The desire to age in place among older Australians

Summary

Many older Australians report a desire to age in place. This bulletin explores the relationship between this desire and the housing circumstances of older Australians of different tenure types; that is, those who own their home outright, those paying a mortgage and those who rent their home either privately or through social housing. It also explores how often households move and attitudes towards moving or staying.

The findings indicate that:

- although the vast majority of older Australians own their home outright, this proportion is expected to decline into the future
- location is a major motivating factor for older people in deciding where to live
- outright owners are more likely to intend to age in place, and exhibit the highest levels of satisfaction with their housing
- the majority of private renters intend to move in the next 5 years and report the fewest number of reasons for wanting to stay in their current home
- among public housing tenants, housing mobility declines from the ages of around 20 to 60, but there is a subsequent, rapid increase in housing mobility from the age of 60.
Introduction

Many older Australians say that they desire to ‘age in place’; that is, to remain in their current accommodation, compared with moving into specialised care, or even moving at all. The main reason given for this, according to research undertaken by Olsberg and Winters in 2005, appears to be the desire to remain linked by proximity to the community and services with which they are familiar but not necessarily to the family home.

The vast majority of older Australians own their home outright. Data from Housing, Income and Income Distribution 2009-10 shows this is 75% of those aged 65–74, and 82% of those aged 75 and over (ABS 2011a). It is among these home owners that the desire to age in place is found to be strongest. Home owners can use the significant investment represented by the home to give them financial options into old age, while also enabling them to maintain family and community networks, as well as access to familiar services (Olsberg & Winters 2005).

But what about those older Australians who do not own their own home outright? Do other tenure type groups also wish to age in place? Or are their housing circumstances such that they would seek change?

What are ‘older households’?

A number of data sources are used in this bulletin and, among these, the definition of ‘older households’ varies. Older households may be defined as those households where the oldest member is at least 65 years of age. This definition is used where data is sourced from the Household, Income and Labour Dynamics in Australia (HILDA) survey (Melbourne Institute 2010). Unlike some other definitions, this one has the advantage of including all older people.

An alternative method of defining older households is based on the age of the household reference person; that is, the person who filled in the survey on behalf of the household. But this systematically excludes certain older people, such as those in households where a younger person is the reference person. This definition is used where data is sourced from the Australian Bureau of Statistics, including the Survey of Income and Housing (SIH), 2007–08 (ABS 2009).
Further, some of the other sources referenced in this bulletin apply an age limit other than 65 years for defining ‘older households’. Where this has occurred, it has been noted accordingly.

What does ‘tenure type’ refer to?

Tenure type is the basis for comparisons presented throughout this bulletin. Usually households are split into four categories according to tenure type:

- outright owners who are no longer making loan repayments
- mortgagees who are owner occupiers paying off a mortgage
- private renters who have private landlords, and may or may not receive government rental assistance (these include households paying their rent to a caravan park owner or manager, or an employer)
- social housing tenants who pay rent to either a government housing authority (public rental housing) or a community or cooperative housing group (community housing).

Other households (such as those involved in rent-to-buy schemes, and those who have life tenure or live rent free) are excluded from this analysis due to small numbers and data quality issues.

This bulletin explores households’ intention to age in place or to move and the reasons given for this preference. It also looks at length of tenure and satisfaction levels relating to the home. Financial considerations and how they may affect psychological distress and housing desirability may be explored in a subsequent publication. Data pertaining specifically to Indigenous Australians has not been explored here, due to data quality issues. However, it may also be possible to explore housing preferences of Indigenous Australians of all ages, in a later publication.

The primary data sources used in this bulletin are the HILDA survey, 2001 to 2009 and the SIH, 2007–08, and these are supplemented by data from the Australian Institute of Health and Welfare (AIHW) housing data repositories, 2006–07 to 2010–11. Also of relevance are findings from a study by Olsberg & Winters (2005), which examined housing mobility in later life.
Overview

According to the ABS publication, 2009–10 Household Income and Income Distribution, the majority of older households owned their home outright (73%). A further 10% of other households were private renters, 8% were social housing tenants, 5% were mortgagees and all other tenure types accounted for 4% (ABS 2011a).

