

**1996 CENSUS DATA QUALITY:
HOUSING**

**Sue McDonald
Grazyna Majchrzak-Hamilton**

**Population Census Evaluation
May 1999**

Summary of Findings

The 1996 Census Housing Paper evaluates the data quality of the housing questions in the Census. The housing variables analysed in the paper include: Tenure Type, Rent/Housing Loan Repayment, Type of Landlord, Furnished/Unfurnished, Number of Bedrooms, Structure of Dwellings, Location of Dwellings and Non-Private Dwellings. The housing questions were completely restructured for the 1996 Census in an effort to improve data quality and to reduce respondent burden. Comparisons between 1991 and 1996 Census data has been undertaken. The Census data are also compared with data from the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs. The main conclusions of the analyses were as follows:

- Overall the restructure of the housing questions was a success as the data quality for most topics improved substantially.
- An increased number of categories for Tenure Type generally provided a more accurate representation of tenure types.
- The increase in options for Type of Landlord did not increase data quality as desired, however it did provide users with a wider range of data.
- There was an increase in non-response rate for housing loan repayments (1.9 percentage points), and a decrease for rent (0.3 percentage points). This was a slight inconsistency, for which a couple of reasons have been considered, including the change to a write-in box, and privacy issues.
- Non-response rate increased for Structure of Dwelling which indicated potential difficulties experienced at the collection phase. This issue is currently being addressed in the field operations procedures for 2001.
- The introduction of a new classificatory variable 'Dwelling Location' proved to be reasonably successful, however collection procedures are being refined for the 2001 Census.
- Overall Type of Non-Private Dwelling was much better captured in 1996 compared with 1991.
- There was some improvement in the quality of data for 'relationship' for persons in Non-private dwellings. However modifications to the question design will be tested for the 2001 Census to further improve the data quality to the standard required by users.

CONTENTS

1. INTRODUCTION	1
1.1 Note on table populations	3
2. ACCURACY OF THE CENSUS COUNT OF PRIVATE DWELLINGS	4
2.1 The Post Enumeration Survey (PES)	4
2.2 Households and Dwellings	7
3. TENURE TYPE	8
3.1 1996 Census Results	8
3.2 Comparison with 1991 Census Data	9
3.3 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)	10
4. RENT/HOUSING LOAN REPAYMENT	11
4.1 1996 Census questions	11
4.2 1996 Census Results for Rent Payments	12
4.3 Comparison with 1991 data for Rent Payments	13
4.4 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC) for Rent Payments	13
4.5 1996 Census Results for Housing Loan Repayments	14
4.6 Comparison with 1991 Census data for Housing Loan Repayments	15
4.7 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC) for Housing Loan Repayments	17
5. TYPE OF LANDLORD	18
5.1 1996 Census Results	18
5.2 Comparison with 1991 Census data	19
5.3 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)	19
6. FURNISHED/UNFURNISHED DATA	21
6.1 1996 Census Results	21
6.2 Comparison with 1991 Census data	22
7. NUMBER OF BEDROOMS	23
7.1 1996 Census Results	23
7.2 Comparison with 1991 Census data	25
7.3 Number of Bedrooms by Structure of Dwelling	26

7.4 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)	27
8. STRUCTURE AND LOCATION OF PRIVATE DWELLINGS	28
8.1 Structure of Dwelling 1996 Census Results	29
8.2 Comparison with 1991 Census data	30
8.3 Structure of Dwelling State/Territory comparison	31
8.4 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)	31
8.5 Dwelling Location	32
9. NON-PRIVATE DWELLINGS	35
9.1 Type of Non-Private Dwelling	35
9.2 Usual Residents of Non-Private Dwellings	36
9.3 Relationship in Non-Private Dwellings	38
10. CONCLUSION	41
10.1 Accuracy of the Census Counts of Private Dwellings	41
10.2 Tenure Type	41
10.3 Rent/Housing Loan Repayment	41
10.4 Type of Landlord	42
10.5 Furnished/Unfurnished Data	42
10.6 Number of Bedrooms	42
10.7 Structure and Location of Private Dwellings	43
10.8 Non-Private Dwellings	43
10.9 Summary	43
APPENDICES	
APPENDIX 1: Tenure Derivation	44
APPENDIX 2: 1991 Census Housing Questions	45
APPENDIX 3: 1996 Census Housing Questions	46
APPENDIX 4: Comparison of Classifications for Housing for the 1996 Census, 1994 Australian Housing Survey and 1995-96 Survey of Income and Housing Costs	47
APPENDIX 5: Standard Errors for Rent and Housing Loan Repayments, 1994 Australian Housing Survey and 1995-96 Survey of Income and Housing Costs	48
APPENDIX 6: Description of Types of Non-Private Dwellings	49
APPENDIX 7: Persons Enumerated in Non-Private Dwellings, by Usual Resident/Visitor and Relationship, Count and Percentage Distribution, 1996 Census	50

LIST OF TABLES AND FIGURES

Table 1: Dwelling undercount rates and standard errors by Capital City/Balance of State and State/Territory, 1996 Census	5
Table 2: Occupancy status in PES by match status, all dwellings, 1996 PES unweighted data	6
Table 3: Dwelling undercount rates by Capital City/Balance of State and State/Territory, 1991 and 1996 Census	6
Table 4: Tenure Type, occupied private dwellings, 1996 Census	9
Table 5: Tenure Type, occupied private dwellings, 1991 and 1996 Censuses	9
Table 6: Distribution of Tenure, occupied private dwellings, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs, and 1996 Census	10
Table 7: Weekly Rent, dwellings rented, 1996 Census	12
Table 8: Weekly Rent, dwellings rented, 1991 and 1996 Censuses	13
Table 9: Monthly Housing Loan Repayment, dwellings being purchased, 1996 Census	15
Table 10: Monthly Housing Loan Repayment, dwellings being purchased, 1991 and 1996 Censuses	16
Table 11: Type of Landlord, dwellings rented, 1996 Census	18
Table 12: Type of Landlord, dwellings rented, 1991 and 1996 Censuses	19
Table 13: Distribution of Type of Landlord, dwellings rented, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census	20
Table 14: Distribution of Furnished/Unfurnished, dwellings rented, 1996 Census	21
Table 15: Distribution of Furnished/Unfurnished, dwellings rented, 1991 and 1996 Censuses	22
Table 16: Number of Bedrooms, occupied private dwellings, 1996 Census	24
Table 17: Number of Bedrooms, occupied private dwellings excluding caravans, cabins and houseboats, 1991 and 1996 Censuses	25
Table 18: Distribution of Number of Bedrooms by Structure of Dwelling, occupied private dwellings, 1996 Census	26
Table 19: Distribution of Number of Bedrooms, all private dwellings ¹ , 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs, and 1996 Census	27
Table 20: Structure of Dwelling, all private dwellings, 1996 Census	29
Table 21: Structure of Dwelling, all private dwellings, 1991 and 1996 Censuses	30
Table 22: Not Stated for Structure of Dwelling by State and Territory, all private dwellings, 1991 and 1996 Censuses	31
Table 23: Distribution of Structure of Dwelling, all private dwellings, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census	32

Table 24: Dwelling Location, 1996 Census	33
Table 25: Dwelling Location by State/Territory, 1996 Census	33
Table 26: Dwelling Location by Structure of Dwelling, 1996 Census	34
Table 27: Non-Private Dwelling Type, 1991 and 1996 Censuses	36
Table 28: Persons in Non-Private Dwellings, 1991 and 1996 Censuses	37
Table 29: Usual resident or Visitor at Census night address, all persons, 1996 Census	38
Table 30: Response patterns to Relationship in Non-Private Dwellings, 1991 and 1996 Censuses	39
Figure 1: Distribution of Weekly Rent, dwellings rented, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and the 1996 Census14
Figure 2: Distribution of Monthly Housing Loan Repayments, dwellings being purchased, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census17
Figure 3: Distribution of Five Yearly Average Annual Private Dwelling Construction Approvals Comparing Five Year Intervals to 1991 and 1996, Building Approvals, ABS 8731.026

1. INTRODUCTION

The census is a rich source of information about contemporary population and housing. Housing information is widely used by all levels of government administration and large numbers of users outside the government. The data are utilised in tasks such as monitoring housing standards, home ownership trends and for developing housing and social policies. Some of the major government users include: the Department of Family and Community Services, Australian Institute of Health and Welfare, Department of Education, Training and Youth Affairs, Veterans Affairs, Industry Science and Resources and State Housing Authorities. Private sector users include economic research organisations, marketing firms, journalists, media organisations, as well as Australian Housing and Urban Research Institute, researchers and universities. The housing data are widely used within the Australian Bureau of Statistics, particularly in the Housing Statistics Unit.

The objective of this paper is to provide an evaluation of the quality of housing data collected in the 1996 Census. This paper measures data quality through a series of comparisons with other data. The data investigations presented here involve analysis of intercensal changes, in particular between the 1991 and 1996 Censuses for each variable. Comparison of data intercensally between individual categories for each housing variable is also provided. These analyses involve an examination of both actual numbers and proportions. Any extreme changes intercensally are an indication that there may have been a data quality issue.

Further to the variable and category analyses an examination of non-response rates was undertaken. Comparability of the non-response rates between the 1991 and 1996 (and 1986 in some cases) Censuses provided extra information on the quality of the data. In addition to the intercensal analyses, the 1996 Census data was compared with two other ABS housing surveys. These surveys were used as benchmarks as they specifically collect housing data, using a more intensive question format than is possible in a self-enumerated census, and will be discussed in more detail later. The census data consistency is examined and compared with the survey data. Significant inconsistencies between the surveys and the census would infer potential data quality problems.

Overall this paper assesses the reliability and shortfalls of the census housing data, to enable users to understand the strengths and limitations of the data and their impact on any analysis they may wish to undertake.

The following definitions were used in the 1996 Census:

- a *Household* is a person living alone or people living and eating together;
- a *Dwelling* is a building or structure in which people live;
- an *Occupied Private Dwelling* is the premises occupied by a household on Census night;
- an *Unoccupied Private Dwelling* is a structure built specifically for living purposes which is habitable but unoccupied on Census night; and
- a *Non-Private Dwelling* is a residential dwelling with communal or transitory type of accommodation which is not included under the definition of a private dwelling and which is classified by its function.

- The following is a list of the housing variables:

- Tenure Type
- Housing Loan Repayment (monthly)
- Rent (weekly)
- Landlord Type
- Furnished/unfurnished
- Number of bedrooms
- Dwelling Structure
- Dwelling Location
- Type of Non-Private Dwelling

Source: (ABS, 1996a)

Two of the housing data items in the Census are provided directly by the census collectors; the structure of private dwelling, and the type of non-private dwelling. Householders in private dwellings are asked about the number of bedrooms, the tenure type (whether the dwelling was owned, rented or purchased) and the amount of payment for the dwelling. Occupants of rented dwellings are additionally asked to provide information on the type of landlord and whether the dwelling is furnished or unfurnished. The data collected from residents of non-private dwellings includes their relationship to the operation of the establishment (ie. whether staff are employed in the establishment or guest, patient, inmate etc.). The quality of the data from each of these variables is discussed in this paper.

A change between the 1991 and 1996 Censuses affected the classification of private and non-private dwellings. Accommodation for the retired or aged (self-care) and manufactured home estates, for the first time, were classified as private dwellings in 1996. This reclassification enabled collection of dwelling and household data from the occupants of these dwellings. A similar reclassification of caravans in caravan parks took place in 1986, although not the full range of dwelling data were collected from caravan parks in that Census. It was not until 1991 that data were collected for caravans.

A new classificatory variable 'Dwelling Location' was derived to assist with time series comparisons. This variable describes the type of dwelling location (caravan park, marina, manufactured home estate, and accommodation for the retired aged - self care), and thus allows meaningful comparisons with earlier data.

There were also changes to the household form design since 1991. The main housing variables affected by these changes were rent (weekly), housing loan repayments (monthly), landlord type and whether the rented accommodation was furnished or unfurnished. All of these issues are discussed in greater detail in this paper.

Data used for comparison with the census data originate from household surveys undertaken on a regular basis by the Australian Bureau of Statistics (ABS). The surveys referred to in this paper use different methodologies and scope from the census. In general, surveys enumerate a sample of households in Australia, excluding members of the armed forces, usually over a period of weeks or months, while the census enumerates every household in Australia on one night. Another difference is that household surveys treat most 'retirement homes' as special dwellings (ie. non-private dwellings), which are excluded from many surveys.

Surveys are subject to sampling errors and estimates of sampling error have been included where possible. The differences in enumeration strategies are also apparent. Survey information is obtained using trained interviewers while the census is self-enumerated by householders. There is also the issue of chance of being selected in the survey, which means that some dwelling types may not be selected in the household surveys. In addition the surveys only collect data from usual residents of dwellings, whereas the Census figures are based on enumeration at place of residence on Census night. This difference may account for the variation in some figures between the census and the surveys. This may especially be the case in households in caravans, cabins and houseboats, and also possibly those in multi-level serviced apartments, where many people are likely to be 'visitors' (ie on holiday) as opposed to 'usual residents'. Overall the differences between the collections have an impact on the comparability of the data. The surveys referred to in this paper are:

Australian Housing Survey which was conducted from August to October 1994. This survey gathered extensive information on housing costs, finances and amenities, as well as physical characteristics and condition of dwellings. The scope of the survey was the same as the census, with the exception of special dwellings and improvised homes.

