

The regional impact of Commonwealth Rent Assistance

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LIST OF ACRONYMS

ABS	Australian Bureau of Statistics
AHS	Australian Housing Survey
AHURI	Australian Housing and Urban Research Institute
AIHW	Australian Institute of Health and Welfare
ATSIC	Aboriginal and Torres Strait Islander Commission
BCP	Basic Community Profile
CD	Census Collection District
CHDS	Commonwealth Housing Dataset
CPI	Consumer Price Index
CRA	Commonwealth Rent Assistance
CSHA	Commonwealth State Housing Agreement
CURF	Confidentialised Unit Record File
GST	Goods and Services Tax
HES	Household Expenditure Survey
IP	Indigenous Profile
LGA	Local Government Area
NATSEM	National Centre for Social and Economic Modelling
RMIT	Royal Melbourne Institute of Technology
SIHC	Survey of Income and Housing Costs
SLA	Statistical Local Area
SRI	Survey of Rental Investors
STINMOD	NATSEM's static microsimulation model
URP	Usual Resident Profile
XCP	Expanded Community Profile

EXECUTIVE SUMMARY

Commonwealth Rent Assistance (CRA) is an element of the Australian income support system and an important housing assistance programme. CRA complements broader income support objectives by providing supplementary income to about one million income support recipients in the private rental market in recognition of the additional costs of private rental housing (Department of Family and Community Services 2002, pp 99, 103). However, the CRA entitlement rules – rent thresholds and maximum levels of assistance – are standard across the country, despite the evident variations in regional rent levels.

The combination of uniform national CRA entitlement rules and regional variations in rent is varied regional outcomes in terms of the extent to which CRA recognises the additional costs faced by those income support recipients who are renting privately. This is shown using data compiled by the Productivity Commission on housing affordability measures for CRA recipients living in different parts of the country. CRA is revealed to have a major impact on housing affordability, to have an impact across the country, but to be only weakly responsive to regional variations in the amounts of rent being paid.

This situation has prompted calls for a regional dimension to be added to CRA payments – calls that have been made since the early 1990s, though with something of a resurgence in recent years. And these calls appear to be in tune with the basic objective of CRA – an income supplement to recognise the additional costs faced by income support recipients renting privately. So, how might possible variants of CRA provide a greater responsiveness to regional variations in rent levels? Answering this question is the primary aim of this research project. But to answer this question in detail, and in a way which captures the degree of regional variation in rent levels, which locates rents paid by CRA recipients in the context of particular rental markets, which provides an up-to-date picture, and which provides the capacity to model alternative specifications for CRA, requires a dataset which is not readily available.

The required dataset can, however, be created using the techniques of spatial microsimulation to combine data from different sources. Creation of such a dataset is the key element of the research techniques being applied in this study. In doing so, a detailed small-area housing dataset will be created – a dataset which has value not only for the immediate question concerning CRA, but also potential value for addressing a range of other housing research questions. In recognition of this, creation of the dataset on its own is identified as a secondary aim for the research.

The spatial microsimulation technique being used here involves combining small-area data from the 2001 Census of Population and Housing (which has very good geographic detail, but limited detail on housing and other population characteristics), with data from a national sample survey (which has poor geographic detail, but very good detail on housing and other population characteristics). A review of the relative merits of alternative data sources that could be used for creation of the housing dataset, and of the trade-off that exists between data quality and the level of geographic disaggregation, leads to the decision to construct the dataset by combining:

- 2001 Census data provided in the Expanded Community Profile, together with some supplementary small-area Census tables; and
- the detailed unit record data from the ABS 1998-99 Household Expenditure Survey (HES).

The dataset will be constructed at the Statistical Local Area (SLA) level – with around 1350 SLAs across the country – and will be for June 2001. NATSEM's established microsimulation model, STINMOD, will be used to update the HES data to 2001 and also to impute CRA entitlements. An important step in construction of the dataset will be benchmarking against administrative data on CRA receipt.

Given creation of the dataset, the regional impacts of CRA under current provisions will be assessed and compared with the impacts under alternative provisions. Two main suggested variants to CRA that would add greater responsiveness to regional rents emerge from the literature:

1. CRA with regional variation in parameters; and
2. CRA with changes to rent thresholds, maximum rates and/or the taper, but with no explicit regional dimension.

Development of the specific options to be modelled will be an incremental process that will be informed by discussions with stakeholders and testing options using the regional housing dataset.

Assessment of the impacts of the CRA options on regional housing affordability will be undertaken using different housing affordability measures – including a rent to income ratio measure and a measure of income after housing costs. There will also be other facets to the assessment of the CRA options. Besides examining affordability outcomes as above, and comparing them with the outcomes under the existing CRA provisions, assessment of the CRA options will also cover their overall budgetary implications and a qualitative assessment of their implications for incentives – such as their impact on effective marginal tax rates. In examining these options, the exercise will be confined to first-round impacts and will not attempt to model possible behavioural responses, such as a decision to pay higher rent if the level of CRA is increased. The assessment will, however, include estimates of the sensitivity of the overall budgetary outcomes to possible behavioural responses.

1 INTRODUCTION

Housing is strongly characterised by regional differences. These include variations, for example, in both the nature of the housing stock – types of dwellings, cost of housing, tenure mix – and in the nature of the population – family structures, age, income levels and so forth. Mainstream housing assistance policy, on the other hand, includes a weak regional dimension. The housing assistance programme that is the focus of this research, Commonwealth Rent Assistance (CRA), is a good example. CRA complements broader income support objectives by providing supplementary income to about one million income support recipients in the private rental market in recognition of the additional costs of private rental housing (Department of Family and Community Services 2002, pp 99, 103). However, the CRA entitlement rules – rent thresholds and maximum levels of assistance – are standard across the country, despite the well-known wide variations in rent levels.

So, what happens when we apply ‘across-the-board’ housing assistance programs to an issue that exhibits considerable regional variation? How well is rent assistance being targeted? Are people in some areas better served than others? Does available assistance meet needs well in some areas, but fall short in others? What would the picture look like with alternative CRA settings that do take some account of regional differences?

This positioning paper sets the scene for an AHURI project that has two aims.

1. The primary aim of the research is to assess the targeting performance of CRA at a regional level. How well does CRA recognise the varied additional costs of private rental housing faced by recipients living in different parts of the country? And how do these outcomes compare with the likely outcomes under CRA with alternative settings that are designed to take greater account of regional differences in people’s housing circumstances?

In order to achieve this aim, the research involves a major data development exercise that has the potential for important further applications. Accordingly:

2. The secondary aim is to establish a detailed and up-to-date regional dataset for the analysis of housing and housing policy issues, to demonstrate its capacity, and to consider the possibilities and requirements for further applications and extension.

Section 2 of the report deals with CRA – describing the nature of the payment, presenting available material on the regional impact of CRA, and providing an account of the policy debate surrounding adding a regional element to CRA payments.

Section 3 describes the data and techniques that are being used to construct the detailed regional housing dataset and the capacity to use it to analyse the impacts of CRA under current and alternative settings – such as maximum rates of payment and rent thresholds. This is an application using the techniques of spatial microsimulation.

Specific considerations with the modelling of CRA are covered in section 4. These include benchmarking the model estimates against administrative data, determining criteria for assessing the options, and devising alternative specifications for CRA. The concluding section 5 covers the broad research program, with a focus on ways and means for allowing and encouraging wider use of the detailed housing dataset being created for this project.

The appendices provide background information on some key considerations in the design of the dataset – features of the 2001 Census data, and a comparison of potential sources of national survey data.

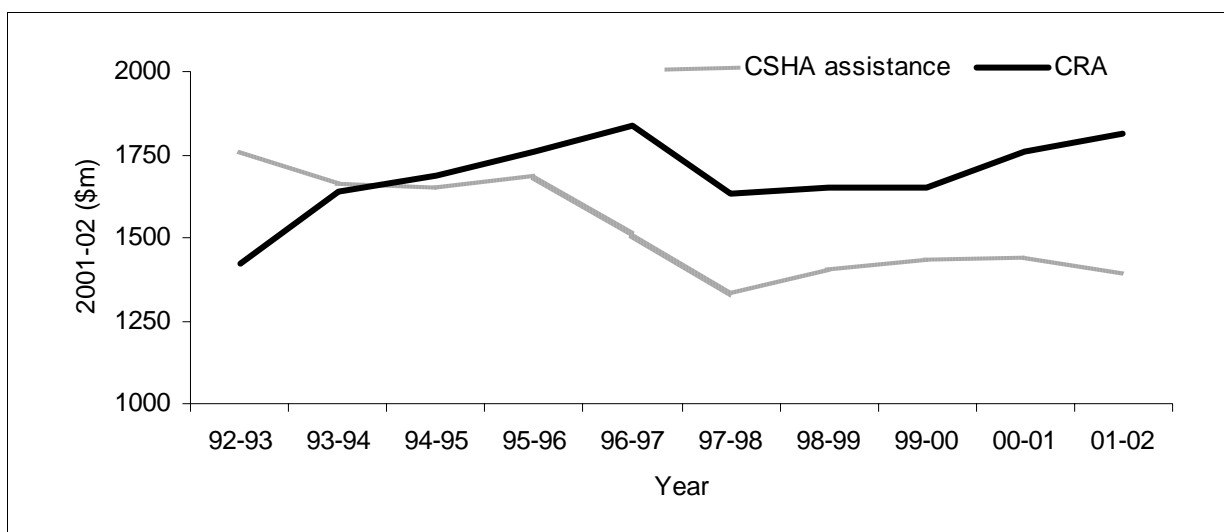
2 COMMONWEALTH RENT ASSISTANCE

Useful background material on Commonwealth Rent Assistance (CRA) and associated policy issues is available in Wulff (2000), Johnston (2002), Hulse (2002) and Productivity Commission (2003). A description of the payment is provided here, before presenting some available material on the regional impact of CRA, and an account of the debate surrounding adding a regional element to CRA payments.

2.1 The CRA Program

Commonwealth Rent Assistance (CRA) is an income supplement paid to income support recipients and is a major element of Australian housing assistance. At 30 June 2002, almost a million (943 877¹) income units² were receiving CRA, with an average entitlement of \$72 per fortnight (Productivity Commission 2003, table 16A.56). Figure 2.1 shows total expenditure on CRA and on the other major form of direct housing assistance – funding under the Commonwealth State Housing Agreement (CSHA) which primarily covers expenditure on public rental housing. Figure 2.1 shows both the scale of the program and the trend of increasing real expenditure on CRA.

Figure 2.1 Expenditure on Commonwealth Rent Assistance and on CSHA assistance, 1992-93 to 2001-02 (2001-02 dollars)



Data source: Productivity Commission 2003, Table 16A.74

CRA is a demand-driven program with total expenditure being the product of the number of eligible claimants, rent levels and rates of payment. Changes in all three factors have played a role in the time profile of real CRA expenditure over the period shown. The overall trend has been upward, though not along a smooth path. The reduction in expenditure in 1997-98 was primarily attributable to aged care reform measures which replaced CRA payments for about 90,000 people in government-funded aged care with a payment made directly to care-providers. The recent sharp increase in expenditure from 1999-2000 to 2000-01 reflects an 8% increase in payment rates to compensate for the impact of the introduction of the Goods and Services Tax (GST) from that time.

2.1.1 CRA eligibility

CRA is available to low-income people renting in the private rental market. The low-income criterion works through CRA being paid as an income support supplement – with eligibility tied

¹ This is the number of CRA recipients who were receiving payments through the Department of Family and Community Services. Some additional CRA recipients receive payments through the Department of Veterans' Affairs and the Department of Employment, Science and Technology.

² The 'income unit' is the basic family unit used in the income support system for assessing payment entitlements. Income units can be couples or single people with or without dependent children.

to receipt of an income support payment (which, with very few exceptions, are means-tested). Specifically, CRA may be payable to:

- pensioners (such as Age Pensioners or Disability Support Pensioners);
- people with dependent children getting more than the base rate of Family Tax Benefit Part A (which means, for a two-child family for example, having a private income less than around \$45,000 to \$50,000 per year depending on the ages of the children);
- other people receiving payments who are partnered or aged 25 years or over (21 years or over in the case of singles receiving a disability payment);
- single people under 25 years old living permanently or indefinitely apart from parents or guardians; and
- recipients of ABSTUDY (assistance for Indigenous students).
(Centrelink 2002, p112)

The second eligibility criterion – renting in the private rental market – covers people paying:

- rent (other than for public housing);
- service and maintenance fees in a retirement village or hostel;
- lodging (where a person pays for board and lodging and cannot identify the amount paid for lodging, two thirds of the amount paid is accepted as rent);
- fees paid for the use of a site for a caravan or other accommodation which the person occupies as their principal home; or
- fees paid to moor a vessel that the person occupies as their principal home.
(Centrelink 2002, p113)

2.1.2 CRA entitlements

Given eligibility for CRA, the actual entitlement is calculated as 75% of the rent paid above a rent threshold up to a maximum amount of CRA payable. The rent thresholds and maximum CRA payments vary with family type (table 2.1).