Figure 1 illustrates how household tenure type compared between this age group and others. In the age group 15–24 years, most households rented privately. For age groups 25–34, 35–44 and 45–54 years, the proportion renting privately shrunk as many households acquired property via mortgage. By the time people reached the age of 65, many had achieved the ‘Great Australian Dream’ of home ownership.

The ageing of the Australian population

The Australian population is ageing. Figure 2 shows how the growth in population of people aged 65 and over has accelerated, and is expected to accelerate further over the next 20 years. In 2011 there were approximately 3 million Australians aged 65 or older. By 2031, it is estimated that there will be almost 6 million (AIHW 2011a).
In the 2010 Intergenerational Report, Treasury predicted an increase in the population aged 65 and over of approximately two-thirds, by 2050 (Figure 3). The proportion of the population aged 85 and over is expected to more than double during this time, from approximately 2% in 2010 to around 5% in 2050 (Treasury 2010).

**Figure 2: Historical and projected Australian population, 1911–2031**

**Figure 3: Historical and projected Australian population, proportion by age group, based on modelling by the Australian Government Treasury Department, 1970–2050**
Older households and housing requirements

The ageing of the population places demands on housing provision, because the characteristics and needs of older Australian households generally differ from those of the general population.

First, older households are generally small households: According to HILDA data, in 2009 71% of older households contained either one or two occupants compared with only 37% of younger households. Housing Assistance in Australia 2011 reported that while Australia’s overall population is estimated to increase by 39% between 2006 and 2031, the number of lone-person households is likely to increase by 73%, which is nearly double the general population growth (AIHW 2011b). Because of the increasing proportion of lone-person households, growth in the number of dwellings required by the population will far exceed the population growth of 39%. In other words, this high proportion of small households will place unprecedented demand on the housing sector.

Further, housing needs change as people age. For instance, with increasing age and the corresponding increasing rate of disability, more people need housing with accessibility features. Growth in demand for housing that caters specifically to older people will also need to increase rapidly. For example, growth in the retirement living sector is expected to increase almost threefold over the next four decades (Thornton 2011:5).

Older households and changes in tenure type

As Figure 4 shows, there has been a steady decline in the proportion of older Australians who owned their home outright between 2002 and 2009. There has been a corresponding steady increase in each of the other major tenure types. The largest shift in tenure type was to the proportion owning a home with a mortgage. There has been a less marked increase in the proportion renting privately, while the proportion of social housing tenants has remained fairly stable.
A growing number of older private renters can lead to a growing proportion of people with limited disposable income (see Figure 11), as private renters generally have higher housing costs. According to 2009 HILDA data, the median proportion of income spent on basic housing costs (that is, rent or mortgage) by private renters is highest of any tenure type at 26% (mean at 36%). This is followed by social housing tenants, with a median proportion of 22% (mean of 35%). Mortgagees have the highest median basic housing costs, but also the highest median income, so the proportion of income spent on basic housing costs for this group is lower, with a median of 15% (and a mean of 23%). In addition to this, renters are unable to access home equity to fund their retirement.

These changes to Australia’s demographic profile, already facing significant shortages of adequate affordable housing, spell challenges for the Australian housing market.

Against this background, this bulletin poses the question: is the desire to age in place really characteristic of all older Australians, or does it just seem this way because such a large majority own outright?
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Reasons for staying or moving

According to research by Olsberg and Winters (see Box 1), while older Australians generally intend to remain living in their current home for the next 5 years, this varies by tenure type. As part of this research, survey respondents were asked whether they thought they might move from their present home in the foreseeable future. Those respondents who answered ‘no’ were then asked what their reason/s were for intending to stay in their present home. Respondents were able to choose any number of options covering finances, comfort, location, emotional attachment, proximity to friends and family, and also not being able to afford to move (Olsberg & Winters 2005).

Box 1: Study by Olsberg and Winters’

This national study of the future housing intentions of older Australians includes respondents across all regions of Australia. The study combines a national survey (sample of 7,000 people aged 50 and over, across all regions of Australia) and in-depth qualitative research using focus groups and internet chat rooms. The questionnaire was placed in the bi-monthly journal of the National Seniors’ Association, ‘50 Something’, in April/May 2004 with a 4 week response period (Olsberg & Winters 2005).