Survey of Income and Housing Costs which is conducted as part of the Monthly Population Survey (MPS). Respondents were a sub sample of those in the MPS, during the 1995-96 financial year. The survey collected information on housing costs and characteristics of households in private dwellings which was compared with the census. The scope of the survey excludes special dwellings (which are the same as non-private dwellings in the census).

Post Enumeration Survey (PES) which was undertaken three weeks after census night to gather information about whether persons, households and dwellings were counted in the census. The undercount rates are used to evaluate the effectiveness of census collection procedures and the completeness of the census data. The net undercount derived from PES data and the census counts themselves are main components of estimates of resident population in Australia.

1.1 Note on table populations

This paper looks at each housing variable in turn and provides an analysis of collected data. Systematic analysis of applicable populations is carried out. Descriptions and counts of populations referred to in subsequent chapters are presented below. These counts are the base population groups referred to in the tables throughout the paper.

<i>Population Description</i>	<i>Population Count</i>	<i>Table Number</i>
Occupied Private Dwellings	6,496,072	4
Occupied Private dwellings excluding caravans, cabins, houseboats	6,403,440	16
All private dwellings (including unoccupied)	7,175,237	20
Dwellings being rented	1,865,961	7
Dwellings being purchased	1,656,062	9
All non-private dwellings	19,873	27
All persons in non-private dwellings	613,389	28

2. ACCURACY OF THE CENSUS COUNT OF PRIVATE DWELLINGS

It is the goal of the census to enumerate exactly 100 per cent of the population and dwellings. This will never be practically achieved, resulting in some dwellings being missed while others are double counted. The Post Enumeration Survey (PES), conducted shortly after the census, evaluates the validity of the census count.

It is recognised that a variety of living arrangements currently exist in Australia. However, for operational reasons during census collection it is assumed that household equates with occupied private dwelling. The number of households in reality does not necessarily equal the number of occupied private dwellings. See section 2.2 below for further discussion.

2.1 The Post Enumeration Survey (PES)

The PES provides data for evaluation of the accuracy of census coverage. The processing of PES records involved matching of PES forms with census household forms. A further process of searching for records for individuals enumerated under different addresses during PES and Census took place. The estimates of undercount of persons, households and dwellings are calculated on the basis of this process. This section will examine in detail the undercount of dwellings for the 1996 Census, the occupancy status of missed dwellings, and a comparison of dwelling undercount rates for 1991 and 1996. The dwelling estimates presented in this section are of gross rather than net undercount, as there is no mechanism in the PES to detect overcounting of dwellings.

The 1996 PES sampled about half of one percent of all private dwellings in the country. Due to prohibitive costs, private dwellings in remote areas were excluded. There is a possibility that dwellings out of the scope of the census were included in the PES, resulting in a small overstatement of missed dwellings. This could happen for dwellings which were under construction at the time of the census but completed by the time of the PES.

2.1.1 1996 Census Undercount of Dwellings

The dwelling undercount rates for 1996 by State/Territory and Capital City/Balance of State are presented in Table 1, together with standard errors. High sampling error precluded reliable estimates of undercount rates for smaller areas in the Territories.

Table 1: Dwelling undercount rates and standard errors by Capital City/Balance of State and State/Territory, 1996 Census

<i>State/ Territory</i>	<i>Capital City</i>		<i>Balance of State</i>		<i>Total</i>	
	<i>Rate (per cent)</i>	<i>Standard Error</i>	<i>Rate (per cent)</i>	<i>Standard Error</i>	<i>Rate (per cent)</i>	<i>Standard Error</i>
New South Wales	0.7	0.1	2.1	0.2	1.3	0.1
Victoria	0.8	0.2	1.8	0.3	1.1	0.2
Queensland	0.5	0.2	2.6	0.6	1.7	0.3
South Australia	0.7	0.2	2.3	0.6	1.2	0.2
Western Australia	0.3	0.1	2.3	0.6	0.9	0.2
Tasmania	1.3	0.6	3.2	0.7	2.5	0.6
Northern Territory ¹	-	-	-	-	0.9	0.4
Australian Capital Territory ¹	-	-	-	-	0.6	0.2
Australia²	0.7	0.3	2.4	0.5	1.3	0.1

¹ High sampling error precludes reliable estimates of undercount being made for smaller areas.

² This table excludes 'other territories'.

The highest rate of undercount was observed for Tasmania at 2.5 per cent, which was over four times that of the Australian Capital Territory. The low undercount rate for the Australian Capital Territory (0.6 per cent) is most likely because of its small size and highly regulated urban nature, making it easier for collectors to locate all dwellings.

The capital city of each State recorded a much lower rate of dwelling undercount than the corresponding balance of State. Perth and Brisbane experienced the lowest undercount rates of all capital cities at 0.3 and 0.5 per cent respectively. The highest undercount rate was recorded for Hobart, at 1.3 per cent. The highest undercount rate for the balance of State was recorded for Tasmania (3.2 per cent) and Queensland (2.6 per cent). The states which were sparsely settled tended to have a higher undercount rate, with Tasmania being the exception. On the other hand, Victoria which had relatively few sparsely settled areas, recorded the lowest undercount rate at 1.8 per cent.

2.1.2 Occupancy Status of Missed Dwellings

The raw dwelling data from the PES presented in Table 2 indicates that approximately two thirds of all dwellings missed in the census were unoccupied during the PES collection.

Table 2: Occupancy status in PES by match status, all dwellings, 1996 PES unweighted data

<i>Match Status</i>	<i>Count</i>			<i>Per Cent</i>		
	<i>Occupied</i>	<i>Vacant</i>	<i>Total</i>	<i>Occupied</i>	<i>Vacant</i>	<i>Total</i>
Matched	32,987	2,319	35,306	99.5	88.5	98.7
Missed	153	292	445	0.5	11.1	1.2
Not known	0	8	8	0.0	0.3	0.0
Total¹	33,140	2,619	35,759	100.0	100.0	100.0

¹ Some totals do not add up due to rounding.

Dwellings with a match status of 'Not known' represent cases where it was not possible to determine if a dwelling was counted or missed in the census. The 'Not known' cases in 1996 were recorded only for dwellings vacant during PES enumeration. Furthermore, 11.1 per cent of vacant dwellings were missed in the census compared to 0.5 per cent of occupied dwellings.

2.1.3 Comparison of 1991 with 1996 Dwelling Undercount

There are often difficulties matching dwellings in the PES with those in the census due to insufficient, vague or ambiguous addresses. Dwellings for which a match status could not be clearly determined were excluded from the 1991 estimation of undercount, while in 1996 they were included. The dwelling undercount rates for 1991 and 1996 by State/Territory and Capital City/Balance of State are presented in Table 3. Neither Territory is divided into regions because high sampling error does not allow for reliable estimates for areas with small populations. The 1991 PES data in the table are from (ABS, 1991), while the 1996 data are from (ABS 1996b).

Table 3: Dwelling undercount rates by Capital City/Balance of State and State/Territory, 1991 and 1996 Census

<i>State/Territory</i>	<i>Capital City</i>		<i>Balance of State</i>		<i>Total</i>	
	<i>1991</i>	<i>1996</i>	<i>1991</i>	<i>1996</i>	<i>1991</i>	<i>1996</i>
	<i>Per cent</i>					
New South Wales	1.0	0.7	1.8	2.1	1.3	1.3
Victoria	0.8	0.8	1.4	1.8	1.0	1.1
Queensland	0.6	0.5	2.1	2.6	1.5	1.7
South Australia	0.8	0.7	5.3	2.3	2.1	1.2
Western Australia	0.5	0.3	3.7	2.3	1.4	0.9
Tasmania	1.1	1.3	2.2	3.2	1.8	2.5
Northern Territory ¹	-	-	-	-	2.5	0.9
Australian Capital Territory ¹	-	-	-	-	0.8	0.6
Australia²	0.8	0.7	2.2	2.4	1.3	1.3

¹ High sampling error precludes reliable estimates of undercount being made for smaller areas.

² This table excludes 'other territories'.

The dwelling undercount rate for Australia remained at 1.3 per cent. The largest intercensal increase at the State level occurred in Tasmania at 0.7 percentage points, followed by Queensland at 0.2 percentage points. Of all States and Territories, only three States experienced an increase in the dwelling undercount rate. The largest intercensal

decrease in the dwelling undercount was recorded for the Northern Territory at 1.6 percentage points. The undercount rate for dwellings in the capital city regions has changed only slightly since the 1991 census, with an intercensal decrease of only 0.1 percentage points. However, the undercount rate for dwellings in the Balance of State increased since the 1991 Census by 0.2 percentage points. In particular intercensal increases were recorded for Tasmania (1.0 percentage points) and Queensland (0.5 percentage points).

2.2 *Households and Dwellings*

The practice of collecting census data for each household complies with the 'United Nations' recommendation that each household must be identified separately for census purposes (United Nations, 1980). The availability of data for both concepts - households and dwellings - permits assessment of the need for additional accommodation. Australian censuses have always collected data about households and about dwellings and the following section is concerned with the relationship between dwellings and households.

2.2.1 *Multiple Household Dwellings*

The adoption of the concept of equating households with occupied private dwellings becomes a problem where more than one household occupies a dwelling (ie. a multiple household dwelling). Where a multiple household is identified (and this depends on householders making the situation known to census collectors), the census collector issues a separate household form for each household. This results in the creation of a dwelling record for each household and therefore an overcount of dwellings.

Some concerns about the impact of multiple household dwellings on the accuracy of the count of dwellings has been expressed, primarily by users interested in stock of dwellings data. However a number of investigations, which are discussed below, undertaken prior to both the 1991 and 1996 Censuses indicated that the incidence is too small to have a significant effect in the overall count of dwellings.

The *1991 Census Data Quality: Housing Working Paper* examined some investigations carried out on multiple household dwellings using Labour Force Survey data. These investigations showed that less than 1 per cent of private dwellings contained multiple households.

Further investigations in census tests in March and August 1994 confirmed that attempting to identify multiple household dwellings adversely affected collection procedures. This resulted in poor data quality and had unfavourable implications for family data and may have alienated some minority groups so that they did not complete the form at all (ABS 1996d). Therefore the identification of multiple household dwellings has not been attempted.

3. TENURE TYPE

'Tenure Type' is the variable that describes the arrangement by which people occupy a private dwelling. In previous censuses tenure type has been referred to as 'Nature of Occupancy'. The term was changed for the 1996 Census for consistency with the terminology used in the 'Interim Standard for Tenure Type'. This new standard for tenure type has been developed to collect information on the increasing numbers of alternative tenure types. This standard is being further developed for the 2001 Census.

Tenure type (nature of occupancy) information has been collected in all censuses since 1911, and is one of the key dwelling variables. Data for tenure type are used in determining housing and social welfare policies at a regional, State and national level. Tenure type data are also used to monitor access to adequate housing and issues relating to mobility, tenancy and owner-occupancy rates, when cross-classified with other census data.

The derivation table used to determine tenure type in the 1996 Census is displayed in Appendix 1. This table is not as complex as the table used in 1991 because of improvements made to the housing questions in the 1996 questionnaire. The major change involved an increase in tenure type categories. There were seven tenure types in the 1996 Census, compared with only four in the 1991 Census (see Appendices 2 and 3). This increase was to capture better the different forms of tenure that have recently developed, especially 'Being Purchased Under a Rent/Buy Scheme', and 'Being Occupied Under a Life Tenure Scheme'.

'Being Purchased Under a Rent/Buy Scheme' was added as a category to the 1996 Census, due to the growing popularity of shared equity purchase schemes. These schemes allow persons with a low income to purchase a share of a house with the current owner legally owning the remaining share of the house. People in such schemes make both mortgage and rental payments, and it may not always be possible to separate the amounts for each.

The category 'Occupied Under a Life Tenure Scheme' was included to improve the quality of data for retirement villages. Testing revealed that many householders in self-care accommodation within retirement villages had difficulty responding to the tenure type questions asked in the 1991 and earlier censuses. It was envisaged that with more appropriate response categories respondents would be able to better answer their tenure type. The findings for tenure type are discussed in the following sections.

3.1 1996 Census Results

The 1996 Census data for tenure type is shown in Table 4, which gives a breakdown of the numbers in each category.

Table 4: Tenure Type, occupied private dwellings, 1996 Census

<i>Tenure</i>	<i>Number</i>	<i>Per cent</i>
Fully owned	2,657,971	40.9
Being purchased	1,626,293	25.0
Being purchased rent/buy scheme	29,769	0.5
Rented	1,773,508	27.3
Occupied rent free	92,453	1.4
Occupied under life tenure scheme	28,453	0.4
Other	39,367	0.6
Not stated	248,258	3.8
Total¹	6,496,072	100.0

¹ Some totals do not add up due to rounding.

As expected, the largest tenure type in 1996 was 'Fully Owned' (41 per cent). This was followed by 'Rented' (27 per cent) and 'Being Purchased' (25 per cent). While the four other categories make up only a small percentage of tenure types, they highlight the fact that there are a number of different tenure types present. The not stated rate was high at almost four per cent, however this may be inflated by the number of non-standard categories, ie. 'visitor only' and 'other and not classifiable' households, who answered not stated to Tenure Type. When excluding these two categories the non-response rate falls to around 2.3 per cent.

3.2 Comparison with 1991 Census Data

The following table compares tenure type in the 1991 and 1996 Censuses, although direct comparisons are made difficult by the increased number of categories in 1996.

