary, use of the multi-dimensional framework of social inclusion in this research has highlighted significant numbers of households across the housing system and across local area types experiencing multiple forms of disadvantage.

Findings lend support to continued policy responses based on combined people- and place-based initiatives. Finally, while housing and living environment are underdeveloped aspects of social inclusion and social exclusion monitoring and measurement frameworks, our analysis underscores the need for housing to feature centrally within such frameworks if greater understandings about the interactions of housing and social inclusion and exclusion are to be achieved.

1 INTRODUCTION

Typically the relationships between housing and various forms of disadvantage are examined in isolation, rather than from a multi-dimensional perspective. Such research indicates that there are links, for example, between housing and employment, housing and health, housing and child wellbeing and so on. Rarely, however, are the linkages between housing conditions and various forms of disadvantage investigated in detail within a multi-dimensional framework in which multiple forms of disadvantage across key life domains can be examined simultaneously.

Existing research indicates that particular forms of housing-based disadvantage interact with various types of economic, health and social factors to either create or compound disadvantage for many Australian households (Bridge et al. 2003). These links include relationships between poor housing security and poor employment outcomes, low levels of affordability and proximity to work, poor housing quality and poor health outcomes, as well as inadequate or unsuitably sized housing and poor educational outcomes and life chances for children (Phibbs & Young 2005).

Given what is known about the relationships between housing-based disadvantage and other forms of disadvantage, coupled with documented increases in housing-related problems such as affordability, access, security and mobility across tenures, there is now an urgent need to better understand the nature and extent of housing disadvantage in relation to other forms of disadvantage, within a single, multi-dimensional framework. Such an understanding is likely to improve housing policy response to household needs, better integrate disadvantage associated with housing into whole-of-government joined-up approaches to policy and service delivery, and inform policy-makers about the balance between household-based support and supports targeting local areas perceived to be characterised by entrenched and concentrated disadvantage.

The related concepts of social exclusion and social inclusion, discussed below, present an opportunity to achieve this type of understanding. Using these concepts, it becomes possible to examine the relationships between housing-related disadvantage and other, multiple forms of disadvantage, within a single conceptual and empirical framework.

The concept of social inclusion is often defined in relation to social exclusion, generally as the positive end of an advantage/disadvantage continuum in which a society, for example, with low levels of social exclusion can be considered a socially inclusive one. In this way, various authors see social inclusion as contributing to socially cohesive societies (Australian Social Inclusion Board 2010; Hulse & Stone 2006; Hulse et al. 2010). Alternatively, it can be understood as a more independent suite of factors which together can act to minimise or buffer the development or effects of social exclusion by providing protective effects (for discussion see Hayes et al. 2008).

Combined, the social inclusion and social exclusion concepts now underpin much European and UK social and economic policy (Levitas 2005), and more recently have been adopted across all tiers of Australian government as a means of conceptualising and responding to individual, household and local area problems of disadvantage (Hayes et al. 2008).

In this paper we build upon the extensive indicator work which has been undertaken across Europe, the UK and within various Australian agencies and universities under the umbrella frameworks of social inclusion and social exclusion, to empirically

examine the ways in which numerous aspects of housing—an underdeveloped aspect of the social inclusion and exclusion research frameworks—relate to various forms of multiple disadvantage in other life domains.

Our approach marks a departure from usual approaches to the study of housing and disadvantage in four distinct ways:

- Housing is considered in relation to multiple forms of disadvantage within a single study, rather than particular aspects of other forms of disadvantage such as housing and labour market opportunity or housing and health.
- We use social inclusion/exclusion indicators frameworks to investigate the relationships between housing and multiple disadvantage, rather than applying the indicators in a monitoring, parallel reporting approach such as is typically undertaken in social inclusion/exclusion research.
- We examine the relationships between housing and multiple disadvantage at both household and local area levels.
- We extend the range of housing indicators typically included in social inclusion/exclusion research, thus enabling a deeper investigation of housing-related disadvantage to be undertaken within a social inclusion/exclusion approach.

1.1 Research aims

This is the Final Report from an AHURI-funded research project that examines the social inclusion concept as a means of empirically investigating the relationships between housing and multiple forms of social and economic disadvantage experienced by Australian households. The project's overall aim is to investigate the nature and role of housing in generating social inclusion/exclusion for households in different types of local areas. The overarching research question is:

- How does housing relate to experiences of social inclusion/exclusion at the individual and household level and how does this relationship vary in more and less socially inclusive areas?

To address this overarching question, in this paper we empirically explore the following sub-questions:

- What is the relationship between social inclusion/exclusion and housing wellbeing, at the household level?
- Does this relationship vary systematically for different types of households?
- In what ways does this relationship vary for different geographic areas?
- How do residents' experiences of social inclusion/exclusion and housing wellbeing relate to local housing markets, labour markets and other local area characteristics?

By providing a detailed examination of households living in various housing circumstances and with varied degrees and combinations of multiple disadvantage measured via the social inclusion concept, and in different types of local areas, this project aims to contribute an evidence base for determining optimal household-based and place-based housing policy interventions. The findings should have important implications for understanding the depth and spread of multiple disadvantage across the housing system and within sub-markets within it, enabling targeted policy responses for households in different types of housing circumstances. As well, the project enhances understandings of how to balance these household-based

responses with one of the Australian Government's (2012) primary social inclusion priorities, that is, 'place-based interventions to assist disadvantaged people'.

1.2 Structure of the report

Following this Introduction:

- Chapter 2 briefly recaps what is meant by the concept of social inclusion and its corollary social exclusion and presents an overview of its measurement, including a focus on the way housing features within social inclusion and exclusion measurement in existing frameworks.
- Chapter 3 describes the methodology used in the empirical component of our research, including the overall analytic approach, data, indicators and statistical techniques used. The findings of our research are presented over three chapters, each organised around key questions.
- Chapter 4 examines the nature and prevalence in Australia and considers the demographic characteristics of socially excluded individuals and households.
- Chapter 5 explores the relationships between housing tenure and social inclusion/exclusion among Australian households. It also examines the housing wellbeing profiles of socially excluded households and considers how these vary by housing tenure.
- Chapter 6 explores where socially excluded households live and how their housing circumstances vary according to the types of areas they live in.
- Chapter 7 discusses the significance of the findings presented in this paper for housing policy as well as for welfare policy generally. We also reflect on the implications of this research for enhancing the measurement and monitoring of social inclusion and exclusion nationally and internationally.

2 HOUSING AND EMPIRICAL ANALYSES OF SOCIAL INCLUSION AND EXCLUSION

In the Positioning Paper for this research (Stone & Reynolds 2012) we presented a review of the social inclusion and exclusion concepts, their policy development internationally, as well as their uptake within the Australian context. We also examined the measurement and monitoring of social inclusion and exclusion in international and national jurisdictions, and considered the indicators frameworks used to support this. Paying particular attention to housing indicators, we assessed the key indicators currently used in social inclusion monitoring and research and considered how these might be developed to take better account of housing issues in social inclusion and exclusion research and policy both nationally and more broadly.

The empirical analysis we present in this Final Report builds extensively and directly upon our earlier paper. Hence, before outlining the methodology we use to empirically investigate the relationships between housing and social inclusion (Chapter 3) and presenting findings of our analysis (Chapters 4, 5 and 6), we briefly recap key findings from our earlier review.

2.1 Conceptualising multiple disadvantage via the social inclusion and social exclusion concepts

2.1.1 The origins and meaning of social inclusion and social exclusion

Social inclusion is a concept developed in reference to the related concept of social exclusion first developed in France to describe the situation of sub-groups within the population who did not have access to adequate social security (Peace 2001; Hayes et al. 2008). While the concept has been used there since the mid-1970s (Lenoir 1974), it was not until the mid-1980s, when it was adopted by the European Union (EU) as part of its Programme to Foster Economic and Social Integration of the Least Privileged Groups, and in the early 1990s by the European Observatory on Policies to Combat Social Exclusion, that the concept of social exclusion gained widespread inter-nation acceptance and uptake as a way of understanding and responding to poverty (for discussion, see Hayes et al. 2008; Hulse & Stone 2006).

There is a vast literature on social inclusion and exclusion (reviewed in Hayes et al. 2008). From this literature, we can conclude that in its essence, social exclusion is a wide-ranging concept that includes both a description of current circumstances of multiple forms of disadvantage experienced by individuals, households and sub-groups within a population, as well as the cultural and structural processes contributing to and/or exacerbating these forms of disadvantage (Arthurson & Jacobs 2003, 2004; Levitas 2005; Hayes et al. 2008). Social exclusion, as its name would suggest, has refocused attention on the social and cultural aspects of disadvantage, as a counterpoint to approaches to the conceptualisation of poverty and disadvantage with almost exclusively economic emphases, such as 'poverty lines' (see Hulse & Stone 2007 for discussion). Hence, within social exclusion frameworks, key realms of disadvantage are broader than income poverty and typically include dimensions such as access to services, health, material resources, economic participation and educational opportunity, as well as social and political participation (see e.g. Levitas et al. 2007).

The concept of social *inclusion* is often defined in relation to social *exclusion*, generally as the positive end of an advantage/disadvantage continuum in which a society, for example, with low 'levels' of social exclusion can be considered to be a socially inclusive one. In this way, it is seen as contributing to socially cohesive

societies (Australian Social Inclusion Board 2010; Hulse & Stone 2006; Hulse et al. 2010).

Alternatively, social inclusion can be understood as a more independent suite of factors which together can act to minimise or buffer the development or effects of social exclusion (for discussion see Hayes et al. 2008). This approach emphasises the interconnection of factors of disadvantage whereby a positive change in one sphere of life might act as a protective factor in another. As discussed by Hulse et al. (2010), social inclusion is somewhat more difficult to define than the closely related concept of social exclusion: while social exclusion explicitly concerns various forms, processes and experiences of disadvantage, social inclusion is understood as the lack of these. For the purposes of this paper, the concept 'social inclusion' will generally be referred to, in keeping with the Australian emphasis of this concept. However, throughout this paper the concepts of social inclusion and exclusion are understood as integrally related and both terms may be used.

2.1.2 The policy significance of the social inclusion and social exclusion concepts

The concept of social inclusion entered Australian policy discourse and practice following an extended period of conceptual and empirical policy-oriented work internationally, in France initially, the UK and within the ongoing activities of the European Union (Levitas 2005; Hayes et al. 2008; Hulse et al. 2010). Its international foundations as a means of understanding and responding to disadvantage and opportunity establish much of the groundwork for a peculiarly Australian interpretation and application of the concept. While the social exclusion concept now has considerable traction as a framework for understanding and responding to disadvantage throughout Europe, including the UK, in Australia its uptake has been far more recent, and has been done in terms of the closely related concept of social inclusion (Hayes et al. 2008).

Both government and non-government sectors across Australia have now adopted social inclusion and the related concept of social exclusion as a principal framework for understanding and responding to multiple forms of overlapping and entrenched social and economic disadvantage (South Australian Social Inclusion Unit 2005; Adams 2009; Australian Social Inclusion Board 2010). This reflects the recognition of the interconnectedness of multiple and complex forms of disadvantage.

While not the first jurisdiction to adopt the inclusion/exclusion framework for underpinning social policy, the adoption of the social inclusion framework by the Australian Government firmly cemented the concepts of social inclusion and social exclusion into Australian policy discourse and practice. The uptake of social inclusion and related exclusion concepts at the federal level is highly influential in the way problems of poverty and disadvantage are perceived and responded to by policy-makers, the community sector and the wider community. As set out in *A Stronger, Fairer Australia* (Social Inclusion Unit 2009, p.2), the Australian Government's aspirations for a socially inclusive society and means to achieving this are:

> Social inclusion means building a nation in which all Australians have the opportunity and support they need to participate fully in the nation's economic and community life, develop their own potential and be treated with dignity and respect. Achieving this vision means tackling the most entrenched forms of disadvantage in Australia today, expanding the range of opportunities available to everyone and strengthening resilience and responsibility.

The adoption of a framework that makes explicit the interrelationships between economic, cultural and social forms of disadvantage both reflects and underlines

contemporary emphases upon joined-up policy and service delivery. This was evident in policies such as *Opportunity for All* in the UK which sought to integrate top-down policy delivery with bottom-up, localised responses and approaches to concentrations of disadvantages within highly disadvantaged areas under the previous UK Labor government (see Levitas 2005). It is also reflected in recent Australian policy development work including *Ahead of the Game: Blueprint for the Reform of Australian Government Administration* (Australian Government 2010), a review of the extent to which service delivery can be better integrated for end users. Similar approaches strongly underpin whole-of-government approaches to addressing disadvantage across state and territory jurisdictions.

In relation to housing policy specifically, the adoption of a social inclusion framework in the Australian context places existing housing support policies such as the provision of homelessness support services, the administration of rental assistance for tenants in the private rental system as well as the supply and administration of social housing firmly within a holistic government framework which emphasises the linkages between housing and other types of support services and policy. Additionally, adoption of similar types of conceptual frameworks across tiers of government has the advantage of linking household-based housing support at a federal level with state and territory initiatives which focus on particular locations requiring support, such as via neighbourhood renewal strategies, and to particular groups who are at heightened risk of experiencing multiple forms of disadvantage (for a detailed account of housing policy and social inclusion in Australia, see Hulse et al. 2011).

Drawing on international and Australian experience, examples of integrated housing responses to problems of exclusion are examined in detail by Hulse et al (2010). Specific examples are found across homelessness response/prevention services, in the provision of social housing and in the ways private rental tenants are supported. In the Australian context, housing-related policies aimed at 'closing the gap' between Indigenous and non-Indigenous outcomes can also be considered to address issues of exclusion and inclusion. In all cases, targeting of housing and related services are embedded within policy/program delivery which recognises the complex needs of households and/or the housing systems in which they live.

Additionally, both social exclusion and social inclusion policy frameworks nationally and internationally also share an emphasis upon 'area effects'. Area (or neighbourhood) effects refer to those local conditions, over and above individual or household characteristics, that impact on the wellbeing of residents. In a study examining such effects, Atkinson and Kintrea (2001, p.2277), for example, focused on the question: 'Does living in a deprived area compound the disadvantage experienced by its residents, and do area effects contribute to social exclusion?' Vinson (2009, p.7) concludes: 'When poor conditions persist over years and even generations the social climate of an area can exercise an influence over and beyond the sum of individual and household disadvantage … Locality, then, can be an important and enduring locus of social exclusion.'

In practice, many of the implications of a social inclusion policy framework mirror those for social exclusion. These include an emphasis upon holistic, joined-up policy and service delivery responses to multiple forms of disadvantage, as well as the need for multi-dimensional measurement and evaluation tools for monitoring the success or otherwise of interventions aimed at reducing exclusion and enhancing inclusion.

2.2 Measuring multiple disadvantage using social inclusion/exclusion frameworks

2.2.1 The development of social inclusion/exclusion indicators frameworks

In parallel with the development of social exclusion-based policies and programs has been a focus upon measurement and monitoring. The EU and the European Commission have been at the forefront of this work (e.g. Berger-Schmitt 2000; Berger-Schmitt & Noll 2000; Levitas et al. 2007; Millar 2007) which has also been taken up in the UK (Room 1995; Burchardt et al. 2002). A number of Australian initiatives have recently explored the development and application of this work.

Given the range of nation states in which the social inclusion/exclusion concept have been employed as part of a policy platform across Europe, including the UK, the breadth and complexity of the concept as well as variable data availability across nations involved in indicator development, it is hardly surprising that there has been debate about precise definition of the concept as well as differences in its application. After years of indicator development work, there remain some differences in the measurement frameworks developed by key nations and authors. Despite this, there are overwhelming similarities in the range of domains of social inclusion/exclusion included in indicator frameworks developed internationally and nationally, as well as a large degree of agreement about key indicators. This has occurred largely due to the cross-fertilisation of indicator development across national boundaries.

Consistent with the breadth of the social exclusion/inclusion concept, measurement and indicator selection has moved away from a heavy emphasis upon income and financial poverty measurement alone, to a multi-dimensional approach reflecting economic, social and cultural aspects, as well as circumstances and processes. Select examples of key studies that have sought to operationalise the concept and arrive at a conceptually meaningful and empirically practicable suite of indicators are described below (Section 2.3), followed by a comparison of the main types of dimensions and indicators included within each of the frameworks.

Scutella et al. (2009a) and Scutella and Wilkins (2010) have summarised the key indicators which feature within the main approaches to indicator development internationally and in Australia as belonging to seven main dimensions: material resources, employment, education and skills, health and disability, social, community and personal safety. While there is clearly variability in the extent to which frameworks fit neatly within their summary typology, the categories strongly reflect and build upon the majority of approaches found in the literature and provide a useful starting point through which to consider and compare social inclusion and exclusion indicators frameworks relevant to empirical exploration of the concept/s.

In our Positioning Paper we used the description of key dimensions of social exclusion developed by Scutella et al. (20091, 2009b) to review the nature of social inclusion and exclusion measurement in selected major international and Australian frameworks. We distinguished between international and Australian approaches, as well as between policy-oriented measurement and monitoring frameworks and survey-based analytic approaches. We found that monitoring and analytic approaches are developed with very different aims and requirements: whereas monitoring approaches aim to maximise coverage of social inclusion indicators, sometimes across large geographic areas, survey-oriented approaches generally seek to enable examination of the relationships between dimensions of social inclusion or the relationships between social inclusion and other factors. For analytic purposes, indicators are generally required to form part of one data set, whereas for the purposes of monitoring it is not necessary that all indicators pertain to the same unit of analysis.

Summaries of indicators across key dimensions of social inclusion/exclusion that are included within major policy and survey-based frameworks developed by the EU, UK and Australian governments are presented in Appendix 1.[1]

2.3 Housing and social inclusion/exclusion measurement

2.3.1 Housing indicators in social inclusion and exclusion measurement frameworks

In our Positioning Paper we also considered more specifically the ways in which housing indicators are (or are not) included in many of the more significant social inclusion/exclusion measurement initiatives. We focused on housing measurement approaches taken in international and Australian initiatives, as well as initiatives that rely solely or mostly upon administrative and related data and those that rely on survey data. Our aim was to determine the extent to which the breadth and depth of housing-related disadvantage is comprehensively included within current social inclusion/exclusion measurement frameworks and to identify areas that require development.

Table 1 summarises the main housing indicators included within selected examples of policy-oriented approaches to the monitoring of social inclusion internationally and in Australia. There is significant variation in the extent to which indicators at either individual/household or aggregate levels are included within the various frameworks. Most notably, there is a clear difference in the extent to which housing and related variables are included in policy-oriented approaches designed for the purposes of monitoring—in which housing measures tend to be relatively extensive, and survey-based approaches tend to support empirical analyses—and in which housing measures tend to be underdeveloped, where included at all.

[1] See Stone and Reynolds (2012) for detailed discussion of indicators and indicator development in relation to social inclusion/exclusion internationally and nationally.

Table 1: Examples of indicators of housing used in selected international and Australian social inclusion and exclusion measurement frameworks

Policy-oriented monitoring approaches			
EU: Laeken Indicators	**UK Government: Opportunity for All[2]**	**UK: New Policy Institute**	**Australia: Social Inclusion Board**
Nil—to be developed	Rough sleepers Non-decent homes	Poverty rate after housing costs Non-decent homes; fuel poverty; without central heating Homelessness Overcrowding	Low-income private renter with housing costs exceeding 30% of income Number of affordable houses for sale per 10 000 low-income households Homelessness Repeat homelessness
Survey-based analytic approaches			
CASE: Burchardt, Le Grand and Piachaud (2002)	**UK Millennium Survey of Poverty and Social Exclusion (PSE)**	**Community understanding of Poverty and Social Exclusion (CUPSE)**	**Melbourne Institute**
Not an owner-occupier	Nil	Nil	Nil

As can be seen in Table 1, within the UK, for example, there has been a readily agreed and used set of housing indicators included within the *Opportunity for All* framework. Housing is included in a 'community' dimension, and indicators are monitored routinely for directional change—'progress' or otherwise. The first of two specific housing indicators in the *Opportunity for All* monitoring framework relates to the relative quality of housing, described as 'Housing that falls below the set standard of decency'. The second relates to rates of homelessness, and is described as 'rough sleepers' (Department for Work and Pensions 2007, p.11).