Reasons for staying

Table 1 reports reasons for staying in current accommodation, as found by Olsberg and Winters (2005). When people consider that their home is affordable, comfortable and in a good location, or when they feel an emotional attachment to it, they are likely to find their housing situation desirable. The last category, relating to not being able to afford to move, distinguishes between those who intend to remain living where they are and those who desire to, because some might like (i.e. desire) to move but not intend to because they are unable to.

Outright owners reported each reason to stay most frequently, indicating that they found their home to be desirable for a wide range of reasons. They also answered ‘cannot afford to move’ least frequently, suggesting that if they wanted to move they were not inhibited by affordability, which strengthens the claim that they do not just intend to stay, they also desire it.

Location rated highest among all tenure types as a reason to stay, except in public housing where it was slightly lower than financial concerns. Among owners, comfort was next, followed by financial suitability; among renters this order was reversed. This difference seems to be due to the financial constraints faced by renters, because they, far more often than owners, reported that they were also not able to move because they could not afford to. Also, renters generally have lower income than owners (see Figure 11).
Table 1: Reasons for staying in current accommodation among people aged 50 and over by tenure type (per cent)

<table>
<thead>
<tr>
<th>Dwelling/tenure type</th>
<th>Suits me financially</th>
<th>Suits me in comfort</th>
<th>Suits me in location</th>
<th>Emotional attachment</th>
<th>Want to stay near friends or family</th>
<th>Cannot afford to move</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owning outright</td>
<td>64.1</td>
<td>77.5</td>
<td>85.4</td>
<td>22.7</td>
<td>36.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Mortgage</td>
<td>62.7</td>
<td>74.9</td>
<td>83.8</td>
<td>21.3</td>
<td>29.9</td>
<td>23.9</td>
</tr>
<tr>
<td>Renting privately</td>
<td>61.6</td>
<td>52.1</td>
<td>71.2</td>
<td>4.1</td>
<td>28.8</td>
<td>46.6</td>
</tr>
<tr>
<td>Renting public</td>
<td>66.7</td>
<td>51.0</td>
<td>64.7</td>
<td>19.6</td>
<td>25.5</td>
<td>64.7</td>
</tr>
</tbody>
</table>

Note: In this sample, ‘older people’ are defined as those aged 50 and older. Respondents could choose more than one reason to stay.

Emotional attachment was lowest as a reason to stay across the board, although there were significant differences between emotional attachment levels across tenure type groups. Nearly one in five public renters identified emotional attachment as a reason for staying—only slightly lower than the levels reported by owners. However, among private renters, only one in twenty wanted to stay because of emotional attachment. So in terms of most reasons for staying, there was a divergence between ratings by owners and those of renters. However, in terms of emotional attachment, the distinction was between private renters and the remaining categories combined.

Data from the ABS SIH (Figure 5) shows that the vast majority of older households across all tenure types were likely to stay in their current accommodation for the next 12 months. Among public housing tenants, more than 99% indicated that they were likely to stay. Outright owners were the next most likely group to stay, at about 95%. Private renters were least likely to stay, with 80% expecting to remain in their current accommodation for the next 12 months. In fact, according to Olsberg and Winters (2005), less than one in three (29%) older private renters intend to stay for the next 5 years.

![Figure 5: Intention to stay in current accommodation for the next 12 months, by tenure type, 2007–08](image-url)

Note: The age of the reference person is 65 years or over.
Source: AIHW analysis of SIH 2007–08.
SIH respondents were further asked: given their intention to stay, did they actually have a desire to do so? Overall, the vast majority of people wanted to stay in their current accommodation; however, comparison by tenure type shows some interesting differences (Figure 6). Although intention to stay among public housing tenants was the highest of any tenure type at 99%, and for private renters it was lowest at 80%, their desire to stay was almost on a par (91% and 90%, respectively).

There are a number of possible explanations for this. First, the nature of the private rental market may provide more flexibility for tenants to move in order to accommodate their changing needs over time. Second, it may be more difficult to sustain a tenancy in the private rental market for reasons out of the control of tenants, such as changing availability of the house.