Table 5: Tenure Type, occupied private dwellings, 1991 and 1996 Censuses

<i>Tenure</i>	<i>1991</i>		<i>1996</i>		<i>Intercensal Difference</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Fully owned	2,361,965	40.4	2,657,971	40.9	296,006	0.5
Being purchased ¹	1,561,267	26.7	1,656,062	25.5	94,795	-1.2
Rented	1,560,644	26.7	1,773,508	27.3	212,864	0.6
Other						
Occupied rent free ²	-	-	92,453	1.4	-	-
Occupied under life tenure scheme ²	-	-	28,453	0.4	-	-
Other/Inadequately described ³	210,316	3.6	39,367	0.6	-170,949	-3.0
<i>Subtotal</i>	<i>210,316</i>	<i>3.6</i>	<i>160,273</i>	<i>2.4</i>	<i>-50,043</i>	<i>-1.2</i>
Not stated	158,326	2.7	248,258	3.8	89,932	1.1
Total⁴	5,852,518	100.0	6,496,072	100.0	643,554	-2.0

¹ This is a combination of 'Being purchased' and 'Being purchased rent/buy scheme' for the 1996 Census.

² These categories were not collected in the 1991 Census.

³ This category only included 'Other' in the 1996 Census.

⁴ Some totals do not add up due to rounding.

Table 5 indicates a slight increase in the proportion of dwellings that were fully owned. However there was a notable decrease in the proportion of dwellings being purchased. This decrease could be due to the borrowers repaying their loans over a shorter than the contracted period of the loan, as well as the 'baby boomers' cohort moving from

purchasing their dwellings to owning. There was also a small percentage increase in the proportion of dwellings being rented.

The category of 'Other/Inadequately Described' decreased substantially intercensally (3 percentage points). Presumably mainly as a result of respondents being able to classify their dwellings within one of the new tenure categories.

While the extra tenure categories provided a wider range of data, the downside was the increased non-response rate. The increased non-response rate raised questions about possible confusion by respondents understanding the categories. It is possible that response to the tenure type questions would be more complete if it preceded the question about housing payments. This approach is being tested in preparation for the 2001 Census.

3.3 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)

Table 9 compares findings from the 1996 Census, the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs. As the 1996 Census had more tenure categories than both of the surveys, the categories have been matched as closely as possible. A direct comparison of the categories is shown in Appendix 4.

Table 6: Distribution of Tenure, occupied private dwellings, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs, and 1996 Census

<i>Tenure</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>		<i>1996 Census</i>
	<i>per cent</i>	<i>std error</i>	<i>per cent</i>	<i>std error</i>	<i>per cent</i>
Fully owned	41.8	0.36	41.7	0.54	42.5
Being purchased ¹	28.3	0.30	28.2	0.48	26.5
Rented	27.6	0.29	28.2	0.48	28.4
Occupied rent free	1.6	0.01	2.0	0.17	1.5
Occupied under life tenure scheme	-	-	-	-	0.5
Other	0.6	0.05	-	-	0.6
Total²	100.0	-	100.0	-	100.0

¹ This included 'Being Purchased Rent/Buy Scheme' for the 1996 Census.

² Some totals do not add up due to rounding.

Overall the census data is comparable with the two surveys as the figures were almost the same across the three collections. This supports a positive assessment of the quality of the results for tenure type. There was a smaller percentage of dwellings being purchased in the census than both surveys. This was an unexpected result as this category included dwellings in the 'Being purchased under a rent/buy scheme' category. There was however, a slightly larger percentage of fully owned dwellings in the census, which may have accounted for the smaller number in the 'Being Purchased' category.

4. RENT/HOUSING LOAN REPAYMENT

Data on payments for accommodation were collected in the 1996 Census through one question asking about rent and housing loan repayment for private dwellings. Respondents had the option to record weekly, fortnightly or monthly payments regardless of whether they were renting or purchasing. Thus 'Rent (weekly)' and 'Housing Loan Repayment (monthly)' were derived as output variables. This information is used in conjunction with other questions such as income and, for rented accommodation, landlord type and furnished/unfurnished to assess the affordability of housing and the disposable income available to households.

Although information on rent has been collected since the 1911 Census, information on housing loan repayments has only been collected since 1976. There were significant changes in the format and content of the questions on housing payments between 1976 and 1981. The main change between 1981 and 1986 was the reference in 1981 to 'mortgages (or contracts of sale) on this dwelling' replaced by 'loan(s) for this dwelling'.

The questionnaire differences between 1991 and 1996 are quite marked, with a single question asking 'How much does your household pay for this dwelling?'. This answer could be given as either a weekly, fortnightly or monthly amount. The amount paid for the dwelling was coded as rent or mortgage payments according to the tenure question response. This was an attempt to reduce respondent burden by making the questionnaire simpler. Also for the first time, instructions were provided on the form to indicate what type of payments should have been included. This single question replaced the two questions used in 1991, which asked the rent and loan payments separately. The questions for 1991 and 1996 are reproduced in Appendices 2 and 3.

The changes that have occurred with the varying types of tenure, may have had an impact on the division of payments between rent and housing loan repayments. Tenure types such as rent-buy schemes, and life tenure schemes are the categories having most effect on the split. It was expected that the inclusion of the extra categories within tenure type will provide better quality data, for rent and housing loan repayments.

4.1 1996 Census questions

There was a change in the structure and sequencing of the dwelling questions from the 1991 to the 1996 Census. In 1996 the sequencing determined firstly how much the dwelling cost the household, followed by whether the dwelling was rented, being purchased or owned. The change from OMR categories in the 1991 Census, to a write-in response in 1996, which is the same that was used in 1986, allowed respondents to record actual dollar amounts, rather than selecting a self-coded category.

In a previous ABS Working Paper (ABS, 1992), the effects of collecting information in categories rather than written responses were examined. Rent and housing loan repayments were not examined directly, however the results can be extended to these variables. It was found that with self-coded responses there was sometimes a 'list-effect', where respondents just chose the first or last response on the list. Thus it was decided after further testing to proceed with a write-in response for rent and housing loan

repayments for the 1996 Census. The reintroduction of a write-in response allowed for the availability of a greater range of data. The data were collected in single dollar amounts, and may be grouped as desired. This makes the data more useable for clients and also improves the accuracy and quality of the data.

The use of a write-in response also utilised much less space than in the 1991 Census. The change in format of the question, from two questions to one also reduced respondent burden.

4.2 1996 Census Results for Rent Payments

There was a revision of the output categories after the 1991 Census, to introduce more categories to the lower ranges. This revision endeavoured to improve the data quality, and provide a better indication of the number of households who were paying smaller amounts of rent. Table 7 below contains the 1996 Census results for weekly rent.

Table 7: Weekly Rent, dwellings rented, 1996 Census

<i>Weekly Rent</i>	<i>Number</i>	<i>Per cent</i>
\$0 - \$24	112,210	6.0
\$25 - \$49	161,817	8.7
\$50 - \$74	172,201	9.2
\$75 - \$99	194,091	10.4
\$100 - \$124	267,482	14.3
\$125 - \$149	269,550	14.4
\$150 - \$174	264,776	14.2
\$175 - \$199	124,052	6.6
\$200 - \$224	85,696	4.6
\$225 - \$249	38,698	2.1
\$250 - \$274	37,545	2.0
\$275 - \$299	16,811	0.9
\$300 - \$399	42,935	2.3
\$400 - \$499	12,408	0.7
\$500 and over	13,190	0.7
Not stated	52,499	2.8
Total rented dwellings²	1,865,961¹	100.0

¹ This total includes rented and occupied rent-free.

² Some totals do not add up due to rounding.

Most of the weekly rent (approximately 77 per cent) was categorised below \$175 per week. This suggested that most rental properties were in the lower end of the market. Approximately 43 per cent of the weekly rent was between the range of \$100-\$174, thus in the middle of the range. There were very few responses in the ranges above \$225, which indicated that not many households were paying for rental dwellings within the higher price range. Further analysis revealed that most of the dwellings paying over \$225 per week were located in Sydney.

4.3 Comparison with 1991 data for Rent Payments

Table 8 compares data for rent payments for 1991 and 1996. Due to the use of OMR categories in 1991 and the data availability in these categories, the 1991 categories have been used to produce the table.

Table 8: Weekly Rent, dwellings rented, 1991 and 1996 Censuses

Amount \$	1991		1996	
	Number	Per cent	Number	Per cent
\$0-\$47	221,389	14.2	263,829	14.1
\$48-\$77	254,563	16.3	209,903	11.2
\$78-\$107	269,524	17.3	269,777	14.5
\$108-\$137	276,686	17.7	322,889	17.3
\$138-\$167	235,759	15.1	332,388	17.8
\$168-\$197	108,320	6.9	166,906	8.9
\$198-\$227	58,169	3.7	91,275	4.9
\$228-\$267	36,626	2.3	65,064	3.5
\$268-\$307	18,905	1.2	35,386	1.9
\$308-\$347	8,618	0.6	15,893	0.9
\$348-\$397	7,807	0.5	14,502	0.8
\$398-\$447	4,631	0.3	7,860	0.4
\$448-\$497	2,815	0.2	4,562	0.2
\$498+	8,478	0.5	13,228	0.7
Not stated	48,354	3.1	52,499	2.8
Total rented dwellings¹	1,560,644	100.0	1,865,961	100.0

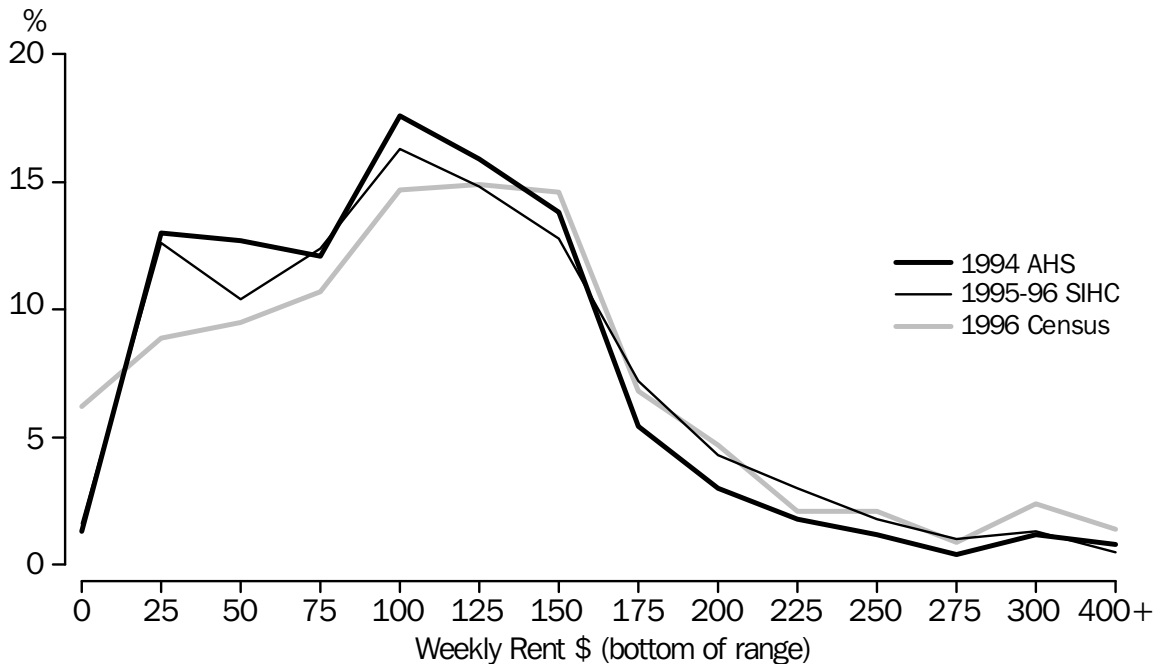
¹ Some totals do not add up due to rounding.

Some distinctive differences were evident in the data between 1991 and 1996 including an increase in the number of dwellings being rented. The weekly rent was clustered in the lower price ranges for both years, however in 1996 there were less households in the five lower price ranges (75 per cent) compared with 1991 (81 per cent). This is likely to reflect an overall increase in weekly rent. The non-response rate for rent dropped slightly (0.3 percentage points).

4.4 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC) for Rent Payments

A comparison was conducted to look at the differences and similarities between the findings from the 1996 Census, the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs. The following figure shows the distribution of responses for the census and two housing surveys. The standard errors for the surveys are in Appendix 5.

Figure 1: Distribution of Weekly Rent, dwellings rented, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and the 1996 Census



It should be noted that the highest category was collapsed from \$500+ to \$400+ as the SIHC sample would not support disaggregation to \$500+.

The figure indicates that overall, for the census and both surveys, there were more dwellings being rented in the lower rent ranges. It appears that there were more similarities in the middle and upper ranges (from \$150) between the three data collections. There was a small rise in the number of households in the \$300+ range in the census figures, which may have resulted from the total coverage of the census.

In the lower ranges there was some variability between the surveys. The census distributions were smoother than the housing surveys. The lowest range only had small percentages for both the 1994 AHS and the 1995-96 SIHC compared with the census. This was most likely to be due to the enumeration of more dwelling structures such as caravans, improvised homes and tents, which had low rent payments, in the census. The surveys exclude many caravans in caravan parks that are included in the census (see page 2 for explanation). The peak of rent payments was similar for the two surveys and the census, at around \$100-\$124 week.

4.5 1996 Census Results for Housing Loan Repayments

The following sections look at monthly housing loan repayments. The output categories for housing loan repayments remained fairly similar to the 1991 categories. Table 9 displays the results for the 1996 Census.