Housing indicators are also explicitly included within the Bristol Social Exclusion Matrix (B-SEM). While not yet implemented in practice, the suite of indicators identified and included by Levitas et al. (2007) and included within the Matrix accounts for both housing as well as features of the local neighbourhood. These are grouped under the domain of 'living arrangements' and include housing quality, homelessness, neighbourhood safety, neighbourhood satisfaction and access to open space. Similarly, the New Policy Institute indicators framework also takes explicit account of some aspects of housing. Three specific housing indicators are included in the Joseph Rowntree framework: non-decent homes (in keeping with the other main UK approaches), homelessness and overcrowding. Additionally the New Policy Institute includes a measure of housing affordability in the form of 'poverty rate after housing costs'. A number of related indicators are also included, such as 'fuel poverty', 'without central heating' and 'dissatisfaction with local area'.

[2] While monitoring under the *Opportunity for All* framework ceased in 2006, the indicators framework supporting it nonetheless represents an important reference point for social exclusion measurement.

Within the EU framework, there are currently no housing measures which have been universally adopted across nation states. Arguably this is due to their highly diverse housing systems, types and arrangements. Hence, while the EU recognises 'housing' as a significant aspect of inclusion/exclusion, as indicated by its inclusion in the list of EU indicators (see Table 1), no specific indicators are described within the 'commonly agreed indicators' developed in the European context.

In the Australian context, the approach adopted by the Australian Government via the Social Inclusion Board framework includes several key indicators relating to housing. Housing affordability is included in terms of both home purchase and low-income private rental. Homelessness is also considered in a dynamic way, in terms of repeat experiences. As well, indicators of perceived safety at home are included within the framework. At an aggregate level, the Social Inclusion Unit framework also includes a measure of home ownership affordability (number of affordable houses for sale per 10 000 low-income households). In keeping with the broader social exclusion literature as well as other policy frameworks informed by the social inclusion concept, the Australian Government's approach also includes analysis of the range of identified indicators by place. It does not include specific locational items, such as perceived safety of the local area.

In contrast with these policy-oriented monitoring approaches, survey-based approaches tend to include very little housing information. For example, in each of the CUPSE and Melbourne Institute approaches summarised in Table 1, housing issues are not included within the indicators frameworks. Rather, housing tenure is used in the analysis of key indicators by both the Social Policy Research Centre in its CUPSE research and by the Melbourne Institute in its program of social exclusion research.

As discussed in detail in our Positioning Paper, one of the inherent problems within many existing social inclusion frameworks is that 'housing' is conceptualised relatively narrowly as pertaining most significantly to 'material resources' domains of social inclusion or similar. This type of approach relates well to policy portfolios and traditional approaches to understanding poverty, yet does not typically take account of the multi-dimensionality of housing, nor of other ways of conceptualising housing issues. Sociological and psychological understandings of housing are generally not included within the analyses.

2.3.2 Towards a comprehensive account of 'housing wellbeing'

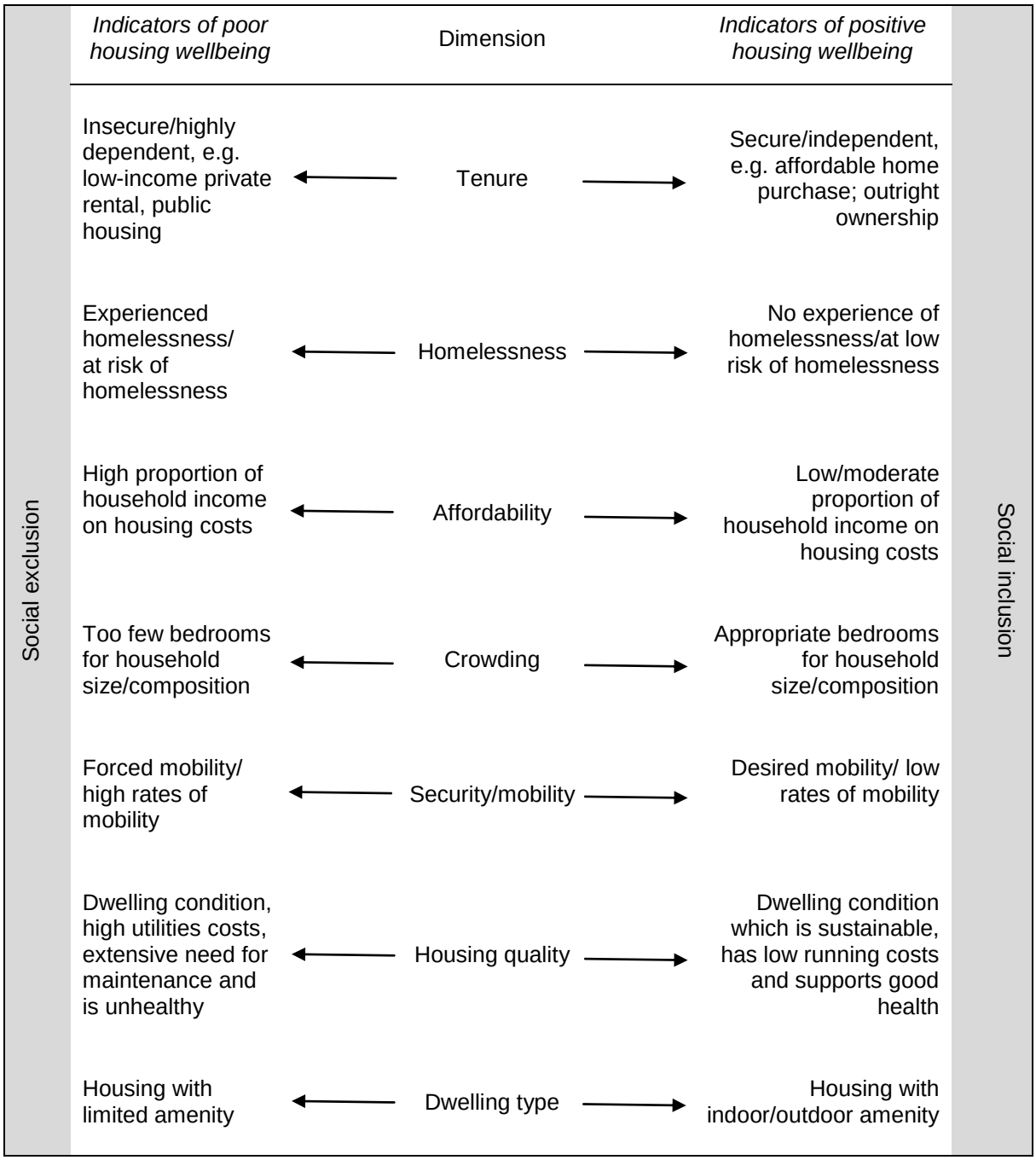
In order to develop a comprehensive understanding of the ways in which housing and housing-related disadvantage relate to other aspects of disadvantage and opportunity described by the social inclusion concept, it is necessary to measure social inclusion using a comprehensive suite of housing indicators. Ideally, those for use in the measurement, monitoring and analysis of social inclusion will reflect the extent and multi-dimensional nature of housing-related disadvantage. In essence, policy approaches have tended to come closer to this ideal than survey approaches which could be readily improved in relation to housing and locational aspects of social inclusion and exclusion.

Drawing again on our earlier analysis (Stone & Reynolds 2012), in this section we identify six key elements of housing wellbeing that can readily be incorporated within a suite of housing indicators for use in social inclusion research in addition to 'tenure'. These are presented in Figure 1 below. Clearly, the extent to which these and/or additional housing wellbeing indicators can be included in social inclusion research will depend upon data availability.

Figure 1 presents the six dimensions of housing wellbeing we have identified, along with potential indicators of each dimension. Drawing on our review of the extent and

breadth of housing-related disadvantage, as well as standard measures of housing frequently used in Australian and international research, we identify the following aspects of housing as relevant to understandings of social inclusion in Australia: housing tenure, homelessness and risk of homelessness, housing affordability/stress, crowding/suitability, security/mobility, housing quality and dwelling type. Each dimension of housing wellbeing is discussed briefly in turn.

Figure 1: Dimensions and potential indicators of 'housing wellbeing'



Housing tenure

Housing tenure is included in the suite of housing wellbeing indicators due to the significant differences in housing conditions associated with housing tenures in the Australian system. Home owners and purchasers, for example, typically enjoy relatively high degrees of control and security over their homes, including heightened degrees of capacity to modify their housing. The private rental sector is associated with a range of affordability, security and quality issues, and tenants within the sector have limited capacity to address these issues in many cases, relative to households within other tenure arrangements (Hulse et al. 2012). Public housing (either from government or community agencies) has also been strongly linked to social inclusion

and exclusion agendas due to the multiple forms of disadvantage faced by many tenants.

While we include tenure as one of the indicators of housing wellbeing useful for analysis of social inclusion and exclusion, tenure alone is not a sufficient indicator. Many dimensions of housing-related disadvantage or opportunity are related to tenure but are not completely determined by it. For example, problems of affordability, crowding or security/mobility are not confined to any one tenure category, even though they are more pronounced in some than others.

In this way, tenure might equally well be thought of as a 'risk factor' for poor housing, as much as an indicator of it, as per the approach taken by Levitas et al. (2007) in the Bristol Social Exclusion Matrix (B-SEM).

Homelessness

Homelessness is included within the suite of housing wellbeing indicators as an indicator of extreme housing-related disadvantage. Living without a home or being at risk of doing so represent extreme examples of disadvantage which are often integrally related to many other forms described within the social inclusion and exclusion concepts.

Affordability

The capacity of households to meet their housing costs, within a certain income range, is included in the suite of housing wellbeing indicators identified here as a fundamental component of housing wellbeing. The failure of households to manage their housing costs is related to a range of significant trade-offs to housing and other aspects of life.

Crowding

Crowding is included in the suite of housing wellbeing indicators identified here, as representing a fundamental issue of housing adequacy. Usual measures of crowding and housing adequacy take into account societal norms about the numbers of bedrooms required by a household of a particular composition, including age and sex of members and relationships between them. Australian research evidence suggests that overcrowding is related to many other forms of disadvantage, such as the impaired capacity of children to undertake homework, and with substantial housing trade-offs made by households attempting to meet housing costs.

Security/mobility

Housing security and stability are included in the suite of housing wellbeing indicators identified here, given their significance to many aspects of housing and other forms of disadvantage. Ideally indicators will distinguish between forced and voluntary moves, as well as their quantity and timing (e.g., number of moves within a given timeframe or the timing of moves in relation to other life events or life stages).

Housing quality

Housing quality is included here as an aspect of housing wellbeing. It is a broad category or concept that might include the physical quality of homes, the extent to which housing is energy efficient and sustainable, the extent to which physical dwelling materials are able to support good health, as well as the extent to which the home's quality enables household members to fully engage with other members of their community without stigma.

Dwelling type

Finally, we include a measure of dwelling type, given the significant lifestyle differences that can be associated with flats/units/apartments compared with semi-detached and detached housing in Australia.

This indicator must be used in conjunction with other housing wellbeing measures, given the ambiguity about how to interpret dwelling type in relation to social inclusion and exclusion. Clearly, there is not a direct correlation between dwelling type and 'poor housing', as many households choose to live comfortably in small dwelling types as a personal preference, while some in larger free-standing homes experience poorer outcomes. The relationship between smaller types and styles of housing and housing wellbeing is significantly blurred by lifestyle preferences, local amenity and the increasing proportion of medium and high density housing in Australian cities and regional centres.

In this way, housing type, like tenure, might be considered to be as much a risk factor for poor housing circumstances and conditions as an indicator of them. Despite some ambiguity, living in a flat/unit/apartment is more likely to be associated with various forms of disadvantage than living in a semi-detached or detached house.

2.3.3 Housing indicators among groups at risk of social exclusion

While we have not included specific reference to the particular housing needs of vulnerable population groups given the general nature of our research project, doing so is appropriate in some circumstances. Where housing conditions and circumstances among sub-groups within the population are likely to vary considerably from the 'norm', developing a suite of indicators which takes into account the nature of these differences will enable a more nuanced understanding of housing-related disadvantage and social inclusion than reliance on normative measures alone.

A notable example in the Australian context is the use of housing indicators specific to Indigenous Australians whose housing conditions, experiences and opportunities can vary markedly from 'mainstream' understandings of housing wellbeing and are heavily influenced by cultural norms around living arrangements and conditions. In this case, the housing usage and experience of Indigenous people is sufficiently different from the types of factors included in housing indicators used for general reporting that a specific suite of indicators is appropriate.

2.3.4 Indicators of housing characteristics within local areas

The suite of housing wellbeing indicators we have identified above is relevant to understanding the circumstances and experiences of households in relation to social inclusion and exclusion in local areas. As is standard practice in much research concerned with local area-based disadvantage, data derived on the basis of these indicators could be aggregated to varying spatial scales such as postcode, state/territory or other regional areas to provide an overall account of housing wellbeing among residents within particular geographic areas.

We also suggest that, in order to understand the way in which housing sub-markets within local areas are affected by or impact on the life chances of residents, additional understandings of the relationship between housing and social inclusion could be developed using information about the housing characteristics of local areas, beyond those measures based on household experience. The use of local area data is an underdeveloped aspect of social inclusion and exclusion measurement, and understandings of local housing markets in relation to the household experience of social inclusion in local areas specifically, is a potentially significant yet under-examined aspect of social inclusion and exclusion generally.

Table 2 below lists housing indicators that could be used, alongside analysis of household experience. These are illustrative only, and will vary according to data availability and scale of analysis. The important point is that such information might significantly enhance our understandings of local area-based disadvantage. The development of a 'usual' suite of housing market indicators to be used in local area-based policy and research would be a useful contribution to housing policy research in Australia.

Table 2: Examples of potential indicators of local housing market characteristics for empirical analysis of housing and social inclusion

Dimensions of local housing markets	Examples of potential indicators
Tenure mix	Proportions of outright owners, purchaser owners, private renters and public housing tenants within each local area.
Dwelling mix	Proportions of free-standing houses, semi-detached dwellings, flats, units and apartments within each local area.
Median house prices	Median prices for houses and units/apartments within each local area.
Recent house price changes	Whether house prices have increased or decreased recently Extent of change (dollar amounts/percentage).
Vacancy rates	Rates of unoccupied private rental dwellings for lease.

2.3.5 Summary: major international and Australian indicators approaches

In sum, several key measurement and monitoring initiatives have evolved in parallel with the policy development and uptake of the social inclusion and exclusion concepts, first internationally and more recently in the Australian context. Many are well developed with a high degree of commonality between approaches, and can be used to guide the empirical analysis of social inclusion in the Australian context.

There is considerable variation in the extent to which the various frameworks include housing indicators. Monitoring frameworks which rely on multiple sources of data tend to have better coverage than do survey-based approaches. Usual measures of housing wellbeing such as tenure, homelessness, affordability, crowding, security/mobility, housing quality and dwelling type can be used to supplement current indicators frameworks for the purposes of a more comprehensive analysis of housing in relation to social inclusion. Where possible, these can be supplemented by data about the housing characteristics of local areas, for local area-based research.

There is, however, a dearth of research undertaken either internationally or nationally in which indicators of housing and living conditions or environments are included within social exclusion or social inclusion measurement frameworks as integrally related to other domains of exclusion/inclusion. In Chapter 3 of this report, we describe our own analytic survey-based approach to address this policy-research gap.

3 METHODOLOGY

This chapter describes the rationale for the research approach adopted in this project, along with some of the inherent complexities involved in the conceptualisation and analysis of multi-dimensional concepts. It discusses the data source, presents the main variables used in the analysis and describes the measure of social exclusion adopted to examine its relationship with housing wellbeing. Finally, the chapter reflects on the limitations of the approach.

3.1 Introduction

In broad terms, the goal of this study is to investigate and document the relationships between social exclusion and housing wellbeing among Australian households. To achieve this we have adopted an analytic research approach, rather than a 'monitor and measure' approach. These different research approaches to the study of social inclusion/exclusion were introduced in Chapter 2 and are described in more detail in Chapter 4 of the Positioning Paper. In sum, we chose a survey-based, analytical approach so that the relationships between indicators and overall levels of social exclusion and the housing circumstances of Australian households could be explored.

The advantages of this approach include the immediate availability of a data file that includes a large number of cases, broadly representative of the population, and a wide and detailed range of socioeconomic and demographic variables. At the unit record level, the interactions between these variables for each individual person can be explored. The drawbacks of using such a quantitative methodology for the study of complex social phenomena, often generic to the study of housing and/or disadvantage generally, include the under-representation of certain groups such as the homeless, the highly disadvantaged and those of non-English-speaking backgrounds, and the potential restriction of analysis due to the predetermined variables available in the file. Despite such limitations, our research aim is to achieve a thorough exploration of the relationships between social exclusion and housing circumstances through a survey-based, quantitative research approach.

3.2 Data source

3.2.1 Data selection

The two key themes in this study that required examination, definition and, as such, empirical measurement, were social exclusion and housing. With this in mind, the aim was to select a data source that included the greatest range of detailed variables that would cover *both* of these central, multi-dimensional themes.

As discussed in the Positioning Paper, Scutella et al. (2009a) and Scutella and Wilkins (2010) provide a thorough account of the extent to which potential Australian data sources include indicators of social exclusion. Based on the level of national coverage and content, they identify four potential sources for the investigation of social exclusion: the Household, Income and Labour Dynamics in Australia (HILDA) survey, the ABS General Social Survey (GSS), the ABS Census and the ABS Survey of Income and Housing/Housing Expenditure Survey. Despite the fact that no single one of these data sources could provide variables relating to *all* aspects of social exclusion that, ideally, should be examined in a study looking at multiple disadvantage, the authors did conclude that both the HILDA survey and the GSS stood out as the most promising data sources for survey-based analyses of social exclusion in Australia.

With this in mind, an assessment of the housing variables available in each of the data sets was undertaken. Table 3 below shows a comparison of the housing indicators available in HILDA (Wave 9) and the ABS GSS (2006), where ticks indicate availability and crosses indicate items not included.

Table 3: Comparison of the housing indicators available in HILDA (Wave 9) and the ABS GSS (2006)

Housing component	HILDA (Wave 9)	GSS (2006)
Dwelling type	✓	✓
Number of bedrooms	✓	✓
Tenure type	✓	✓
Landlord type	✓	✓
Mortgage payments*	✓	✓
Rent payments*	✓	✓
Length of time in current dwelling	✓	✓
Number of moves in past five years (mobility)	✓**	✓
Household size and composition^	✓	✓#
Satisfaction with home	✓	×

*These variables can be combined with household income to create measures of housing affordability. Note: only household income deciles are provided in the GSS compared with individual dollar values in HILDA. A more precise affordability measure can be calculated using the latter.

**This can be calculated by combining data from previous HILDA waves.

^These variables can be combined with dwelling size to create a measure of housing suitability.

#Household composition is somewhat limited in the GSS which affects the measure of housing suitability.

Source: Stone and Reynolds 2012, p.40.

The table shows that the HILDA data provide greater coverage of the key dimensions of housing that in the Positioning Paper were identified for the comprehensive analysis of housing circumstances in relation to social exclusion. With the knowledge that the HILDA data held the most comprehensive suite of social exclusion and housing indicators, this data source was chosen to analyse the relationships between these key themes.