For means-testing purposes, CRA entitlements are added to the base payment (which provided eligibility for CRA) and means-tested under the provisions that apply to that payment. The maximum rates of CRA payment and the rent thresholds are indexed each September and March in line with the Consumer Price Index (CPI).

2.2 Regional patterns of assistance provided by CRA

This project does not need to establish whether or not there are regional differences in the assistance provided by CRA. Readily available data shows us that there are such differences (see below). This research instead focuses on these differences and, particularly, on the impact of alternative specifications for CRA. The regional differences stem from varying rent levels and some evidence on these is presented here, before examining administrative data on regional differences in the amounts of CRA received, rent paid and affordability measures.

Table 2.1 Rent Assistance payment rates and thresholds: February 2003

	Maximum payment	Rent threshold	Rent at which maximum payment is payable
	\$/fn	\$/fn	\$/fn
With dependent children ^b			
Single, 1-2 children	107.94	107.52	251.44
Single, 3+ children	122.08	107.52	270.29
Couple, 1-2 children	107.94	159.18	303.10
Couple, 3+ children	122.08	159.18	321.95
Without dependent children ^b			
Single	92.00	81.60	204.27
Single sharer ^a	61.33	81.60	163.37
Couple	86.80	133.00	248.73

^a A 'single sharer' is a single person who shares accommodation with others.

^b The definition of a 'dependent child' refers to children who count in assessing eligibility for Family Tax Benefit Part A.

Source: Centrelink 2003

2.2.1 Regional patterns of rent levels

That there is a wide variation in private rent levels across the country is well known. At the simplest level, distinction is often made between Sydney rents and the rest of the country, though the real picture is, of course, more complicated. This is well illustrated by the analysis of 1996 Census data conducted by Bray (1996). That analysis examined average private rent levels across Statistical Local Areas (SLA'S) classified by type of region, and the results are reproduced in table 2.2.

Table 2.2 Average weekly private rents by region: 1996 (\$/week)

	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Aust
Capital city – Inner	234	170	157	141	137	136	203	187	187
Capital city – Middle	210	157	164	152	137	142	200	165	174
Capital city – Outer	178	146	145	148	137	132	222	167	157
Urban areas < 75k from capital	154	143	156	131	131	133	183	203	147
Major non-capital cities/towns	148	129	172	-	-	128	-	-	159
Towns with pop. 40,000+	130	133	139	-	-	-	-	-	135
Towns with pop. 10,000-40,000	140	130	164	160	113	119	187	-	145
Towns with pop. 2,000-10,000	131	118	136	127	115	123	182	-	130
Towns with pop. < 2,000	102	102	114	116	89	101	146	-	105
Non-urban	141	113	130	110	101	104	160	137	123
Total	186	152	155	144	132	126	197	174	163

Note: **■** Notably high rents (more than one standard deviation above national mean)

■ Notably low rents (more than one standard deviation below national mean)

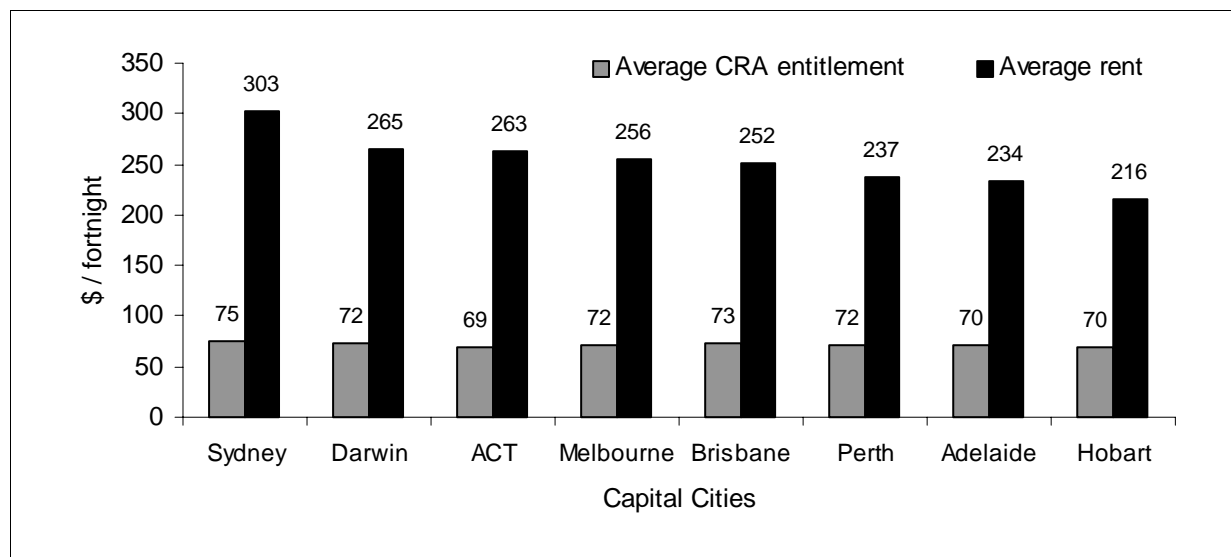
Source: Data from Bray 1996, table 5.5. (rounded here to nearest \$)

Bray (1996, p52) described these data as showing a dramatic variation in rents by region. Variations are evident both across different types of region, and across the States and Territories within a single region type. The average rent levels ranged from a high of \$234 per week in inner Sydney, to a low of \$89 per week in small South Australian towns with populations of less than 2000 people. Average private rents in the former area were thus 2.6 times higher than in the latter area.

2.2.2 Regional patterns of CRA receipt

The geographic pattern of rents shown in table 2.2 is the average across all private renters. The rents paid by CRA recipients are lower – as would be expected from their constrained incomes – though the regional variation remains, albeit not to the same extent. The darker bars in figures 2.2 and 2.3 show the average rent paid by CRA recipients at June 2002, with figure 2.2 covering the capital cities and figure 2.3 the other areas of the country³. Within each chart, the areas have been placed in descending order of average rent paid.

Figure 2.2 Average rent paid and CRA entitlement: CRA recipients, Australian capital cities, June 2002 (\$/fortnight)



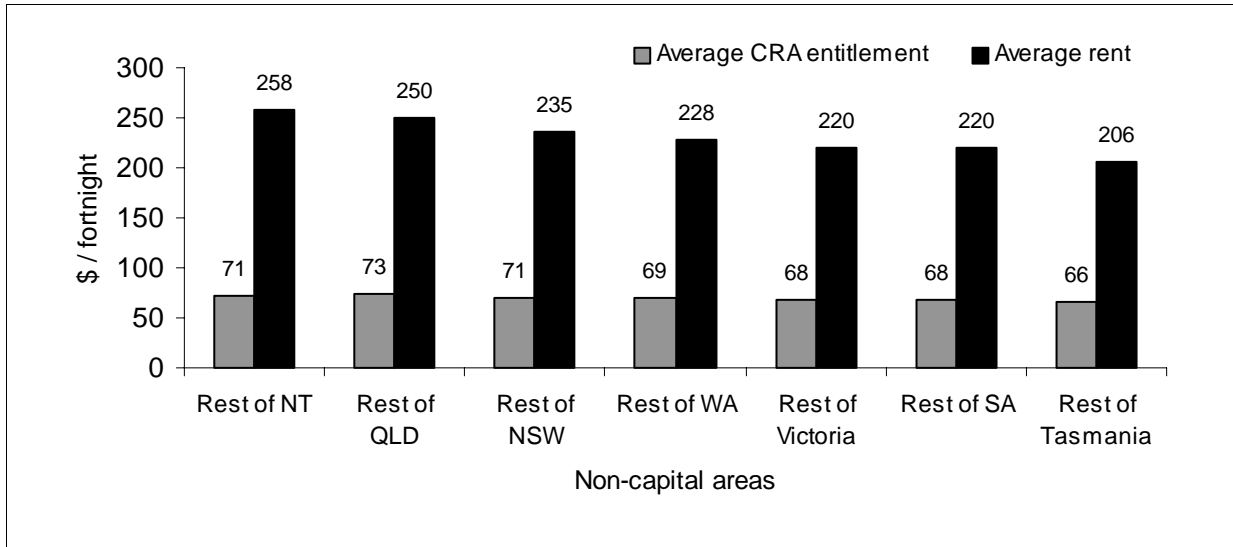
Data source: Productivity Commission 2003, Table 16A.56

The average rents paid by CRA recipients ranged from \$303 per fortnight in Sydney down to \$206 per fortnight in those parts of Tasmania outside Hobart. Average rents in the highest rent area were thus almost half as much again (46% higher) than those in the lowest rent area.

There is, however, considerably less variation in average CRA entitlements across the country – shown by the lighter bars in figures 2.2 and 2.3. Average CRA entitlements in June 2002 varied from \$75/fortnight in Sydney down to \$66/fortnight in non-capital areas of Tasmania. While the ratio of highest to lowest rent was 1.46, the corresponding ratio of highest to lowest CRA entitlement was just 1.13. Expressed in a different way, while average CRA payments amounted to almost a third (32%) of the average rent paid in Tasmania, they amounted to just a quarter (25%) of average rent paid in Sydney.

³ When comparing the rents paid by CRA recipients in figures 2.2 and 2.3 with the overall average rents in table 2.2, it should be noted that figures 2.2 and 2.3 give fortnightly rents for 2002, while table 2.2 gives weekly rents for 1996.

Figure 2.3 Average rent paid and CRA entitlement: CRA recipients, non- capital city areas, June 2002 (\$/fortnight)



Data source: Productivity Commission 2003, Table 16A.56

Variations in average CRA entitlements across regions will depend partly on differences in the family structure of the CRA population – with different rates payable to people according to their family type (see table 2.1). But, by and large, the variations will reflect the different rent levels faced. That the range in average entitlements across the regions does not match the range in rents paid reflects three aspects of the CRA payment provisions:

1. the CRA entitlement only covers 75% of rent paid above the rent threshold;
2. CRA entitlements are constrained to maximum rates of payment (see table 2.1); and
3. importantly, the rent levels at which maximum rates of payment apply are relatively low.

At June 2002, 57% of CRA recipients were paying rent that was high enough to constrain their CRA entitlement to the maximum rate of payment (Productivity Commission 2003, p16.74). Accordingly, it is not surprising that the regional pattern of CRA entitlements shows only a small degree of responsiveness to the regional pattern of rents paid.

2.2.3 Regional patterns of affordability for CRA recipients

The Productivity Commission (2003, Table 16A.49) presents data on the level of housing affordability provided by CRA in terms of the proportion of recipients whose rent amounts to less than 30% or 50% of income with and without CRA. For these purposes, CRA is treated as a rent subsidy and housing costs as a proportion of income are calculated as follows:

- without CRA: $\text{rent} / (\text{income excluding CRA})$
- with CRA: $(\text{rent less CRA}) / (\text{income excluding CRA})$

Given the uniform national rates of payment of base income support, the regional variation in rents, and the far smaller regional variation in CRA entitlements, a picture of regional variation in housing affordability under the above measures is to be expected. This is indeed the case, and the variation shown by the Productivity Commission data is presented here along two dimensions:

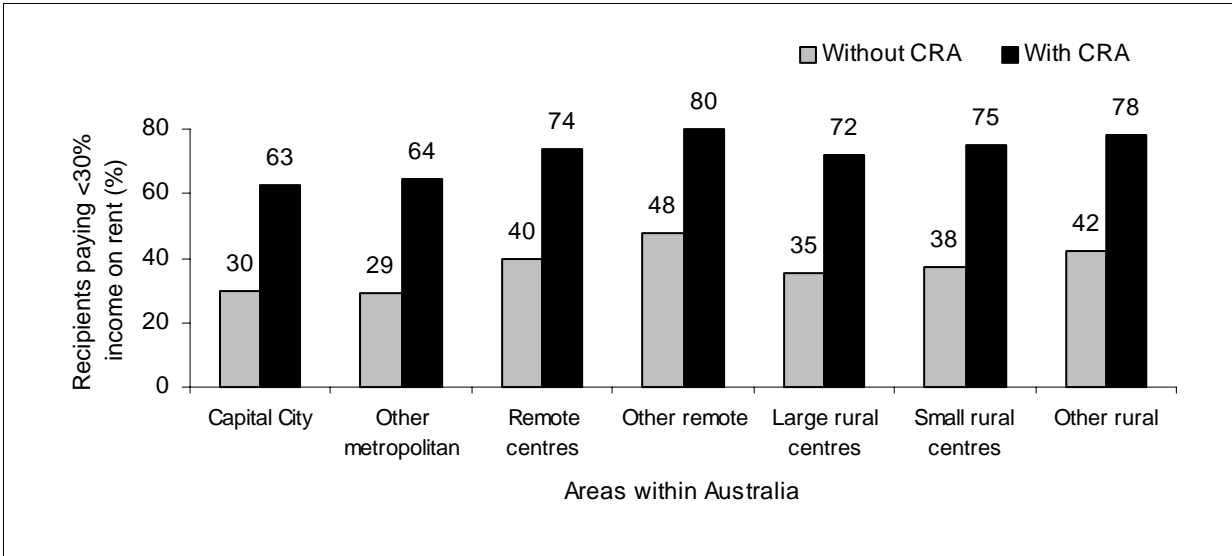
- across types of area; and
- across capital cities.