Table 9: Monthly Housing Loan Repayment, dwellings being purchased, 1996 Census

<i>Monthly Housing Loan Repayment</i>	<i>Number</i>	<i>Per cent</i>
\$1 - \$199	77,576	4.7
\$200 - \$399	144,346	8.7
\$400 - \$499	133,303	8.0
\$500 - \$599	136,445	8.2
\$600 - \$699	180,595	10.9
\$700 - \$799	131,696	8.0
\$800 - \$899	173,648	10.5
\$900 - \$999	100,688	6.1
\$1000 - \$1099	133,414	8.1
\$1100 - \$1199	58,744	3.5
\$1200 - \$1299	48,736	2.9
\$1300 - \$1399	69,123	4.2
\$1400 - \$1499	27,894	1.7
\$1500 and over	154,301	9.3
Not stated	85,553	5.2
Total dwellings being purchased¹	1,656,062	100.0

¹ Some totals do not add up due to rounding.

There was some variation within the monthly housing loan repayments, with the responses being spread quite evenly. A large number of responses were in the \$1500 and over category (9.3 per cent). The categories between \$200 and \$899, had the highest percentages, which ranged from 8 to 11 per cent. The non-response rate appeared to be quite high at 5.2 per cent.

4.6 Comparison with 1991 Census data for Housing Loan Repayments

Table 10 examines the changes between the 1991 and 1996 Censuses for monthly housing loan repayments. Once again the 1991 categories have been used to produce the table, due to the use of OMR categories in 1991.

Table 10: Monthly Housing Loan Repayment, dwellings being purchased, 1991 and 1996 Censuses

<i>Amount \$</i>	<i>1991</i>		<i>1996</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
\$0-\$200	174,764	11.2	84,855	5.1
\$201-\$300	129,291	8.3	62,065	3.7
\$301-\$400	172,372	11.0	92,196	5.6
\$401-\$475	124,430	8.0	88,887	5.4
\$476-\$550	135,720	8.7	116,039	7.0
\$551-\$625	133,179	8.5	98,988	6.0
\$626-\$700	104,561	6.7	145,998	8.8
\$701-\$775	71,350	4.6	87,888	5.3
\$776-\$850	96,774	6.2	101,684	6.1
\$851-\$925	60,036	3.8	132,577	8.0
\$926-\$1000	67,406	4.3	101,814	6.1
\$1001-\$1200	97,268	6.2	177,806	10.7
\$1201-\$1400	58,064	3.7	105,018	6.3
\$1400+	84,406	5.4	174,694	10.5
Not stated	51,646	3.3	85,553	5.2
Total Dwellings Being Purchased¹	1,561,267	100.0	1,656,062	100.0

¹ Some totals do not add up due to rounding.

In 1996, for monthly housing loan repayments, there was a shift of households into the higher payment categories. There were only 27 per cent of households captured in the lowest five categories in 1996, compared with 47 per cent in 1991. In the highest five categories there was 42 per cent in 1996, and only 23 per cent in 1991.

The non-response rate for monthly housing loan repayments was higher in 1996 than in 1991. This indicates that there was a problem with people responding to the question. It is a surprising result, considering that there was a decrease in the non-response rate for weekly rent. There may be a number of reasons for this occurrence, including the possibility that stating actual mortgage repayments was a privacy concern for respondents. Another reason may be the increasing complexity of mortgage payments, making it difficult for households to determine the exact amount being paid for their dwelling.

The change in question format from a self-coded response in 1991 to a written response in 1996, required householders to write the exact amount of the cost of their dwelling. Test results from March 1994 indicated that non-response rates for dwellings rented were similar to the write-in response of the 1991 Census. However, for the housing loan repayments there was an increase in the non-response rate for the write in responses compared to the self-coded responses of the 1991 Census.

4.7 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC) for Housing Loan Repayments

Figure 2 illustrates the comparison between the surveys and the census for housing loan repayments. The standard errors for the surveys are in Appendix 5.

Figure 2: Distribution of Monthly Housing Loan Repayments, dwellings being purchased, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census

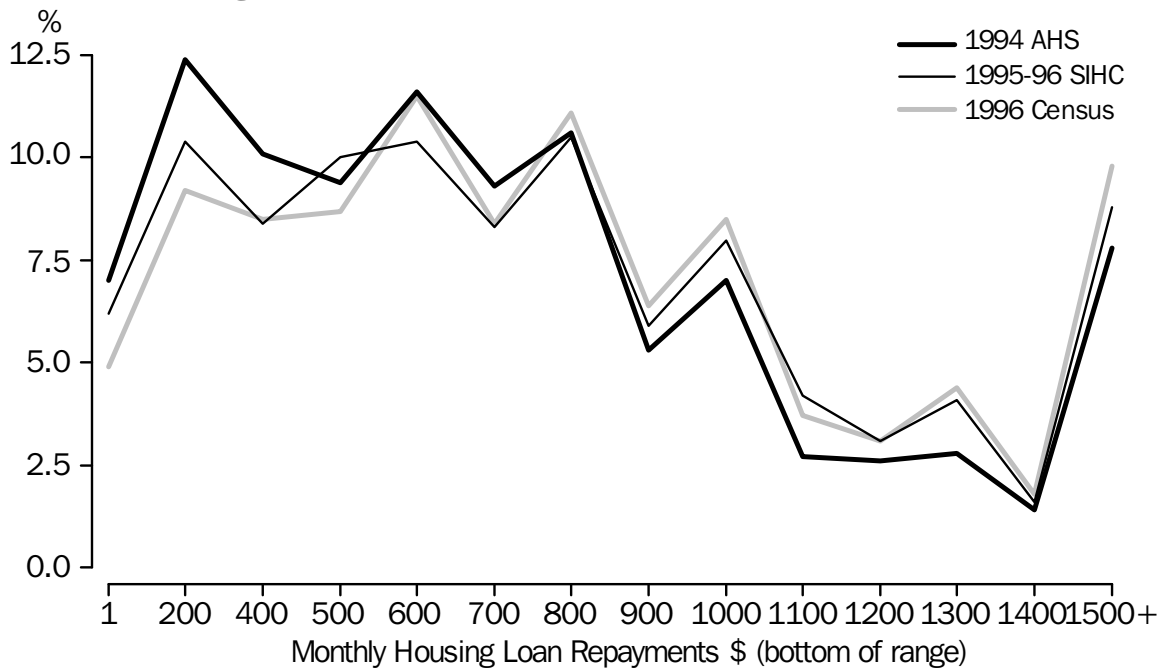


Figure 2 shows an irregular distribution in the amount paid for housing loan repayments. There are a number of peaks and troughs, with all three data collections having \$1400-\$1499 as the category with the lowest number of dwellings being purchased. There appears to be a greater proportion of households in the lower payment categories for the two surveys and the census, with the exception of the largest payment category (\$1500+).

The census closely follows the SIHC data, especially in the higher payment ranges. This indicates that the figures for the census are valid as the SIHC was conducted at a similar time to the census. The AHS had a larger percentage of dwellings in the lower ranges and consequently less in the higher ranges, possibly indicating the increasing affordability of housing in the two years between the 1996 Census and the 1994 Australian Housing Survey.

Overall the census data for both rent and housing loan repayments appears to be consistent and are comparable with both the AHS and the SIHC. Given the differences between the surveys and the census the comparison appears to be quite valid.

5. TYPE OF LANDLORD

'Type of Landlord' was a component of the data collected in the 1996 Census which contributed to determining the characteristics of rented dwellings. Occupants of rented private dwellings have been asked the type of landlord they rent their dwelling from since the 1971 Census. Landlord, furnished/unfurnished and amount of weekly rent paid data are used in National Accounts and the Consumer Price Index. Type of landlord data allows studies of the socio-economic characteristics of tenants of public housing authorities and comparisons with tenants of private landlords.

In the 1996 Census there was a change from the responses offered in the 1991 Census for type of landlord. There was a need for new categories, which would better reflect the different types of landlords to whom people were paying their rent. These categories incorporated a total of seven options compared with only three in the 1991 Census. This increase in categories also allowed for much more detailed data to be collected. See Appendices 2 and 3.

The landlord type 'State/Territory Housing Authority' was examined in an unpublished discussion paper '*Under Enumeration of Public Housing Tenants in Victoria*' (ABS, 1998). This paper discussed the apparent decline in the number of public housing tenants between the 1991 and 1996 Census collections. This issue will be looked at in Section 5.1 and possibly in more detail in another study in the future.

5.1 1996 Census Results

The type of landlord question indicates to whom the rent for the dwelling is paid. Table 11 looks at the findings for 1996 for type of landlord.

Table 11: Type of Landlord, dwellings rented, 1996 Census

<i>Type of Landlord</i>	<i>Private dwellings, excluding Caravans, cabins houseboats</i>		<i>Caravans, cabins, houseboats</i>		<i>All Private Dwellings (Total)</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Private landlord not in h'hold	520,561	28.3	13,603	57.4	534,164	28.6
Real estate agent	745,105	40.4	389	1.6	745,494	40.0
State/Ter. Housing Auth.	329,722	17.9	108	0.5	329,830	17.7
Comm/co-op housing group	33,087	1.8	185	0.8	33,272	1.8
Employer - Government	39,275	2.1	272	1.1	39,547	2.1
Employer - Other	40,062	2.2	785	3.3	40,847	2.2
Other	70,007	3.8	6,405	27.0	76,412	4.1
Not stated	64,453	3.5	1,942	8.2	66,395	3.6
Total¹	1,842,272	100.0	23,689	100.0	1,865,961	100.0

¹ Some totals do not add up due to rounding.

Table 11 indicates that the largest number of dwellings were rented from real estate agents (40 per cent). The caravans, cabins and houseboats category is shown separately as this dwelling type tends to have a different pattern of landlord type to the other dwellings. This was reflected by the large proportion (57 per cent) of caravans that were rented from a private landlord not in the same household, and the 27 per cent that fell into the 'Other' landlord category. The high percentage in 'Other' indicate that many

households in caravans, cabins and houseboats rent their dwellings from atypical landlords.

As expected the table indicates that approximately 86 per cent of rented dwellings were rented from the first three landlord types. The four other landlord types had very small percentages of rented dwellings, but revealed that there was a variety of different types of landlords from whom households were renting their dwellings.

5.2 *Comparison with 1991 Census data*

This section outlines a comparison between the 1991 and the 1996 Census. It shows the effect of the increase in categories intercensally. Table 12 shows the difference between the 1991 and 1996 Census for type of landlord. The 1996 categories have been collapsed for comparability with the 1991 categories. The equivalent categories were Housing Commission/Authority = State/Territory Housing Authority, Other Government Agency = Employer-Government, and Other Landlord = all remaining categories.

Table 12: Type of Landlord, dwellings rented, 1991 and 1996 Censuses

<i>Type of Landlord</i>	<i>1991 Census</i>		<i>1996 Census</i>		<i>Intercensal Change</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Housing Commission/Auth.	329,393	21.1	329,830	17.7	437	-3.4
Other Govt. Agency	71,678	4.6	39,547	2.1	-32,131	-2.5
Other Landlord	1,108,762	71.0	1,430,189	76.6	321,427	5.6
Not stated	50,811	3.3	66,395	3.6	15,584	0.3
Total¹	1,560,644	100.0	1,865,961	100.0	305,317	0.0

¹ Some totals do not add up due to rounding.

The categories between the 1991 and the 1996 Census are not directly comparable. However they do indicate the importance of having the increased number of categories for the 1996 Census. The table reveals the effect of the increase in categories, as there was an intercensal decline for both housing commission/authority and other government agency (3.4 and 2.5 percentage points respectively). This decline coincided with the increase intercensally for the category of other landlord (5.6 percentage points). This increase and the two decreases possibly show a movement of responses to a greater spread of responses within 'Other Landlord'. There was also a slight increase in the non-response rate, however the overall rate was not considered to be excessively high.

5.3 *Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)*

Table 13 demonstrates the comparison between the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs and the 1996 Census.

Table 13: Distribution of Type of Landlord, dwellings rented, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census

<i>Landlord Type</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>		<i>1996 Census</i>
	<i>Per cent</i>	<i>std error</i>	<i>Per cent</i>	<i>std error</i>	<i>Per cent</i>
Private landlord not in h'hold	28.0	0.52	25.2	0.95	28.6
Real estate agent	40.9	0.57	45.7	1.03	40.0
State/Territory Housing Auth.	22.5	0.48	20.8	0.91	17.7
Community/co-op housing group	1.4	0.14	1.5	0.26	1.8
Employer - Government	2.2	0.17	1.1	0.29	2.1
Employer - Other	1.5	0.14	1.4	0.38	2.2
Other	2.3	0.17	2.4	0.30	4.1
Not stated	1.2	-	2.0	-	3.6
Total¹	100.0	-	100.0	-	100.0

¹ Some totals do not add up due to rounding.

It can be seen in Table 13 that there was considerable variation between the two surveys and the census. This variation could be attributed to the self-enumeration style of the census compared with the interviewer collection method of the surveys. The categories used for the two surveys were the same as the census, allowing comparability. The State/Territory housing authority category displayed notable differences between the two surveys and the census. The census had a much smaller level of dwellings rented from these organisations than both surveys, and the trend seems to indicate a drop in the number of dwellings with State/Territory housing authorities as the landlord.

This finding has been examined in the unpublished paper '*Under Enumeration of Public Housing Tenants in Victoria*'. This paper discussed the possible reasons for a decline in enumeration of public housing tenants in Victoria between the 1991 and 1996 Census, by examining data for collection districts (CDs) which were known to be 100 per cent public housing. While the findings indicated that language problems may be the reason behind the drop in the reported number of public housing tenants in Victoria, there may be other more direct reasons. The added complexity of the question, with more response options may have increased respondent error. In particular respondents may have chosen the community/co-operative housing category as they did not understand exactly from whom their dwelling was rented. The different arrangements of the leasing of public housing stock, such as through community and employer groups may also be likely to decrease the number of households which would nominate their dwelling as being rented from State/Territory housing authority. It is intended to conduct some further analysis of the same issues for other states in the near future.