Public housing tenants, on the other hand, generally have good security of tenure and cheaper rent. While some may desire to move, it appears that very few may be actually willing to risk losing the benefits of social housing.

Mortgagees expressed a desire to stay in their current housing most frequently at 99%, followed by outright owners at 96%.

![Figure 6: Desire to stay in the next 12 months, by tenure type, 2007–08.](image-url)
In summary, analysis of desire to stay indicates that ageing in place is highly desirable for all tenure types, most strongly so for those who own outright and for those with a mortgage. Analysis of intention to stay and associated reasons reveals a discrepancy between intention to stay and desire to stay among social housing tenants. This can be accounted for by the financial situation of many social housing tenants, because for many of these households, housing options are likely to be limited. However, social housing still appears to be desirable, at least for the majority of these households.

Reasons for moving

Having considered reasons to stay, what then encourages older people to move? Table 2 shows the most common reasons for moving. It refers to HILDA data combined across the years 2001–09, for households who had changed address in the previous year.

<table>
<thead>
<tr>
<th>Tenure Type</th>
<th>Outright owner</th>
<th>Mortgagee</th>
<th>Private renter</th>
<th>Social housing tenant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upsize</td>
<td>*7.8</td>
<td>*44.0</td>
<td>*14.6</td>
<td>**21.6</td>
</tr>
<tr>
<td>Downsize</td>
<td>23.2</td>
<td>*10.9</td>
<td>14.6</td>
<td>*19.3</td>
</tr>
<tr>
<td>Proximity to friends/family</td>
<td>24.8</td>
<td>*22.1</td>
<td>21.2</td>
<td>*11.8</td>
</tr>
<tr>
<td>Like the neighbourhood</td>
<td>10.0</td>
<td>**0.7</td>
<td>*6.6</td>
<td>**6.2</td>
</tr>
<tr>
<td>Access to services</td>
<td>5.6</td>
<td>n.p.</td>
<td>*10.7</td>
<td>**11.4</td>
</tr>
<tr>
<td>Lifestyle reasons</td>
<td>14.0</td>
<td>*8.2</td>
<td>13.3</td>
<td>**2.9</td>
</tr>
<tr>
<td>Health reasons</td>
<td>11.8</td>
<td>*9.4</td>
<td>12.3</td>
<td>*23.1</td>
</tr>
</tbody>
</table>

n.p. = not published
* Estimate has a relative standard error of 25% to 50% and should be used with caution.
** Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

Note: Respondents were able to select more than one reason for moving, so percentages reflect number of times reason is invoked, not number of households.

Source: AIHW analysis of HILDA.

Location reasons (proximity to family and friends, employment, liking the neighbourhood and access to services) feature strongly in reasons for moving. This is in accord with Table 1, which showed that location was also a strong motivator for staying in current accommodation. Downsizing and health reasons were also common reasons for moving.

Health reasons were particularly prevalent among social housing tenants, possibly because, according to HILDA data, this group represents an older segment of the population. On account of the low income that is characteristic of social housing tenants (see Figure 11), they may find themselves unable to move from their housing for any reason—desires aside—until old age and the health implications it may bring, forces them to leave. Health reasons were reported as the reason for moving by more than 2 in 10 social housing tenants.
Figure 7 shows the most common reason for moving over the lifespan of people aged 25 and over. Location reasons for moving are most common overall. For those of age 65 and over, this proportion was 28%. The next most common reason for moving among this group was to downsize (27%). In the younger years, upsizing is fairly common, while among older people the proportion who upsize are more or less replaced by those who downsize. Finally, moving for health reasons increases significantly into old age, accounting for almost one in five (18%) of movers in this age group, a proportion only slightly lower than the one found using HILDA data (23%; see Table 2).

![Main reasons for moving by age group, 2007–08](image)

**Figure 7: Main reasons for moving by age group, 2007–08**

**Age and mobility in social housing**

Using the public housing data set from the AIHW, it is possible to describe the relationship between age and housing mobility. Figure 8 is based on data from each of the five financial years 2006–07 to 2010–11 and relates to households that ended their tenancy, according to the age of the main tenant.