Overall, the Productivity Commission (2003, Table 16A.49) shows only 32% of CRA recipients having rent less than 30% of their income at November 2001 – in the absence of their CRA payment. When the CRA payment is included in the calculation, the proportion rises considerably to 67%. Now, this sort of comparison needs to be seen as an indicative picture of

the impact of CRA on housing affordability. The 30% rent/income cut-off⁴ is a crude but popular measure of housing affordability, and the picture in the absence of CRA assumes that all people would choose to pay the same level of rent if they were not entitled to CRA. That said, the broad picture is of CRA increasing the proportion of recipients in this group with affordable housing from around one-third to two-thirds.

Figure 2.4 compares the pictures for CRA recipients in different types of area across Australia – using the 30% cut-off. In the absence of CRA, the proportion with affordable rent ranges from around just 30% for recipients in the capital cities and other metropolitan areas, through 35-40% for those in rural and remote centres, to higher rates above 40% for those in other rural and remote areas. Broadly, the impact of CRA is to double the proportion of recipients with affordable housing, though with somewhat greater impact on those areas with a low level of recipients in affordable housing to start with. The effect is to generally maintain the ordering of regions and the relativities between them in percentage point terms. For example, the proportions with affordable housing in the absence of CRA ranged from a low of 29% in the other metropolitan areas to 48% in ‘other remote’ areas – a range of 19 percentage points. With CRA, the proportions with affordable housing ranged from a low of 63% in the capital cities to 80% in ‘other remote’ areas – a range of 17 percentage points. CRA is thus seen to have an impact across the country, but it does not show much impact on regional variations in housing affordability.

Figure 2.4 Proportion of CRA recipients with less than 30% of income spent on rent: Australia by type of region, November 2001

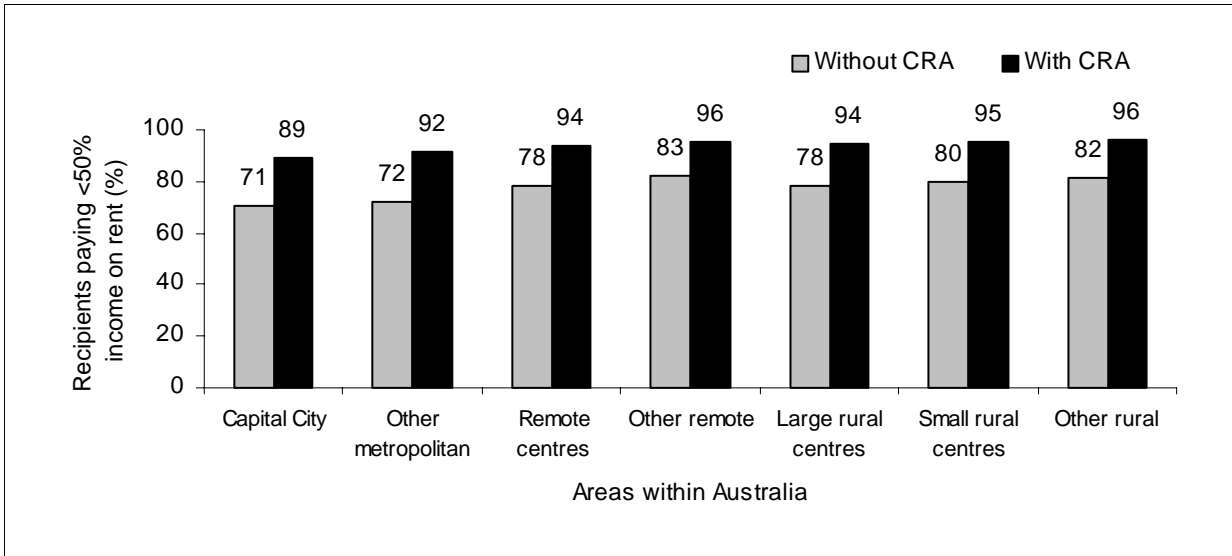


Data source: Productivity Commission 2003, Table 16A.49

As was mentioned above, the Productivity Commission also presents data on the proportion of CRA recipients whose rent amounts to less than 50% of their income (figure 2.5). This measure may be considered to distinguish those with and without extreme housing unaffordability and markedly higher proportions of CRA recipients are below this threshold compared to the more commonly used 30% threshold. Overall, 74% of CRA recipients were below this threshold in the absence of CRA, and 91% with CRA (2003, Table 16A.49). There is far less variation between regions using the 50% threshold than with the 30% threshold, with the proportions with rent below 50% of their income – in the case with CRA – ranging between a low of 89% in the capital cities to 96% in ‘other remote’ and ‘other rural’ areas – a range of just seven percentage points. But it is probably more useful to focus on the proportions paying 50% or more of their income in rent. Then we see that even with CRA, almost double the proportion of recipients in capital cities and metropolitan areas (around 10%) have this high level of housing unaffordability compared to their counterparts in other areas of the country (around 5%).

⁴ The 30% rent/income cut-off distinguishes people whose rent amounts to 30% or more of their income.

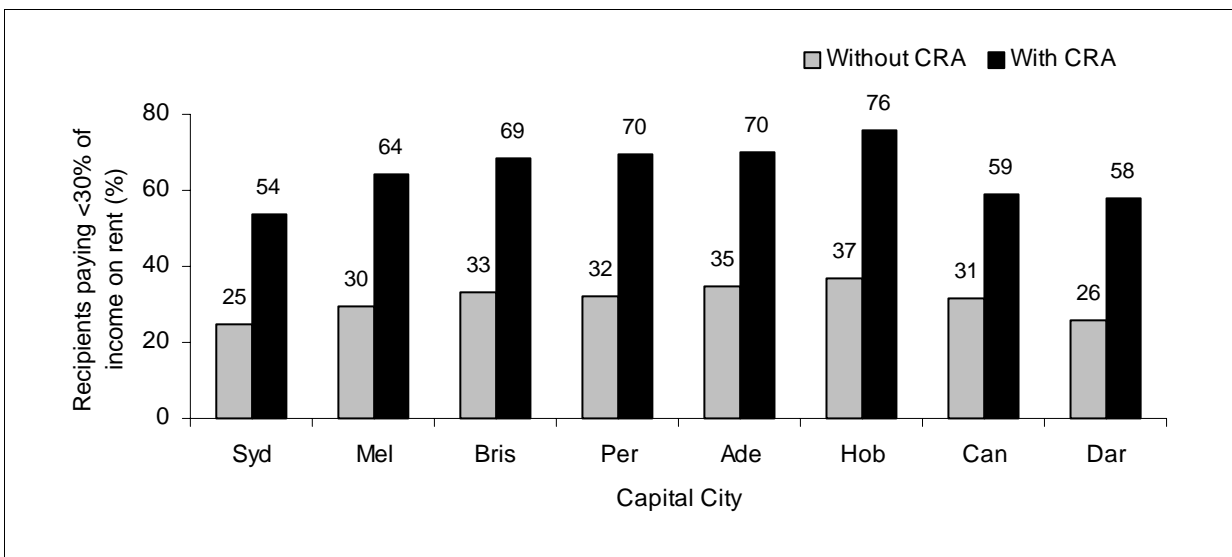
Figure 2.5 Proportion of CRA recipients with less than 50% of income spent on rent: Australia by type of region, November 2001



Data source: Productivity Commission 2003, Table 16A.49

Turning now to the second dimension in this illustration of regional variations in affordability for CRA recipients, figure 2.6 shows the proportions in each capital city paying less than 30% of their income in rent. Marked variation is again evident, with the pattern of relativities maintained before and after consideration of the entitlement to CRA. Sydney, Darwin and Canberra have notably low degrees of affordability, Melbourne is mid-range close to the national average, and the four other capitals (Brisbane, Perth, Adelaide and Hobart) have relatively high degrees of affordability. After payment of CRA, 46% of Sydney recipients still have rent in excess of 30% of their income, compared to just 24% of Hobart recipients.

Figure 2.6 Proportion of CRA recipients with less than 30% of income spent on rent: Australian capital cities, November 2001



Data source: Productivity Commission 2003, Table 16A.49

In summary, CRA recipients across regions are faced with quite varied housing affordability outcomes. Their CRA entitlements make a big difference to affordability according to the measures used by the Productivity Commission, but do not remove the effect of regional differences in rents paid. The variations have been illustrated here with an examination of the differences across Australia-wide types of region, and across capital cities. There are also distinctive patterns between the types of region within individual States and Territories.

2.3 Calls to add a regional dimension to CRA

The variation in housing affordability for CRA recipients that was described above is not new, and there have been calls for CRA to incorporate some reflection of regional variations in rents since the early 1990s. Accounts of the arguments associated with these calls have been provided by King (1995) and Johnston (2002).

In 1993, the Industry Commission (1993, p99) raised the possibility of providing a higher maximum rate of CRA for people living in high rent areas. In response, a number of arguments against the proposal were put forward in a joint submission from the Department of Health, Housing and Local Government and Community Services and Department of Social Security (1993, p32). These included the points that:

1. Tying the level of assistance to geographic areas would give rise to situations where people paying the same level of rent, but living in different regions, would receive different levels of assistance. This could raise constitutional issues.
2. There would be difficulties defining regions and particular problems with the treatment of people living near regional boundaries.
3. Perhaps higher rents are offset by matters such as better access to transport and other services and facilities.

The two departments concluded with the suggestion that the impact of high rents could be better addressed by simply increasing maximum rates of assistance across the board. The assessment of these arguments by King (1995) agreed that the first point was an issue, though it was difficult to see the constitutional problem given the existence of other regionally-based programs, such as Remote Area Allowance. Indeed, it appears that the Commonwealth no longer sees any significant constitutional barrier to paying different rates of CRA to people living in different areas.⁵ The second point was also seen as an important consideration, but one that, in the first instance, called for care in drawing regional boundaries rather than just dismissing the proposal. The third point was seen as perhaps the strongest argument, with some evidence provided of an inverse relationship between people's housing and transport costs – though it is not a neat and simple relationship. Overall, King (1995) agreed that simply raising maximum rates of payment was an appealing alternative to the administrative and definitional demands of adding a regional dimension. Johnston (2002) cited a number of sources arguing for addressing regional disparities for CRA recipients by raising maximum rates of payment.

Further calls for a regional dimension emerged in 1997. Ecumenical Housing (1997, pp51-52) argued that rental subsidies should reflect regional variations in rents, and proposed three zones:

1. Zone 1 – Sydney metropolitan area
2. Zone 2 – Melbourne and Brisbane metropolitan areas, ACT, NT, and non-metropolitan NSW and Queensland.
3. Zone 3 – non-metropolitan Victoria, South Australia, Western Australia and Tasmania.

The *Report on Housing Assistance* prepared by the Senate Community Affairs References Committee (1997) considered the merits of a regionalised rent assistance formula. An important argument considered by the Committee was the point made in the submission by the Department of Social Security that payment of high rents can be a matter of people exercising choice about where they live. The Committee agreed that there was some basis for this argument:

⁵ Advice from Rent Assistance and Centrepay Section, Department of Family and Community Services, June 2003.

‘... some low income renters prefer to spend a higher proportion of their income in rent in order to live in a more desirable locality close to a range of services and save on transport and other costs. It is not for the taxpayer to compensate for the consequences of that choice.’ (1997, 4.27)

On the other hand, the Committee noted that in high cost housing markets it would be difficult to assume that payment of high rents was a matter of people’s preferences, rather than a matter of circumstance (1997, 4.29). The Committee concluded with the recommendation that ‘... the Commonwealth consider the possibility of the using a region based formula for Rent Assistance payments’ (1997, 4.37). The Minority Report by Government Senators did not reject this recommendation, but argued that it should be considered in the context of broader reform to housing assistance.