3.2.2 HILDA Wave 9

The HILDA Survey is a longitudinal, nationally representative household-based panel survey of just over 7200 households and 13 301 respondents aged 15 years and over (Wave 9, 2009). This project used data from Wave 9 of the survey, the most recent release upon commencement of the project. The interviews for Wave 9 were conducted between August 2009 and March 2010, with the data released in early December 2010. HILDA represents one of the most robust, informative survey data sources available in the Australian context and is ideal for the present analysis. However, it is important to recognise that several groups, including respondents who are young (between 15 and 24), born in a non-English-speaking country, of Aboriginal or Torres Strait Islander descent, single, unemployed or working in low skilled occupations are under-represented in the survey sample (Summerfield 2010, p.115). As well, the survey does not include persons experiencing homelessness, nor people living in remote and sparsely populated areas.

3.3 Measuring social exclusion

In terms of defining and measuring social exclusion, our research method closely followed that developed by Scutella et al. (2009b) in a Melbourne Institute study that measured the extent of poverty and social exclusion in Australia using data from the HILDA survey.

3.3.1 The indicators of social exclusion

In their research, Scutella et al (2009a) identify seven domains that reflect areas of a person's life which impact on their ability to participate within society (see also Scutella et al. 2009b. Each of these contains a number of components for which the authors define specific indicators of social exclusion using the HILDA survey data. For the current study, we adopted the same life domains and, with some minor changes, the same indicators to measure social exclusion and its relationship with housing circumstances. Table 4 below shows the seven life domains, their components and the 20 indicators used in the current study to measure social exclusion. Appendix 2 has a more detailed description of the construction of each indicator and the minor changes made to the Melbourne Institute indicators.

Table 4: Life domains, components and indicators used to measure social exclusion

Domain	Component	Indicator (derived from HILDA Wave 9)
Material resources	Household income	Within the bottom 40% of the Australia-wide equivalised disposable household income distribution
	Financial hardship	Experiencing three or more indicators of financial stress
Employment	Paid work	Unemployed
		Lives in a jobless household
Education and skills	English language proficiency	Poor English language skills
	Educational attainment	Less than high school completion
	Lifelong learning	Little or no work experience
Health and disability	General health	Poor or fair general health
	Long-term health	Has a disability or long-term health condition
	Disabled child	Lives with a disabled child in the household
	Life satisfaction	Low life satisfaction
Social	Social support	Low level of social support
	Social participation	Low level of social participation
Community	Neighbourhood quality	Low satisfaction with neighbourhood
		Low satisfaction with feeling part of the community
	Civic participation and voluntary activity	Not a member of a sporting, hobby or community-based club or association
		No voluntary activity in a typical week
Personal safety	Violent crime	Victim of violent crime in last 12 months
	Property crime	Victim of property crime in last 12 months
	Subjective safety	Low feeling of perceived safety

Source: based on Scutella et al. 2009b, p.13

Using the indicators listed above, we first examined them individually. Next, again following the Scutella et al. (2009b) methodology, we combined the 20 indicators into a single overall measure of social exclusion, firstly for individuals and subsequently for households.

3.3.2 The sum-score approach

Following the analysis of the social exclusion indicators on an individual basis, the next step was to determine the extent to which a person experiences multiple disadvantages at the same time. To investigate the multi-dimensional nature of social exclusion, therefore, a composite indicator was required. The approach devised by Scutella et al. (2009b) was deemed highly pertinent for this project due to its use of HILDA data and analyses of relationships between key indicators, and thus employed as our measure of overall social exclusion.[3]

Scutella et al. (2009b) propose that the sum-score technique is a simple method of data/indicator aggregation that incorporates the multi-dimensional nature of social exclusion and produces a valid overall measure of a person's level of social exclusion at a point in time. The sum-score measure is a function of both the number of domains in which social exclusion is experienced and the number of indicators within these domains. The authors give equal weight to each of the domains 'on the implicit assumption that each is an equally important contributor to overall social exclusion' (p.6).

While numerous methods of combining the indicators of social exclusion are possible, for the purposes of the present analysis the same approach is taken. One of the implications of this is that households who are found to be 'socially excluded' (see below), do not necessarily experience extreme material disadvantage. Rather, it is possible that some of the households identified in the present study will have a host of other types of disadvantage (e.g. poor health, low education, social isolation), but may not be considered materially deprived according to the indicators used here.

Table 5 below helps to illustrate the summation process undertaken in this study. If a respondent is reported as having any of the 20 social exclusion indicators listed, the score in the right-hand column is attributed to them and the scores are summed. The maximum-score for any single domain is 'one' and the maximum overall total score is 'seven'. If no indicators of social exclusion are present for an individual, their score is zero. In HILDA Wave 9, 1781 out of 13 301 respondents had a score of zero (about 13%) and the highest social exclusion score was 5.415 (for only one respondent).

[3] Creating a new measure of social exclusion was not an aim of this project.

Table 5: Social exclusion composite indicator sum-score values

Domain and indicator	Score
Material resources	
Bottom 40% of equivalised disposable	0.5
In financial hardship	0.5
	1.0
Employment	
Unemployed	0.5
In a jobless household	0.5
	1.0
Education and skills	
Poor English language proficiency	0.333
Low educational attainment	0.333
Little work experience	0.333
	1.0
Health and disability	
Poor/fair general health	0.25
Long-term health condition	0.25
Live with a disabled child in household	0.25
Low life satisfaction	0.25
	1.0
Social	
Low social support	0.5
Low social participation	0.5
	1.0
Community	
Low satisfaction with neighbourhood	0.25
Low satisfaction with feeling part of the community	0.25
Low civic participation—membership	0.25
Low civic participation—voluntary activity	0.25
	1.0
Personal safety	
Victim of violent crime	0.333
Victim of property crime	0.333
Low feeling of perceived safety	0.333
	1.0
Total possible score	**7.0**

Source: indicators based on Scutella et al. (2009b) and derived from HILDA Survey, Release 9 (2010)

With such a large spread of social exclusion scores (0 to 5.415), the scores were grouped to allow for meaningful data interpretation. Following Scutella et al. (2009b, p.30), social exclusion 'threshold' values were set at one, two and three, representing 'progressive increases in depth of exclusion'. Specifically, those respondents with a sum-score of between zero and just less than one were not considered socially excluded at all. With a score of one or more, however, respondents were considered socially excluded. To fall into this group, they would have to report a minimum of two of the above social exclusion indicators. To distinguish between different degrees of social exclusion, those with a score between one and less than two were described as marginally excluded, those with a score between two and less than three as deeply excluded, and those with a score of three or more as very deeply excluded. Due to small frequencies in the 'very deeply excluded' category, these respondents were included in the 'deeply excluded' group; however, we recognise that there is a continuum from social exclusion to social inclusion. The following chapter presents and discusses the frequencies for these groups.

3.3.3 Analysis at the household level

In a study where 'housing' constitutes a key theme, it is necessary to consider what unit of analysis will be adopted in the research approach: the individual or the household? This is largely because overall housing situations are an outcome of the combination of individual household member decisions and circumstances. As Gabriel et al. (2005, p.46) state: 'housing markets operate at the household level'. It is the 'household' that decides whether to build, buy, rent or move, and this choice will depend largely on the collective financial resources (and opinions) of all members, rather than those of individuals. Accordingly, this study presents results at both the individual and household level, though with greater emphasis on the latter. The former serves mainly as context and to illustrate two things: the prevalence of each of the 20 indicators of social exclusion employed in this study and the distribution of social exclusion across population groups. Results at the household level, however, are more appropriate for an analysis of housing indicators.

To enable analyses of social exclusion at the household level using the HILDA survey data, an average of the individual social exclusion scores for all household members (aged 15 years and over) was calculated and then assigned to that household.[4] The frequency of household level, social exclusion sum-scores is presented and discussed in Chapter 4.

3.3.4 Social exclusion among all households, or only 'poor' households?

In social exclusion measurement a distinction is sometimes made between social exclusion among all households, and social exclusion among only the financially 'poorest' households within any given jurisdiction or society. In the former case, data relating to indicators, such as those we have outlined above, are considered for all households, regardless of income. This approach is particularly useful in illuminating the extent of various forms of potential disadvantage up and down the income spectrum.

A different approach, based on quite different underlining principles, is to consider social exclusion *only* in relation to households (or individuals in individual-based analyses) with income below a certain point along the income spectrum. This

[4] This approach differs to that taken by Scutella et al. The current research applies the average score to the household and then examines social exclusion at the household level. Scutella et al., on the other hand, apply the average score to each household member and then examine the distribution across individuals, the aim being, to include those aged under 15 years.

approach is based on the assumption that above a particular amount of income, households will have the financial capacity to manage the range of possible potential forms of disadvantage they may be experiencing by means of market exchange. In this approach, data are typically only considered for households at the lowest end of the income distribution, with 'low' income (however defined) being an essential ingredient of social exclusion.

For the purposes of our analysis, we report primarily on findings for all households, rather than only those with incomes below the median.[5] Our rationale for doing so is twofold. First, there is considerable overlap between income level and other indicators of social inclusion/exclusion, such that around 87 per cent of all households in the HILDA survey who are found to be socially excluded (see below) are also found to have low income. Second, we are interested in the extent and distribution of social inclusion and particularly social exclusion, across the housing system, within as well as outside of the most heavily disadvantaged locations in Australia, and therefore among but also beyond low-income households only. Having explored results for all and lower income households separately (households with below median income), we instead only report on lower income households separately where these analyses contribute a greater understanding of the relationships than are seen for findings based on data for all households.

3.4 Measuring housing wellbeing

As described in the Positioning Paper, few survey-based analytical studies (as opposed to policy-orientated monitoring studies) have included housing indicators in their research frameworks. A goal of this research was to broaden the concept of housing, recognising its multi-dimensionality, and avoid the relatively narrow idea that it pertains most importantly to the 'material resources' domain of disadvantage. In terms of empirical measurement, the aim was to create as many indicators as possible that would measure the dimensions of housing wellbeing that were identified from our review of the literature and presented in the Positioning Paper (see Figure 1). Examining which of these have best predictive power in relation to social inclusion/exclusion is one of the outcomes of the style of analysis we are undertaking.

3.4.1 The indicators of housing wellbeing

Table 6 below shows the six housing wellbeing dimensions for which suitable indicators could be created using HILDA Wave 9.

[5] 'Low income' is defined in this context as a household with below the Australia-wide median equivalised disposable income.

Table 6: Housing wellbeing dimensions and associated indicators using data items from HILDA Wave 9

Dimensions and indicators	Description
Tenure	
→ Home owners → Home purchasers (with mortgage) → Private renters → Public renters → Other	The Household Questionnaire in the HILDA survey collects information about tenure. Private renters are those renting from a private landlord or real estate agent. Public renters are those paying rent to a government housing authority or a community or co-operative housing group. 'Other tenure' includes those paying rent to 'a caravan park owner or manager', 'an employer' or 'someone else'.
Affordability	
→ Private renter in unaffordable housing. → Home purchaser in unaffordable housing.	For households with these tenure types (i.e. in the private market) with income in the lowest two quintiles of the Australia-wide equivalised disposable income distribution, housing costs were deemed unaffordable when households were spending 30 per cent or more of their gross income on rent or mortgage.
Suitability	
→ Household has fewer bedrooms than required. → Household has the appropriate amount of bedrooms. → Household has more bedrooms than required.	The definition of housing suitability was taken from the Canada Mortgage and Housing Corporation's National Occupancy Standard (NOS) whereby suitable housing has enough bedrooms for the size and make-up of resident households. Specifically, the NOS requires one bedroom for each cohabiting adult couple, unattached household member 18 years of age and over, same-sex pair of children under age 18, and additional boy or girl in the family, unless there are two opposite sex children under five years of age, in which case they are expected to share a bedroom.
Satisfaction	
→ More dissatisfied with home. → Neither satisfied nor dissatisfied. → More satisfied with home.	Home 'satisfaction' was the closest possible measure of housing 'quality' (identified in the Positioning Paper as a key dimension for understanding social exclusion). Although not a substitute for a more objective assessment of 'quality', level of 'satisfaction' is likely to reflect some aspects of housing quality, for example, physical features of the dwelling such as size and condition. The respondents are asked to pick a number between 0 and 10 that indicates their level of satisfaction in regard to 'the home in which you live'.
Mobility	
→ Number of moves in the last five years (minimum): zero, one, two or three.	Data from Waves 5 to 9 were analysed to establish the (minimum) number of moves made by respondents in the previous five years. The indicator is largely based on the question: 'since we last interviewed you … have you changed your address?'
Dwelling type and size	
→ Large detached house (4+ bedrooms). → Medium detached house (3 bedrooms). → Small detached house (0, 1 or 2 bedrooms). → Other dwelling, larger. → Other dwelling, smaller.	Dwelling type is recorded by the interviewer and the respondent reports number of bedrooms. Any combination of the two data items could then be created. In this case, 'Other dwelling, larger' refers to a semi-detached house that has three or more bedrooms or a flat/unit/apartment that has two or more bedrooms. 'Other dwelling, smaller' refers to a semi-detached house with two or less bedrooms or a flat/unit/apartment with nil or one bedroom.

3.5 Housing and social inclusion/exclusion in local areas

Another central aim of this study was to examine the ways in which the relationships between housing and social inclusion/exclusion indicators vary in different types of local areas.

Frequently, place-based studies of disadvantage examine area characteristics (e.g. employment rates, health statistics) and make assumptions about their impact on the lives of residents. This approach may result in ecological fallacy: 'the mistake of drawing inferences about *individuals* on the basis of correlations calculated for areas' (Knox 1982, p.53). More specifically, examining area characteristics and making assumptions about their impact fails to distinguish between the experiences of sub-populations within those areas, and tends to assume the impact on residents is homogenous. A clear danger is that households who may be at risk of exclusion in apparently inclusive or 'healthy' areas are hidden, or that households who feel included on a range of indicators are treated as 'at risk' (Gwyther & Possamai-Inesedy 2009).

To avoid making these types of potentially erroneous assumptions, our research employs a 'bottom-up' approach: *from* analysis of individual households then moving upwards to an analysis of the local areas in which they live. To achieve this, rather than only selecting households living in highly disadvantaged areas, we examine and compare the housing tenure and housing wellbeing circumstances of more and less socially excluded households across a range of area types—including, but not restricted to, those areas characterised by the highest levels of relative disadvantage. Our analysis of local areas relies on the combination of two key socio-spatial variables: geographical area type and level of relative disadvantage.

3.5.1 Local area typology

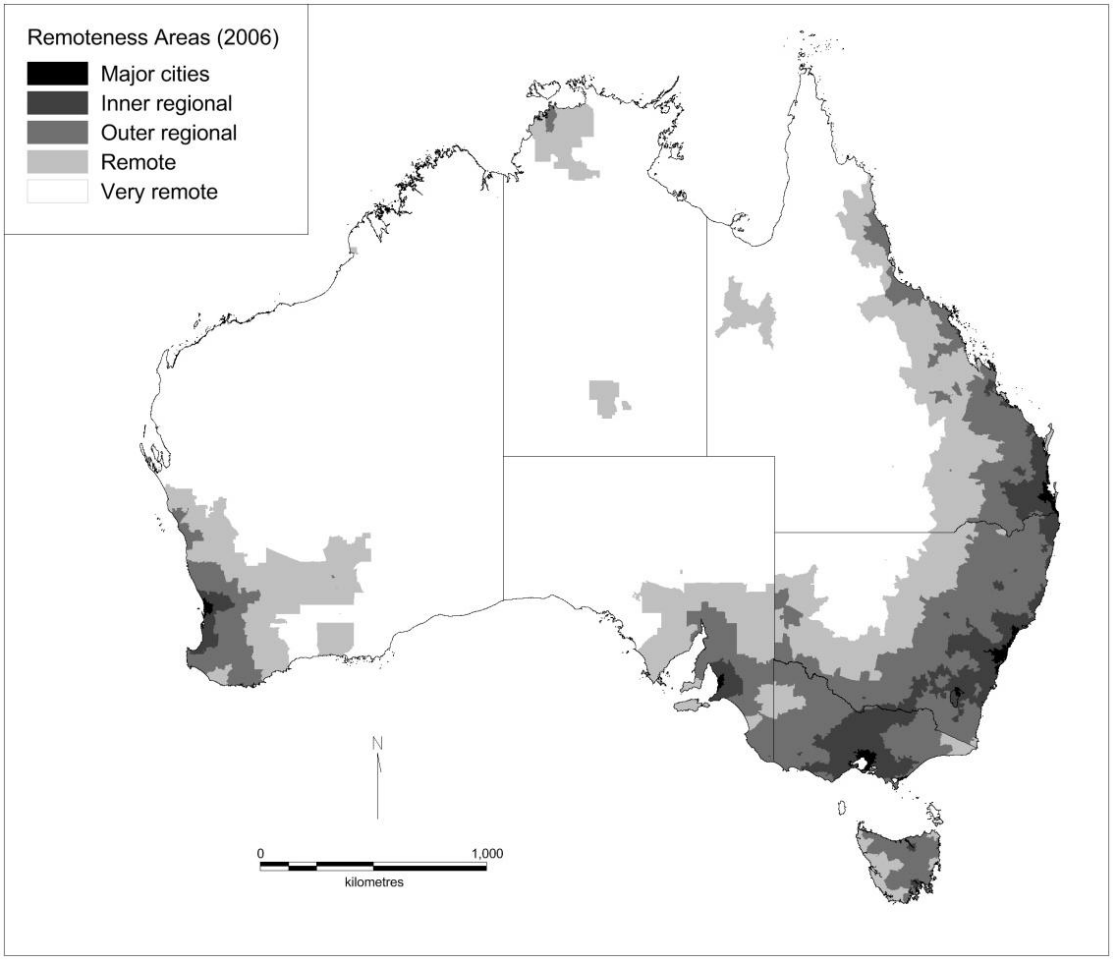
Based on the above variables, a local area typology was created to examine social exclusion and housing relationships across areas. Specifically, geographical area type was defined using the ABS 'Remoteness Structure' of Australia categorisation of all Census Collection Districts[6] (CDs). Level of disadvantage was measured using the 2006 ABS Socio-Economic Index for Areas (SEIFA), Index of Relative Socio-economic Disadvantage (IRSD).

In brief, the ABS Remoteness Structure classifies all CDs into broad geographical regions based on their level of accessibility to, or remoteness from, different types of urban centres (see ABS 2006 for a detailed description). A map of these Remoteness Areas (RAs) is presented in Figure 2 below. The 'remote' and 'very remote' RAs are combined with 'Outer Regional' areas in this study due to the very low number of HILDA respondents who reside in these regions.[7] Consequently, the local area typology includes three geographical regions: major cities; inner regional areas and outer regional/remote areas.

[6] Census Collection Districts (CDs) are designed for the collection and dissemination of Population Census data. There are, on average, around 220 dwellings per CD.

[7] In fact, as the HILDA sample excludes those living in remote and sparsely populated areas, any respondents reported living in such areas in Wave 9 must have moved there post Wave 1.

Figure 2: Remoteness Areas (RAs), Australia, 2006



Source: ABS digital Census boundaries, 2006

To measure relative disadvantage for the local areas of the HILDA respondents, the SEIFA IRSD was used. This summarises a range of Census-based indicators of relative disadvantage relating to people and households within an area. The empirical result of this 'summary' is an index value which allows regions, in this case CDs, to be ranked Australia-wide and subsequently grouped into percentiles. Accordingly, households were tagged with the IRSD Australia-wide percentile value of the CD within which they lived and these percentiles were then grouped into low relative disadvantage (IRSD percentiles 67 to 100), medium relative disadvantage (IRSD percentiles 34 to 66) and high relative disadvantage (IRSD percentiles 1 to 33).