This analysis reveals a decline of housing mobility from the ages of around 20 to 60 and that there is a subsequent, rapid increase in housing mobility within the very oldest ages. Earlier in the bulletin, it was found that health was the most common reason for moving among social housing tenants (Table 2). This indicates that as social housing tenants become older, they are less inclined to move, and they often stay in their homes until health conditions compel them to move.
Satisfaction as a reason to move or stay

The level of satisfaction felt in relation to housing can constitute a reason to move or to stay. Older Australians generally exhibit quite high levels of satisfaction regarding their housing, compared with the younger age group. As shown in Figure 9, when asked to rate their satisfaction as a score out of 10, around 3 in 5 (58%) older Australians (65 years and over) gave a rating of 8 or higher. This compares to only 2 in 5 (39%) of the younger cohort.

Across tenure types within the older age group, a higher proportion of outright owners (60%) and mortgagees (58%) gave a rating of 8 or higher, compared to private renters (46%) and social housing tenants (40%).

(a) Main tenant of the household.

Source: AIHW public housing data sets combined 2006–07 to 2010–11.

Figure 8: Proportion of public housing households(a) who moved in the financial year by age of main tenant, combined 2006–07 to 2010–11
This shows a divergence between owners and renters: outright owners and mortgagees are very close in satisfaction ratings, while private renters and social housing tenants are similar and lower.

Social housing tenants reported the lowest level of satisfaction. This appears to contrast with the very high intention to stay (Figure 5), and high level of desire to stay (Figure 6), among social housing tenants. It suggests that although social housing tenants are very often dissatisfied with their housing, their expressed intentions reflect limited options for alternative tenure.

Satisfaction with location was also analysed by tenure type, using SIH data. Households of all tenure types rated their location as satisfactory or better over 90% of the time. Although there was little difference between tenure types, it is worth noting that the highest rate of satisfactory ratings was among outright owners (96% were satisfied with their location).

### Length of tenure and mobility

The number of years households live in their home can be expected to be related to the desirability of ageing in place. On the other hand, people’s desires may be veiled by necessity, so it is not known how often people’s movements reflect their desire, and how often other factors are the major influence.
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Figure 10 shows that outright owners on average had lived in their accommodation for far longer than anybody else. Mortgagees and public housing tenants were next, with slightly more public housing tenants having tenure of less than 5 years (26% of public housing tenants, compared with 18% of mortgagees), and slightly more mortgagees having tenure length of 20 years or more (38% of mortgagees, compared with 30% of public housing tenants). In contrast, shorter tenure length was the norm among private renters, with well over half (62%) having tenure length of less than 5 years. No private renters had tenure length of 20 years or more.

These findings suggest there may be a link between the desire to age in place and actual length of tenure, although there may be many reasons why people move, despite their desire. For example, private renters probably have least control over the length of their tenure, and this may explain why they exhibit the shortest tenures overall.

In contrast, while social housing tenants continue to have low income, their tenure generally remains secure.

Nonetheless, the desirability of each tenure type must play a part in determining length of tenure as well, and the pattern found among tenure types (except social housing tenants), follows the pattern found using other measures of desirability. According to people’s ratings of their satisfaction (Figure 9), outright ownership appears to be most desirable, followed by owning with a mortgage. Ratings were generally lower among renters for both satisfaction and desire to stay.
Why do social housing tenants generally sustain their tenure for much longer than private renters? As mentioned above, they have greater control over their tenure, and also less ability to move. But further research suggests that at least for some social housing tenants, long tenure length is due to the desirability of their housing circumstances. A study conducted by the Australian Housing and Urban Research Institute looked at the transition of older Australians into various forms of housing assistance, including social housing. The researchers used an ethnographic method, meaning they conducted in-depth interviews, and reported common patterns in the responses of interviewees. One prevalent view among older social housing tenants with little income and low prospects of employment due to their age, is that stability of tenure is highly sought after, and social housing is seen as desirable because it makes this possible (Wood et. al. 2010).

Private renters move with greatest frequency. Although it is not clear whether this is out of choice or necessity, the fact that private renters constitute the equal-lowest household income group among older households (see Figure 11) suggests that in some circumstances it is not likely to be by choice. Further, Olsberg and Winters (2005) found that ‘women, pensioners and those in private rental accommodation were most anxious about moving in the future, concerned that they would be unable to afford to do so but realising that their financial circumstances may make it impossible to stay where they are’. Private renters expected to move in the foreseeable future and many were fearful that they would be forced to move because of financial difficulties as they grew older.