That reference to the context of broader reform is presumably a reference to the attention that was being paid around that time to the possibility of providing similar levels of housing assistance through public rental housing as through CRA. Consideration of this issue, which continues today, has starkly highlighted the different regional impacts of assistance provided through CRA and through public rental housing. In public rental housing, rents are set at a certain percentage of people’s incomes and thus do not vary across areas as market rents vary. While public rental housing provides the possibility of affordable housing in locations with good accessibility to services and employment opportunities, CRA in contrast will have a tendency to push recipients toward lower cost locations with low accessibility. Indeed, Wulff and Evans (1999, p108) argued that an unintended consequence of the shift in housing assistance away from public rental and on to CRA may be to reinforce the geography of urban disadvantage.

These accessibility issues have received particular recognition in recent years, with particular focuses of government policy on reducing welfare dependence and on developing housing assistance policy that supports wider government objectives in the areas of health, education and the labour market. These focuses provided important parts of the context for the recent review of housing policy issues undertaken by AHURI (the National Housing Policy Project) which, while focused on the CSHA, considered CRA both in its own right and as a possible form of providing funding for public rental. The report on findings from the consultations undertaken for the NHPP included the following points about CRA:

‘CRA provides access to affordable housing for low income people in many locations. Its advantages from a housing perspective are that it is demand rather than supply driven, it provides greater choice of location and housing type than does direct provision, it is targeted to low income people and it varies, albeit in a limited way, in accordance with rent paid. It markedly improves the adequacy of social security payments compared to a flat rate regardless of living costs.

CRA fails to reduce private rental costs to affordable levels in many metropolitan areas and regional centres.

The ineffectiveness of CRA in Sydney, parts of other metropolitan areas and other regional centres suggests the need to consider regional differentiation and/or changes to the maximum rate, rent test and income test. But some stakeholders fear the redistributive consequences if such changes need to be self-financing.’

(Donald, McGlashan and Leisser 2002, p10)

In other recent work, from a comparative review of rental assistance programmes in Australia, New Zealand, Canada and the United States, Hulse (2002, 51) noted that CRA was the only national system that took no account of geographic differences in rent levels⁶. Hulse continued

⁶ While the payment of CRA as a portion of rent above a certain rent threshold up to a maximum rate of assistance does provide a mechanism to take account of rent differences, this mechanism ceases to operate once the maximum rate of assistance is reached. And, as was noted in section 2.2, 57% of CRA recipients at June 2002 were receiving the maximum rate of payment.

with some policy options that could take account of these differences including basing rent thresholds and maximum rates of CRA on region as well as household type/size.

An important point to note in the policy development discussion is the current stance of the Commonwealth Government towards affordability for CRA recipients:

'Rent assistance is provided as a financial supplement and has the flexibility to cope with changing demand and to provide customers with more choice about where they live and the quality of their housing. This choice can involve a trade-off with the consumer's after-housing income. Therefore, it is important to recognise that the rent assistance program has no specific benchmark for affordability.'

The adoption of an affordability benchmark would fail to recognise the element of choice exercised by customers who place a higher value on housing than others in comparable circumstances.'

(Productivity Commission 2003, p16.78, 'Commonwealth Government comments')

'The Commonwealth does not recognise or evaluate CRA as a housing affordability scheme for low-income people.' (Donald, McGlashan and Leisser 2002, p10)

These statements hark back to the submission by the Department of Social Security to the 1997 Senate Committee inquiry, and warrant the same qualified response. There is no doubt that some people will choose to pay high rents. Given the high rents prevailing in some areas, there is also no doubt that, without major dislocation, some may have little or no real choice in the matter.

But the above statements do not mean that housing affordability is not a legitimate basis for an assessment of CRA, that any argument based on the housing affordability outcomes for CRA recipients would be wasted on the ears of government? Rather, the statements about the Commonwealth stance on affordability are taken to mean that the Commonwealth government recognises no particular measure of housing affordability and, in particular, no specific housing affordability benchmark. Housing affordability is, however, seen as important. CRA is part of the overall income support system which has a basic objective of providing adequate income support, and if this level of adequacy varies from one person to another because of the different housing costs they face, then this is an important issue. As Johnston (2002, 44) concluded, the role of CRA seems to be to assist housing affordability, rather than to achieve some specific benchmark level of affordability.

The other key element of the Commonwealth position is the pointer to the importance of assessing the housing affordability outcomes for CRA recipients in the context of their rental markets. We should be less concerned about someone paying high rent in a low-rent area than someone paying high rent in a high-rent area. The Commonwealth's emphasis on 'choice' in the way CRA is viewed suggests that the appropriate criterion for assessing CRA may be equal opportunity rather than equal outcomes.

And the regional disparities for CRA recipients can be presented in terms of choices rather than affordability outcomes as was recently done by Berry and Hall (2001). Berry and Hall compared median rents for different types of dwelling in Sydney and Melbourne local government areas in 1994 and 2000 with the rents that would be affordable for CRA recipients. They defined affordability with a 30% rent to income cut-off but, unlike the Productivity Commission measure presented in section 2.2, treated CRA as an income supplement rather than as a rent subsidy⁷. Their conclusions were that:

⁷ To illustrate the difference between treating CRA as an income supplement rather than as a rent subsidy in calculating a rent/income affordability measure, consider the case of a single person with a base income of \$175/week (base income support plus a small amount of other income), paying rent of \$80/week, and entitled to CRA of \$30/week. If CRA is treated as a rent subsidy, their rent/income ratio is calculated as $(80-30)/175 = 29\%$. Alternatively, if CRA is treated as an income supplement, their rent/income ratio would be $80/(175+30) = 39\%$. The two approaches thus give quite different results, and the income supplement approach will show a higher proportion of people with rent/income ratios of 30% or higher.

... the Rent Assistance program is relatively ineffective in providing either a wider range of dwelling or locational choices for the large majority of recipients in either Melbourne or Sydney. The limited impact of the program on housing affordability has also apparently declined substantially over the second half of the 1990s.' (Berry and Hall 2001, p70)

2.4 Overview

This section began by setting out the nature of the major CRA programme, including the uniform national provisions governing entitlements. These uniform national provisions apply despite regional variations in prevailing rent levels, with illustrative data on these regional variations in rents presented at the start of section 2.2. The expected result for CRA is varied regional outcomes in terms of the extent to which CRA recognises the additional costs faced by income support recipients who are renting privately. That this is the case was demonstrated with readily available data compiled by the Productivity Commission on housing affordability measures for CRA recipients living in different parts of the country. CRA is revealed to have a major impact on housing affordability, to have an impact across the country, but to be only weakly responsive to regional variations in the amounts of rent being paid.

This situation has prompted calls for a regional dimension to be added to CRA payments – calls that have been made since the early 1990s, though with something of a resurgence in recent years. And these calls appear to be in tune with the basic objective of CRA – an income supplement to recognise the additional costs faced by income support recipients renting privately. So, how might possible variants of CRA provide a greater responsiveness to regional variations in rent levels? Answering this question is the primary aim of this research project. But to answer this question in detail, and in a way which captures the degree of regional variation in rent levels, which locates rents paid by CRA recipients in the context of particular rental markets, which provides an up-to-date picture, and which provides the capacity to model alternative specifications for CRA, requires a dataset which is not readily available. The required dataset can, however, be created using the techniques of spatial microsimulation to combine data from different sources and the way in which this is to be done is described in section 3.

3 THE REGIONAL HOUSING DATASET

For the analysis of CRA being conducted for this project, a detailed regional housing dataset is being constructed. This dataset also has a number of potential other uses for housing research – hence the second aim of the project:

- to establish a detailed and up-to-date regional dataset for the analysis of housing issues, to demonstrate its capacity, and to consider the possibilities and requirements for further applications and extension

The spatial microsimulation methods, techniques and data being used in development of the dataset – and the associated capacity for simulating CRA outcomes – are described in this section, with specific issues concerning modelling CRA covered in section 4. We start, though, by setting out the reasons for this dataset development – why a detailed regional housing dataset of the kind being developed is needed.

3.1 Small-area unit record data, microsimulation and housing issues

Since the mid 1980s, the availability of detailed unit record datasets in combination with microsimulation techniques has revolutionised the capabilities for distributional and budget analysis of *national* policy impacts in areas such as income support, taxation, health and housing assistance. There has been a quantum shift in the quality of analysis possible and, thereby, in the information available to decision-makers (Harding 1996).

A unit record dataset from a population survey basically provides the (confidentialised) sample records with all collected variables attached to the units in the survey (e.g. individuals and households). This allows detailed data analysis of the sample, with joint consideration of all variables required (e.g. age by sex by labour force status by housing tenure) and, typically, also includes identifiers to link individuals within groupings such as households, families or income units. Such datasets have provided the basis for microsimulation techniques. Microsimulation operates at the level of the individual record and, through techniques such as reweighting⁸, uprating and imputation, can be used to explore the detailed impacts of changes in policy or population characteristics.

Thus, unit record datasets from ABS surveys such as the Australian Housing Survey (AHS), Survey of Income and Housing Costs (SIHC), Survey of Rental Investors (SRI) or Household Expenditure Survey (HES) are frequently used for detailed analysis of Australian housing – at a national or State/Territory level. Coupled with a microsimulation model, unit record datasets can then be used to analyse impacts under alternative policies, to update recent datasets to current terms, or to project datasets forward. There are numerous examples of applications of microsimulation to Australian public policy issues – notably in the fields of income support and taxation – though there have been relatively few in the housing field. Australian housing-related microsimulation applications have centred on housing as an element of people's economic well-being, such as after-housing poverty (King 1987; Harding, Lloyd and Greenwell 2001) and housing wealth (Kelly 2002). An interesting recent advance, however, has been development of a microsimulation model of aspects of the Australian housing market, including tenure choice and the supply of private rental housing (Wood, Flatau and Watson 2002).

A common and important thread running through these types of analysis is the use made of the ability to tie the particular issue in question to changes in the broader socio-economic environment, such as demographic or labour market changes. Another common thread is the restriction of microsimulation analyses based on national unit record datasets to broad Australia-wide analysis, State/Territory analysis or, at best, distinction between capital city and non-capital city areas within States and Territories – depending on the level of geographic identification available in the unit record dataset. But we know that housing markets vary within

⁸ Unit record datasets from sample surveys typically have a weight attached to each record that reflects the prevalence of a unit with those characteristics in the population. Reweighting involves adjusting those weights to simulate a different structure of population characteristics.

capital cities and within non-capital city areas in each State/Territory, and the level of geographic disaggregation available from national unit record datasets will hide this variation. For the proposed analysis of the regional impact of CRA, we need the capacity of microsimulation operating on unit record data at a much finer level of geographic disaggregation. This analytical power has not, however, been possible at the small-area level – simply because of the unavailability of unit record datasets at the required level.

Were small-area unit record datasets available – and a major task of this project is to create such a dataset – the way would be opened to apply the same analytical power enjoyed at the national level for policy analysis at the regional level. As such, the research has clear relevance for policy evaluation, analysis and issue identification over a range of housing issues. Some examples of possible applications include the following:

- *Analysis of regional housing patterns* – With a comprehensive regional unit record dataset, the detailed information on housing and the population could be used to provide a range of information for analysis, including spatial analysis using GIS. This could cover, for example, housing affordability characteristics for small areas – broken down by characteristics such as tenure or family type; or the relationship between housing type, family characteristics and location.
- *Analysis of the regional distributional impact of policy alternatives* – While the above issues could be examined using the dataset alone, a whole range of other issues could be examined by constructing a further microsimulation model of, for example, housing assistance programmes on top of the base dataset. This could then be used for fine-level analysis of the regional distributional impacts of housing policy changes, as well as of the overall budgetary implications.
- *Locating housing debates within wider public policy debates* – An important feature of unit record datasets of the population and microsimulation that was noted previously is the scope they provide to relate particular issues to the broader socio-economic environment, such as demographic or labour market changes. A regional version would provide the possibility to do so at the small-area level – to better explore, for example, the relation between regional housing outcomes and regional patterns in demographics, the labour market or incomes.
- *Projections* – A unit record regional dataset, with the incorporated updating techniques of microsimulation, would provide a natural basis for small area housing projections over coming years which could take into account both the demographic and economic circumstances of people. These could include, for example, projections of the future demand for housing, or projections of the future need for housing assistance, in different areas of the country.

The particular issue to be addressed in this research – the question of regional targeting of rent assistance and the impact of the current and possible alternative program rules upon affordability outcomes for recipients – is an example of the first and second types of application described above.

3.2 Shortcomings with available datasets

In order to address the types of housing issues described above, the research needs data with a high degree of housing detail, detail on individuals and their family units, a high degree of geographic detail, and coverage of the whole population. When we look at the main available data sources, however, we see that none meet all these requirements. There is a gulf in the data available for this type of housing policy analysis. Three main types of available data can be distinguished and their capabilities are summarised in table 3.1 and described below.