The other notable differences include a higher percentage of other landlord in the census. The non-response rate for the census was also higher than the two surveys, which could also be attributable to the self enumeration method of the census. Another factor could have been the probing which may occur in interviewer based surveys, as it allows respondents to be more precise in their answers.

6 FURNISHED/UNFURNISHED DATA

A question about whether a rented dwelling is furnished or unfurnished has been asked in the Census since 1947. This question is required to be answered by all householders in private dwellings being rented on Census night. As with type of landlord, furnished/unfurnished data are used in the National Accounts and the Consumer Price Index. It is also used in the analysis of rent data, as householders tend to pay more for furnished dwellings.

The response options for the 'Furnished/Unfurnished' question changed slightly for the 1996 Census. There was the addition of 'Partly Furnished' which was included in an effort to improve data quality and lower the non-response rate. The high non-response rate in the 1991 Census for this question, led to restructuring of the layout of the 1996 Census form. The question was reworded and moved to a more prominent position. This redesign intended to improve the data quality and lower the non-response rate. The questions for 1991 and 1996 are shown in Appendices 2 and 3.

6.1 1996 Census Results

Table 14 presents the results for the 1996 Census, with caravans, cabins, houseboats displayed separately, as they often have a different distribution to the remaining private dwellings.

Table 14: Distribution of Furnished/Unfurnished, dwellings rented, 1996 Census

<i>Furnished/unfurnished</i>	<i>Rented Dwellings excluding Caravans, cabins, houseboats</i>		<i>Caravans, cabins, houseboats</i>		<i>Total</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Fully furnished	95,195	5.2	9,227	39.0	104,422	5.6
Partly furnished	128,570	7.0	6,494	27.4	135,064	7.2
Unfurnished	1,551,435	84.2	6,163	26.0	1,557,598	83.5
Not stated	67,072	3.6	1,805	7.6	68,877	3.7
Total¹	1,842,272	100.0	23,689	100.0	1,865,961	100.0

¹ Some totals do not add up due to rounding.

The majority of rented dwellings were unfurnished (83.5 per cent). However, in looking at caravans, cabins, houseboats the pattern was quite different with 39 per cent being rented fully furnished. There was an even distribution of partly furnished and unfurnished caravans, cabins, houseboats and a much higher non-response rate than all other rented private dwellings. This may be because furniture is built into caravans, cabins and houseboats.

There was a higher overall percentage of partly furnished rented dwellings than fully furnished (7.2 per cent and 5.6 per cent respectively). This indicates the necessity of including partly furnished as a response option.

6.2 Comparison with 1991 Census data

Table 15 shows a comparison of the 1991 and 1996 Census results.

Table 15: Distribution of Furnished/Unfurnished, dwellings rented, 1991 and 1996 Censuses

<i>Furnished/ Unfurnished</i>	<i>1991 Census</i>		<i>1996 Census</i>		<i>Intercensal difference</i>	
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>
Furnished	225,173	14.4	104,422	5.6	-120,751	-8.8
Unfurnished	1,215,494	77.9	1,557,598	83.5	342,104	5.6
Partly Furnished	-	-	135,064	7.2	-	-
Not stated	119,977	7.7	68,877	3.7	-51,100	-4.0
Total¹	1,560,644	100.0	1,865,961	100.0	305,317	0.0

¹ Some totals do not add up due to rounding.

The non-response rate declined by 4 percentage points since the last census. Presumably this was partly due to the form redesign and restructuring of the questionnaire layout, and the addition of the partly furnished option.

There was also a decrease in the proportion of furnished dwellings, and an increase in the proportion of unfurnished dwellings. The combination of the partly furnished and fully furnished responses was 12.8 percentage points which was similar to the percentage obtained for furnished responses in the 1991 Census (14.4 percentage points). This indicates that households in rented dwellings that were partly furnished, generally answered that their dwellings were furnished in the 1991 Census. This further reveals the importance of the inclusion of the partly furnished option.

7. NUMBER OF BEDROOMS

A question on 'Number of Bedrooms' has been included in every Australian census since 1911. Information on number of bedrooms is collected in the census for a number of reasons, including the provision of an indicator of dwelling size and to enable the calculation of occupancy ratios, as a measure of overcrowding. Data is also used by the Consumer Price Index Section to develop their sampling framework for the rent components of the Consumer Price Index.

The question on number of bedrooms is asked only for occupants of private dwellings. In 1996 the number of bedrooms question was almost identical to the 1991 question, with the only exception being the addition of '(includes bedsitter)' after the category of 'None', and 1 bedroom being collected as a separate category. See Appendices 2 and 3 for the 1991 and 1996 questions respectively.

The change that was made in 1991 which had an impact on data was the capture of the information for 'Caravan, tent, cabin, etc in caravan parks'. This was maintained for the 1996 Census for all caravans regardless of their location, with the new category of - 'Caravan, cabin, houseboat'.

The instruction 'Leave blank if you live in a caravan' was incorrectly included in the Census Hotline Inquiry Guide but given that only a small proportion of people used the Census Hotline, it is unlikely that many people in caravans were advised of this instruction. Many people in caravans did answer the question and this should be kept in mind when using data on number of bedrooms.

7.1 1996 Census Results

In 1996, there were 6,496,072 occupied private dwellings for which the number of bedrooms was applicable. Table 16 displays the distribution of responses from the 1996 Census to number of bedrooms by all occupied private dwellings, in a breakdown excluding the category caravans, cabins and houseboats.

Table 16: Number of Bedrooms, occupied private dwellings, 1996 Census

<i>Number of bedrooms</i>	<i>Occupied Private dwellings excluding caravans, cabins, houseboats</i>		<i>Caravans, cabins, houseboats</i>		<i>All Occupied Private Dwellings</i>	
	<i>Number</i>	<i>Per Cent</i>	<i>Number</i>	<i>Per Cent</i>	<i>Number</i>	<i>Per Cent</i>
0(includes bedsitter)	39,652	0.6	16,585	17.9	56,237	0.9
1	301,920	4.7	36,283	39.2	338,203	5.2
2	1,396,333	21.8	18,936	20.4	1,415,269	21.8
3	3,092,421	48.3	6,665	7.2	3,099,086	47.7
4	1,164,783	18.2	1,252	1.4	1,166,035	17.9
5+	215,582	3.4	380	0.4	215,962	3.3
Not stated	192,749	3.0	12,531	13.5	205,280	3.2
Total¹	6,403,440	100.0	92,632	100.0	6,496,072	100.0

¹ Some totals do not add up due to rounding.

Of occupied private dwellings excluding caravans, cabins, houseboats, 48.3 per cent were 3 bedroom dwellings, 18.2 per cent were 4 bedroom dwellings, and only 3.4 per cent were five or more bedroom dwellings. Those dwellings that had no bedrooms, or were bedsitters, comprised only a small percentage of the number of occupied private dwellings (0.6 per cent). Conversely, when looking at caravans, cabins and houseboats, the distribution of the number of bedrooms was quite different. In particular the number of caravans, cabins, houseboats that had either none or one bedrooms may have had an impact on data for occupied private dwellings, by possibly skewing the distribution and reflecting higher levels of overcrowding.

The non-response rate for caravans, cabins and houseboats (13.5 per cent), was much higher than that of occupied private dwellings (3 per cent). This is possibly due to the fact that the question was difficult to answer for those households living in caravans etc. Also the Census Hotline Inquiry Guide incorrectly specified that persons who resided in a caravan were not required to answer the question on number of bedrooms.

7.2 Comparison with 1991 Census data

Table 17 provides a comparison of the number of dwellings by number of bedrooms for the 1991 and 1996 Census.

Table 17: Number of Bedrooms, occupied private dwellings excluding caravans, cabins and houseboats¹, 1991 and 1996 Censuses

Number of bedrooms	1991 Census		1996 Census		Intercensal Change	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
0-1	322,856	5.6	341,572	5.3	18,716	-0.3
0(includes bedsitter) ²	-	-	39,652	0.6	-	-
1	-	-	301,920	4.7	-	-
2	1,334,354	23.1	1,396,333	21.8	61,979	-1.3
3	2,844,542	49.3	3,092,421	48.3	247,879	-1.0
4	928,037	16.1	1,164,783	18.2	236,746	2.1
5	167,460	2.9	215,582	3.4	48,122	0.5
Not stated	167,773	2.9	192,749	3.0	24,976	0.1
Total³	5,765,022	100.0	6,403,440	100.0	638,418	0.1

¹ This category was caravans in caravan parks in the 1991 Census.

² This category was not collected for the 1991 Census. It was collected as 0-1 bedrooms.

³ Some totals do not add up due to rounding.

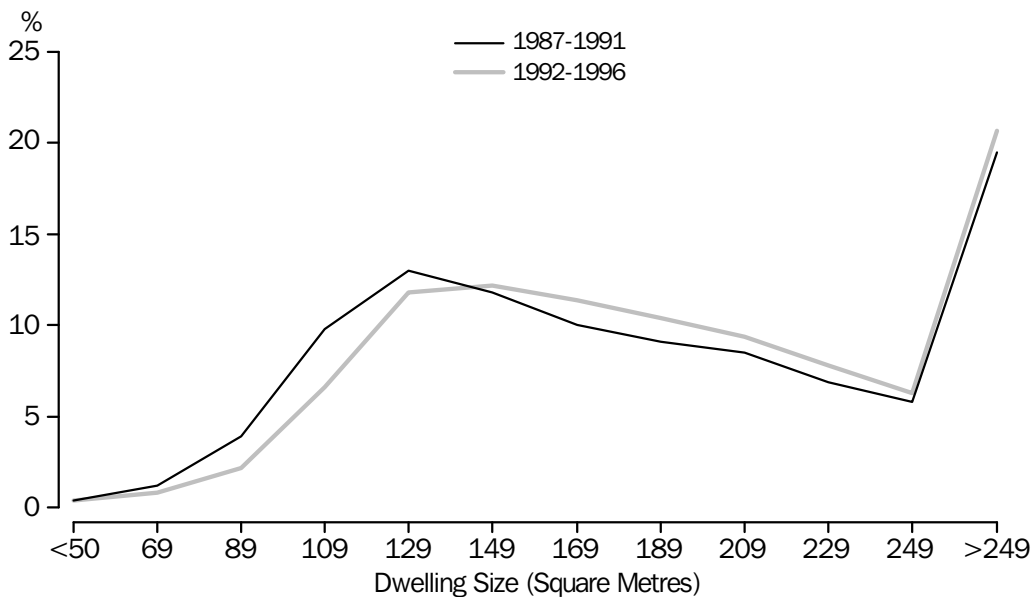
In the 1996 Census, there were 6,403,440 occupied private dwellings, excluding caravans, cabins, houseboats, which was an increase of 638,418 dwellings since the 1991 count of 5,765,022. The non-response rate was virtually unchanged between the 1991 and 1996 Censuses, with a difference of 0.1 percentage points. This change indicated that the question being used for determining number of bedrooms provided a strong response rate, revealing that no major changes are required for the question.

Intercensally there was a decrease in the proportion of dwellings with two and three bedrooms (1.3 and 1 percentage points respectively), and an increase in the proportion of four or more bedroom dwellings. Thus it appears that the average size of dwellings is increasing.

The addition of the '(includes bedsitter)' option for the 1996 Census, demonstrated that 0.6 per cent of dwellings have no bedrooms, and this proportion includes bedsitters. This inclusion provided a breakdown of dwellings that have 0-1 bedrooms, which was not offered in the 1991 Census, and better reflected the breakdown of dwellings by number of bedrooms.

Figure 3 compares data on five yearly average annual construction of new Private Dwellings for the five years to 1991 and to 1996. The data are obtained from (ABS, 1987-1996), which publishes data on various aspects of building approvals. The figure shows that there has been a small percentage increase in the size of new private dwellings being built between 1987 and 1996. This coincides with the earlier data of an increase in dwellings with larger numbers of bedrooms.

Figure 3: Distribution of Five Yearly Average Annual Private Dwelling Construction Approvals Comparing Five Year Intervals to 1991 and 1996, Building Approvals, ABS 8731.0



7.3 Number of Bedrooms by Structure of Dwelling

Table 18 examines the breakdown of the number of bedrooms by structure of dwelling.

Table 18: Distribution of Number of Bedrooms by Structure of Dwelling, occupied private dwellings, 1996 Census

Number of bedrooms	Separate house	Semi-det row/terrace, townhouse etc	Flat/apartment	Flat etc attached to a house	House/Flat attached to shop etc	Caravan, cabin, houseboat	Improv home, tent, sleepers out and not stated
0-1	1.3	9.1	24.8	54.0	18.5	57.1	11.9
0(includes bedsitter) ¹	0.1	0.7	3.0	5.4	2.1	17.9	3.4
1	1.2	8.4	21.7	48.6	16.5	39.2	8.5
2	13.3	45.6	58.6	26.6	33.8	20.4	19.9
3	56.3	37.0	10.1	9.4	30.4	7.2	35.1
4	22.8	3.8	0.6	3.0	7.4	1.4	13.5
5	4.2	0.7	0.3	1.6	5.2	0.4	2.9
Not stated	2.1	3.7	5.7	5.4	4.8	13.5	16.6
Total²	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ This category was not collected for the 1991 Census. It was collected as 0-1 bedrooms.