At various points in our analysis we use these area-based indicators separately. However, in order to examine the housing tenure and housing wellbeing arrangements of socially 'included' and excluded households in different types of local areas, we construct a measure based on a combination of the regional types and varying levels of relative disadvantage based on the SEIFA scores. Table 7 below shows how the area typology variable has been constructed in the form of a matrix. Each cell in the matrix then forms one of nine discrete types of area which are used for analysis of social inclusion/exclusion and housing in Chapter 6.

Table 7: A local area typology based on remoteness area (RA) and IRSD

Relative disadvantage (SEIFA – IRSD)	Geographical area type (ABS defined 'Remoteness Areas')		
	Major city	Inner regional	Outer regional/remote
Low relative disadvantage	✓	✓	✓
Medium relative disadvantage	✓	✓	✓
High relative disadvantage	✓	✓	✓

Using the 'bottom-up' approach based on household circumstances and comparison of theoretical area types using the area typology described above, our approach differs from much research in this field in which problems of ecological fallacy are prevalent. It emphasises the experiences of households and how these relate to social inclusion, rather than assuming *a priori* that particular characteristics of local areas will affect residents in predetermined ways. Thus, it aims to avoid the 'ecological fallacy' whereby the characteristics observed at an area level are presumed to hold for individuals and households. This is important for ensuring the best place-based policy interventions can be made where needed and are targeted both effectively and correctly.

Hence, rather than examining 'real' identifiable areas (e.g. within defined postcode areas), we instead rely on the local area typology to make theoretical generalisations about types of local areas. This approach is appropriate due to the relatively small numbers of HILDA respondents per local area (e.g. postcode or suburb) and compared with the large numbers that would be required to undertake sound broad-scale geo-spatial analyses. The disadvantage of this approach is that our analysis focuses on theoretically generalisable area types rather than specific real world places. The advantages are that findings can be generalised at the theoretical level to 'like' place types.

3.6 Exploring the relationships between social exclusion and housing wellbeing

In order to examine the relationships between the social exclusion, housing and socio-spatial indicators described above, our approach comprised a mix of straightforward frequency analysis, cross-tabulation of key variables and linear regression modelling. The frequency of the individual indicators of social exclusion is presented first in the following section to highlight those that are likely to be the main drivers of social exclusion in Australian households. It is from these indicators that the composite social exclusion sum-score is calculated. This measure, classified into three groups representing the degree of social exclusion (or inclusion) experienced by the individual or household, forms the basis for the ensuing cross-tabulations of housing wellbeing variables and local area type. The linear regression analyses investigate how the indicators of housing wellbeing relate to multiple forms of disadvantage for households when considered in relation to one another, and also take into account household type. The social exclusion sum-score variable is the 'dependent variable', and housing tenure and wellbeing indicators, along with other demographic characteristics of households, are the 'independent variables'.

3.7 Methodological limitations

One of the most significant implications of using established household/person survey data for the study of an issue such as multiple disadvantage is that population groups who experience extreme forms of exclusion, such as those who are homeless or have poor English language proficiency, are typically under-represented. This is a recognised limitation of much survey research in relation to poverty and disadvantage.

As mentioned in Section 3.2.2, while highly advantageous in many ways, the HILDA data are not immune to this problem of under-representation of groups who may be at highest risk of social exclusion. The lack of representation of homeless populations, together with the under-representation of groups such as Indigenous Australians and newly arrived migrants, all of whom are known to experience poor housing circumstances, are limitations that have particular bearing in a study that aims to understand relationships between multiple disadvantage and housing. To understand such relationships for these groups it is necessary to undertake sub-group analyses, most likely based on dedicated data collections (quantitative and/or qualitative) designed for this purpose.

Our analysis is based on cross-sectional analyses only. Using the HILDA data longitudinally to examine causality would form an important next phase in the analysis of housing and social inclusion/exclusion beyond the scope of the present project.

Furthermore, although there was a strong desire to collect primary data through personal interviews and hence incorporate a qualitative component into the research design, the confines of the project determined that a quantitative analysis of secondary survey data would form the sole basis for the results. A qualitative approach would enhance understandings of the relationships between housing and social inclusion/exclusion at both the household and local area levels.

4 THE PREVALENCE AND NATURE OF SOCIAL INCLUSION/EXCLUSION IN AUSTRALIA

Before examining the relationships between housing and social inclusion and exclusion, it is important to first understand the nature and prevalence of social inclusion/exclusion in Australia. In this section we do so by considering the prevalence of individual indicators of each social inclusion/exclusion domain, as well as that of the overall social exclusion sum-score described in Chapter 3. We also explore how social inclusion/exclusion is distributed among households with differing demographic characteristics.

4.1 The nature, extent and depth of social inclusion/exclusion

Focusing firstly on individual indicators of social inclusion/exclusion, we consider each domain of social exclusion in turn. Table 8 below presents the rates of each individual indicator across all domains of social inclusion/exclusion for all respondents in the HILDA survey (left-hand side column) as well as for just those living in lower income households (right-hand side column). The table gives some notion of the indicators that, through their prevalence, are likely to be the important drivers of social exclusion in Australia. The subsequent analysis of the composite rates of these indicators reveals the extent to which they are experienced concurrently by individuals and households.

Starting with income, an indicator of the 'material resources' domain, we find a significant proportion of all individuals who experience low income (33.9%). However, numbers reporting experiencing financial hardship (a composite measure described in Appendix 2) are relatively low, suggesting that many people are able to 'get by' financially despite their relatively low household income. This is less so for lower income individuals compared with all individuals in the survey, for whom around 10 per cent report experiencing hardship of this kind (close to double that for all households).

As we would expect, rates of unemployment and joblessness are relatively low, reflecting national statistics. For all individuals in the sample there are 3.8 per cent unemployed and 5.7 per cent living in a jobless household.[8] Each of these experiences is potentially significant in severity, however, with the incidence of each higher among those living in lower income households than for all people, with rates of joblessness among those in lower income households particularly notable (rates of unemployment and joblessness among those in lower income households in the sample are 5.4 and 12.9%, respectively). Indicators of the health domain of social exclusion show a significant minority of individuals are characterised by issues of poor general health and/or ongoing long-term/chronic health concerns and disability. Rates of fair or poor general health (as opposed to good health) are highest among lower income individuals relative to all surveyed individuals.

Considering the social and community domains of social exclusion, we find roughly similar rates of social support for all individuals as we find for lower income individuals (low rates of social support are 1.4 per cent for all individuals and 2.1 per cent for those living in lower income households). We also find very similar rates of civic and more formal community engagement for each group. For example, 61.9 per cent of all

[8] Corresponding figures published by the ABS are: unemployed, 5.8 per cent (September 2009, see <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/F9503E18F78A5C3FCA25766B00162732?opendocument>).

individuals and 61.0 per cent of lower income individuals report low levels of voluntary activity, with very similar low levels of group membership for each income group (60.8 and 62.5%, respectively). Problems of feeling part of the community and/or neighbourhood appear relatively low overall for each group.

Problems associated with the safety domain of social exclusion are relatively low in these data. Rates of victimisation are similar for each household income group, with each reporting less than 5 per cent of each type of problem in each case. However, these rates may underestimate problems associated with crime and safety given the sensitivity of these issues.

Table 8: Proportion of each indicator of social exclusion in the population aged 15 years and over (individual level)

Domain and indicator	Aged 15 years and over (n=13,301^)		Aged 15 years and over living in households with below median equivalised disposable household income (n=5,772^)	
	n	%	n	%
Material resources				
Low income[#]	4,506	33.9	4,506	78.1
In financial hardship *(SCQ*, n=11,355 & 4,824)*	710	6.3	493	10.2
Employment				
Unemployed	500	3.8	310	5.4
In a jobless household *(n=11,604 & 4,432)*[##]	667	5.7	573	12.9
Education and skills				
Poor English proficiency	170	1.3	131	2.3
Low formal education	3,884	29.2	2,401	41.6
Little work experience	1,001	7.5	530	9.2
Health				
Fair or poor general health *(SCQ, n=11,326 & 4,834)*	1,756	15.5	1,082	22.4
Long-term health condition	3,817	28.7	2,237	38.8
Disabled child in household	386	2.9	192	3.3
Low overall life satisfaction	330	2.5	214	3.7
Social				
Little social support *(SCQ, n=11,373 & 4,832)*	164	1.4	101	2.1
Low social participation *(SCQ, n=11,228 & 4,749)*	1,032	9.2	555	11.7
Community				
Low satisfaction with neighbourhood	603	4.5	362	6.3
Low satisfaction with feeling part of community	1,804	13.6	879	15.2
Low civic participation—club membership *(SCQ, n=11,399 & 4,866)*	6,929	60.8	3,043	62.5
Low civic participation—voluntary activity *(n=4,378 & 3,076)***	2,709	61.9	1,875	61.0
Safety				
Victim of physical violence *(SCQ, n=11,378 & 4,829)*	179	1.6	101	2.1
Victim of property crime *(SCQ, n=11,391 & 4,837)*	441	3.9	180	3.7
Low feeling of personal safety	348	2.6	229	4.0

^Unless otherwise stated in brackets

#Low income: living in a household in the bottom 40 per cent of the equivalised disposable household income distribution.

##Proportion of only those living in households that have at least one member of working age (15–64 years).

*SCQ = Self-completion Questionnaire: completed independently by the respondent and thus response rates are lower than those achieved with the interviewer-led person and household questionnaires.

**Proportion of only those respondents who are not in paid employment and not studying full- or part-time.

Source: HILDA Survey, Wave 9 Release 2010

Drawing the above indicators together using the social exclusion sum-scores approach described in Section 3.3, we are able to examine composite rates of social inclusion/exclusion for respondent households and to identify those with most severe problems of exclusion overall (Table 9).

Considering *all* households surveyed first, we find a majority (65.1%) can be considered to experience no social exclusion. Put another way, approximately two-thirds of households can be considered to be 'included', using the social inclusion framework. The weighted count for all households shows that this equates to approximately 5.4 million across Australia.[9] Conversely, around a third of all households (about 2.74 million) responding to the HILDA survey can be considered to be socially excluded to some degree, regardless of income. These rates are reversed, however, when we consider lower income households alone. Indeed, for such households (those with below median equivalised disposable income) the overall rate of non-exclusion (or 'inclusion') is around only a third (35.7%). Some level of social exclusion is experienced by almost two-thirds of lower income households (64.3% or about 2.4 million households).

The severity of social exclusion experienced by all and lower income households alone also varies, as we might expect. Among all households, 28.5 per cent experience what we term 'marginal' exclusion, with a further 6.3 per cent who experience 'deep' exclusion. For lower income households alone, the extent and depth of social exclusion is far more pronounced. Around half (51.5%) can be considered to be 'marginally' excluded, with a further 12.7 per cent 'deeply' excluded.

[9] This is, as stated, an approximate figure and does not take into account the limitations of the composition of the HILDA sample (as described in Chapter 3).

Table 9: Social exclusion sum-scores at the household level

	All households		Lower income households*		Weighted count	
	n	%	n	%	All households	Lower income households*
No social exclusion (sum-score <1)	4,617	65.1	1,194	35.7	5,390,000	1,360,000
Marginal social exclusion (sum-score 1 to <2)	2,023	28.5	1,721	51.5	2,270,000	1,940,000
Deep social exclusion (sum-score 2 or more)	447	6.3	425	12.7	470,000	450,000
Total	7,087	100.0	3,340	100.0	8,130,000	3,750,000

*Households with below median equivalised disposable income.

Source: Derived from HILDA Survey, Wave 9 Release 2010

In sum, we find relatively high levels of social exclusion among households generally, and most pronounced problems of exclusion (in both extent and depth) among lower income households. Our findings show, however, that while experiences of multiple disadvantage are correlated with household income, income alone does not account for disadvantage. Significant economic, health and social issues are distributed across both lower income and other household groups. These figures are likely to reflect rates in the general population. Rates of 'deep' exclusion reported here approximate estimates of extreme poverty in Australia and are also consistent with earlier estimates of multiple disadvantage (Scutella et al. 2009b; ACOSS 2011).

4.2 Who experiences social exclusion?

As well as the differences we have described between all and those living in lower income households, we also find that some sub-groups within the population are more likely to experience exclusion to a greater degree than others. While most of the analysis presented in this report is based at a household level to enable analysis of housing, in this section we briefly consider the distribution of social inclusion/exclusion at the individual level. Our rationale for doing so is to better understand the distribution of social exclusion across population groups.

Taking this approach, we find that rates of social exclusion are more pronounced for: women than men, the middle aged (40–64-year olds)—only slightly for deep exclusion only, but much more so for those aged over 65 years and overseas-born non-English-speaking individuals with low levels of formal education (particularly those with year 11 or less). Levels of social exclusion also vary by household type, with a relatively high degree found across all types of households, but with highest levels of 'deep' exclusion found among couples with children, lone parent and lone person households, followed by couple only households and 'other' household types. Of 'deeply' excluded individuals at any income level, 23.2 per cent are couples with children, 22.2 per cent are lone parents, 26.4 per cent are lone persons, and 19.8 per cent are couples only (Table 10).

Table 10: Selected characteristics of those aged 15 years and older by level of social exclusion

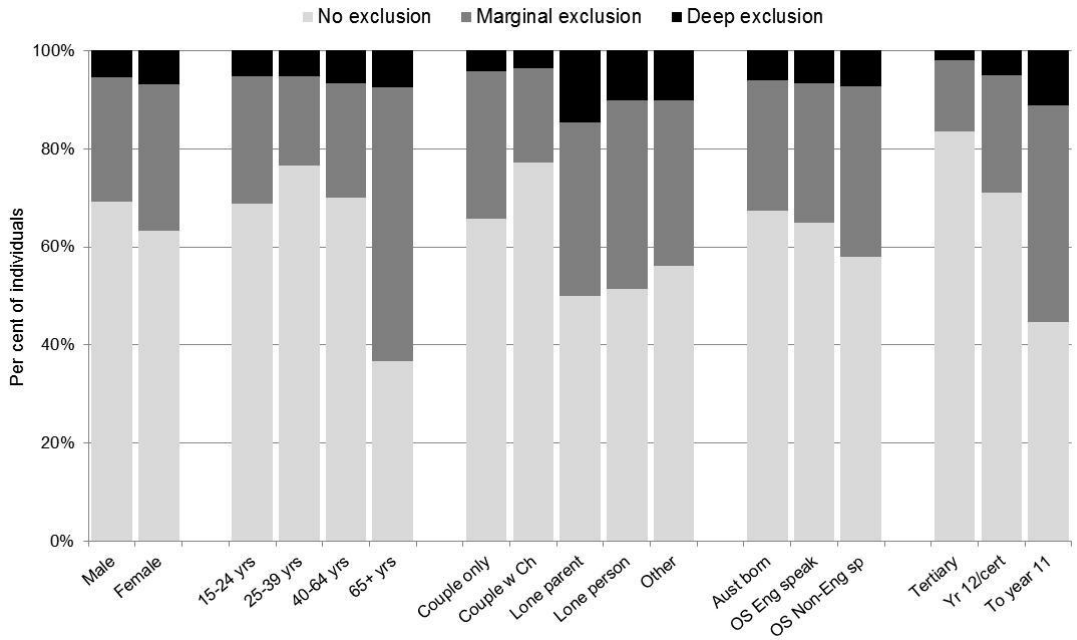
	No social exclusion	Marginal exclusion	Deep exclusion	
	SE sum-score less than one	SE sum-score from 1 to just less than 2	SE sum-score 2 or more	Total %
	(n=8,796)	(n=3,687)	(n=818)	(n=13,301)
Sex				
Male	49.8	43.3	42.1	47.5
Female	50.2	56.7	57.9	52.5
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Age				
15–24 years	20.5	18.5	17.0	19.7
25–39 years	28.4	16.1	20.5	24.5
40–64 years	42.3	33.6	43.2	40.0
65 years and over	8.7	31.8	19.3	15.8
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Household type				
Couple only	28.6	31.2	19.8	28.7
Couple with children	47.6	28.5	23.2	40.8
Lone parent	7.0	11.9	22.2	9.3
Lone person	12.5	22.3	26.4	16.1
Other	4.3	6.2	8.3	5.1
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Country of birth				
Australia	81.4	76.9	77.1	79.9
Overseas—main English-speaking	9.0	9.4	9.9	9.2
Overseas—other	9.6	13.7	13.0	11.0
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Education level				
Tertiary	37.2	15.3	9.7	29.5
Year 12 or certificate	40.8	32.9	31.1	38.0
To year 11	21.9	51.8	59.3	32.5
Total %	**100.0**	**100.0**	**100.0**	**100.0**

Source: HILDA Survey, Wave 9 Release 2010

Considering these levels of social inclusion and exclusion as proportions within each demographic group, we find disproportionate numbers of socially excluded individuals among particular sub-groups within the population (Figure 3). The following groups experience highest rates of marginal and deep exclusion combined: women (36.8%),

those aged 65 years or over (63.3%), lone parents (50.0%) followed closely by lone persons (48.6%), persons born overseas with primary language other than English (41.0%) and individuals with year 11 or less of formal schooling (55.4%).

Figure 3: Levels of social exclusion among selected population sub-groups aged 15 years and older



Source: HILDA Survey, Wave 9 Release 2010

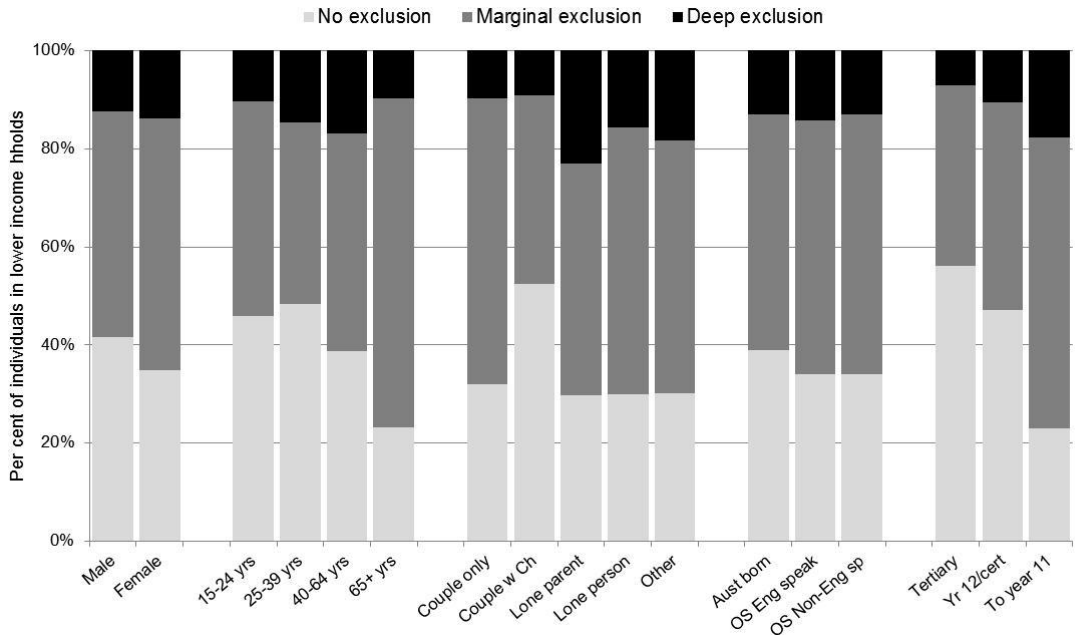
When we compare these levels of inclusion/exclusion with those for lower income households only we find similar demographic patterns, but with the experience of social exclusion more evident in each case (see Table 11 and Figure 4). When we consider social exclusion (levels of 'marginal' and 'deep' exclusion combined) as a proportion of population sub-groups, we find it is most extensive for: women (65.1%), those aged 65 years or over (76.7%), lone parents (70.2%) followed closely by all other household types except couples with children, around half of whom experience some degree of exclusion, and persons with low levels of formal education (year 11 or less) (77%). It is most pronounced among individuals born overseas with a primary language other than English (66.0%), although this rate is very similar to the distribution of social exclusion across those born in Australia and overseas (whether English is a primary language or not).