The ABS Census of Population and Housing provides data at a fine level of geographic detail – down to the Collection District (CD) level (covering a population on average of just 200 households). The data available from the Census is limited, however, by the very restricted set

of questions included in the Census, the grouped nature of income data⁹, grouped rent data in standard output¹⁰, and by the limited degree of cross-classification available in standard Census output. The 'basic community profiles', for example, include tables of household income by household type and of household income by weekly rent. But it would not be possible using these data to analyse rent by income by household type. There is some scope to purchase customised tabulations from the ABS, but these are expensive, inflexible, and do not overcome the other limitations with Census data detail.

Table 3.1 Broad characteristics of available datasets

Characteristic	Census of Population and Housing	National surveys	Administrative datasets
Geographic detail	High	Low	High
Housing detail	Low	High	High in part
Population detail	Medium	High	Partial
Population coverage	Whole population	Whole population	Limited
Timeliness	Up to 6 years old	Up to 6 years old	Up to date

The ABS national sample surveys of the population – such as the Survey of Income and Housing Costs (SIHC), the Household Expenditure Survey (HES), and the Australian Housing Survey (AHS) – provide detailed data about the housing, socio-demographic, labour force and income characteristics of households, but very limited information about where those households live. Locational detail is suppressed to maintain the confidentiality of respondents to the surveys. These datasets generally provide no geographic distinction beyond a breakdown within States/Territories into capital city and other areas. Depending on the particular survey, these datasets can be up to six years old.

With regard to housing issues, the third type of data – administrative datasets – include data held, for example, by the public housing authorities, by Centrelink, by Valuer Generals and by financial institutions. These datasets include very detailed information relevant to the particular administrative function, include very good geographic detail, and are kept up-to-date. Access to these datasets can, however, be difficult and, importantly, their rich data is confined to the specific function and to the relevant part of the population.

Each of the types of dataset has particular strengths that would be useful in analysis of the regional dimension in housing policy but none, on their own, are sufficient. Direct use of existing datasets confines us to compilation of socio-economic data from different sources for particular regions and inference about the relationships between the characteristics (Wulff and Evans 1999, Bray 2000).

3.3 Spatial microsimulation

Given that a specific data collection designed to address the regional issues at hand is not a feasible option, the challenge is to combine the strengths from the available data sources. Doing so, using the techniques of spatial microsimulation, is the method being used in this research.

Spatial microsimulation is a term used to describe those techniques that create synthetic unit record data for small geographic areas (Melhuish, Blake and Day 2002). They work by combining individual or household microdata, currently available only for large spatial areas (such as the unit record data from the ABS national surveys), with spatially disaggregated data (such as the small-area data from the Census) to create synthetic unit record data estimates

⁹ Household income data from the Census is available, for example, in 13 ranges, such as \$300-\$399/week or \$1000-\$1199/week.

¹⁰ In standard Census output, weekly rent data is available in 10 ranges, such as \$50-\$99/week, \$100-\$149/week. However, because the Census questionnaire did ask for exact rent paid, more detailed rent data can be obtained from customised Census output.

for small areas. There are two possible methods by which this can be achieved - 'synthetic reconstruction' or 'reweighting' (Williamson et al, 1998).

The synthetic reconstruction approach requires the creation of a set of synthetic individuals or households whose characteristics match aggregate characteristics for the small area, such as those in the Census BCP tables. The process usually involves imputing characteristics based on the distributions within the constraining tables, building the individual or household profile in a sequential manner.

Reweighting is achieved by altering the weights for each individual or household in a survey sample to reflect the specific characteristics of the population in a particular area.. As national sample surveys are based on a sample of the population, and typically a sample which is stratified and has some pattern of non-response, each individual or household within the survey needs to be weighted to represent the total number of that type of individual or household within the population. The survey sample is thus being weighted to reflect the population characteristics of the whole country. In a similar manner, the same sample can be reweighted so it represents the population within a small area.

The reweighting method can be applied in one of two ways. One way is to select from the unit record dataset a particular set of individual or household records that, when viewed together, best fit the aggregate characteristics of the small area. For example, if a small area included 300 households, then 300 household records would be selected. Effectively, these 300 households are all given a weight of '1' for this area, and all other records in the sample are given a weight of '0'. Alternatively, all households within the sample can be given a small fractional weight so that the sum of all weights equals the population in the small area and the sum of the fractional individuals or households best matches the characteristic profile of the area. The first of these two approaches to reweighting is more intuitively appealing, though the second offers the prospect of a better match with the aggregate profile of the area.

Spatial microsimulation is a new technique that is an emerging research focus at NATSEM. This study will apply spatial microsimulation techniques to a housing policy issue and, as such, the research can build upon and extend other work undertaken by NATSEM over the past three years. Spatial microsimulation applications by NATSEM to date have included work on small area expenditure patterns (using the MarketInfo model), telecommunications (Hellwig and Lloyd 2000), incomes and poverty (Harding et al 2000; Lloyd, Harding and Hellwig 2001; Lloyd, Harding and Greenwell 2001) and income support (King, McLellan and Lloyd 2002). These techniques have also received much attention in the United Kingdom (Clarke 1996, Ballas and Clarke 2001, Williamson et al 1998).

The spatial microsimulation applications undertaken by NATSEM to date have involved the creation of synthetic small-area datasets through a combination of unit record data from the ABS Household Expenditure Survey (HES) and the Basic Community Profile data at the Collection District level from the Census of Population and Housing. The particular approach used has been the reweighting method, with fractional weights derived for all records in the HES unit record dataset. The use of spatial microsimulation in these applications has created synthetic regional datasets which:

- comprise a unit record dataset of individuals (grouped within income units and households) for each small area, such as each Collection District;
- captures the richness of the data from the non-regional dataset (the HES), such as detailed data a range of individual and household socio-economic characteristics (allowing maximum flexibility and scope for analysis); and also
- captures the small area detail available from the Census.

The dataset development being undertaken for this study follows the path and builds on the approach used by NATSEM to date. It involves developing housing-specific elaborations to tried and tested techniques, thus bringing in the value of previous experience. However, it needs to be recognised that applying the techniques to a housing policy application does not simply mean bolting a few housing variables onto an already created dataset. It requires that the factors of importance in the particular application be explicitly taken into account in the

spatial microsimulation technique. This applies in particular to the choice of input datasets and to the selection of the variables that are used to link the datasets. The considerations in these choices are set out in the next section that presents the specifics of the method and data being used in this study.

3.4 Constructing the regional housing dataset

The steps and choices involved in creating the regional housing dataset are described in this section. The elements in this dataset creation are:

- a small-area dataset
- unit record survey data
- the STINMOD microsimulation model; and
- linking variables.

3.4.1 The choice of small-area dataset

The particular small-area dataset used in the spatial microsimulation determines the range of characteristics which can be used to reweight the unit record dataset to reflect small-area conditions, and the geographic level at which this can be done. While the Census of Population and Housing is the only source of suitable small-area data for use in development of this regional dataset, there is a choice about which Census data to use, with different data available at different spatial levels. A description of the Census data options and their relative merits is provided in appendix A.

The first consideration is the required geographic unit of analysis. Basically, the larger the unit, the better is the available data – standard output includes more useful cross-classifications of characteristics, and the data is less affected by confidentialising procedures used by the ABS. The initial thinking for this research envisaged development of the dataset at the fine level of the Collection District (CD). The CD is the smallest geographic unit at which Census data are available, includes on average around 220 households, and there are over 37 000 CD's across the country. While it is not intended to conduct analysis or present results at this fine level, the CD was seen as the best unit because of the flexibility it allows. This is the flexibility to be aggregated to other geographic units, such as Statistical Local Areas (SLAs) or postal areas.

The disadvantage with the CD level is that only limited data are available – essentially, the key characteristics included in the Census Basic Community Profile (BCP). The BCP covers all the data items collected in the Census, but is very limited in terms of the cross-classifications of those items. Data on private rental in the BCP, for example, is confined to two tables:

1. dwelling structure by tenure type and landlord type (BCP Table B19); and
2. weekly rent by landlord type (BCP Table B21).

For this particular application, other tables, such as cross-classifications of tenure and rent variables with household type, household size, dwelling type and household income would be very useful for defining the relevant characteristics of the small area. Such tables can be purchased from the ABS but, at the CD level, tables do not need to get very complicated before they fill up with small cell sizes that are subject to confidentialising variation by the ABS.

Such tables can, however, be usefully obtained for larger geographic areas and the decision taken here is to sacrifice a degree of flexibility for better small-area data and construct the dataset at the Statistical Local Area (SLA) level. The SLA is also the smallest spatial unit at which the analysis and presentation of data from this research is envisaged. There are about 1350 SLAs across the country, with an average population of around 15 000 people. Operating at the SLA rather than the CD level provides the prospect of better standard Census output – namely, the more detailed data available in the Expanded Community Profile (XCP); more tables, and data which does not suffer from the degree of confidentialising which occurs with the BCP at the CD level. But the XCP still does not necessarily include the extent of housing cross-tabulations that would be preferred for this study and we will also consider the purchase of customised tabulations for additional housing data from the Census.

In summary, the small-area dataset used in development of the regional dataset will be data at the SLA level from the 2001 Census of Population and Housing and will comprise:

- the Expanded Community Profile (XCP) data¹¹, possibly supplemented by:
- customised tables obtained from the ABS (with the specifications of those tables to be determined at an early stage).

3.4.2 The choice of unit record survey data

The second main component in the spatial microsimulation is the unit record dataset that is reweighted to match the small-area characteristics provided by the small-area dataset described above. As was noted earlier, NATSEM work on spatial microsimulation to date has used the ABS Household Expenditure Survey (HES) in this role – most recently, the 1998-99 HES. There are, however, other ABS contenders that should be considered for this application – namely, the 1997-98 Survey of Incomes and Housing Costs (SIHC) and the 1999 Australian Housing Survey (AHS). A comparison of relevant aspects of these three surveys is included in appendix B, with a summary of the considerations in table 3.2. These considerations relate to both aims of this project – that is, to the analysis of CRA and to development of a broad tool for housing policy analysis at the regional level.

Table 3.2 Comparison of alternative sources of unit record data

Consideration	Survey of Incomes and Housing Costs	Household Expenditure Survey	Australian Housing Survey
Most recent available unit record data	1997-98	1998-99	1999
Population coverage	People in private dwellings	People in private dwellings	People in private dwellings
Sample size (persons)	13,931	13,964	27,688
Individual records grouped in income units and households	Yes	Yes	Yes
Richness of housing data	Good	Good	Very good
Includes variables needed for matching with small-area Census data	Yes	Yes	Yes
Suitability for required microsimulation	Good	Good	Some difficulty
Indigenous indicator	No	No	Yes
Geographic identifier	State/Territory Capital city / other	State/Territory Capital city / other	State/Territory Capital city / other
Frequency of collection	Every 3 years	Every 5 years	Irregular

Source: See Appendix B

The SIHC and HES emerge as very similar in this comparison, while the 1999 AHS has some advantages and disadvantages. The advantages of the AHS are its large sample size, the richness of the available housing data – as would be expected from a housing survey – and the presence of an Indigenous identifier. The first disadvantage of the AHS is its irregularity – with no new AHS included in the ABS survey program for coming years. This is a consideration for any future updating of the regional dataset.

A serious disadvantage with the AHS, however, appears in difficulties with its suitability for required microsimulation. This is an important consideration as microsimulation is needed not only to model alternative CRA settings in this study, but is also crucial in updating the unit record dataset to 2001 terms prior to linkage with the 2001 Census data (see discussion under

¹¹ Consideration is also being given to using some Census data from the Usual Residents Profile which provides a count and characteristics of people according to where they usually live, rather than where they happened to be on Census night (see appendix A).

'STINMOD' below). This would be difficult with the 1999 AHS due to the limited income data available. While the AHS does include detailed data on CRA receipt, it does not include adequately detailed data on other incomes. Whether or not there is any income from a particular source is recorded, but not the amount of that income. Instead, the amount of income is provided as income from all sources. The AHS would thus provide a good basis for examining CRA in 1999, but the data would present real difficulties for the required detailed updating of incomes (including income support entitlements and, thereby, eligibility for CRA) to 2001.

Because of the necessity of being able to update the dataset, the 1999 AHS was deemed to be a less suitable source of unit record data than the other two contenders.

The remaining choice is between the 1997-98 SIHC and the 1998-99 HES – which are shown in table 3.2 to have very similar features¹². Between these two alternatives, selection of the 1998-99 HES for this research is made on purely pragmatic grounds – on the basis of our experience in using the HES data in spatial microsimulation applications.