² Some totals do not add up due to rounding.

The table presents varying levels of non-response rates with caravans, cabins and houseboats having the highest level (with the exception of improvised home, tent, sleepers out and not stated). Separate houses had the lowest non-response rate which was probably due to the ease for the householder to determine how many bedrooms were in the dwelling.

Overall each dwelling structure category had a distinctive pattern in the number of bedrooms in the dwelling. Most separate houses had three or four bedrooms (79.1 per cent), semi-detached row/terrace, townhouse etc. had two or three bedrooms (82.6 per cent), and flat/apartment had one or two bedrooms (80.3 per cent). Approximately half of those dwellings that were a flat attached to a house were one bedroom, and over half of the caravans, cabins, houseboats (57.1 per cent) had none or one bedroom. Of the house/flat attached to a shop 64.2 per cent were two or three bedrooms.

7.4 Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)

Both the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs had comparable data on number of bedrooms. The questions used for the two surveys were very similar to the census, with the exception of the option of '(includes bedsitter)' in the 1996 Census.

Table 19 indicates that the figures are very comparable between the two surveys and the census. In particular the figures for the SIHC and the 1996 Census are almost exactly the same which indicates the comparability and consistency of the census data.

Table 19: Distribution of Number of Bedrooms, all private dwellings¹, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs, and 1996 Census

<i>Number of bedrooms</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>		<i>1996 Census</i>
	<i>Per cent</i>	<i>Std error</i>	<i>Per cent</i>	<i>Std error</i>	<i>Per cent</i>
None	0.3	0.03	0.3	0.07	0.6
One	4.7	0.13	5.1	0.25	4.9
Two	23.5	0.24	22.2	0.41	22.5
Three	52.7	0.28	50.5	0.45	49.8
Four	16.1	0.22	18.4	0.39	18.8
Five or more	2.7	0.07	3.4	0.22	3.5
Total²	100.0	-	100.0	-	100.0

1 Excludes Caravans, cabins, houseboats.

2 Some totals do not add up due to rounding.

8. STRUCTURE AND LOCATION OF PRIVATE DWELLINGS

Information on the physical structure of all private dwellings, including occupied caravans and improvised dwellings has been obtained in all censuses since 1911. From 1911 to 1966 a question on 'Dwelling Structure' was included in the census form, and in 1971 respondents had to indicate which sketch best illustrated their dwelling. The 1976 Census form required collectors and respondents to give details about the dwelling structure, and from 1981 collectors have been responsible for marking this information on the form. In 1996 the census collector classified the dwellings in a special area on the back of the form. The categories are listed below.

Dwelling Structure

- Separate house

- Semi-detached, row or terrace house, townhouse etc.
 - 1 storey
 - 2 or more storeys

- Flat, unit or apartment
 - In a 1 or 2 storey block
 - In a 3 storey block
 - In a 4 or more storey block
 - Attached to a house

- Caravan, cabin, houseboat

- Improvised home, tent, sleepers out

- House or flat attached to a shop, office, etc.

Data about dwelling structure are used to identify changes in patterns of housing, to examine existing housing stock in order to advise on housing policy, for land use forecasting and transport planning. The data also enable planners to develop a more efficient pattern of urban settlement.

'Dwelling Location' is a new variable for the 1996 Census. It applies only to private dwellings and is used to describe the location of these dwellings. Dwelling locations such as caravan parks, marinas, retirement villages etc. have traditionally been classified as Non-Private Dwellings in the census. However with the changing patterns of the Australian population, there has been a shift in the way these types of dwellings are classified. The ageing of the Australian population has increased the number of retirement villages. Similarly the development of alternative housing due to the rising prices for conventional dwellings, has seen households relocating to caravan parks and manufactured home estates. The dwelling location categories are as follows:

Caravan Park
 Marina
 Manufactured Home Estate
 Accommodation for the Aged/Retired (Self-care)
 Other

In these establishments, a summary form was completed for the establishment and household forms completed for each occupied dwelling. 'Dwelling Location' was established for the 1996 census to allow separation of these dwellings from other private dwellings.

8.1 Structure of Dwelling 1996 Census Results

The 1996 categories for dwelling structure were changed slightly from the 1991 Census in an effort to improve the collection of the dwelling structures of caravans, cabins, houseboats. The two categories which covered caravans in 1991 were collapsed into one: 'Caravan, cabin, houseboat' which provided a more logical collection of these types of dwelling. Tent was combined with improvised home and sleepers out. Sleepers out was used in the 1996 Census to replace 'campers out' used in the 1991 Census. This term was used to enumerate persons who were categorised as 'absolute homeless' - '*people without an acceptable roof over their heads, living on the streets, under bridges, deserted buildings*'. Further discussion on homeless enumeration can be found in an ABS working paper (ABS, 1996c). Table 20 presents the results for dwelling structure.

Table 20: Structure of Dwelling, all private dwellings, 1996 Census

Structure	Other Private Dwellings		Dwelling Location dwellings		All Private Dwellings	
	Number	Per cent	Number	Per cent	Number	Per cent
Separate house	5,358,493	76.1	7,985	5.8	5,366,478	74.8
Semi-detached/terrace/townhouse						
One storey	377,712	5.4	17,248	12.5	394,960	5.5
Two or more storeys	177,451	2.5	1,652	1.2	179,103	2.5
Flat/unit/apartment						
One or two storey block	494,955	7.0	17,232	12.5	512,185	7.1
Three storey block	222,736	3.2	908	0.7	223,645	3.1
Four or more storey block	170,000	2.4	1,588	1.1	171,588	2.4
Attached to a house	23,421	0.3	17	0.0	23,438	0.3
Caravan, cabin, houseboat	19,807	0.3	78,269	56.6	98,076	1.4
Improv home, tent, sleepers out	11,552	0.2	3,592	2.6	15,146	0.2
House/Flat attached to shop etc	34,449	0.5	163	0.1	34,612	0.5
Not stated	146,271	2.1	9,735	7.0	156,006	2.2
Total	7,036,847	100.0	138,390	100.0	7,175,237	100.0

1 Some totals do not add up due to rounding.

The majority (74.8 per cent) of dwellings were separate houses. The next largest group of dwellings was flat/unit/apartment with one or two storeys (7 per cent). Only 1 per cent (combined) of dwellings were classified as either flat/unit/apartment attached to a house, improvised home, tent, sleepers out, or house/flat attached to a shop. The non-response

rate (2.2 per cent) was slightly higher than expected given that collectors were trained and required to fill in this part of the form, thus the non-response rate should have been close to zero. The overall non-response rate may have been partially affected by the higher non-response rate for those dwellings collected through the dwelling location procedures. This issue will be addressed through improved field procedures for the 2001 Census.

8.2 Comparison with 1991 Census data

The figures for 1996 are compared with the 1991 figures in Table 21, which provides an intercensal comparison of the data.

Table 21: Structure of Dwelling, all private dwellings, 1991 and 1996 Censuses

Structure	1991		1996		Intercensal change
	number	per cent	number	per cent	per cent
Separate house	4,946,506	76.7	5,366,478	74.8	-1.9
Semi-detached/terrace/townhouse					
One storey	379,796	5.9	394,960	5.5	-0.4
Two or more storeys	128,968	2.0	179,103	2.5	0.5
Flat/unit/apartment					
One or two storey block	401,663	6.2	512,185	7.1	0.9
Three storey block	206,544	3.2	223,645	3.1	-0.1
Four or more storey block	149,925	2.3	171,588	2.4	0.1
Attached to a house	26,751	0.4	23,438	0.3	-0.1
Caravans etc.					
Caravan, tent etc. in caravan park	87,495	1.4	-	-	-
Caravan not in caravan park, etc.	21,567	0.3	-	-	-
Caravan, cabin, houseboat ¹	-	-	98,076	1.4	-
Improv home, tent, sleepers out ²	13,451	0.2	15,146	0.2	0.0
House/Flat attached to shop etc	35,428	0.6	34,612	0.5	-0.1
Not stated	52,006	0.8	156,006	2.2	1.4
Total³	6,450,100	100.0	7,175,237	100.0	0.0

¹ This combined caravans category was used in the 1996 Census.

² In 1991 this category was 'improvised home/campers out'.

³ Some totals do not add up due to rounding.

Overall the categories were fairly similar between the 1991 and 1996 Censuses. The results indicate similar percentages for most categories with a small decrease in the proportions of separate houses (1.9 percentage points), and a small increase in the proportion of flats/units/apartments in one or two storey blocks (0.9 percentage points). There was also an apparent drop in the proportion of caravans (combined), however this may be due to the movement of tents to a different category for the 1996 Census.

Intercensally there was a distinct increase in the non-response rates, from 0.8 per cent to 2.2 per cent. This was a concerning result as it was the collectors who completed this part of the form, so effectively the non-response rate should be very small. This follows an intercensal decrease in the non-response rate between 1986 and 1991. The reasons for the increase in 1996 may include some definitional difficulties experienced by the

collectors, especially in their understanding of 'other' dwellings, such as self-care accommodation for retired/aged, caravans, houseboats etc. The increase in non-response rate will be examined further to achieve a decrease for the 2001 Census, primarily through improved field procedures.

8.3 *Structure of Dwelling State/Territory comparison*

In further examining the non-response rates, the following table presents the not stated rates for the 1991 and 1996 Censuses, for the States and Territories.

Table 22: Not Stated for Structure of Dwelling by State and Territory, all private dwellings, 1991 and 1996 Censuses

<i>State/Territory</i>	<i>Not Stated</i>		
	<i>1991 per cent</i>	<i>1996 per cent</i>	<i>Intercensal Change</i>
New South Wales	0.9	2.4	1.5
Victoria	0.8	2.1	1.3
Queensland	0.7	2.3	1.6
Western Australia	0.7	1.4	0.7
South Australia	0.8	2.0	1.2
Tasmania	0.7	1.5	0.8
Northern Territory	2.0	3.9	1.9
Australian Capital Territory	0.6	1.3	0.7
Australia¹	0.8	2.2	1.4

¹ This table excludes 'other territories'.

Table 22 reveals that all of the States and Territories had an increase in the non-response rate for structure of dwelling. Western Australia and ACT had the smallest increase (0.7 percentage points) and Northern Territory and Queensland had the largest increase (1.9 and 1.6 percentage points respectively).

A further analysis has been conducted which looked at some smaller area data for structure of dwelling non-response rates. Overall the results showed that there was a similar pattern of non-response in both the urban and rural areas. However there were some areas where the non-response rate was excessively high. These areas were in remote locations, especially in the Northern Territory and Western Australia. It was reported that the indigenous interviewers often did not fill in the back page of the Special Indigenous Household Form. This may contribute to the high non-response rate for dwelling structure. These issues will be addressed for the 2001 Census.

8.4 *Comparison with the 1994 Australian Housing Survey (AHS) and the 1995-96 Survey of Income and Housing Costs (SIHC)*

Once again the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs were used for comparison with the 1996 Census data. The classification of caravans was slightly different for the two surveys and the census (see page 2). For the purpose of this analysis, the two caravan categories for both housing surveys have been collapsed into one category so that it is comparable with the census. Table 23 looks at the comparison between the surveys and the census.

Table 23: Distribution of Structure of Dwelling, all private dwellings, 1994 Australian Housing Survey, 1995-96 Survey of Income and Housing Costs and 1996 Census

<i>Structure of Dwelling</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>		<i>1996 Census¹</i>
	<i>per cent</i>	<i>std error</i>	<i>per cent</i>	<i>std error</i>	<i>per cent</i>
Separate house	79.4	0.52	78.6	0.68	76.5
Semi-detached/terrace/townhouse					
One storey	5.6	0.14	5.4	0.26	5.6
Two or more storeys	2.3	0.09	2.7	0.20	2.6
Flat/unit/apartment					
One or two storey block	7.0	0.16	7.7	0.30	7.3
Three storey block	3.3	0.11	2.8	0.20	3.2
Four or more storey block	1.2	0.06	1.4	0.15	2.4
Attached to a house	0.4	0.04	0.6	0.11	0.3
Caravans etc.	0.3	0.04	0.4	0.09	1.4
Improv home, tent, sleepers out ²	-	-	0.0	*	0.2
House/Flat attached to shop etc	0.5	0.04	0.5	0.10	0.5
Total³	100.0	-	100.0	-	100.0

1 The 1996 Census figures exclude Not Stated.

2 This category is not included in the Australian Housing Survey and it is classified as improvised home/campers out in the SIHC.

3 Some totals do not add up due to rounding.

* Subject to sampling variability too high for most practical purposes.

The figures were comparable across the two surveys and the census. The proportion of separate houses was slightly smaller in the census than for both surveys, however there was a higher proportion of flats, units and apartments in the census. The proportions of dwellings for the category semi-detached/terrace/townhouse were almost exactly the same for the surveys and the census. The house/flat attached to a shop, office etc. category had the same result for both surveys and the census.

One of the notable differences was for flat, unit, apartment with four or more storeys. The proportion for this category was higher in the census than for the two surveys. This could be attributable to the areas sampled in the surveys, and possibly the classification of the dwellings by the interviewers in the survey or the collectors in the census. Serviced apartments may also have had an effect on the numbers in the surveys, as some would have been enumerated as private dwellings and others as out of scope, depending on the composition of the residents (visitors or permanent). The proportion of dwellings in the 'caravans etc.' category was also higher for the census, which was probably due to this category being enumerated differently in the census (see page 2).