Table 11: Selected characteristics of those aged 15 years and older, living in households with below median equivalised disposable household income, by level of SE

	No social exclusion SE sum-score less than one	Marginal exclusion SE sum-score from 1 to just less than 2	Deep exclusion SE sum-score 2 or more	Total %
	(n=2,185)	(n=2,830)	(n=757)	(n=5,772)
Sex				
Male	48.6	41.7	41.7	44.3
Female	51.4	58.3	58.3	55.7
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Age				
15–24 years	25.9	19.1	16.6	21.3
25–39 years	23.2	13.7	20.1	18.1
40–64 years	34.2	30.1	42.9	33.4
65 years and over	16.7	37.1	20.3	27.2
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Household type				
Couple only	22.2	31.2	19.7	26.3
Couple with children	45.2	25.5	22.9	32.6
Lone parent	10.3	12.6	23.0	13.1
Lone person	17.7	24.7	26.6	22.3
Other	4.5	6.0	7.9	5.7
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Country of birth				
Australia	79.9	76.0	77.0	77.6
Overseas—main English-speaking	8.0	9.3	9.6	8.9
Overseas—other	12.2	14.7	13.3	13.6
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Education level				
Tertiary	24.9	12.6	9.1	16.8
Year 12 or certificate	47.9	33.3	30.8	38.5
To year 11	27.2	54.2	60.1	44.7
Total %	**100.0**	**100.0**	**100.0**	**100.0**

Source: HILDA Survey, Wave 9 Release 2010

Figure 4: Levels of social exclusion among selected population sub-groups aged 15 years and older living in households with below median equivalised disposable household income



Source: HILDA Survey, Wave 9 Release 2010

In sum, analysis of social inclusion and exclusion of all households in the HILDA survey and those with lower incomes only indicates, as we might expect, that income levels are highly significant to the extent of social exclusion likely to be experienced by any given population within the Australian community, as well as to the degree of exclusion experienced. The tables above consistently indicate that disadvantage is more likely to be experienced by lower income individuals and to greater degrees. Our findings also indicate, however, that income alone does not account for social inclusion or exclusion and that personal financial wealth might alleviate the development and/or experience of multiple forms of disadvantage, but that income alone cannot negate the experience of multiple disadvantage entirely. A significant number of individuals and households including, but beyond, those with lower incomes, are found to experience a variety of types of social exclusion.

Given the considerable overlap between low income and social exclusion found in the HILDA data (87% of socially excluded households in the study are found to have low income), throughout the remainder of the analysis in this report we focus on the distinction between non-excluded, marginally and deeply excluded households using data for *all* households, and report in more detail on analyses for lower income households only in some instances as relevant (see Chapter 3 for discussion).

5 HOUSING AND SOCIAL INCLUSION/EXCLUSION IN AUSTRALIA: A HOUSEHOLD ANALYSIS

To begin to explore the relationships between social inclusion and exclusion and housing among Australian households, in this section we address the following sets of questions. First, how are socially included and excluded households distributed across housing tenures in Australia and what are the key drivers of social exclusion among households living in different housing tenure arrangements? Second, what is the relative significance to social inclusion/exclusion of housing tenure vis-à-vis other housing wellbeing indicators, and how do the housing wellbeing circumstances of households vary in different tenure arrangements?

Table 12 below shows the key housing tenure and wellbeing variables we use throughout this analysis. These are housing tenure, affordability, mobility, suitability, satisfaction with housing, and dwelling type and size.

Table 12: Proportion of each housing indicator for households

Housing indicator	All households
Tenure (n=7,087)	
Outright owner	32.9
Purchaser	31.0
Private renter	26.5
Public renter	5.5
Other	4.1
Total	*100.0*
Affordability (purchasers + private renters, n=3,981)	
Households in lowest 40%# paying 30% or more of gross income (housing stress)	15.1
Households in lowest 40%# paying < 30% of gross income	13.2
Households with income in the highest 60%	71.7
Total	*100.0*
Mobility* (n=6,946)	
Zero moves in previous 5 years	52.8
1 move in previous 5 years	23.3
2 moves in previous 5 years	13.3
3 or more moves in previous 5 years	10.6
Total	*100.0*
Suitable housing (n=7,005)	
Have less than needed	1.8
Have the 'right' amount	17.6
Have more than needed	80.6
Total	*100.0*
Satisfaction with home (n=7,069)**	
More dissatisfied	5.4
Neither satisfied nor dissatisfied	5.2
More satisfied	89.4
Total	*100.0*
Dwelling type and size (n=7,042)	
Large detached house (4+ bedrooms)	31.1
Medium detached house (3 bedrooms)	37.9
Small detached house (0, 1 or 2 bedrooms)	8.4
Other dwelling type: larger^	15.1
Other dwelling type: smaller^	7.4
Total	*100.0*

Equivalised disposable household income.
*Lowest number of moves by a household member.
**Average response from all responding household members.
^Larger = semi-detached house with three or more bedrooms or a flat/unit/apartment with two or more bedrooms. Smaller = semi-detached house with two or less bedrooms or a flat/unit/apartment with nil or one bedroom.
Source: HILDA Survey, Wave 9 Release 2010

5.1 Social exclusion across housing tenures

We begin our analysis of the relationships between these housing indicators and social inclusion/exclusion by considering the extent of non-exclusion ('inclusion'), 'marginal exclusion' and 'deep exclusion' across housing tenures. Using the sum-scores approach to present data about social inclusion/exclusion, our focus is upon determining the extent and distribution of social inclusion/exclusion *across* tenures in the Australian housing system. Following this, we explore whether different domains and indicators of social exclusion are more or less prevalent than others *within* each housing tenure category. We examine whether social exclusion among households living in different housing tenure arrangements is driven by different or similar experiences of multiple disadvantage. Put another way, we ask: do households with different social exclusion profiles live in similar or different housing tenures?

Table 13 and Figure 5 present results for these relationships for all households. Focusing first on those *not* experiencing social exclusion, we find, as expected, that home owners form a large majority of this 'included' category (Table 13). Of all 'included' households, around 70 per cent either own their homes outright (30%) or are purchasing them (39.9%). Around a quarter of all 'included' households are private renters (24.9%), whereas public tenants account for only 1.8 per cent of this group (with this low proportion to be expected, given eligibility requirements for social housing).

Results are noteworthy when we consider the distribution of 'marginal' and 'deep' exclusion across tenure categories (Table 13). Considering the respective proportions of each tenure category found in the marginally and deeply excluded groups, we now begin to see clear differences between the outright owner and home purchaser groups, in addition to differences between home owners, private renters and social housing tenants.

Outright owners are strongly represented in each of the 'marginal' and 'deep' social exclusion categories, with significantly fewer home purchasers found in either of these categories. Forty-two per cent of households found to be marginally excluded are outright owners, compared with 15.3 per cent of marginally excluded households who are home purchasers. Similarly, among deeply excluded households, 22.4 per cent own their homes outright compared with 9.6 per cent who are purchasing their homes. Figure 5 illuminates these differences between outright owners and home purchasers. While a large majority (83.9%) of home purchasers are 'included', a significant proportion—more than 40 per cent—of outright owners are found to experience either 'marginal' or 'deep' levels of social exclusion (36.4 and 4.3% respectively).

Private renters are also strongly represented in the 'marginal' and 'deep' social exclusion categories, comprising 27.1 and 40.5 per cent of all households in each of the 'marginal' and 'deep' exclusion groups, respectively (Table 13). Indeed, when we consider all private renter households in the survey (Figure 5) we find around 40 per cent are either marginally or deeply excluded. Close to a third (29.2%) can be considered 'marginally' excluded, while 10 per cent fall into the 'deeply' excluded category. We also investigated this relationship for lower income private renter households (not shown). Among this group, almost two-thirds are found to experience social exclusion to some degree. Close to half are in the 'marginal' exclusion category while almost a fifth fall into the 'deep' exclusion group.

Not surprisingly, of all the housing tenures we consider, public housing is home to the largest proportion of either marginally or deeply excluded residents. Around 80 per cent of households living in public rental housing are socially excluded to some degree (Figure 5). More than half (53.5%) can be classified as experiencing 'marginal'

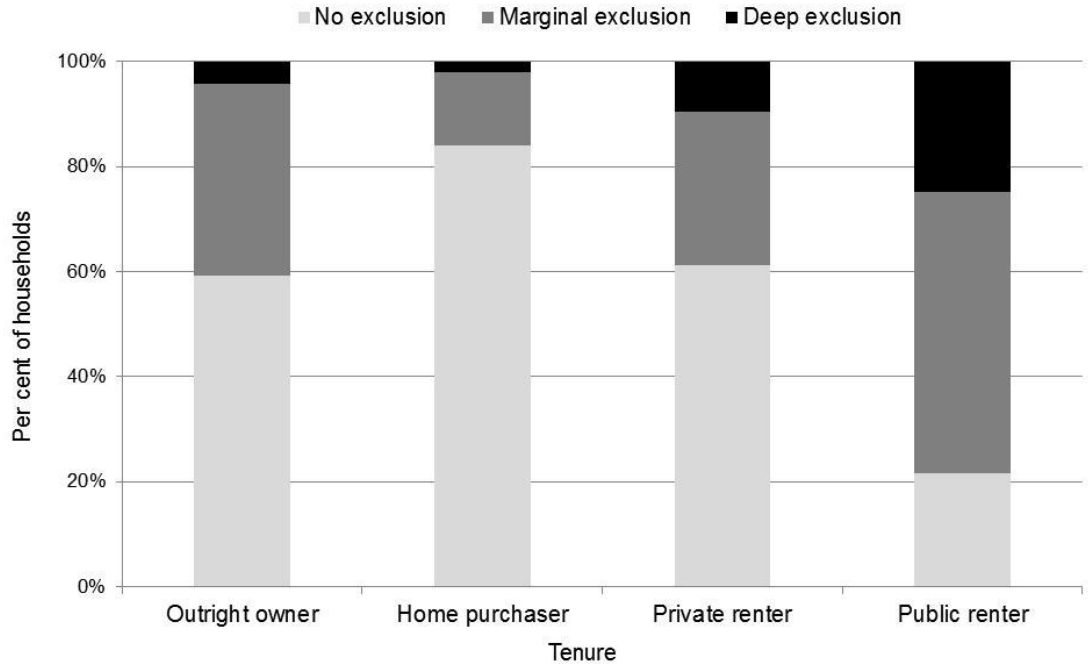
exclusion, and around one-quarter ‘deep’ social exclusion. While public housing comprises a relatively small sector in the housing system overall, public housing tenants are strongly over-represented among the socially excluded populations. They comprise only 1.8 per cent of non-excluded (‘included’) households, 10.3 per cent of ‘marginally’ excluded households, and around a fifth (21.7%) of households that can be described as ‘deeply’ excluded (Table 13).

Table 13: Tenure distribution within levels of social exclusion (all households)

	No social exclusion SE sum-score less than one	Marginal exclusion SE sum-score from 1 to just less than 2	Deep exclusion SE sum-score 2 or more	Total (n=7,087)
Outright owner	30.0	42.0	22.4	32.9
Home purchaser	39.9	15.3	9.6	31.0
Private renter	24.9	27.1	40.5	26.5
Public renter	1.8	10.3	21.7	5.5
Other tenure/not stated	3.4	5.3	5.8	4.1
	100.0	100.0	100.0	100.0

Source: HILDA Survey, Wave 9 Release 2010

Figure 5: Social exclusion within housing tenures (all households)



Source: HILDA Survey, Wave 9 Release 2010

In short, our analysis of housing tenure and social inclusion/exclusion indicates that social exclusion—at both marginal and deep levels—is not restricted to residual housing, but is widely distributed across the housing system. Along with public housing tenants who are most likely to experience either marginal or deep levels of social exclusion, other key housing tenure groups experiencing multiple forms of social exclusion are outright owners, private renters, as well as a smaller although

nonetheless significant proportion of purchaser owners. Of most significance, we find some degree of social exclusion across *all* housing tenures. The findings raise important implications for the way we measure poverty and disadvantage in relation to housing as well as more generally. Approaches based on financial measures provide narrower accounts of disadvantage, whereas the social exclusion approach adopted here clearly identifies a wider pool of households as experiencing disadvantage of some kind.

5.1.1 Factors associated with social exclusion in different housing tenure categories

We are also interested in the question of whether the nature of social exclusion experienced by socially excluded households varies between tenures: are the key drivers of social exclusion the same for each tenure group? When we consider the extent to which the seven domains of social inclusion/exclusion feature in the experiences of socially excluded households within each tenure category, we find some clear differences, as well as some factors that are universal.

Table 14 below presents all indicators of social inclusion/exclusion individually. Beginning with indicators of the 'material resources' domain, we find low income (equivalised gross household income in the lowest 40 per cent of the income distribution) is a significant issue contributing to social exclusion across all housing tenures, but is most pronounced by tenure groups in the following order. First, 89 per cent of socially excluded individuals in public rental housing have low income, followed by 79 per cent of socially excluded individuals who own their homes outright with low income; next, 72 per cent of socially excluded private renters have low income, and last are purchaser owners, of whom 57 per cent of socially excluded individuals have low income. Financial hardship, a different type of resources measure which takes both income and wealth into account, is most pronounced among renters rather than owners, with 26 and 19 per cent of individuals in private and public rental, respectively, experiencing financial hardship.

'Employment' issues are also most pronounced in the rental tenures. While unemployment is relatively evenly distributed across tenure categories (with the exception of outright owners, many of whom are of retirement age), we find some differences in the distribution of joblessness. Almost a third (30%) of socially excluded individuals living in public rental housing reside in jobless households, followed by almost a fifth (19%) of socially excluded individuals living in private rental housing also living in households in which no adult is employed.

Poor levels of 'education and skills' feature prominently in the social exclusion experiences of individuals across all tenure categories and, again, problems within this domain are more pronounced in some tenure categories than others. Most socially excluded individuals residing in each of public rental housing and outright ownership have 'low formal education' levels, with 63 per cent of public renters and 60 per cent of outright owners falling into this category. A lower, although still substantial number of socially excluded individuals within each of private rental and purchaser owner tenures also report having 'low formal education' (49 and 43% respectively). Another indicator of the 'education and skills' domain concerns degree of work experience—we find low levels of work experience most pronounced among socially excluded private renters, of whom 20 per cent fit within a 'little work experience' group.

Problems related to the 'health' domain feature across all tenure groups, but clear differences are found when we consider long-term compared with short-term or general health concerns. The research showed that between roughly a quarter to a

third of socially excluded individuals in each tenure category report having only ‘fair or poor’ general health. Higher proportions of individuals in each tenure also report having ‘long-term health conditions’, including 70 per cent of socially excluded individuals residing in public rental housing. A majority (64%) of outright owners also report long-term health conditions, many of which are likely to be associated with greater average ages of residents in this group compared with other tenure categories. Significant and similar proportions of socially excluded private renters and purchaser owners also report having long-term health concerns (44 and 42% respectively).

Considering the ‘social’ domain of social inclusion/exclusion, it is interesting to note that a very low proportion of socially excluded individuals in any of the main housing tenure categories report having ‘little social support’ (less than 5% in any tenure). Some differences emerge, however, when we consider another indicator of this domain, based on levels of social participation. The highest proportion of socially excluded individuals with ‘low social participation’ are found among purchaser owners, almost a quarter of whom (23%) fall into this category.

Some differences among socially excluded individuals living in different housing tenure categories emerge when we consider indicators in the ‘community’ domain. Here we find the proportion of socially excluded outright owners reporting feeling ‘low satisfaction with neighbourhood’—lower (5%) than that within any other tenure category (ranging to 16% among socially excluded public tenants). Socially excluded private renters and purchaser owners are more likely than either public renters or outright owners to report ‘low satisfaction with feeling part of the community’ (31 and 30%, respectively). Roughly similar rates of civic participation in terms of club membership are found across tenure categories (ranging from between two-thirds and three-quarters non-membership). Greater variation is found when we consider civic participation via volunteerism, where lowest overall levels of volunteering are found as a proportion of each of outright owners (56%) and public renters (47%) compared with other tenure groups.

Table 14: All social exclusion indicators by tenure status and social exclusion status (individuals)

	Outright owners			Purchasers			Private renters			Public renters		
	No SE	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***
	n= 2,745	n= 1,694		n= 3,823	n= 919		n= 1,833	n= 1,193		n= 150	n= 505	
Material resources												
Low income[#]	454	1,336	*79%*	311	521	*57%*	304	860	*72%*	63	450	*89%*
In financial hardship	6	60	*4%*	36	136	*15%*	43	307	*26%*	2	95	*19%*
Employment												
Unemployed	14	61	*4%*	35	111	*12%*	11	168	*14%*	0	59	*12%*
In a jobless household[##]	14	151	*9%*	6	71	*8%*	8	223	*19%*	1	150	*30%*
Education and skills												
Poor English proficiency	19	63	*4%*	12	21	*2%*	6	20	*2%*	2	23	*5%*
Low formal education	567	1,016	*60%*	533	394	*43%*	293	579	*49%*	41	318	*63%*
Little work experience	129	64	*4%*	200	117	*13%*	128	239	*20%*	17	68	*13%*
Health												
Fair or poor general health	143	596	*35%*	169	261	*28%*	65	295	*25%*	6	162	*32%*
Long-term health condition	619	1,089	*64%*	477	385	*42%*	231	529	*44%*	22	352	*70%*
Disabled child in household	31	29	*2%*	123	62	*7%*	24	82	*7%*	0	24	*5%*
Low overall life satisfaction	5	75	*4%*	21	75	*8%*	5	89	*7%*	0	42	*8%*
Social												
Little social support	5	58	*3%*	2	32	*3%*	6	41	*3%*	0	17	*3%*
Low social participation	80	309	*18%*	101	209	*23%*	37	188	*16%*	2	69	*14%*

	Outright owners			Purchasers			Private renters			Public renters		
	No SE	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***	**No SE**	**SE**	***% of those socially exc'd***
	n= 2,745	n= 1,694		n= 3,823	n= 919		n= 1,833	n= 1,193		n= 150	n= 505	
Community												
Low satisfaction with neighbourhood	31	88	*5%*	55	106	*12%*	63	152	*13%*	4	81	*16%*
Low satisfaction with feeling part of community	150	288	*17%*	271	274	*30%*	255	373	*31%*	11	119	*24%*
Low civic participation—club membership	1,064	1,080	*64%*	1,837	686	*75%*	830	859	*72%*	55	312	*62%*
Low civic participation—voluntary activity**	386	952	*56%*	229	298	*32%*	73	428	*36%*	10	238	*47%*
Safety												
Victim: physical violence	13	25	*1%*	15	34	*4%*	20	44	*4%*	2	20	*4%*
Victim: property crime	62	59	*3%*	104	63	*7%*	53	69	*6%*	2	21	*4%*
Low feeling of personal safety	8	95	*6%*	20	61	*7%*	12	97	*8%*	2	37	*7%*

Living in a household in the bottom 40 per cent of the equivalised disposable household income distribution.

Living in a household with no member in paid employment and at least one member of working age (15–64).

** Applicable to those who are not in paid employment and not studying full or part-time.

Source: HILDA Survey, Wave 9 Release 2010

Finally, we find negligible differences in the experiences of socially excluded individuals in the 'safety' domain of social inclusion/exclusion across tenure groups. This finding must be interpreted with caution as it may not accurately reflect real differences in the safety/crime/victimisation experiences of socially excluded individuals residing in different housing tenures in the broader population, given the sensitive nature of the information. Significant differences in the experiences of individuals in different living environments may be found via a dedicated analysis of individuals/households who have experienced victimisation, beyond the scope of the present analysis.