3.4.3 STINMOD

The third key component in developing the regional housing dataset is STINMOD, NATSEM's established microsimulation model for tax-transfer analysis (Lambert et al 1994). STINMOD has been designed to operate on unit record data from either the SIHC or HES and performs two main functions. First, STINMOD includes the techniques needed to update the unit record dataset to current terms. This is done through a combination of reweighting, uprating and imputation – and includes the updating of incomes and rents. In this case, we are using the 1998-99 HES and want to link it with the 2001 Census. Use of STINMOD will generate a HES-based unit record dataset which reflects the population in 2001, and which also includes considerable additional detail on entitlements to income support, including CRA. The HES dataset does not identify CRA receipt and entitlements, but the application of STINMOD calculates this on the basis of the other detailed information in the HES dataset. In updating the unit record dataset, STINMOD takes detailed account of changes to income support and tax provisions over the period. This is clearly important in this application, with CRA eligibility determined by entitlements to other income support payments – and when there have been significant changes in income support since 1998-99.

The other main function of STINMOD is to model the distributional and budgetary impact of changes in income support and taxation. For this, it includes detailed modules covering the mechanisms governing CRA eligibility and entitlements. These will be used in modelling the outcomes under alternative CRA settings.

The STINMOD microsimulation model will thus be used in three ways in this research:

- to update the 1998-99 HES unit record dataset to 2001 for combination with the 2001 Census data.
- to identify CRA receipt in the HES-based unit record dataset; and
- to model CRA under alternative settings.

With this study being particularly sensitive to estimated CRA entitlements, an important part of the analysis will be benchmarking of the estimated entitlements against administrative data on CRA. This part of the work is discussed in section 4.1.

3.4.4 Linking variables

The 'linking variables' in this type of spatial microsimulation application are the variables that are used to reweight the unit record dataset to match the characteristics of each small area.

¹² Aspects of the data quality of both the SIHC and HES are currently the subject of review by the ABS and the Social Policy Research Centre (ABS 2002a, Saunders and Siminski 2003). These include concerns with population coverage and the under-reporting of income support incomes. These issues, however, are not a concern for this application, where income support entitlements are largely imputed using STINMOD (see below) and the unit record dataset is weighted to match Census numbers.

For example, the linking variables used in another spatial microsimulation application at NATSEM – also linking the HES and Census data – are shown in Table 3.3.

The selection and specification of these linking variables is a crucial part of spatial microsimulation. These variables determine where there will be a direct match between the characteristics in the synthetic unit record data for the small area and the small-area ‘target’ data from the Census. Other characteristics in the synthetic unit record data – that is characteristics that are not included in the set of linking variables – will flow from their correlations with the link variables in the original unit record data (based on the HES). Clearly, it is important that the selection and specification of linking variables should capture, as far as possible, the key characteristics associated with the particular issue in question.

The selection of linking variables is constrained to the subset of variables which are present in both the Census data and HES data with consistent definitions – or at least in a form where they can be transformed to provide consistent definitions across the two datasets. For the HES and Census XCP data, the available variables are indicated by those listed in table 3.3 that have been used in another application. In this application, however, the use of additional Census tabulations will provide scope for further linking variables, or combinations of linking variables (such as a table of tenure by household income by household type), which are pertinent for the analysis of housing issues, and for the analysis of CRA in particular. Once the set of available linking variables is defined, further decisions need to be made about aspects such as the use of cross-tabulations of linking variables, and the particular categories to use for each variable. This is a matter that will be led by our notion of what is important here, but will be resolved through experimenting by reweighting with different selections and specifications of the linking variables.

Table 3.3 Characteristics used in SYNAGI reweighting

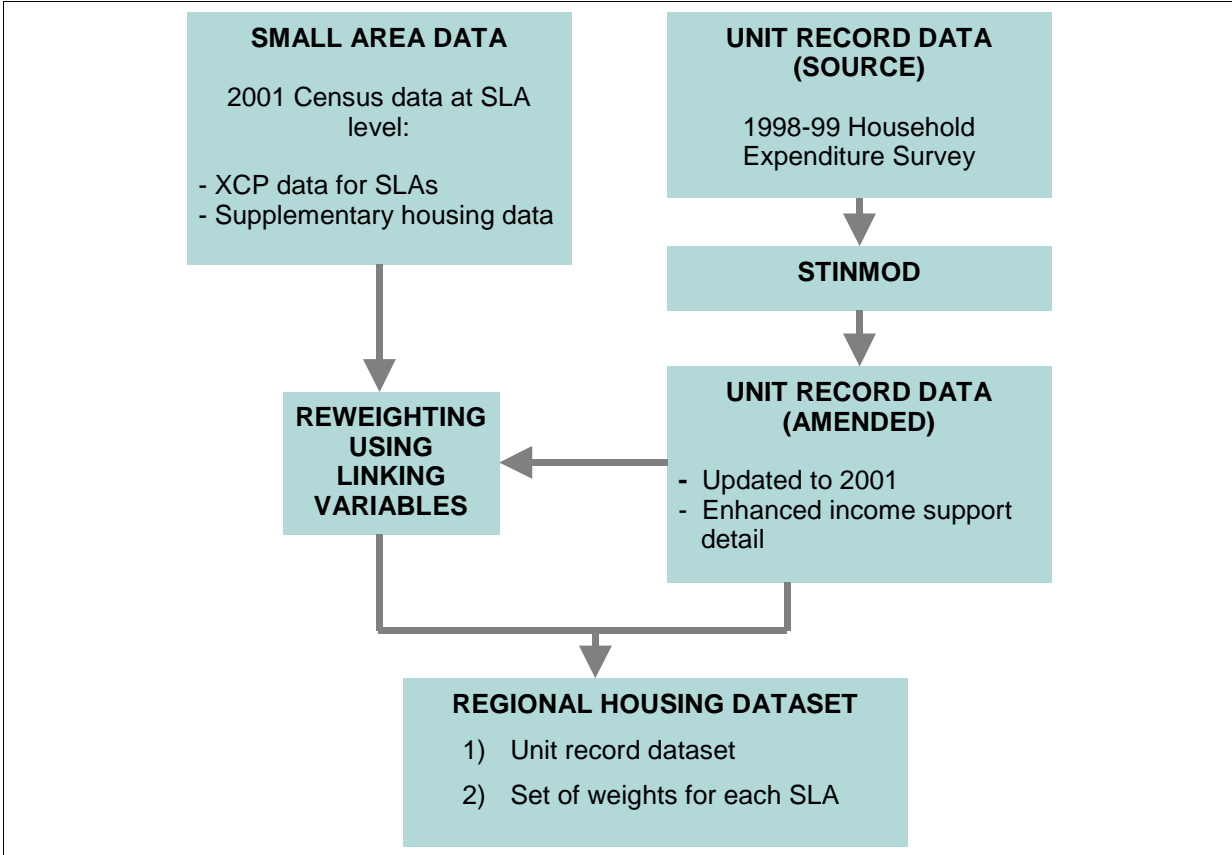
Characteristic
Total household income
Age
Marital status
Labour force status by sex
Country of birth
Occupation
Family type
Student status
High income segments by age
Housing type
Housing tenure
Household size
Number of motor vehicles
Level of mortgage repayments
Level of rent payments

Source: Melhuish et al 2002, table 2.1

3.4.5 Overview

The elements in construction of the regional housing dataset are summarised in figure 3.1. On one side there is the small-area dataset from the 2001 Census. On the other side is the unit record dataset representing the Australian population from the 1998-99 HES. Application of STINMOD to this dataset produces a unit record dataset that represents the Australian population in 2001 and that includes enhanced detail on income support including CRA. Using the linking variables present in both the small-area Census dataset and the unit record dataset, a set of weights is generated for each SLA. The final regional housing dataset thus includes a single unit record dataset and a set of weights for each SLA. This then allows the generation of a unique unit record dataset for each SLA, providing the scope for detailed analysis and microsimulation at the small-area level.

Figure 3.1 Constructing the Regional Housing Dataset



The regional housing dataset will include a high level of detail on housing and the population at the small-area level. It will provide the basis for the assessment of the regional impact of CRA (see section 4), but it should also be evident that the dataset developed for this project also has very important secondary benefits. It will create a platform with the potential for use in a range of other housing applications. The dataset developed will be available for other analyses by AHURI, including research that incorporates additional data in the picture (see section 5). Moreover, its creation will entail the development of techniques that would allow periodic updating of the dataset and potentially provide a basis for short-term projections of housing issues at the small area level.

4 MODELLING ALTERNATIVE FORMS OF RENT ASSISTANCE

Construction of the detailed regional housing dataset described in section 3 will provide the basis for the primary aim of this research – analysing the regional targeting performance of CRA under existing alternative specifications. Issues that arise with this part of the research include:

- the need to benchmark CRA estimates against administrative data;
- devising the CRA options to be assessed;
- the criteria to be used for assessing CRA; and
- identifying appropriate sources of data on regional rents.

4.1 Benchmarking CRA estimates to administrative data

The regional dataset will provide an estimate of the distribution and characteristics of CRA recipients. But how good will this estimate be? There are two levels where the estimate may diverge from reality:

1. through the imputation of CRA entitlements using STINMOD; and
2. through the regional distribution of population characteristics generated by the spatial microsimulation techniques.

While STINMOD is a well-established model for analysing the distributional and budgetary impacts of tax-transfer policy change, difficulties in matching administrative data on CRA receipt were identified as a particular problem a few years ago. Amendments to STINMOD improved the correspondence between the STINMOD estimates and administrative data on the number of recipients and program expenditure, though they will not be perfect. Regarding the second level of possible divergence between the estimates and reality, the goodness of the regional estimates of CRA receipt will depend crucially on how far the linking variables and combinations of linking variables used in the spatial microsimulation go to explaining CRA receipt. It is this area of the modelling where the greatest potential is for divergence.

Given this nature of the synthetic regional dataset, it will be important to compare estimated numbers and characteristics of CRA recipients and levels of CRA entitlement with other sources of data. Where any divergences become apparent, adjustments to the dataset will be made where possible. Where not possible, the divergences will need to be noted and considered in interpretation of the results of the modelling. For example, if we find we are underestimating CRA recipients and entitlements by 5%, then this needs to be recognised in presenting the estimates of budgetary impacts. If this underestimate is not uniform across types of recipient and regions, then this will also need to be recognised. That said, the aim of the modelling is to achieve the best possible estimate of the regional distribution of CRA recipients and their characteristics.

A basic information source which can be used to check the CRA estimates is a Centrelink dataset giving numbers of CRA recipients (classified by a limited number of characteristics) by postcode. Such a benchmarking dataset can be readily obtained from Centrelink. A more valuable source of benchmarking data would be the Commonwealth Housing Data Set (CHDS). This dataset includes unit record data on housing (including tenure and CRA receipt) and other characteristics for a cross-section of the population of income support recipients by postcode. The Australian Institute of Health and Welfare (AIHW) is developing protocols for access to the data, and initial discussions have been held with AIHW about the possibility of gaining access to the 2001 CHDS for the purposes of this research.

4.2 Options

The analysis of CRA will commence with examination of the regional impact of CRA on people's housing affordability under its actual specifications as at mid-2001, the time to which the regional dataset refers. Setting the assessment two years in the past does not present a problem, as there have been no changes to CRA apart from the indexation increases since that time.

Devising the specific alternative specifications of CRA to be examined will depend importantly on the results of the assessment of actual CRA. From the review of the literature (see section 2.3), however, we can confidently expect two main variants to be considered:

1. CRA with regional variation in parameters; and
2. CRA with changes to rent thresholds, maximum rates and/or the taper, but with no explicit regional dimension.

These are the two main types of response that have been suggested for CRA to take greater account of regional variations in rent levels. Within each of these two variants, a good deal of work will be required to design specific options. With the first variant, for example, there is the basic question about the definition of appropriate regions, and then questions about which aspects of CRA should vary by region and by how much. With the second variant, the questions are which parameters should be varied and by how much. Development of the specific options will be an incremental process that will be informed by discussions with stakeholders and testing options using the regional dataset.

4.3 Means of assessment

What criteria will be used for assessing the regional targeting performance of CRA, and for assessing the alternative specifications?

The regional targeting performance of CRA will be assessed against housing affordability criteria. At this stage, it is proposed to use both a rent to income ratio measure, such as is used by the Productivity Commission (2003), and a measure of incomes after housing costs, and compare the outcomes under the two measures for the situations with and without CRA. The absence of any clear official measure of housing affordability and, particularly any official benchmark for what does and does not constitute affordable housing, need not present a particular problem for this assessment where the focus will be on relative outcomes for CRA recipients living in different parts of the country. An additional aspect of this assessment will be holding up the affordability outcomes against the pattern of regional rent levels. This will provide a picture of the extent to which high levels of relative unaffordability occur in areas with low or moderate rent levels – an indication of the extent to which unaffordability is the result of choice or circumstance (see section 3.3).