8.5 Dwelling Location

The purpose of the 'dwelling location' variable is to allow comparison of stock of dwelling counts between the 1991 and 1996 Censuses. Dwelling location also distinguishes the relatively small number of dwellings in specialised locations, (particularly manufactured home estates and self care accommodation) from the other dwellings. Consequently the vast majority of dwellings are shown as 'other'. The new classification is basically designed

to complement the existing private dwelling structure classification. The data will be used by both the government and private sectors to separately identify the special populations and implement appropriate policies related to these groups. The quality of this data will need to be monitored carefully to determine how successful the implementation of this variable has been. Table 24 gives a breakdown of the numbers in each of the dwelling locations.

Table 24: Dwelling Location, 1996 Census

<i>Dwelling Location</i>	<i>Number</i>	<i>Including Other Per cent</i>	<i>Excluding Other Per cent</i>
Caravan park	84,595	1.2	61.1
Marina	1,733	0.0	1.3
Manufactured home estate	6,243	0.1	4.5
Accm for ret/aged (self-care)	45,819	0.6	33.1
Other (Private Dwelling)	7,036,847	98.1	-
Total (including 'Other')¹	7,175,237	100.0	-
Total (excluding 'Other')¹	138,390	-	100.0

¹ Some totals do not add up due to rounding.

It is evident that for dwelling location the majority of dwellings are categorised within 'Other' (98.1 per cent). Of the remaining categories, caravan parks had more than 60 per cent of the dwellings. Accommodation for retired/aged (self-care) had 33.1 per cent of the dwellings, which reveals the large number of dwellings within these establishments. Manufactured home estates and marinas comprise only a small percentage of dwellings, however their inclusion in this variable is important for complete enumeration.

Table 25 gives a State/Territory comparison for the dwelling locations. The diversity of the Australian States and Territories is reflected in these figures. In particular in some of the States with warmer climates there was a high proportion of dwellings which were caravans in caravan parks, for example Northern Territory, Queensland and Western Australia.

Table 25: Dwelling Location by State/Territory, 1996 Census

<i>Dwelling Location</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.¹</i>
	<i>per cent</i>								
Caravan park	0.96	0.47	2.34	0.56	1.78	0.32	9.29	0.23	1.18
Marina	0.01	0.00	0.10	0.01	0.01	0.01	0.09	0.00	0.02
Manufactured home estate	0.14	0.02	0.14	0.04	0.04	0.01	0.04	0.03	0.09
Accm for ret/aged (self care)	0.66	0.49	0.72	0.68	0.89	0.38	0.06	0.51	0.64
Other (Private Dwellings)	98.23	99.03	96.70	98.70	97.29	99.28	90.51	99.23	98.07
Total²	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ This table excludes 'other territories'.

² Some totals do not add up due to rounding.

Table 26 examines dwelling location by structure of dwelling. This indicates that the majority of dwelling types were enumerated in an expected dwelling location. For example, 88 per cent of the dwellings in a caravan park were within the caravan, cabin,

houseboat category. Similarly 83 per cent of dwellings enumerated in a marina were within the caravan, cabin, houseboat category.

There were some potential outliers within some of the dwelling locations, such as house/flat attached to shop, office etc. and in accommodation for the retired/aged (self-care) (0.1 per cent). Other outliers included separate houses in a marina, flat/unit/apartment in three or more storey block in a caravan park, and improvised home/tent/sleepers out in a manufactured home estate. The reasons for this are varied and most likely due to confusion and misunderstanding of definitions by the collectors. The collection of dwellings in these locations may need to be more clearly defined for the 2001 Census, to ensure data quality.

Table 26: Dwelling Location by Structure of Dwelling, 1996 Census

<i>Structure of Dwelling</i>	<i>Caravan park</i>	<i>Marina</i>	<i>Manufactured home estate</i>	<i>Accm for ret/aged (self-care)</i>	<i>Other (Private Dwellings)</i>
	<i>per cent</i>				
Separate house	1.5	0.2	56.2	7.1	76.1
Semi-detached/terrace/townhouse					
One storey	0.1	0.0	3.1	37.0	5.4
Two storey	0.0	0.0	2.6	3.2	2.5
Flat/unit/apartment					
One or two storey block	0.5	0.2	0.8	36.6	7.0
Three storey block	0.0	0.0	0.5	1.9	3.2
Four or more storey block	0.0	0.0	0.1	3.4	2.4
Attached to a house	0.0	0.0	0.0	0.0	0.3
Caravan, cabin, houseboat	88.8	83.3	24.0	0.4	0.3
Improv home, tent, sleepers out	4.2	0.7	0.2	0.0	0.2
House/Flat attached to shop, office etc	0.1	0.3	0.1	0.1	0.5
Not stated	4.7	15.3	12.3	10.2	2.1
Total¹	100.0	100.0	100.0	100.0	100.0

¹ Some totals do not add up due to rounding.

9. NON-PRIVATE DWELLINGS

The term 'Non-Private Dwellings' (NPDs) covers a large range of accommodation usually consisting of rooms, along with communal facilities, or self-contained units provided by an organisation such as a commercial enterprise, government or charitable body. The list and description of accommodation classified as 'Non-Private Dwelling' (NPD) for the 1996 Census is provided in Appendix 6. There were no new categories added to the list in 1996 but, additional changes to the descriptions aimed at the provision of more accurate definitions.

One of the changes made was the clarification of the 1991 'Home for the Aged' category, which was renamed for the 1996 Census to 'Accommodation for the Retired or Aged - Cared'. This emphasises the exclusion of accommodation provided for retired or aged people who care for themselves, or self-contained units on the premises of a home for the aged (which are treated as private dwellings in the 1996 Census). Institutions providing mainly medical or nursing care are also excluded from this category and included in the 'Nursing Home' category. The categories of 'Nurses Quarters' and 'Staff Quarters' were combined into 'Staff Quarters' during processing of the 1991 Census and, for comparison purposes, will be treated the same way in this paper. However, the 1996 Census data for both categories is available.

In general, the collection procedure for NPDs did not change between the 1991 and 1996 Censuses. However the coding procedures were changed in an effort to improve data quality. The procedure used a summary form (or forms for establishments accommodating more than 80 persons) listing all people in the dwelling. The only information collected for the dwelling was the 'Type of Non-Private Dwelling'. Each person in a NPD was enumerated on a personal form, in contrast to private dwellings where most inhabitants were enumerated on household forms. Data on family relationships were not sought in NPDs. However, a question on persons' relationship to the operation of the NPD was asked.

9.1 *Type of Non-Private Dwelling*

The objective of using special strategies for NPDs was to enumerate accurately all people residing in them on Census night. However the data on non-private dwellings themselves are of interest to many users. The quality of these data for 1991 was limited, because of high levels of other and not classifiable responses and not stateds, for Type of NPD. Improvements in the census processes yielded much better results in 1996. The main data improvements between 1991 and 1996 occurred for the 'Not stated' and 'Other and Not Classifiable' categories of the type of NPD, with decreases of 7.5 and 7.2 percentage points respectively. The reduction of the rate of non-response in 1996 to a level below one per cent indicates that better procedures were employed to improve on the reliability of the 1991 data, as outlined on the following page. Table 27 examines the comparison between the 1991 and 1996 Censuses for Type of NPD.

Table 27: Non-Private Dwelling Type, 1991 and 1996 Censuses

<i>Type of NPD</i>	<i>1991 Census</i>		<i>1996 Census</i>		<i>Intercensal change</i>
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Per cent</i>
Hotels, motels	6,778	34.1	8,322	41.9	7.8
Staff quarters	1,412	7.1	1,532	7.7	0.6
Boarding houses, private hotels	1,625	8.2	2,048	10.3	2.1
Boarding schools	256	1.3	266	1.3	0.1
Residential colleges, halls of residence	374	1.9	433	2.2	0.3
Public hospitals	662	3.3	685	3.4	0.1
Private hospitals	285	1.4	304	1.5	0.1
Psychiatric hosp. or inst.	127	0.6	180	0.9	0.3
Hostels for the disabled	548	2.8	622	3.1	0.4
Nursing homes	1,166	5.9	1,390	7.0	1.1
Homes for the aged	1,277	6.4	1,688	8.5	2.1
Hostels for homeless, night shelter, refugees	491	2.5	544	2.7	0.3
Childcare institutions	82	0.4	62	0.3	-0.1
Corrective inst. for children	26	0.1	20	0.1	0.0
Other welfare institutions	179	0.9	244	1.2	0.3
Prisons, correct/detention instit (for adults)	190	1.0	170	0.9	-0.1
Convents, monasteries, etc	950	4.8	827	4.2	-0.6
Other and not classifiable	1,871	9.4	447	2.2	-7.2
Not stated	1,582	8.0	89	0.4	-7.5
Total¹	19,881	100.0	19,873	100.0	0.0

¹ Some totals do not add up due to rounding.

The procedures employed in the 1996 Census involved most of the NPDs being coded by collectors, and those which were originally coded as 'other and not classifiable' being submitted for extra coding, using the NPD register, during processing. This was a mixture of the procedures used in the 1986 and 1991 Censuses. In 1986 there was a zero non-response rate as the type of NPD was manually coded by matching the name of the institution against an index of Non-Private Dwellings during processing. In 1991, the procedures involved all the coding of NPDs being done by the collectors. 1996 Census results were not quite as good as the 1986 results, however they were much better than the 1991 results.

The largest intercensal change occurred for hotels/motels, with an increase of 7.8 percentage points in the proportion of NPDs. A similar pattern was evident for boarding houses/private hotels with an increase in the proportion of dwellings by 2.1 percentage points. The increase in the number of homes for the aged may be due to a higher demand for accommodation for increasing numbers of older people.

9.2 Usual Residents of Non-Private Dwellings

Overall, in 1996 more than half a million people were enumerated in NPDs on Census night. Table 28 gives a comparison of 1991 and 1996 data for persons in NPDs.

Table 28: Persons in Non-Private Dwellings, 1991 and 1996 Censuses

<i>Type of NPD</i>	<i>1991 Census</i>		<i>1996 Census</i>		<i>Intercensal change</i>
	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Per cent</i>
Hotels, motels	133,446	22.9	198,731	32.4	9.5
Staff quarters	33,143	5.7	45,229	7.4	1.7
Boarding houses, private hotels	27,091	4.7	35,730	5.8	1.2
Boarding schools	29,728	5.1	27,279	4.4	-0.7
Residential colleges, halls of residence	36,816	6.3	42,064	6.9	0.5
Public hospitals	48,542	8.3	42,204	6.9	-1.5
Private hospitals	14,199	2.4	16,014	2.6	0.2
Psychiatric hosp. or inst.	9,167	1.6	7,851	1.3	-0.3
Hostels for the disabled	11,814	2.0	11,745	1.9	-0.1
Nursing homes	63,998	11.0	73,015	11.9	0.9
Homes for the aged	70,163	12.1	65,905	10.7	-1.3
Hostels for homeless, night shelter, refugees	6,607	1.1	6,385	1.0	-0.1
Childcare institutions	767	0.1	555	0.1	0.0
Corrective inst. for children	829	0.1	644	0.1	0.0
Other welfare institutions	2,568	0.4	3,661	0.6	0.2
Prisons, correct/detention instit (for adults)	11,456	2.0	17,540	2.9	0.9
Convents, monasteries, etc	7,510	1.3	5,899	1.0	-0.3
Other and not classifiable	43,121	7.4	10,855	1.8	-5.6
Not stated	30,668	5.3	2,083	0.3	-4.9
Total¹	581,633	100.0	613,389	100.0	5.4

¹ Some totals do not add up due to rounding.

The main finding was a large intercensal increase in the proportion of persons enumerated in hotels/motels (9.5 percentage points). The other NPD types had fairly stable proportions of persons between the 1991 and 1996 Censuses. Some of the NPDs had a large increase in the numbers of persons, eg prisons, corrective and detention institution for adults, which increased by just over 6,000 persons.

Table 29 gives a breakdown of 1996 figures for usual residents and visitors. The proportion of the population enumerated in NPDs declined from 3.5 per cent in 1991 to 3.1 per cent in 1996. This decline is closely related to the change in enumeration procedures where accommodation for retired/aged (self-care) and manufactured home estates were enumerated using household forms and accounted for 0.4 per cent of persons in dwellings. Of all Australian residents enumerated in NPDs, 53.8 per cent usually resided in the dwelling and 46.2 per cent were visitors.

Table 29: Usual resident or Visitor at Census night address, all persons, 1996 Census

<i>Type of NPD</i>	<i>Number</i>			<i>Percent</i>		
	<i>Usual Resident</i>	<i>Australian visitor</i>	<i>Total¹</i>	<i>Usual Resident</i>	<i>Australian visitor</i>	<i>Total¹</i>
Hotel, motel	15,671	137,745	153,416	10.2	89.8	100.0
Nurses quarters	1,519	1,158	2,677	56.7	43.3	100.0
Staff quarters	22,314	19,048	41,362	53.9	46.1	100.0
Boarding house, private hotel	15,725	14,331	30,056	52.3	47.7	100.0
Boarding school	24,149	2,758	26,907	89.7	10.3	100.0
Residential college, hall of residence	33,011	7,316	40,327	81.9	18.1	100.0
Public hospital (not psych)	5,304	36,636	41,940	12.6	87.4	100.0
Private hospital (not psych)	1,092	14,830	15,922	6.9	93.1	100.0
Psych hospital or institution	4,793	3,043	7,836	61.2	38.8	100.0
Hostel for the disabled	11,049	694	11,743	94.1	5.9	100.0
Nursing home	70,735	2,269	73,004	96.9	3.1	100.0
Accom ret/aged (cared)	63,539	2,342	65,881	96.4	3.6	100.0
Hostel for homeless, refuge etc	3,920	2,236	6,156	63.7	36.3	100.0
Childcare institution	235	320	555	42.3	57.7	100.0
Corrective inst for children	184	456	640	28.8	71.3	100.0
Other welfare institution	2,638	981	3,619	72.9	27.1	100.0
Prisons, correct/det instit (for adults)	14,998	2,380	17,378	86.3	13.7	100.0
Convent, monastery etc	4,972	746	5,718	87.0	13.0	100.0
Other and not classifiable	3,401	6,574	9,975	34.1	65.9	100.0
Not stated	685	1,231	1,916	35.8	64.2	100.0
All persons in NPDs	299,934	257,094	557,028	53.8	46.2	100.0
Private dwellings and migratory	16,619,709	576,092	17,195,801	96.6	3.4	100.0
All persons	16,919,643	833,186	17,752,829	95.3	4.7	100.0

¹ Some totals do not add up due to rounding.