So, ageing in place among private renters may be seen as a way of avoiding significant one-off expenditure at the expense of ongoing, higher housing costs. This may, however, reflect necessity rather than desire.
Discussion

This bulletin set out to explore whether there is a difference between tenure types with regard to the desire to age in place. In order to do this, it has been necessary to tease out people’s intention to move, their desire and the actual mobility that occurs. This has been done by gathering evidence from a variety of different measures. All tenure type groups expressed an overall desire to age in place, although there were differences between those of different tenure type, with outright ownership appearing most desirable, followed by ownership with a mortgage. Indications are that renting is not as desirable as owning, but the results are more ambiguous.

A summary of findings

Outright home owners intend to move less, and actually move less than households of other tenure types. Therefore they are more likely to age in place than those of other tenure types. They most frequently report positive reasons why they age in place, and were least likely to report that they ‘could not afford to move’. This suggests that outright owners do indeed desire to age in place because, although they have the option of moving, they choose to stay. When asked whether they want to stay in their current accommodation for the next 12 months, they answer ‘yes’ more frequently than those of any other tenure type.

Mortgagees appear to be in a similar position to outright owners. However, they represent something of an anomaly, exhibiting a desire to upsize, despite the onset of old age. It may be that mortgagees are not representative of older households as a whole. This will be explored further in Volume 2 of this bulletin.

Private renters as a group appear least satisfied with their housing conditions. Of the tenure groups discussed here, they reported the fewest reasons for wanting to stay in their accommodation. They also intended to stay for the next 12 months least often and correspondingly moved most frequently, despite expressing anxiety about this. However, it is not known how often private renters moved even though they desired not to, due to other factors relating to the nature of the private rental market.

Finally, tenants of social housing move relatively infrequently. Unlike private renters, tenure is stable. Household income is relatively low for this group (Figure 11), and therefore the secure tenure and low-cost housing offered by social housing is presumably highly desirable for them. Financial reasons are the most common ones reported why households stay in social housing and this is likely to reflect, for many in this situation, that options for moving are limited. Further, health reasons are by far the most commonly reported motivation to move for this group. So it seems that ageing in place is desirable until the greater necessity of poor health makes moving necessary.

There are some further, contrasting findings relating to the desirability of social housing, which require additional discussion.
**Intention versus desire**

The high level of emotional attachment found among social housing tenants (Table 1) contrasts with the level of satisfaction with the home reported by this group (Figure 9). Relative to other tenure types, social housing tenants reported the lowest levels of satisfaction, however emotional attachment is among the highest, being comparable to that of outright owners.

Research by Wood et al. (2010) suggests that security of tenure is of great importance to some older social housing tenants. This may explain why social housing tenants display a higher level of emotional attachment than private renters, despite being quite similar on most other measures. It is possible, then, that social housing tenants report relatively low satisfaction overall because the sub-group of social housing tenants found by Wood et al. (2010) to highly prize their accommodation are offset by social housing tenants in general, who display a low satisfaction level.

Regardless of the explanation, these findings illustrate the complexity of people’s attitudes toward their homes. Those with the least socio-economic resources appear to value stability of tenure most highly, which makes social housing desirable, but also very difficult to leave if leaving is desired. Private renters do not enjoy the same stability of tenure and they pay the greatest proportion of their income in housing costs, but they generally have more flexibility to decide where they live. On the other hand, owners are likely to have higher income, plus they can access significant equity (even without selling the home), to give them far more options during the later years of life.

**Acknowledgments**

The main author of this bulletin was Tom Ransom of the Housing Unit at the Australian Institute of Health and Welfare. Cathy Claydon provided significant editorial advice, and David Whitelaw provided much statistical advice.

Contributions were also made by Alana Shaw, Moira Hewitt, John Sant and Jason Thomson.

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 should not be attributed to either FaHCSIA or the Melbourne Institute.
References


AIHW 2011b. Housing assistance in Australia 2011. Cat. no. HOU 236. Canberra: AIHW.