There will be more facets to the assessment of the CRA options. Besides examining affordability outcomes as above, and comparing them with the outcomes under the existing CRA provisions, assessment of the CRA options will also cover their overall budgetary implications and a qualitative assessment of their implications for incentives – such as their impact on effective marginal tax rates. In examining these options, the exercise will be confined to first-round impacts and will not attempt to model possible behavioural responses, such as a decision to pay higher rent if the level of CRA is increased. The assessment will, however, include estimates of the sensitivity of the overall budgetary outcomes to possible behavioural responses.

4.4 Data on regional rents

The regional housing dataset will include data on regional rents – with the overall distribution of rents in each area matching that revealed by the 2001 Census and the finer distribution of rents then being a result of the spatial microsimulation. The dataset will thus include information on rents for all private renters in the area, not just for CRA recipients. These rent data will be used to describe the regional pattern of variation in rents against which the affordability outcomes will be held up. This regional pattern of rents will also be used as the

first step in defining regions for the CRA variant with regional variation in payment specifications.

Identifying the regional rental data that would provide an appropriate basis for any incorporation in program specifications will, however, require careful consideration of a number of aspects of alternative sources of data on regional rent levels and movements. The comprehensive review of rental data sources undertaken by Saunders and Maher (1996) is a useful resource for this work, while a similar assessment of rent data has recently been undertaken by the Department of Family and Community Services in the context of the appropriate rent levels to include in budget standards (Mudd 1998, Henman 1999). An important issue will be to identify the degree of dynamism in relative rent levels across regions. How often would the regional relativities in any regional CRA specification need to be adjusted?

5 ACCESS TO THE RESEARCH TOOL

Besides the analysis of the regional impact of CRA – the results of which will be provided in the standard AHURI reporting format – much of the value of this project lies in the second part of the project aims:

The secondary aim is to establish a detailed and up-to-date regional dataset for the analysis of housing issues, to demonstrate its capacity, and to consider the possibilities and requirements for further applications and extension.

Completion of this project will see the production of a detailed regional housing dataset that will provide:

1. a platform for extension in particular areas (see section 3);
2. a database for modelling applications (see section 3); and
3. a database that is immediately available for various regional housing analyses.

The intention is that this capacity should be available to the whole AHURI research network, and the issue here is how best to make this capacity available. Proposed terms of AHURI-wide access to the model/dataset(s) are set out in appendix C and are based on considerations of intellectual property, ABS confidentiality and licensing terms, and technical expertise.

The research project is to include a workshop with AHURI stakeholders to consider the further potential uses of the regional dataset/model and to identify any priorities for further application or development.

6 REFERENCES

ABS 1998, 1997–98 Survey of Income and Housing Costs Australia, Confidentialised Unit Record File (CURF) Technical Paper, ABS Cat. no. 6541.0.30.001.

ABS 2001a, 2001 Census Dictionary, ABS Cat. no. 2901.0.

ABS 2001b, 1999 Australian Housing Survey Confidentialised Unit Record File (CURF) Technical Paper, ABS Cat. No. 4186.0.30.001.

ABS 2002a, 'Upgrading Household Income Distribution Statistics', pp 3-8 in Australian Economic Indicators, April 2002, ABS Cat. No. 1350.0.

ABS 2002b, 1998-99 Household Expenditure Survey Australia Confidentialised Unit Record File (CURF) Technical Paper, Second edition (incl. Fiscal Incidence Study), ABS Cat. no. 6544.0.30.001

Australian Institute of Health and Welfare 2001, Australia's Welfare 2001, AIHW, Canberra.

Ballas, D. and Clarke, G. P. 2001, 'Modelling the local impacts of national social policies: a spatial microsimulation approach', Environment and Planning C: Government and Policy, 19, pp. 587 - 606.

Berry, M. and Hall, J. 2001 Policy options for stimulating private sector investment in affordable housing across Australia: Stage 1 report – Outlining the need for action, a report for the Affordable Housing National Research Consortium, AHURI RMIT Research Centre and Sydney Research Centre, Melbourne/Sydney.

Bray, J. Rob 2000, Social Indicators for Regional Australia, Policy Research Paper No. 8, Department of Family and Community Services, Canberra.

Clarke, G. (Ed) 1996, Microsimulation for Urban and Regional Policy Analysis, European Research in Regional Science, Vol. 6, Pion, London.

Centrelink 2002, Centrelink Information: a Guide to Payments and Services 2001-2002, Centrelink, Canberra.

Centrelink 2003, A Guide to Commonwealth Government Payments: 1 January – 19 March 2003, Centrelink, Canberra.

Department of Health, Housing and Local Government and Community Services and Department of Social Security 1993, Response to the Draft Report of the Industry Commission Inquiry into Public Housing, DHHLG&CS and DSS, Canberra.

Donald, O., McGlashan, V. and Leisser, D. 2001, National Housing Policy Project: Report on Findings, April 2001, Australian Housing and Urban Research Institute, Melbourne.

Ecumenical Housing 1997, National Housing Policy: Reform and Social Justice, Ecumenical Housing, Melbourne.

Harding, A. (Ed), 1996, Microsimulation and Public Policy, Contributions to Economic Analysis Series, Amsterdam, North Holland.

Harding, A, Lloyd, R and Greenwell, H, 2001 Financial Disadvantage in Australia 1990 to 2000, The Smith Family, Sydney.

Harding, A, Lloyd, R, Hellwig O and Bailey, G, 2000 Building the Profile: Report of the Population Research Phase of the ACT Poverty Project, Poverty Task Group Paper No. 3, ACT Government, Canberra, December 2000.

Hellwig, O. and Lloyd, R. 2000, Sociodemographic Barriers to Utilisation and Participation in Telecommunications Services and their Regional Distribution: a Quantitative Analysis, Report commissioned by Telstra, Canberra.

Henman, P. 1999, Updating Australian budget standard costs of children estimates, Policy Research Paper No. 7, Department of Family and Community Services, Canberra.

- Hulse, K. 2002, Demand Subsidies for Private Renters: A Comparative Review, Final Report, AHURI, Melbourne.
- Industry Commission 1993, Public Housing. Volume 1: Report, AGPS, Canberra.
- Johnston, C. 2002, Rent assistance to private and community sector tenants: a background paper, Shelter NSW, Sydney.
- Kelly, S. 2002, 'Simulating Future Trends in Wealth Inequality', paper presented to the Australian Conference of Economists, Adelaide, October.
- King, A. 1987, 'Analysing the distributional consequences of policy: the use of microanalytic simulation methods', pp 7-28 in National Economic Review, No. 6, February.
- King, A. 1995, 'The Case for a Regional Dimension in Income Support', pp 55-74 in P. Saunders (Ed.), Social Policy and Northern Australia: National Policies and Local Issues, Reports and Proceedings No. 120, Social Policy Research Centre, University of New South Wales, Sydney.
- King, A., McLellan, J. and Lloyd, R., 2002 'Regional Microsimulation for Improved Service Delivery in Australia: Centrelink's CuSP Model', Paper prepared for the 27th General Conference, International Association for Research in Income and Wealth, Stockholm, 18-24 August 2002.
- Lambert, S., Percival, R., Schofield, D. and Paul, S. 1994, An Introduction to STINMOD: A Static Microsimulation Model, STINMOD Technical Paper No. 1, National Centre for Social and Economic Modelling, University of Canberra, Canberra.
- Lloyd, R., Harding, A. and Greenwell, H. 2001 'Worlds Apart: Postcodes with the Highest and Lowest Poverty Rates in Today's Australia', Paper prepared for the National Social Policy Conference 2001, Sydney, July.
- Lloyd, R., Harding, A. and Hellwig, O., 2001 'Regional Divide? A Study of Income Inequality in Australia, Sustaining Regions, Vol 1 No 1, pp 17-30.
- Melhuish, T., Blake, M. and Day, S., 2002 'An Evaluation of Synthetic Household Populations for Census Collection Districts Created Using Spatial Microsimulation Techniques', Paper prepared for the 26th Australia & New Zealand Regional Science Association International (ANZRSI) Annual Conference, Gold Coast, Queensland, Australia, 29 September – 2 October 2002.
- Mudd, W. 1998, 'A standard rent? Context and considerations', pp 147-170 in Social Security Journal 1998/1.
- Productivity Commission 2003, Report on Government Services 2003, Productivity Commission, Melbourne.
- Saunders, E. and Maher, C. 1996, Private Rental Market Data Sources: A Review and Evaluation, Final report for the Australian Housing Research Fund Project No. 198, AHURI, Melbourne.
- Saunders, P. and Siminski, P. 2003, 'How Reliable are our Income Distribution Statistics', pp 1, 4-5, 9 in SPRC Newsletter, No. 83, Social Policy Research Centre, University of New South Wales, Sydney, February.
- Senate Community Affairs References Committee 1997, Report on Housing Assistance, Parliament of Australia, Canberra.
- Williamson, P., Birkin, M. and Rees, P.H. 1998, 'The estimation of population microdata by using data from small area statistics and samples of anonymised records', Environment and Planning A, vol. 30, pp. 785-816.
- Wood, G., Flatau, P. and Watson, R. 2002, A Microsimulation Model of the Australian Housing Market with Applications to Commonwealth and State Policy Initiatives, Positioning Paper, AHURI Western Australia Research Centre, AHURI, Melbourne.

Wulff, M. 2000, The 1998 National Survey of Rent Assistance Recipients: a Report on Key Findings, Department of Family and Community Services, Canberra.

Wulff, M. and Evans, S. 1999, 'The Spatial Impacts of Commonwealth Rent Assistance on Australia's Low-income Households', Chap 7 in Yates, J. and Wulff, M. (Eds), 1999, Australia's Housing Choices, Australian Housing and Urban Research Institute, Melbourne.

A 2001 CENSUS OF POPULATION AND HOUSING

The main source of small area socio-demographic data in Australia is the five yearly Census of Population and Housing (Census) conducted by the Australian Bureau of Statistics (ABS) (ABS 2001a). The Census is an official count of the population and number of dwellings in Australia and collects details of age, sex, and other characteristics of that population. The Census count enumerates people where they were located on Census Night, which may be different from where they usually live. Some Census data are also available on place of usual residence.

Census data are available as standard products from the ABS. The standard products that may be relevant for the current research are the Basic Community Profile, the Expanded Community Profile, the Usual Resident Profile and the Indigenous Profile. Each profile consists of a number of tables. The information provided in each profile is different and depends on the population being considered. Each profile is also available at different geographic levels. Each table in each profile consists of the variables included in the table and a description of the population of that table. The table population is a description of what the table is counting – for example, Basic Community Profile table B25 - Age by Labour Force Status (full-time/part-time) by sex - is counting persons aged 15 years and over (excluding overseas visitors).

Census data are also available as customised tables.

A1 Basic Community Profile

The Basic Community Profile (BCP) (ABS Cat. no. 2001.0) consists of 33 tables containing key census characteristics of persons, families and dwellings. Information is available at a variety of geographic levels including the Census Collection District (CD), Statistical Local Area (SLA) and Local Government Area (LGA). The BCP is based on place of enumeration and not place of usual residence.

A2 Expanded Community Profile

The Expanded Community Profile (XCP) (ABS Cat. no. 2005.0) consists of 49 tables and comprises more detailed information for some tables than in the BCP as well as some additional tables. It is based on place of enumeration. The XCP is not available for CDs. The smallest geographic level at which the XCP is available is the SLA.

A3 Usual Residents Profile

The Usual Resident Profile (URP) (ABS Cat. no. 2004.0) consists of 28 tables. It is different from other standard Census Community Profiles in that it provides data based on where people usually live (their usual address rather than where they were counted on Census night).

The URP is available for SLAs and aggregates of SLAs.

A4 Indigenous Profile

The Indigenous Profile (IP) (ABS Cat. no. 2002.0) consists of 29 tables containing key census characteristics for Aboriginal and Torres Strait Islander persons, families and dwellings. The IP is based on place of enumeration and is available for LGAs, Indigenous Areas, ATSI Regions and, for a limited number of tables, for SLA and Indigenous Locations (ABS, Catalogue No. 2002.0 Indigenous Profile).

A5 Customised tables

Customised tables can provide more detailed information than that available from ABS standard community profiles. Specific cross-tabulations can be requested for any geographic level. The major limitations of customised tables are the cost and the effect of ABS confidentiality measures on data for small geographic areas. These are expanded on below.

A6 Choice of Census data

As the choice of Census data determines the socio-demographic targets used in the reweighting of the unit record dataset from a household survey, it is important to consider the benefits and limitations of using each source of data.

The BCP is the only standard Census profile that is available at the geographic level of CD. The reweighting procedure in this research can be undertaken at any geographic level at which sufficient socio-demographic targets are available. As the primary aim of this research is to assess the regional performance of CRA, the finer the geographic level at which small area estimates of the population can be created, the more detailed the assessment can be of CRA performance.