Drawing these findings together by tenure, our findings show the following. Social exclusion among public renters is characterised by high degrees of disadvantage in around five of the social inclusion/exclusion domains we have considered (although note findings need to be read with some caution due to small sample sizes for analysis, as shown at Table 14). Key individual indicators driving social exclusion among public renters include low income, joblessness, low formal education, fair/poor general health and long-term health conditions; coupled with a compromised sense of feeling part of the community. In a number of key ways, patterns of social exclusion among outright owners resemble those among public renters. Individual factors driving social exclusion among this tenure group are low income, low formal education, fair/poor general health and long-term health conditions, along with relatively low civic participation (notably in formal settings such as club membership and volunteering).

Patterns of social exclusion among private renters and purchaser owners are somewhat different than among public renters and outright owners. Relatively high proportions of the following factors are found among socially excluded private renters: low income and financial hardship, joblessness and low levels of work experience (coupled with significant levels of low formal education, although at a lower proportion than for either public renters or outright owners), long-term health conditions, as well as low satisfaction with feeling part of the community and limited civic participation, most notably in terms of club membership.

Lowest overall proportions of socially excluded individuals are found among purchaser owners than for any other tenure group. As reported above, nonetheless, a smaller but significant number are either marginally or deeply excluded. Key social exclusion factors found among purchaser owners include low income, low formal education, fair/poor general health and long-term health conditions (although at lower rates than for public renters or outright owners), low social participation, low civic participation (notably for club membership), along with a low satisfaction with feeling part of the community.

5.2 Housing wellbeing among socially excluded Australian households

In addition to considering patterns of distribution of marginally and deeply excluded households across housing tenures, we are also interested in the extent and distribution of other forms of housing wellbeing among socially included and excluded Australian households. In this section we examine how housing wellbeing, measured by indicators of housing affordability, housing suitability, satisfaction with housing, mobility and dwelling type/size, each relate to social inclusion/exclusion.

Using Ordinary Least Squares (OLS) multiple regression statistical modelling we consider the relative significance of tenure and other housing indicators to social inclusion/exclusion overall. Following this, we also examine whether the relationships between housing wellbeing and social inclusion/exclusion vary *across* different housing tenures. By introducing housing tenure along with other aspects of housing wellbeing into our analysis, we begin to address the question: does housing tenure make a difference to

the type of housing wellbeing outcomes more and less socially excluded households are likely to experience?

5.2.1 A multivariate analysis of housing tenure, housing wellbeing and social inclusion/exclusion

In our first model, we focus on the strength and statistical significance of all key housing variables in relation to the dependent variable, social exclusion (using the sum-score approach). Using regression modelling in this way enables us to compare the relative importance of all the housing variables to social exclusion overall, taking into account the household type of all households in the model. It is important to reiterate that the sum-scores approach is concerned with cumulative disadvantage: the higher the score, the greater the level of disadvantage a given household is experiencing. In interpreting the model, a positive result relates to *increases* in social exclusion for increases in the predictor variable, a negative result relates to decreases in social exclusion for increases in the predictor variable.

Working our way from the top of the right-hand column in the table to the bottom, we find first that all tenure categories are highly significantly related to whether a household does or does not experience social exclusion. For this variable, our omitted category is 'purchaser owners'. Hence, all results relate to the relative effect of any given tenure category *in comparison with the effect of purchaser owners*. As Table 15 shows, being an outright owner or a public renter are strongly related to an increased likelihood of experiencing social exclusion, relative to purchaser owners. Similarly, living in private rental housing or 'other' housing also increases the risk of social exclusion for households, compared with those who are purchasing their homes, although at lesser rates than for outright owners and public renters.

Moving down the column, we also find—not surprisingly—that households who are experiencing housing stress are also substantially more likely to experience social exclusion than those who are not in housing stress. Using the 30/40 housing affordability standard measure, a household is considered to be experiencing housing stress when equivalised disposable household income is in the lowest 40 per cent of the Australia-wide income distribution and housing payments exceed 30 per cent of gross household income. Indeed, our findings indicate that while housing tenure is highly significant to social exclusion, housing affordability problems are even more influential.

As shown in Table 12 below, only a small number of households (1.8%) are found to have an inadequate number of bedrooms. And, while housing adequacy does not appear to be a major problem, it is nonetheless important to consider how the problem is distributed and for whom, in relation to other aspects of social exclusion. These regression results indicate that housing adequacy is statistically significantly related to social exclusion outcomes for households, although the relative effect of this variable is weak when we consider it in relation to all households in the survey (reflecting the small number experiencing this form of housing disadvantage).

Next we consider the effect of housing stability and mobility among households. As shown in Table 12, rates of housing stability—households that had experienced no housing moves in the previous five years—are relatively high, with around half of all households in the survey having experienced housing stability in the last five years. Relatively small proportions report having experienced high levels of mobility (three or more moves in the last five years). In our regression model we compare households who moved once in the last five years and those who moved two or more times with the omitted category, households who did not move in the last five years. Results of the regression model show that mobility is statistically related to social exclusion, although the effect of mobility when we consider the sample as a whole is relatively weak. Results

indicate that some form of mobility is associated with less likelihood for households to experience social exclusion overall. To understand these results fully, it is important to consider mobility and stability in more detail for different household types and in different types of housing and other circumstances.[10]

Self-reported resident satisfaction with housing is an indicator we use to summarise issues of housing quality and self-assessed housing wellbeing. When we consider overall self-reported satisfaction with housing across all households in the HILDA survey, we find high rates of satisfaction overall, with only relatively few (5.4%) feeling 'mostly dissatisfied' with their housing (Table 12). As can be seen in the regression results, housing satisfaction—households who feel positive about their housing and home—is associated with lower likelihood of experiencing social exclusion. This suggests that while rates of dissatisfaction overall are relatively low, socially excluded households may be making significant trade-offs to their housing quality. Again, this is an area warranting further future investigation.

Finally, we consider the nature of dwellings in relation to social exclusion. As discussed in Chapter 3, dwelling type and size are not perfect indicators of good or poor levels of housing wellbeing, as smaller attached dwellings do not necessarily reflect disadvantage in ways they may have done historically (particularly in inner areas of major metropolitan centres). Conversely, larger detached homes may not necessarily reflect wealth, depending on their quality and location. Nonetheless, we consider the nature of these aspects of housing experience as contributing to an overall picture of housing wellbeing among socially included and excluded households here, since there is some degree of correlation between dwelling type/size and overall levels of household resources as well as likely impact on daily liveability.

Our findings support the idea that the size and type of dwellings households live in is likely to reflect their likelihood of experiencing social exclusion. The combined dwelling type and size measure we use (see Chapter 3 and Appendix B) is significantly related to social exclusion statistically. Again, however, this variable has relatively less impact than some of the other housing measures we have considered, when examined in relation to all households overall. Comparing households who live in small dwellings (either attached or detached) or medium detached dwellings with those living in large dwellings (attached or detached), we find those in either small or medium sized dwellings are more likely to experience exclusion. While this overall result is not surprising, again it is important to consider that for households who are significantly affected by housing that is too small, the impact may be more substantial than reflected in the averages shown here.

Finally, our model also controls for household type.[11] We compare results for couples with children, lone parents, lone persons and 'other' types of households with the social exclusion experience of couples with no dependent children in the household. We find that the configuration of a household is significantly related to social exclusion outcomes. In comparison with couples with no dependent children, the only household type we list that is likely to be associated with reduced risk of social exclusion is couples with dependent children. This is likely to relate to the relative risk of social exclusion for couple only households who are elderly and therefore at increased risk of at least some elements of exclusion (such as poor health, lower income). The types of households

[10] AHURI research currently being undertaken as part of the Multi Year Research Project (2011–13) addressing concentrations of disadvantage is focused on mobility and stability as a core issue and will shed light on these patterns, for different types of households living in a variety of housing circumstances in disadvantaged local areas.

[11] Ordinarily, a regression model will include more demographic control variables than used here. Many of those which are commonly used feature in the social exclusion sum-scores dependent variable and are therefore not appropriate to use in the model to avoid duplication.

most strongly associated with risks of social exclusion are—in order from strongest to weakest—lone parents, lone persons and 'other' household configurations.

Table 15: Ordinary Least Square regression results showing relationships between social exclusion (dependent variable), housing tenure and housing wellbeing

Dependent variable	**Social exclusion (sum-score for households)**
Constant	**
Housing tenure	
Outright owner	.241**
Private renter	.101**
Public renter	.264**
Other housing	.102**
Housing wellbeing	
In housing stress	.286**
Not enough bedrooms	.044**
Enough bedrooms	+
1 move in last 5 years	-.044**
2+ moves in last 5 years	-.036**
Satisfied with home[i]	-.097**
Small dwelling	.053**
Medium detached dwelling	.066**
Household type	
Couple with children	-.035*
Lone parent	.105**
Lone person	.075**
Other household type	.023*
Regression statistics	
N	6810
R Square	.248
Adjusted R Square	.246
R	.498
F	139.742 (.000)

Notes:

1. + indicates a positive relationship between the predictor variable and outcome variable and - indicates a negative relationship.
2. * indicates that the underlying coefficient is significant at the 10 per cent level and ** indicates that the underlying coefficient is significant at the 5 per cent level.
3. Standardised Beta coefficients are indicated for coefficients that are significant at 10 or 5 per cent only.
4. i = interval (continuous) level variable.
5. Omitted values for variables with more than two categories are purchaser owners, not in housing stress, more than enough bedrooms, 0 moves in last 5 years, dissatisfied with home, large dwelling and couples with no child/ren in the household.
6. Regression models are based on unweighted data.
7. n.s. indicates that this value is not significant.

Source: HILDA Survey, Wave 9 Release 2010

In sum, we find several aspects of housing are significantly related to the likelihood of a household experiencing social exclusion, taking all other indicators into account. Housing tenure is strongly and significantly related to social exclusion outcomes. Relative to purchaser owners, all other housing tenures are associated with increased risk of social exclusion. The tenures for which this effect is strongest are outright owners and public renters. In terms of housing wellbeing, we find a number of key effects. Housing stress—the extent to which households are able to readily afford their ongoing rental or mortgage payments—is also strongly and significantly related to social exclusion outcomes. Other housing wellbeing indicators which appear to be related to experiences of social exclusion are inadequate housing (too few bedrooms for the size and composition of a household) and small housing generally. In regard to household mobility, we suggest further dedicated research is needed to adequately understand the interactions of stability, mobility and disadvantage.

5.2.2 The housing wellbeing circumstances of socially excluded households in different housing tenures

We are also interested in the extent to which housing circumstances of socially excluded households vary by housing tenure. To explore this question, we have run separate OLS multiple regression models for each housing tenure category in which we examine the relative importance of each of the key housing wellbeing indicators, taking into account the type of household in each case. Findings are presented jointly in Table 16 below to enable easy comparison across tenure categories.

Table 16: Ordinary Least Square regression results showing relationships between social exclusion (dependent variable) and housing wellbeing for households in different tenure arrangements

Regression models:	Outright owners	Purchaser owners	Private renters	Public renters	'Other' housing
Dependent variable	**Social Exclusion (sum-score for households)**				
Constant	**	**	**	**	**
Housing wellbeing					
In housing stress	n/a	.350**	.460**	+	+
Not enough bedrooms	+	.081**	+	+	+
Enough bedrooms	-	.057**	+	-	+
1 move in last 5 years	-	-.061**	-.084**	-	-
2+ move in last 5 years	.041*	-.081**	-	+	-.219**
Satisfied with home[i]	-.047*	-.074**	-.131**	-.176**	-.208**
Small dwelling	.097**	-	.070*	+	-
Medium detached dwelling	.103**	.060**	+	+	+
Household type					
Couple with children	-.203**	-	.141**	+	+
Lone parent	.047*	.111**	.185**	+	+
Lone person	.125**	+	.058*	+	.214**
Other household type	.044*	+	+	+	+
Regression statistics+					
N	811	500	930	231	135
R Square	.113	.180	.281	.069	.138
Adjusted R Square	.109	.176	.276	.036	.097
R	.336	.425	.530	.262	.372
F	26.487 (.000)	38.871 (.000)	56.749 (.000)	2.124 (.015)	3.362 (.000)

Notes:

1. + indicates a positive relationship between the predictor variable and outcome variable and—indicates a negative relationship.

2. * indicates that the underlying coefficient is significant at the 10 per cent level and ** indicates that the underlying coefficient is significant at the 5 per cent level.

3. Standardised Beta coefficients are indicated for coefficients which are significant at 10 or 5 per cent only.

4. i = interval (continuous) level variable.

5. Omitted values for variables with more than two categories are purchaser owners, not in housing stress, more than enough bedrooms, 0 moves in last 5 years, dissatisfied with home, large dwelling and couples with no child/ren in the household.

6. Regression models are based on unweighted data.

7. n.s. indicates that this value is not significant.

Source: HILDA Survey, Wave 9 Release 2010

Overall, results suggest that for households in different housing tenure arrangements, there are also some differences in those aspects of housing wellbeing most likely to be associated with social exclusion. However, in many cases, effects are relatively small. Our results again point to the importance of housing affordability in relation to social exclusion outcomes. The indicator 'housing stress' is strongly and significantly related to such outcomes for households living in private rental as well as for purchaser owners. In each case, the effect is substantial.

In these tenure specific models, we also find that the indicator 'satisfaction with home' is related to social exclusion in different ways for renters compared with home owners (outright owners or purchaser owners). For both private and public renters we find significant negative relationships between housing satisfaction and social exclusion, indicating that social exclusion among these households is likely to be associated with experiences of social exclusion more generally. Given the broad nature of this indicator, we suggest further investigation is warranted. It is unclear, for example, whether this finding relates to the quality of housing, its location, or to other aspects of housing such as lack of tenure choice.

Clearly, our findings also point to an interactive effect between mobility/stability and social exclusion which appears to manifest in somewhat different ways across tenures. For outright owners there is some indication that stability is important, with a statistically significant although weak relationship between multiple moves in the last five years and social exclusion. Conversely among both purchaser owners and private renters, results indicate that at least some degree of mobility is positive in terms of reduced social exclusion outcomes. It is beyond the scope of the present analysis to explore these issues in detail, but it is likely that the nature of the mobility/stability experienced by households will interact with social exclusion. Where mobility involves improvement, opportunity and so on, for example, outcomes for households are likely to be positive. Where it is forced or otherwise involuntary, outcomes are likely to be more negative. Household mobility and its relationship to multiple forms of disadvantage is an area in which further future research is warranted.

Overall, however, while we find some variation in the housing wellbeing outcomes of socially excluded households in different tenure arrangements, results indicate that it is housing tenure itself along with housing affordability which are most significantly related to social exclusion outcomes. Additional indicators, which appear important to social exclusion outcomes and which warrant greater analysis in future research, are mobility and housing satisfaction (the latter is particularly so among private and public renters). It appears that where households can afford their housing and are free from housing stress, housing outcomes are generally good. Few households in the survey are significantly negatively affected by inadequate housing, and most are satisfied with their housing overall (although this is more so for home owners than for either private or public renters).

It is important to remember, in interpreting these results, that while the HILDA data provide a detailed opportunity to examine social exclusion and housing issues in some depth, the findings need to be read with the limitations of the study in mind. Most importantly, results under-represent those groups whose housing conditions may be most precarious, who may experience housing which is highly compromised in terms of quality and for whom access to housing and issues of sustaining tenancies/occupancy may be most pronounced. Additionally, some care needs to be taken in interpreting results related to public housing tenants, given the relatively small sample sizes involved.

6 A HOUSEHOLD AND LOCAL AREA ANALYSIS

In this section we consider how the various relationships between housing wellbeing and social inclusion and social exclusion among households which we explored in Chapter 5 manifest in different types of local areas.

As discussed in Chapter 3, we use a theoretical area typology to examine where households identified as having high or moderate degrees of social exclusion live. This approach differs from much social inclusion/exclusion research which targets local areas identified as having concentrated areas of disadvantage and then considers the experiences and circumstances of individual households within these areas. Following this, we examine the housing circumstances of socially excluded households in different types of local areas, and consider the extent and ways these housing circumstances vary by the type of local areas.

Given the sample size and potentially small numbers of cases in some of the analyses, in some instances we use summary measures. Rather than distinguishing between 'marginal' and 'deep' social exclusion as previously, we combine these categories of households to enable statistical reliability, and compare 'non-excluded' or 'included' households with socially excluded households (marginal and deep social exclusion combined). It is important to note that the impact of doing so may 'overstate' the extent of disadvantage in any given local area type. While the broad approach to the measurement of disadvantage we adopt here is conceptually and methodologically valid, it identifies a larger number of households in a range of circumstances as being disadvantaged, than more traditional approaches to the measurement of poverty and disadvantage.

6.1 The location of social exclusion in Australia

Table 17 presents data about the location of socially included and excluded households using two key geographic variables: area type ('remoteness area') and the ABS IRSD (see Chaper 3 for details of each). For analysis of area type we compare households living in major cities with those in inner regional areas and outer regional/remote areas. Most respondents to the HILDA survey reside in major cities, reflecting population trends, with around a quarter in inner regional areas and the remainder (13.3%) living in outer regional/remote areas.

For the analysis of local area disadvantage, we distinguish between households living in CDs with low, medium and high levels of relative disadvantage. These broad groupings reflect the ranking of all CDs by IRSD score, the conversion of this to an Australia-wide percentile and then the division of these percentiles into three equal categories (thirds): CDs with lowest levels of relative disadvantage, CDs with medium levels of relative disadvantage and CDs with the highest levels of relative disadvantage.

Considering firstly the distribution of non-excluded and socially excluded households across area types, we see from Table 17 that there is a slight under-representation of socially excluded households living in major cities (56.4%), with an associated over-representation of those living in inner regional areas particularly (28.8%), and some over-representation in outer regional/remote areas (14.8%), given the relative population sizes for these areas.

Moving down the table, we can also see how non-excluded households and socially excluded households are distributed across local areas deemed to be more and less disadvantaged using the ABS Index of Relative Disadvantage. Here we also find that the distribution of socially excluded households does not match the distribution of households generally across each type of area.

As we might expect, socially excluded households are over-represented within those areas that are most heavily characterised by relative disadvantage. Close to half (48.9%) of those in the survey reside in areas with highest levels of relative disadvantage overall (lowest 33.3% of areas). These findings indicate a clear effect whereby households experiencing multiple forms of disadvantage reside in local areas in which the highest concentrations of households with socioeconomic problems live. That a large proportion of socially excluded households live in the most disadvantaged local areas supports the notion of local area-based policy approaches and service delivery. Given that the ABS measure we use is based on household characteristics, this finding also reflects in part the nature of this measure.

What is most interesting is perhaps not so much the extent to which socially excluded households are over-represented in local areas characterised by highest levels of disadvantage, but the extent to which they are in fact distributed across *all* types of local areas, including those with moderate levels of disadvantage as well as those with relatively low levels of overall disadvantage.

While around half of socially excluded households live in the third of local areas characterised by highest levels of relative disadvantage, close to a third live in the middle third of local areas characterised by medium levels of relative disadvantage (29.0%), with more than a fifth (22.1%) living in the third of local areas characterised by lowest levels of relative disadvantage. Stated another way, our findings show there is a significant degree of dispersion of socially excluded households across local areas in Australia, regardless of the extent to which local areas are disadvantaged.

There is also significant cross-over of non-excluded households into areas with medium and high levels of disadvantage. While the largest proportion of non-excluded households live in areas with low levels of relative disadvantage (42.7%), almost a third (31.6%) live in areas characterised by medium levels of relative disadvantage, with a quarter (25.8%) of non-excluded households living in areas characterised by highest levels of disadvantage. These findings may be associated with a displacement effect documented in recent Australian housing affordability research in which high and medium income households now occupy parts of the housing system historically occupied by lower income households, for longer periods of time, given overall housing affordability trends (Yates et al. 2004; Wulff et al. 2010).

Table 17: Rates of social inclusion/exclusion among households living in different types of local areas

		No social exclusion	Socially excluded	All households
Australia-wide				
Major cities		66.5	56.4	63.0
Inner regional		20.9	28.8	23.7
Outer regional & remote		12.6	14.8	13.3
Australia-wide		**100.0**	**100.0**	**100.0**
	Level of relative disadvantage			
Australia-wide	Low relative disadvantage	42.7	22.1	35.5
	Medium relative disadvantage	31.6	29.0	30.7
	High relative disadvantage	25.8	48.9	33.8
		100.0	**100.0**	**100.0**
Type of area				
Major Cities	Low relative disadvantage	51.6	30.7	45.1
	Medium relative disadvantage	28.5	28.6	28.5
	High relative disadvantage	19.9	40.7	26.4
		100.0	**100.0**	**100.0**
Inner Regional	Low relative disadvantage	26.2	12.4	20.3
	Medium relative disadvantage	39.6	32.2	36.5
	High relative disadvantage	34.2	55.4	43.2
		100.0	**100.0**	**100.0**
Outer Regional and Remote	Low relative disadvantage	23.1	8.2	17.3
	Medium relative disadvantage	34.3	24.0	30.3
	High relative disadvantage	42.6	67.8	52.3
		100.0	**100.0**	**100.0**

Source: HILDA Survey, Wave 9 Release 2010

When we combine these area types into a single area typology which takes account of type of area (major cities, inner regional, outer regional/remote) and levels of relative disadvantage within local areas (divided into areas characterised by the highest, medium and lowest levels of relative disadvantage), we find further patterns of over- and under-representation of non-excluded and socially excluded households within local areas (Table 17 lower).

We first consider the distribution of non-excluded and socially excluded households within major cities by local areas characterised by low, medium and high levels of disadvantage. As we would expect, we find highest proportions of non-excluded households living in areas with relatively low (51.6%) or medium (28.5%) levels of relative disadvantage. However, we also find around that a fifth (19.9%) who live in major cities reside in areas characterised by highest levels of relative disadvantage.

In contrast with non-excluded households in major cities, we find that socially excluded households in major cities are most likely to live in areas characterised by highest levels of relative disadvantage, with 40.7 per cent living in the third most disadvantaged areas. Again, however, what is most significant about the distribution of socially excluded households in major metropolitan areas is the level of dispersion. Close to two-thirds (59.3%) live outside the areas we might consider to be most disadvantaged. These households are divided roughly equally between areas with medium (28.6%) and low levels of relative disadvantage (30.7%). Once again, these results need to be read in the context of the broad approach we are adopting to measure multiple disadvantage in this paper. A more narrow definition of disadvantage may find higher concentrations of disadvantaged households across housing tenures as well as across local areas.

Inner regional patterns of distribution of non-excluded and socially excluded households show a more pronounced trend. While non-excluded households in inner regional areas are quite evenly dispersed between areas characterised by low (26.2%), medium (39.6%) and high (34.2%) levels of relative disadvantage, a different picture emerges for socially excluded households. Here we begin to see a more distinct pattern of concentration of socially excluded households within areas characterised by higher levels of overall disadvantage. While findings indicate some degree of dispersion of socially excluded households in inner regional areas, only 12.4 per cent of these live in areas characterised by low levels of disadvantage, 32.2 per cent live in medium disadvantaged areas, with more than half (55.4%) living in inner regional areas characterised by high levels of relative disadvantage.

The distribution of non-excluded and socially excluded households in outer regional/remote areas shows an even more striking concentration of excluded households in disadvantaged areas. In these areas, nearly 68 per cent live in local areas characterised by high levels of relative disadvantage. Seemingly, problems of entrenched, concentrated disadvantage are highly significant in outer regional/remote areas. Only 8.2 per cent of socially excluded households in outer regional/remote areas live in areas characterised by low levels of relative disadvantage, while close to a quarter (24.0%) live in areas with medium levels of disadvantage. In outer regional/remote areas, non-excluded households are more likely than socially excluded households to live in areas characterised by low or medium levels of disadvantage (57.4 and 32.2% respectively).

Our data also reflect some core differences between metropolitan, inner regional and outer regional/remote areas and the distribution of overall disadvantage across them. Given the extent of disadvantage across outer regional and remote areas in Australia compared with that found in major metropolitan or inner regional areas, a sizeable number of non-excluded households are also found to live in areas which can objectively be described as having high levels of relative disadvantage (42.6%).

6.2 Housing and social inclusion in different types of local areas

In light of the distribution of non-excluded and socially excluded households across different types of regions, characterised by different degrees of disadvantage, we now turn to the following question: do more and less socially excluded households living in different types of local areas have different types of housing wellbeing outcomes? Turning the question around, we are interested in whether living in different types of areas can improve the housing outcomes of households experiencing social exclusion. To address this, we examine the housing circumstances of households with varying social exclusion profiles, living in different types of local areas. To maintain statistical validity, in response to the introduction of more variables in this section of the analysis,

the inner regional and outer regional/remote areas are combined, creating a matrix of six area types for use in this analysis specifically: Metro-low disadvantage, Metro-medium disadvantage, Metro-high disadvantage, Regional-low disadvantage, Regional-medium disadvantage and Regional-high disadvantage.

We focus in turn on the three housing and housing wellbeing indicators for which we found most variation between households in the analysis presented in Chapter 4. These are housing tenure, housing affordability and housing mobility.

First, as seen in Table 18 and focusing on socially excluded households, we find that major cities provide outright owners with the opportunity to live in a wide range of area types, although it is likely that some of the outright owners identified as socially excluded using our broad approach to measurement may have purchased their homes many years earlier. There is a relatively equal distribution of socially excluded outright owners in each of low, medium and highly disadvantaged areas in major cities. In contrast, in regional areas, outright owners who are socially excluded are far more likely to reside in areas characterised by high levels of relative disadvantage (53.7%), with less opportunity to live in areas of low (11.4%) or medium (34.9%) disadvantage. In part this is due to the higher overall levels of disadvantage in regional areas compared with major cities (evidenced by the proportions of non-excluded households also living in disadvantaged regional areas), but not all of this concentration can be accounted for by these generic differences between metropolitan and regional centres.

When we consider the living arrangements of both purchaser owners and private renters we find a similar pattern: in each case, major cities provide greater opportunities for socially excluded households to live outside of those local areas characterised by highest levels of relative disadvantage, compared with households in regional areas. If anything, the clustering of socially excluded households in regional areas into areas of high disadvantaged is more pronounced among private renters than purchaser owners, with close to two-thirds (64.3%) of socially excluded private renter households in regional areas living in areas characterised by highest levels of relative disadvantage.

The same pattern is again found among public renters, but the differences in opportunity to live outside of highly disadvantaged areas in major cities are also significantly reduced for this tenure group. A large majority (88.8%) of public renters in regional areas live in areas characterised by highest levels of overall relative disadvantage. While there is a greater distribution among areas of low, medium and high disadvantage for public renters in major cities, a large majority (71.9%) remain located in areas characterised by highest levels of disadvantage.

Table 18: Housing tenure among socially included (No SE) and excluded (SE) households in areas of high, medium and low relative disadvantage in major cities and regional areas

	Tenure											
	Outright owners			Home purchasers			Private renters			Public renters		
	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total
Major cities												
Low relative disadvantage	60.3	38.9	52.2	50.5	36.5	48.7	46.0	26.8	39.7	23.1	9.9	12.7
Med. relative disadvantage	23.0	29.7	25.5	29.8	28.6	29.7	32.8	32.4	32.7	25.0	18.2	19.7
High relative disadvantage	16.7	31.4	22.3	19.6	34.9	21.7	21.2	40.7	27.6	51.9	71.9	67.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Regional areas												
Low relative disadvantage	27.7	11.4	20.4	24.6	10.6	21.6	22.8	10.7	16.7	12.5	6.2	7.6
Med. relative disadvantage	36.1	34.9	35.6	40.1	34.8	39.0	36.7	25.1	30.9	25.0	8.0	11.7
High relative disadvantage	36.1	53.7	44.0	35.3	54.7	39.5	40.5	64.3	52.4	62.5	85.8	80.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: HILDA Survey, Wave 9 Release 2010

Next, as seen in Table 19, we examine the affordability outcomes of private renters and purchaser owners (i.e. those households in the private market with significant housing costs) in each of the metropolitan and regional areas characterised by varying levels of relative disadvantage.

As can be seen, the locational distribution of lower income private renters is similar to that found for public renters in regional areas (i.e. highly concentrated in areas characterised by highest levels of disadvantage). However, lower income private renter households are more likely to be distributed across areas with varying levels of relative disadvantage in major cities. For those in housing stress specifically, major cities provide far greater opportunity to live outside of the most disadvantaged areas, with a relatively even distribution of households across areas characterised by low, medium and highly disadvantaged areas. In contrast, a high proportion of private renter households in regional areas live in areas characterised by high levels of disadvantage (72.1%). However, it is also regional areas which allow lower income private renters to escape housing stress, with relatively high proportions in areas of medium and high levels of disadvantage experiencing no housing affordability stress.

Table 19: Housing affordability among socially included (No SE) and excluded (SE) households in areas of high, medium and low relative disadvantage in major cities and regional areas

	Affordability*— private renters									Affordability*— home purchasers								
	Lowest 40% paying more than 30%			Lowest 40% paying less than 30%			Household income: highest 60%			Lowest 40% paying more than 30%			Lowest 40% paying less than 30%			Household income: highest 60%		
	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total
Major cities																		
Low relative disadvantage	47.7	29.1	33.6	36.5	21.8	26.8	46.7	28.3	44.6	47.5	36.5	41.3	44.1	22.4	30.4	50.9	40.6	50.4
Med. relative disadvantage	33.8	33.5	33.6	30.8	28.7	29.4	33.0	34.8	33.2	27.5	28.8	28.3	32.4	27.6	29.3	29.9	34.4	30.1
High relative disadvantage	18.5	37.4	32.8	32.7	49.5	43.8	20.4	37.0	22.3	25.0	34.6	30.4	23.5	50.0	40.2	19.2	25.0	19.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Regional areas																		
Low relative disadvantage	25.0	10.3	13.1	12.5	9.3	10.1	24.1	16.7	22.7	26.1	14.6	18.8	10.7	8.0	8.7	25.2	10.3	24.5
Med. relative disadvantage	15.6	17.6	17.3	35.0	28.8	30.4	39.8	37.0	39.3	43.5	41.5	42.2	39.3	33.3	34.8	39.8	31.0	39.4
High relative disadvantage	59.4	72.1	69.6	52.5	61.9	59.5	36.1	46.3	38.0	30.4	43.9	39.1	50.0	58.6	56.5	34.9	58.6	36.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Households with income in the lowest 40 per cent of the Australia-wide equivalised disposable income distribution spending 30 per cent or more of their gross income on rent or mortgage.

Source: HILDA Survey, Wave 9 Release 2010

For purchaser owners, the affordability picture is somewhat similar, although with comparatively more scope for those experiencing housing stress in either metropolitan or regional areas to reside outside of local areas characterised by high levels of disadvantage than was found for private renters. For purchaser owners with low incomes, regional areas again provide scope for socially excluded households to escape from mortgage stress, particularly when households live in regional areas characterised by medium or high levels of relative disadvantage (Table 19).

Finally, we consider the extent to which living in major cities compared with regional areas with varying levels of local level disadvantage can impact on the types of housing outcomes which socially excluded households have in relation to mobility.

As Table 20 shows, several clear patterns emerge. The first of these is that, for some households, living in areas characterised by highest levels of relative disadvantage can provide a relatively high degree of stability. This effect is most pronounced for socially excluded households living in regional areas vis-à-vis those living in major cities. We find 58.3 per cent of socially excluded households in regional areas characterised by high levels of relative disadvantage reported not having moved in the last five years, with a further relatively high proportion (41.9%) in disadvantaged areas in major cities reporting the same stability pattern. Major cities appear to provide greater opportunity than regional areas for stability across areas characterised by high, medium and low levels of disadvantage for some households.

At the higher mobility end, socially excluded households who reported having moved two or more times in the last five years are relatively well distributed across low, medium and highly disadvantaged local areas, indicating some opportunity to live outside of the most disadvantaged neighbourhoods for this group. In contrast with the high levels of stability among socially excluded households living in regional areas characterised by high levels of disadvantage, we find these same areas are also home to some of the most mobile socially excluded households. Around 61.0 per cent of socially excluded households living in regional areas are found in areas characterised by highest levels of relative disadvantage.

Table 20: Housing mobility among socially included (No SE) and excluded (SE) households in areas of high, medium and low relative disadvantage in major cities and regional areas

	Mobility: all households								
	Did not move in past 5 years			Moved once in past 5 years			Moved 2 or more times in past 5 years		
	No SE	SE	Total	No SE	SE	Total	No SE	SE	Total
Major cities									
Low relative disadvantage	53.7	31.9	46.3	51.1	31.7	46.1	48.4	28.4	42.7
Med. relative disadvantage	26.3	26.3	26.3	31.0	33.2	31.6	30.1	30.8	30.3
High relative disadvantage	20.0	41.9	27.4	17.8	35.1	22.3	21.5	40.8	27.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Regional areas									
Low relative disadvantage	25.4	9.6	18.8	28.4	12.6	22.8	21.0	12.4	17.3
Med. relative disadvantage	36.5	32.0	34.6	38.5	27.6	34.6	39.1	26.6	33.8
High relative disadvantage	38.0	58.3	46.6	33.1	59.8	42.6	39.9	61.0	48.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: HILDA Survey, Wave 9 Release 2010

In sum, we find that *where* households live can make some marked differences to housing outcomes. Focusing on socially excluded households (experiencing either marginal or deep exclusion), we find, first, that major cities have provided greatest scope for many to live outside of those areas characterised by highest levels of disadvantage relative to their regional counterparts. These opportunities are most pronounced for outright owners and purchaser owners although the degree to which this reflects past housing markets and not current ones is unknown. Among public renters, there is a high degree of concentration of socially excluded households in areas characterised by highest levels of disadvantage in both major cities and, even more so, in regional areas.

In regard to affordability, major cities provide significant scope for some socially excluded households to live outside of areas characterised by highest levels of disadvantage. Once again, this may reflect historical housing market conditions rather than current ones. However, living in regional areas, particularly in those with either medium or high levels of disadvantage, can allow both purchaser owners and, in particular, private renters, opportunity to escape housing stress.

Overall mobility and stability patterns in the data are an interesting mix. It appears that local areas in both metropolitan and regional areas characterised by highest levels of relative disadvantage include highly stable as well as highly mobile households. Somewhat surprisingly, major cities present opportunities for some socially excluded households to experience high rates of stability across all area types (those

characterised by low, medium and high levels of disadvantage). Clearly, the relationship between housing and mobility is highly context and household specific. Further research, beyond the scope of the present study, is warranted to investigate the nature of mobility and stability among disadvantaged households in a range of housing circumstances in different types of local areas. This might include analysis not only of mobility/stability among different households, but also the nature of that mobility or stability. It is likely that voluntary versus 'forced' moves will have different types of outcomes for households, and be associated with different types of life events and/or opportunities.

7 CONCLUSION

Developments in understandings of disadvantage and opportunity that have emerged in recent decades emphasise the interrelatedness of economic and social systems, structures and experiences, and the complex ways in which these interact. Within this context, a key challenge for contemporary research and policy in Australia is improving our understanding of broad patterns of multiple disadvantage, while simultaneously gaining more targeted insights about particular aspects of that disadvantage and how these manifest for specific sub-groups within the population. In this research we have attempted to meet this challenge. We have conceptualised and mapped broad patterns of multiple disadvantage across households and, within this picture, focused our investigation on the nature of housing-related disadvantage and how it manifests for particular households and in a range of locational types.

The concept of social inclusion and the related concept of social exclusion—each of which explicitly recognise the integration of social and economic dimensions of disadvantage and opportunity at both societal and household levels—have provided a detailed and sophisticated framework for the conceptual and empirical work we have undertaken in ways that are directly relevant to the current emphasis upon joined-up policy and service delivery. In the Positioning Paper for this research (Stone & Reynolds 2012), we examined the social inclusion and exclusion concepts, focusing on issues of measurement and how housing measurement typically features in social inclusion/exclusion research and policy monitoring frameworks. In this Final Report, our emphasis has been on empirical analysis in which we have used these measurement frameworks to investigate the interactions between housing and social inclusion/exclusion among Australian households, living in varied types of geographic locations.

To conclude this Final Report, we make several observations about the approach and findings of the research and how it relates to areas of both housing policy and welfare policy and responses to it more broadly. We begin with a reminder of the exploratory nature of the study.

As we have discussed, in parallel with the development of social inclusion- and exclusion-based policies and programs has been a focus upon measurement and monitoring internationally and nationally. A number of Australian initiatives have recently explored the development and application of this work. What has been largely missing in much of this international and Australian work, however, has been an explicit focus on housing and living environments as both a site for and aspect of the experience of either social inclusion or exclusion. This gap is most pronounced in social inclusion and exclusion measurement frameworks based on survey data which enable investigation of relationships, as opposed to the monitoring of multiple forms of disadvantage at national levels (Stone & Reynolds 2012).

To address this gap, the research we have undertaken has involved the development of a suite of housing indicators relevant to the ongoing measurement of social inclusion and exclusion. We have applied these measures, together with usual social inclusion/exclusion measurement frameworks, with the aim of developing a more comprehensive suite of social inclusion/exclusion indicators that take explicit account of housing circumstances and experiences. In this way, our analysis of housing and social inclusion and exclusion for households and local areas is exploratory and, to the best of our knowledge, represents the first detailed empirical examination of housing in relation to social inclusion/exclusion of this kind to be undertaken either internationally or nationally.

Our first observation is this. Using the frameworks of social inclusion and exclusion in empirical ways to examine the interaction of housing and other forms of disadvantage has provided enormous insights into the extent and nature of multiple disadvantage across the housing system, and the drivers of it.

Most significantly, we find social exclusion is not confined to 'residual' housing. We find both 'marginal' and 'deep' forms of social exclusion distributed across *all housing tenures.* Public housing is home to a disproportionate number of socially excluded households, as might be expected. However, households who live in market-based tenures of home purchase and private rental are not immune. Our results indicate smaller although nonetheless sizeable proportions of both private renters and purchaser owners also experience either marginal or deep levels of exclusion. They also suggest that approximately equal proportions of outright owners and private renters can be considered to be socially excluded, but with different drivers of social exclusion in each case. Notably, factors associated with social exclusion we have identified among outright owners may be age and life-stage related, whereas social exclusion among private renters is more likely to be associated with limited income and education.

The measurement approach we have adopted in this report is novel and exploratory to a large degree. We have used a measurement framework related to the concepts of social exclusion and inclusion which is more commonly used for policy monitoring purposes rather than multivariate analysis. More significantly, adopting a framework which encompasses a large number of indicators of potential disadvantage across seven key life domains necessarily identifies a far larger number of households as experiencing disadvantage than more traditional approaches to the measurement of poverty and disadvantage based more closely around income and expenditure measures alone. Hence, our findings—and any policy implications which flow from them—must be read with this in mind. At a minimum, the relatively wide number and type of households identified as experiencing multiple disadvantage in this report, raise questions about which approach to the measurement of disadvantage has more validity. Ultimately, the answer to such a question will depend upon the purpose of any future analysis.