On the other hand, along with geographic level, it is important to have sufficient socio-demographic variables in the Census data to adequately represent the population within each geographic region. With the focus of this research on CRA, the variables chosen to represent the population would ideally include indicators of individual or household income, family structure, the work status of household members, housing costs, housing tenure and any other driver or variable that may be related to the receipt of CRA.

The 33 tables in the BCP contain many of the key census characteristics of persons, families and dwellings. In particular, the BCP contains a number of household and dwelling variables required to produce representative small area estimates of the population.

The XCP contains many of the tables available in the BCP and at greater detail – with some additional tables. As the XCP is not available at the CD level, it can provide multi-dimensional tables that the BCP cannot provide due to confidentiality. The XCP has a number of housing and dwelling variables that would be relevant in the reweighting procedure. A limitation of the XCP is that it is not available at the CD level.

The URP is an important profile in that it provides population data for place of usual residence. This is relevant to this research in that the persons and households of interest are those residing in the area, not those visiting or staying temporarily. The population of interest in the URP, however, is persons and there are none of the household and dwelling variables required in this research.

The IP is specifically designed to enumerate indigenous Australians. It contains many of the person, household and dwelling variables that would be useful in this research if an Indigenous indicator was available in the unit record dataset being used.

As mentioned above, customised tables have two major limitations – potentially high costs and confidentialised cell values. If data is required at the smallest Census geographic level of the CD and there are multiple variables specified for each table, then the number of data cells in each table can be very large. As the cost of data is determined in part by the number of cells in each table the cost of each table can be prohibitive. In addition, the ABS adopts several measures to protect individuals from being identified from Census data. One of these measures is to randomise the counts in cells with very small population numbers. If the geographic level required is small – for example, CDs and some SLAs – and the number of variables in a table is large relative to the population of the area, then it is likely that many of the cells in the table will consist of a randomised result that is of little use for analysis. At higher geographic levels than the CD, however, the cost of tables and the extent of confidentialising diminish quickly.

B COMPARISON OF NATIONAL HOUSEHOLD SURVEYS

The methodology to be adopted in this research requires the creation of small area estimates of household populations that represent the actual households within each area and contain sufficient additional attributes to enable an assessment of the regional impact of CRA. The previous appendix compared the various sources of 2001 Census data as a basis for identifying the most appropriate specific source of socio-demographic variables that would represent small-area populations. This appendix presents the options for the national survey data that will be linked to the Census data.

The choice of which national household survey to use in this research hinges on several criteria:

- the availability of a Confidentialised Unit Record File (CURF);
- whether the survey contains sufficient socio-demographic variables that match those in the Census data to be used to represent small area populations, and;
- whether there are sufficient attributes on the household survey to provide a basis to adequately assess the regional impact of current and alternative CRA provisions.

There are also several practical issues that need to be considered in the choice of household survey data. These are the frequency and timeliness of the survey, the sample size, the existence of geographic identifiers, the currency of the survey and, of particular importance in this application, the ease of updating to current terms.

Three recent national household surveys have been considered for this research:

- the 1998-99 Household Expenditure Survey (HES);
- the 1999 Australian Housing Survey (AHS), and;
- the 1997–98 Survey of Income and Housing Costs (SIHC).

CURFs are available for each of these surveys.

B1 Scope of each household survey

1998-99 Household Expenditure Survey

The 1998-99 HES CURF contains a set of confidentialised records from the 1998-99 HES (ABS 2002b). The 1998-99 HES collected detailed information on expenditure, income and demographic characteristics of a sample of Australian households resident in private dwellings. The sample does not include institutional residences such as hospitals, nursing homes or hotels, nor does it include dwellings in remote or sparsely settled areas. The population surveyed was persons aged 15 years and over within the sample households. Information on all persons is collected at the household level. The second release of the HES included additional data obtained from the Fiscal Incidence Study that reported on the effects of government benefits and taxes on household income.

1999 Australian Housing Survey

The 1999 AHS CURF (ABS 2001b) contains a set of confidentialised records from the 1999 AHS. The 1999 AHS collected detailed information on the demographics, tenure, housing costs and income of persons and households, as well as the characteristics, affordability and adequacy of dwellings, from a sample of households resident in private dwellings throughout Australia. The sample excluded institutional dwellings and dwellings in remote and sparsely settled parts of Australia. The population surveyed was all persons aged 15 years and over in the selected households.

1997–98 Survey of Income and Housing Costs

The 1997-98 SIHC CURF (ABS 1998) contains a set of records from the 1997-98 SIHC. The 1997-98 SIHC contains information on the income and housing costs of persons, as well as information on a number of demographic and labour force characteristics.

The survey covered persons in private dwellings who were aged 15 years and over. The sample excluded institutional dwellings and dwellings in remote and sparsely settled parts of Australia.

B2 Presence and consistency of matching variables

The consideration of the alternative sources of Census data in section 3.4 concluded that the Expanded Community Profile (XCP) would be used as the source of 2001 Census data for this research. Therefore, the set of socio-demographic variables used to represent each small area will be a set of matching variables from the XCP and the most appropriate household survey. There are two issues to consider in selecting matching variables – the existence of the variable in both the XCP and the household survey and the consistency of the definition of the variable.

A review of the 2001 XCP and the three household surveys being considered reveals a common set of socio-demographic variables that exists in the 2001 XCP and each of the household surveys. Table B1 lists these potential matching variables showing that a common set of variables is present in all three surveys with the exception of 'number of vehicles in household' which is only present in the 1998-99 HES.

As the Census and all three surveys are ABS collections, the definitions of many variables are similar between surveys and compared with the Census. As table B1 shows, the definitions of matching variables are consistent with the 2001 Census. Although some variable and class names may differ, the variable names in the table generally describe the type of data in each variable.

Table B1 Presence and consistency of variable definitions between the 2001 Census XCP and household surveys

Variable	1998-99 HES	1999 AHS	1997-98 SIHC
<i>Household variables</i>			
Family composition	Consistent	Consistent	Consistent
Number of persons in household	Consistent	Consistent	Consistent
Number of vehicles in household	Consistent	Not present	Not present
Household income	Consistent	Consistent	Consistent
Mortgage repayments	Consistent	Consistent	Consistent
Rental payments	Consistent	Consistent	Consistent
<i>Person variables</i>			
Age	Consistent	Consistent	Consistent
Sex	Consistent	Consistent	Consistent
Country of birth	Consistent	Consistent	Consistent
Marital status	Consistent	Consistent	Consistent
Year of arrival	Consistent	Consistent	Consistent
Labour force status	Consistent	Consistent	Consistent
Educational status	Consistent	Consistent	Consistent
Educational qualifications	Consistent	Consistent	Consistent
Individual income	Consistent	Consistent	Consistent
Occupation	Consistent	Consistent	Consistent
<i>Dwelling variables</i>			
Dwelling structure	Consistent	Consistent	Consistent
Number of bedrooms	Consistent	Consistent	Consistent
Tenure type	Consistent	Consistent	Consistent

Source: Derived from ABS Expanded Community Profile (Cat. no. 2005.0) and ABS (1998, 2001b, 2002b).

B3 Richness of housing data

Table B2 lists housing and other variables from the three surveys considered that may be useful in assessing the regional impact of CRA. Each variable in the table may differ between surveys but the general information contained is of a similar nature. The presence of the variable in each survey is indicated by a cross.

Table B2 Housing and other data present in each household survey considered^a

Variable	1998-99 HES	1999 AHS	1997-98 SIHC
<i>Household variables</i>			
Number of dependents	X	X	X
Number of pension/benefit recipients in the household	X		
Number of usual residents in the household	X	X	
Number of temporary visitors		X	
Number of retired persons in the household	X		
Duration of unemployment	X	X	X
Housing history/transition		X	
Income from government payments (by type of payment)	X		X
Income from other sources (by source)	X		X
Disposable income	X		X
Rent assistance received		X	
Details of loans (purpose, principal outstanding, term, repayments)	X	X	X
Details of financial stress	X		
Payments for child support/maintenance	X		X
Assets and liabilities		X	
Housing costs (including mortgage and rent)	X	X	X
<i>Dwelling variables</i>			
Tenure and landlord type	X	X	X
Additional rental details (including type, period, furnished etc)	X	X	
Dwelling location		X	
Level of satisfaction with dwelling		X	
Number of bedrooms	X	X	X
Number of bedrooms adequate		X	

Variable	1998-99 HES	1999 AHS	1997-98 SIHC
Number of bathrooms and toilets		X	
Dwelling in need of repair		X	
Adequate kitchen		X	
Number of car spaces adequate		X	
Dwelling acquisition details (purchase price, first home buyer etc)		X	X
Estimated value of home	X	X	X

Note: ^a An 'X' indicates the presence of the variable in the household survey

Source: Derived from ABS (1998, 2001b, 2002b).

1998-99 Household Expenditure Survey

There are three levels of data record in the 1998-99 HES CURF – household level, person level and expenditure level. All three levels of data contain various housing and other data that could be used in this research. Identifiers in the data allow analysis at the household, family, income unit or individual level.

The HES is a good source of housing data with substantial information on incomes and housing expenditures. This includes detailed information on incomes from government cash benefits. There are also various indicators of financial stress that are not included in the other two surveys.

1999 Australian Housing Survey

There are two data levels in the AHS CURF: the household level, which contains information about household characteristics and dwelling characteristics and conditions, and the person level which contains information about person characteristics and income. Identifiers in the data allow analysis at the household, family, income unit or individual level.

As would be expected, the AHS is a very rich source of housing data. Besides the core housing data on housing costs, tenure, dwelling type and so forth – which is also available in the other two surveys – the AHS includes information on matters such as housing history and the level of satisfaction, condition and adequacy of the dwelling. This extended housing information could be useful in assessing the possible impact of rent assistance on dwelling choice. The AHS is the only survey that includes direct data on the receipt of CRA, though this is in fact less useful for this project than the detailed income data which is needed to update population characteristics (including CRA entitlement) to 2001 terms. The AHS has much less information than the SIHC and HES on income including less detail on income from particular sources. This is important information that would be needed in updating the data.

1997–98 Survey of Income and Housing Costs

There are two data levels in the 1997-98 SIHC CURF – the income unit level; which contains information about income unit characteristics and dwelling characteristics; and the person level which contains information about person characteristics and income. Identifiers in the data allow analysis at the household, family, income unit or individual level.

The SIHC has very good income data and includes the core housing data on costs, tenure and dwelling type/size.

B4 Other considerations

The HES is a sample of 6892 households and 13,964 persons covering most of Australia - excluding remote and sparsely settled parts of the country. There are State/Territory

geographic indicators on the HES. There is no other indicator of the location of the sample households below this level. The most recent HES is for 1998-99 – therefore there is minimal updating of values required to make the HES comparable with 2001 Census values.

The AHS is a large sample of 13,788 household level and 27,688 person level records. Geographic variables are included for State/Territory of residence and capital city/balance of State/Territory. A dwelling location variable is also included that identifies whether the dwelling is located on a residential block, a farm, commercial or retirement village or other type of location. The 1999 AHS is the most recent of the three surveys considered, and would require a similar level of updating as the HES.

The 1997-98 SIHC, with 8,778 income unit level and 13,931 person level records, has a similar sample size as the HES. There are approximately 7000 households that can be derived from the income units. Geographic variables are included for State/Territory of usual residence and capital city/balance of state. The most recent available CURF is from the 1997-98 SIHC. Of the surveys considered, it is therefore the survey requiring the most updating of values.

As previously stated, the choice of which national household survey to use in this research depends on:

- the availability of a CURF
- sufficient matching socio-demographic variables
- sufficient attributes to assess the regional impact of rent assistance
- frequency and timeliness of the survey
- sample size
- geographic identifiers
- ease of updating to current terms

The three household surveys considered – the HES, AHS and SIHC – all have CURFs that could potentially be used in this research. The arguments for selection of the HES are set out in section 3.4.

C PROPOSED TERMS OF ACCESS TO DATASET(S) AND MODEL

1. Research involving extension to the dataset or modelling applications will need to involve formal collaboration with NATSEM.
2. Copies of output datasets (such as the dataset generated by this project) will be provided to AHURI with reduced detail. The finest level of detail provided in these Reduced-Detail Output Datasets would be summary output – such as cell averages – for statistical local areas (SLAs). Unit record detail will not be provided. Dataset documentation will be provided by NATSEM.
3. The detailed output datasets will be archived by NATSEM.
4. Any Reduced-Detail Output Datasets provided to AHURI can be distributed for use by other members of AHURI.
5. Any analysis of the detailed output datasets will require formal collaboration with NATSEM.

NATSEM will not unreasonably refuse any requests for collaboration under the above terms of access.

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