The findings of our research using a broad approach to the measurement of multiple forms of disadvantage suggest that as policy-makers, advocates and researchers, we need to approach issues of disadvantage and housing with a wide rather than narrow lens: multiple forms of disadvantage including various poor housing wellbeing outcomes are found across all housing tenures in the Australian housing system and are not confined to public housing and low-income private rental.

A second observation based on our research is that it is also imperative to take a broad view of housing and multiple disadvantage in spatial terms. By examining the extent and nature of housing in relation to social inclusion and exclusion in more and less disadvantaged local areas, we have reached additional significant conclusions.

Our results lend some support to the argument that multiple disadvantage is geographically clustered in Australia. However, we also find significant evidence to suggest that a large proportion of households experiencing multiple forms of disadvantage reside *outside* of local areas and neighbourhoods identified as those which are most disadvantaged. The implications of this finding for policy pertain to achieving the best and most appropriate mix of household-based and neighbourhood-based strategies for supporting and alleviating social exclusion at the household and local area level. Our findings strongly indicate that a mixed approach to supporting households is required. To focus only on household supports may not address the issues associated with local areas in which disadvantage is concentrated. However, an approach which targets local areas alone will fail to support the large proportion of disadvantaged households which are dispersed among more affluent and less disadvantaged local areas nationally.

A third and final observation concerns the place of housing in policy and research addressing disadvantage. In this research we focused on housing and its relationship to broad areas of welfare and public policy based in social inclusion and exclusion frameworks. We have argued that while done well in some cases, including within several key governmental initiatives in Australia, recognition of housing in multi-dimensional frameworks concerning disadvantage is somewhat ad hoc, and that there is considerable scope for greater consistency and comprehensiveness in approach within social inclusion and exclusion measurement and monitoring frameworks.

Our findings in relation to the nexus between housing and social inclusion and exclusion contribute to the emerging body of research drawing links between the interrelatedness of housing and other forms of disadvantage. Given that housing disadvantage is integrally related to place and a host of other complex social and economic issues, one of the clear priorities in housing and broader social policy lies with directly addressing the social exclusion of particular population groups and the housing-related conditions and effects that contribute to these. Policies and programs in which housing conditions *and* other forms of disadvantage are responded to in integrated ways are likely to be most successful in addressing social exclusion.

As described by the Victorian Community Indicators Project Team (2006), the development of an indicator set can itself contribute to promoting an issue. In this case, we have sought to draw attention to the integral role of housing in relation to multiple forms of disadvantage and opportunity, and the ways that it can be conceptualised within the social inclusion and exclusion concepts. To this end, we have developed a suite of housing measures which are applicable for use in future analyses of social inclusion and exclusion research and policy monitoring, both nationally and internationally. These, we suggest, ought to form a discrete domain of social inclusion/exclusion which focuses on the housing and living environments of individuals and households in different types of local areas. Such an approach is consistent with the theoretical model developed by Levitas et al. (2007) in which housing and living environment are explicitly recognised as potentially contributing to and also forming a source of experience of social exclusion. Additionally, we have identified the way in which housing indicators could be developed further in future initiatives, to provide even greater understanding of the complex interactions between housing, other forms of disadvantage, household characteristics and circumstances and place than we have achieved here. An understanding of how local housing systems affect the opportunities for inclusion in the lives of local residents is a neglected area of research in the social inclusion and exclusion field.

Ultimately, we suggest that by using more comprehensive suites of housing measures at both household and local area levels in policy-oriented research, improved policy and service delivery responses to households experiencing multi-dimensional forms of disadvantaged across the housing system, and in a variety of local area types, can be achieved.

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APPENDICES

Appendix 1: Summaries of major monitoring and survey-based approaches to measuring social exclusion and inclusion

Table A1: Selected examples of social inclusion and exclusion frameworks used in international and Australian policy-oriented monitoring frameworks

European Union: Laeken Indicators	**United Kingdom Government: Opportunities for All**	**United Kingdom: New Policy Institute**	**Australia: Social Inclusion Board**
Domain: Material resources			
Income under 60 per cent median income (relative poverty rate) Dispersion around poverty line[a] Poverty rate anchored at point in time[a] At risk of poverty rate before transfers[a] Persistent poverty rate based on 50 per cent median income[a] 80/20 percentile ratio Gini coefficient[a]	Income under 60 per cent median income (relative poverty rate) Persistent poverty Absolute poverty Long-term benefit recipients Rough sleepers Non-decent homes	Income under 60 per cent median income (relative poverty rate) Poverty rate after housing costs Persistent poverty Income inequality using a range of percentile ratios Cannot afford various items or activities Non-decent homes; fuel poverty; without central heating Homelessness Without a car; without a bank account	In bottom three deciles of both income and wealth[a] Have five or more financial stress or deprivation items[a] Change in income of second and third deciles[a] Gini coefficient of income[a] Low-income private renter with housing costs exceeding 30 per cent of income Number of affordable houses for sale per 10 000 low-income households[a] Homeless Repeat homelessness[a] People deferring medical treatment for financial reasons
Domain: Employment			
Long-term unemployment rate Percentage of people living in jobless households Coefficient of variation of regional employment rates Long-term unemployment Very long-term unemployment rate (>24 months)	Employment rate Workless household rate	Out-of-work benefit recipients Long-term recipients of benefits Percentage of people living in jobless households Unemployment rate Population wanting paid work Job quality: low pay; job insecurity; access to training	Employment rate Children living in jobless households Children living in persistently jobless households[a] Long-term income support recipients People living in jobless households[a] Long-term unemployment rate[a] 15–24-year olds fully engaged in education or work

European Union: Laeken Indicators	**United Kingdom Government: Opportunities for All**	**United Kingdom: New Policy Institute**	**Australia: Social Inclusion Board**
Domain: Education and skills			
Early school leavers not in further education/training Persons with low educational attainment [a]	Persons with low educational attainment Attainment at a range of ages Truancies; school exclusions	Early school leavers not in further education/training Persons with low educational attainment Permanent school exclusions	Year 9s achieving literacy and numeracy benchmarks Have at least minimum standard of prose literacy and numeracy Children in first year of school 'developmentally vulnerable' Does not speak English well[a] Have non-school qualifications[a] 20–24 year olds with Year 12 or Certificate II
Domain: Health and disability			
Life expectancy at birth Self-perceived health status by income level	Infant mortality; life expectancy Child protection re-notifications Teen pregnancy Use of illicit drugs Smoking rates Suicide rate	Infant deaths; low birth rate Dental health Youth suicide; youth drug use Premature deaths Long-term illness or disability At risk of mental illness Obesity	Have health condition affecting employment; employment rate of those with the condition Have mental illness affecting employment; employment rate of those with the condition Self-assessed health is poor or fair Life expectancy [a] Subjective wellbeing [a]
Domain: Social support and interactions			
Nil	Nil	Nil	Contacted family or friends in past week Involved in a community group in the last year Got together socially with non-resident friends or relatives in last month [a] Undertook voluntary work in last year Participated in a community event in last year [a] Feel able to get support in time of crisis Do not feel able to have a say on issues that are important to them Have internet access at home Do not feel able to have a say in their family [a]

European Union: Laeken Indicators	United Kingdom Government: Opportunities for All	United Kingdom: New Policy Institute	Australia: Social Inclusion Board
Domain: Community engagement			
Nil	Older people receiving intensive home care and receiving any community-based service	Non-participation in social, political, cultural or community organisations Dissatisfaction with local area Overcrowding	Participated in 'selected' citizen engagement activities in the last year Have difficulty accessing transport Reported difficulty accessing services, by type of service [a] Acceptance of diverse cultures [a]
Domain: Personal safety			
Nil	Older people with fear of crime Rate of domestic burglary	Victims of crime	Feel unsafe Children in 'substantiations of notifications received' each year Experience of family violence in past year [a] Victim of personal crime [a] Victim of household crime [a]

Note: (a) Secondary/supplementary indicators

Source: Modified version of Tables 1 and 2 in Scutella and Wilkins 2010, pp.452–6

Table A2: Selected examples of social inclusion and exclusion frameworks used in international and Australian survey-based measurement frameworks

CASE: Burchardt, Le Grand and Piachaud (2002)	UK Millennium Survey of Poverty and Social Exclusion (PSE)	Community Understanding of Poverty and Social Exclusion (CUPSE)	Melbourne Institute
Domain: Material resources			
Income under half mean income (relative poverty rate). Not an owner-occupier, not contributing to or receiving an occupational or personal pension, and no savings over £2,000.	Income under 60 per cent median (relative poverty rate). Subjective poverty. Lack of socially perceived necessities (using consensual poverty method).	Couldn't keep up with payments for water, electricity, gas or telephone in last year. Does not have $500 in savings for use in an emergency. Had to pawn or sell something, or borrow money in last year. Could not raise $2,000 in a week. Does not have more than $50,000 worth of assets. Has not spent $100 on a special treat in last year. Does not have enough to get by on.	Income less than 60 per cent of median equivalised household income. Net worth less than 60 per cent of median equivalised household net worth. Consumption expenditure less than 60 per cent of median equivalised household consumption expenditure. Three or more indicators of financial stress.
Domain: Employment			
Not in employment or full-time education, and not looking after children or retired.	Non-participation Jobless households	Unemployed or looking for work Lives in jobless household	Long-term unemployed Unemployed Unemployed or marginally attached Unemployed, marginally attached or underemployed Lives in jobless household
Domain: Education and skills			
Nil	Nil	Nil	Low literacy Low numeracy Poor English proficiency Low level of formal education Little or no work experience
Domain: Health and disability			
Nil	Nil	Nil	Poor general health Poor physical health Poor mental health Long-term health condition or disability Household has disabled child

CASE: Burchardt, Le Grand and Piachaud (2002)	UK Millennium Survey of Poverty and Social Exclusion (PSE)	Community Understanding of Poverty and Social Exclusion (CUPSE)	Melbourne Institute
Domain: Social support and interactions			
Lacks someone who will offer support in one of five respects	Non-participation in common social activities Social networks and social isolation Support available from others Confinement due to fear of crime or disability	Children do not participate in school activities or outings No regular social contact with anyone No social life No annual week's holiday away from home No hobby or leisure activity for children Could not go out with friends and pay my way in last year Unable to attend wedding or funeral in last year	Little social support Get together with friends or relatives less than once a month
Domain: Community engagement			
Did not vote in 1992 general election or not member of political or campaigning organisation.	Disengagement from political and civic activity. Exclusion from extensive range of public and private services due to inadequacy, unavailability or unaffordability.	Did not participate in any community activities in last year Couldn't get to important event (no transport) in last year. Lack of access to medical treatment, local doctor or hospital, dental treatment, bulk billing doctor, mental health services, child care, aged care, disability support, bank.	Low neighbourhood quality Low satisfaction with neighbourhood Low satisfaction with community Not a member of a sporting or community-based association No voluntary activity in typical week
Domain: Personal safety			
Nil	Nil	Nil	Victim of physical violence in last 12 months Victim of property crime in last 12 months Level of satisfaction with 'how safe you feel'

Source: Modified version of Tables 1 and 2 in Scutella and Wilkins 2010, pp.452–6

Appendix 2: Construction of indicators using HILDA Wave 9

The following tables give a more detailed description of how the indicators used in this study were developed. As described in the body of this report, the social exclusion indicators follow those developed by Scutella et al. (2009b).

Table A3: Description of social exclusion indicators used in this report

Social exclusion indicators (by domain)	Description
Material resources domain	
Low equivalised disposable household income	Computed using: the derived HILDA variable, 'Household financial year disposable income' (positive and negative values—the latter were set to zero); dividing this by the standard ABS household equivalence factor (being the household sum of 1 point to the first adult, 0.5 points to each additional person who is 15 years and over, and 0.3 points to each child under the age of 15). The equivalised values were then grouped into deciles/quintiles based on ranges reported in the ABS Household Income and Income Distribution (2009–10) data cubes (Cat. no. 6523.0). This publication presents estimates of the income of Australian households and persons resident in private dwellings, compiled from the 2009–10 Survey of Income and Housing (SIH). 'Low' equivalised disposable household income was defined as the bottom two quintiles (bottom 40%) to correspond with the standard 30/40 housing affordability benchmark.
Financial hardship	Defined as experiencing three or more of seven stated measures of financial stress in HILDA (*Since January 2009, did any of the following happen to you because of a shortage of money?*)
Employment domain	
Unemployed	Employment status on Household Form, answered by one person in household.
Jobless household	No member of the household is in paid employment and at least one member is of working age (15–64 years). The variable was computed using the variables: ihgage1–20 (age at last birthday, household members 1 to 20) and ihges1–20 (Employment status on Household Form, answered by one person in household, household members 1 to 20). Household members described as the following were considered 'jobless': 'Not employed but is looking for work', 'Home duties' and 'Other'. 'Employed', 'Retired' and 'Non-working students' were not coded as jobless.
Education and skills domain	
Poor English language proficiency	A language other than English is spoken at home and the respondent reports that they speak English 'Not well' or 'Not at all'.
Low level of formal education	Not currently studying full-time and has a highest level of educational qualification of less than high school completion. Certificates 1 and 2 are considered lower than high school completion.
Little or no work experience	Less than three years in paid employment.
Health and disability	
Poor or fair general health	To the question: 'In general, would you say your health is: Excellent, Very Good, Good, Fair or Poor'; the respondent answers 'fair' or 'poor'.

Social exclusion indicators (by domain)	Description
Has a disability or long-term health condition	To the question: 'Do you have any long-term health condition, impairment or disability … that restricts you in your everyday activities, and has lasted or is likely to last, for more than six months?', the respondent answers 'yes'.
Lives with a disabled child in the household	If any member of the household who is aged <15-years-old has a long-term health condition, disability or impairment.
Low life satisfaction	To the question: 'All things considered, how satisfied are you with your life?', the respondent picks a number between 0 and 5 (out of 10), where 0 equals completely dissatisfied and 10 completely satisfied.
Social domain	
Low level of social support	Based on the responses to ten statements that describe how much support they get from other people. Respondents were asked to place a cross on a scale from 1 (strongly disagree) to 7 (strongly agree) in relation to statements such as: 'People don't come to visit me as often as I would like'. Where necessary, the scales were inverted so that a higher score was always related to greater social support, and then the scores were summed across the 10 questions. The maximum-score was 70 and the minimum-score 10. Following Scutella et al. (2009b), a score of less than 30 was considered to be a 'low level' of social support.
Low level of social participation	Respondents were considered to have a low level of social participation if, when asked the question: 'In general, about how often do you get together socially with friends or relatives not living with you?', they answered 'Once or twice every three months' or 'Less often than once every three months'.
Community domain	
Low satisfaction with neighbourhood	To the question: 'How satisfied are you with the neighbourhood in which you live?', the respondent picks a number between 0 and 5 (out of 10), where 0 equals completely dissatisfied and 10 completely satisfied.
Low satisfaction with feeling part of the community	To the question: 'How satisfied are you with feeling part of your local community?', the respondent picks a number between 0 and 5 (out of 10), where 0 equals completely dissatisfied and 10 completely satisfied.
Not a member of a sporting, hobby or community-based club or association	To the question: 'Are you currently an active member of a sporting, hobby or community-based club or association?', the respondent answers, 'No'.
No voluntary activity in a typical week	If the respondent reports doing 'nil' time in a typical week doing volunteer or charity work and they are not in paid employment or studying (full- or part-time).
Personal safety domain	
Victim of violent crime in last 12 months	In terms of a 'major event' in their lives, the respondent reports that they have been a victim of physical violence in the last 12 months.
Victim of property crime in last 12 months	In terms of a 'major event' in their lives, the respondent reports that they have been a victim of property crime in the last 12 months.
Low feeling of perceived safety	To the question: 'How satisfied are you with how safe you feel?', the respondent picks a number between 0 and 5 (out of 10), where 0 equals completely dissatisfied and 10 completely satisfied.

Table A4: Description of housing indicators used in this report

Housing indicators	Description
Tenure	Cross-tabulation of responses to the following questions: 'Do you (or any other members of this household) own this home, rent it, or do you live here rent free?' and 'Who does this household rent from (or pay board to)?' Types analysed were outright owners, home purchasers, private renters, public renters and 'other' (includes employer housing, renting in a caravan park or from relatives).
Dwelling type and size	Dwelling type is recorded by the interviewer and the respondent reports number of bedrooms. Any combination of the two data items could then be created.
Affordability/housing stress (private renters and home purchasers)	Relevant to home purchaser and private renter households (i.e. in the private market). Such households were considered to have an affordability problem or be in housing stress if they had income in the lowest two quintiles of the Australia-wide equivalised disposable income distribution and housing costs (i.e. rent or mortgage payments) were consuming 30 per cent or more of their gross income. This measure follows that used by Yates and Gabriel (2006).
Housing suitability	The definition of housing suitability was taken from the Canada Mortgage and Housing Corporation's National Occupancy Standard (NOS) whereby suitable housing has enough bedrooms for the size and make-up of resident households. Specifically, the NOS requires one bedroom for each cohabiting adult couple, unattached household member 18 years of age and over, same-sex pair of children under age 18, and additional boy or girl in the family unless there are two opposite sex children under five years of age, in which case they are expected to share a bedroom. Households were defined as having: more bedrooms than required, the appropriate number of bedrooms or fewer bedrooms than required.
Satisfaction with home	The respondents are asked to pick a number between 0 and 10 that indicates their level of satisfaction in regard to 'the home in which you live'. Dissatisfied = 0–4, neither satisfied nor dissatisfied = 5, satisfied = 6–10. To create the household level value, the average of the actual responses of members per household was calculated.
Mobility: number of moves in the past 5 years	Waves 5 through 9 of the HILDA survey were drawn upon to create the mobility indicator. Based mainly on two questions asked of Continuing Persons (in the HILDA sample) from waves 5 through 9: '… *since we last interviewed you, have you changed your address?*', and for New Persons (to the sample) in Wave 5, the question: '*And could you please tell me when you moved to your current address? That is, when you began living here? Is the answer more than 12 months ago?*' Due to the structure of the mobility-focused questions, a mobility rate was not calculated for New Persons entering the survey in Waves 6 to 8. Nonetheless, these make up a relatively small proportion of the Wave 9 sample and, as such, a mobility rate was calculated for around 82 per cent of the Wave 9 respondents. Also due to the structure of the questions, 'number of moves' is actually the *minimum* number of moves over the past five years because the question only asks; 'have you changed your address', and not 'how many times'. To create the household level count, the lowest number of moves of any household member was taken to represent the figure for the whole household (a conservative figure). This was only necessary if household members had changed over the last five years.

Table A5: Description of the demographic indicators used in this report

Demographic indicators	
Age	Age last birthday at June 30 2009 (continuous variable re-coded into categories)
Sex	Sex (male, female)
Country of birth	Brief country of birth: Australia; main English-speaking; other
Household type	The 26 household types provided in the survey data were re-coded into five broad groups: couple family, couple family with children, lone parent, lone person and other family, group and multi-family.

Table A6: Description of the SEIFA and spatial indicators used in this report

Spatial variables	ABS defined 'Remoteness Areas', 2006: Major cities; Inner regional; outer regional/remote/very remote. Due to small/nil HILDA respondents in remote and very remote areas, these were combined with outer regional areas.
SEIFA **Index of relative socioeconomic disadvantage (IRSD)**	In the HILDA survey file (in-confidence release), each household is attributed with the 2006 CD code within which they live. With this information, the 2006 IRSD score (CD level) could also be attributed to the household record. Using this score, the households were also attributed with the Australia-wide percentile value taken from the ranking of all Australian CDs by 2006 IRSD value. Responding households were then grouped into low relative disadvantage CDs (IRSD percentiles 67 to 100), medium relative disadvantage CDs (IRSD percentiles 34 to 66) and high relative disadvantage CDs (IRSD percentiles 1 to 33). The seemingly reversed description of low and high compared to percentile range is due to the fact that a lower IRSD score actually relates to higher levels of relative disadvantage.

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