Note: This table excludes overseas visitors.

As would be expected there was a clear division between institutions offering short-term accommodation and those with long-term accommodation. Private hospitals had only 6.9 per cent of residents who were usual residents, compared with nursing homes, where 96.9 per cent of persons were usual residents.

9.3 Relationship in Non-Private Dwellings

The relationship question on the personal form distinguishes between the people who are employed in NPDs and other residents (eg guests, patients, inmates etc.). This question was changed substantially for 1996 after evaluation of the 1991 data and positive results from the 1994 Major test. The new version of the question provided an expanded list of responses as shown below. These detailed categories were included solely for the purpose of improving the accuracy of responses and subsequently were collapsed into two categories similar to those used in 1991.

5 Relationship:

- For a person staying in accommodation such as a hotel, hostel, hospital, staff or student quarters, etc. on the night of 6 August 1996, mark whether:

Persons employed in accommodation

- () Owner, proprietor **Go to 6**
- () Staff (e.g. porter, cook, teacher, warden etc.) **Go to 6**
- () Family of owner or staff **Go to 6**

Residents in accommodation

- () Guest **Go to 6**
- () Patient **Go to 6**
- () Inmate **Go to 6**
- () Resident **Go to 6**
- () Other **Go to 6**

The new question redesign appears to have yielded only small improvements in the distribution of the data. In general the proportion of staff of the accommodation declined since 1991 and the proportion of guests in the accommodation increased. This result was expected after extensive testing prior to the 1996 Census. The non-response rate fell from 13.4 per cent in 1991 to 10.8 per cent in 1996.

Table 30: Response patterns to Relationship in Non-Private Dwellings, 1991 and 1996 Censuses

1991		1996	
Category	Per cent	Category	Per cent
Owner ¹ etc.	15.3	Owner ² etc.	6.1
Inmate ³ etc.	71.3	Guest ⁴ etc.	83.1
Not stated	13.4	Not stated	10.8
Total⁵	100.0	Total⁵	100.0

1 Comprises Owner, manager, employee and family.

2 Comprises Owner, proprietor, staff and family.

3 Comprises Inmates, patients, boarders.

4 Comprises guest, patient, inmate, other resident.

5 Some totals do not add up due to rounding.

There still appears to be some disparities in the data for the relationship question in NPDS. Appendix 7 presents a detailed table on relationship in NPDs, including information on type of NPD and usual resident/visitor status. The non-response to relationship in NPDs was 9.7 per cent for usual residents, and 12.1 per cent for the Australian visitors. Overseas visitors were excluded from the detailed assessment of the relationship. The highest non-response rates for 'usual residents' were recorded in staff quarters (27.9 per cent), boarding houses and private hotels (25.6 per cent), and prisons, corrective or detention institutions for adults (25.2 per cent). Among 'Australian visitors', the highest non-response rates were recorded for hotels/motels (15.4 per cent), and staff quarters and convents/monasteries etc. (13.0 per cent each).

Although there was an improvement in the distribution of the data for convents/monasteries etc. and hotels/motels, not all NPDs had improved data distribution for relationship. The enumeration of usual residents in staff quarters in 1996 was

approximately 10 percentage points higher for owner/proprietor/staff and family than in 1991. This issue will be further investigated at the NPD test scheduled for the second half of 1999. It is proposed that during the 2001 Census the individual response categories will be captured, at least for evaluation purposes.

10. CONCLUSION

This paper has examined the data quality of the housing variables from the 1996 Census. Comparisons have been conducted with the 1991 Census, the 1994 Australian Housing Survey, and the 1995-96 Survey of Income and Housing Costs. The conclusions from each section are outlined below.

10.1 Accuracy of the Census Counts of Private Dwellings

Nationally, the gross undercounting rate for dwellings in 1996 remained the same as in 1991 at 1.3 per cent. The Balance of State areas recorded under enumeration rates more than three times the rates recorded in Capital Cities. Many of the missed dwellings appeared to be unoccupied during the PES enumeration. In general, the dwelling undercount rates for Capital Cities declined since the last census, while the undercount rates for Balance of State rose.

The size of the overcount seems too small to warrant specific action. Based on investigations undertaken prior to the census, dwelling overcount due to multiple dwelling households will have been minimal, and exceeded by the number of dwellings missed in the census. Calculations of the overcount for 1996 have therefore not been attempted. On balance, the number of missed dwellings in the census exceed the number of duplicated dwellings.

10.2 Tenure Type

The major improvement in the tenure type question for the 1996 Census was the inclusion of extra categories. These categories enabled respondents to better classify their tenure type, and account for the increasing number of different tenure types. The lack of categories was highlighted as a problem after the 1991 Census, and the improvement in the distribution of responses appears to have increased the data quality. The non-response rate did increase and will have to be monitored for the 2001 Census.

The derivation of the tenure type was much simpler than in 1991. The improvement in the question design and layout made it more logical for respondents, and thus easier to derive. This format will most likely be maintained for the 2001 Census.

10.3 Rent/Housing Loan Repayment

The reintroduction of a write-in response for the 1996 Census increased the flexibility in data output benefiting the data users. This was especially evident for the rent data as it could be output in small categories within the lower ranges.

The non-response rate increased for the housing loan repayments (3.3 to 5.2 per cent) and dropped slightly for rent (3.1 to 2.8 per cent). This inconsistent finding was unexpected, and may highlight a problem with the write-in response. Respondents may have found it to be more confidential or easier to just mark a tick box, rather than write

the actual amount being paid for the dwelling, especially when referring to housing loan repayments. The movements of the non-response rates will be monitored for the 2001 Census.

The results were generally comparable with the 1994 Australian Housing Survey and the 1995-96 Survey of Income and Housing Costs, which indicates the consistency of the Census data with other data sources. This same question will most likely be maintained for the 2001 Census.

10.4 *Type of Landlord*

The increase in options for the type of landlord did not really improve the quality of the data for the 1996 Census, but has provided users with a wider range of data.

Comparisons with the 1991 Census were difficult due to the increase in options.

However the comparisons did show a shift of responses to 'Other' types of landlords, as respondents were more likely to be able to select an appropriate category.

There was a notable difference in the data between the census and the surveys, which indicated that there may still be some problems for respondents in answering this question. One of the major differences was for the State/Territory Housing Authority category, where there appeared to be a decline in numbers for the 1996 Census. This issue will be further examined. The use of probing in the interviewer based surveys, compared with the self enumeration of the Census, may be part of the explanation.

10.5 *Furnished/Unfurnished*

The major improvement from the 1991 Census was a decrease in the non-response rate. The inclusion of the partly furnished response was also successful. This option actually had a higher response rate than the fully furnished option. This indicated that there was a reasonable proportion of respondents who may have had difficulty in responding to this question in previous censuses.

While the question produced good quality data it is likely to be dropped for the 2001 Census, due to insufficient demand. Only two submissions were received requesting inclusion of furnished/unfurnished data in the 2001 Census, and these did not provide sufficient reasons for the continuation of this question.

10.6 *Number of Bedrooms*

The question for number of bedrooms changed only slightly between the 1991 and the 1996 Censuses; with the addition of the '(includes bedsitter)' option, and one bedroom as a separate option (0.6 per cent of occupied private dwellings). This inclusion only elicited a small number of responses, however this did highlight that there were a number of dwellings that were bedsitters.

There was a notable increase in the proportion of four bedroom dwellings intercensally, and also a decrease in the proportion of two and three bedroom dwellings. The comparison between the census, the 1994 AHS and the 1995-96 SIHC showed similar results, indicating good consistency of the data from the census.

10.7 Structure and Location of Private Dwellings

The collapsing of the two caravan categories into one (caravan, cabin, houseboat) for the 1996 Census allowed the caravan data to be analysed in one simple category. This change also made it easier for the collectors to record the type of dwelling structure.

There was an increase in the non-response rate intercensally (0.8 to 2.2 per cent) which was unexpected. This increase followed a decrease between the 1986 and 1991 Census, which was achieved by improving the classifications of the dwelling structure categories. Improved training for collectors, will be undertaken for the 2001 Census.

The comparison of census data with survey data was mostly consistent. The exceptions were caravans etc. and flat/unit/apartment in four or more storey blocks, where the census proportions were higher than the survey proportions.

Dwelling location was collected to enable comparison of stock of dwelling counts between the 1991 and 1996 Censuses. Overall the data was of reasonable quality, however some of the classifications may need to be more clearly defined for the 2001 Census.

10.8 Non-Private Dwellings

The proportion of the population enumerated in non-private dwellings (NPDs) declined in 1996 due to changes to enumeration procedures and classification of self-care accommodation for retired/aged and manufactured home estates as private dwellings.

The development of the electronic NPD register played a large role in improving the collection and processing phases of census. Improved training of collectors, and a better definition of group leaders responsibilities in the enumeration of NPDs, was implemented in 1996. This resulted in better co-ordination of collection and coding, and thus an improvement in final data output for the type of NPD. Currently, testing is being conducted in an effort to further improve the consistency of data for relationship in NPDs.

10.9 Summary

The restructuring of the housing questions, in general, improved the quality and consistency of 1996 Census data. NPD data quality was also improved from 1991, however the relationship in NPD question will be reviewed for the 2001 Census. Location of private dwelling will also be maintained for 2001 and procedures will be implemented to improve the non-response rate for structure of dwelling. The changes for the 2001 Census are currently being determined but it is unlikely that the form design for the housing variables will be altered substantially from the 1996 Census.

APPENDIX 1: Tenure Derivation

The following questions were used to derive Tenure Type

Q45 Mark the box which best describes this dwelling.

- Owners include owners of caravans, manufactured homes or houseboats regardless of whether or not the site is owned.

- Fully owned >Go to ...48
- Being purchased >Go to ...48
- Being purchased under a rent/buy scheme
- Being rented
- Being occupied rent-free >Go to ...48
- Being occupied under a life tenure scheme
- Other

Q46 If this dwelling is being rented, who is it rented from?

- Private landlord not in the same household
- Real estate agent
- State Housing Commission or Trust
- Community or co-operative housing group
- Employer - Government
- Employer - other
- Other

Q47 If this dwelling is being rented, was it furnished by the landlord?

- Yes, fully furnished
- Yes, partly furnished
- No, unfurnished

Nearly all Tenure Types were allocated using the actual response to question 45. Where the 'Other' box was marked for question 45 or where question 45 was not stated, the following derivation table was used.

Q45	Q46	Q47	Derived Tenure Type
Other	Stated (S)	S	Rented
Other	S (Except 7 = Other)	Not Stated (NS)	Rented
Other	7 = Other	NS	Other
Other	NS	S	Other
Other	NS	NS	Other
Not Stated (NS)	S	S	Rented
NS	S (Except 7 - Other)	NS	Rented
NS	7 = Other	NS	Other
NS	NS	S	Not Stated
NS	NS	NS	Not Stated

APPENDIX 2: 1991 Census Housing Questions (ACT Version)

- 41 **How many bedrooms are there in this dwelling?**
- None or 1 bedroom
 - 2 bedrooms
 - 3 bedrooms
 - 4 bedrooms
 - 5 bedrooms or more

42 **Is this dwelling rented by you or any usual member of this household?**

- No →
- Yes

Is the dwelling owned (or being bought) by you or any usual member of this household?

- Yes, owned (paid off)

Now go to 43

- Yes, being bought

- No. **Now go to 43**



To whom is rent paid?

- ACT Housing Trust
- Other government agency
- Other



If being bought:

What is the weekly rent?

- Less than \$48
- \$48 - \$77
- \$78 - \$107
- \$108 - \$137
- \$138 - \$167
- \$168 - \$197
- \$198 - \$227
- \$228 - \$267
- \$268 - \$307
- \$308 - \$347
- \$348 - \$397
- \$398 - \$447
- \$448 - \$497
- More than \$497

What monthly payment or average monthly payments is being made on the loan(s) for this dwelling?

- Less than \$201
- \$201 - \$300
- \$301 - \$400
- \$401 - \$475
- \$476 - \$550
- \$551 - \$625
- \$626 - \$700
- \$701 - \$775
- \$776 - \$850
- \$851 - \$925
- \$926 - \$1,000
- \$1,001 - \$1,200
- \$1,202 - \$1,400
- More than \$1,400

Is the dwelling rented furnished or unfurnished?

- Furnished
- Unfurnished

Now go to 43



Now go to 43

APPENDIX 3: 1996 Census Housing Questions

<p>43 How many bedrooms are there in this dwelling?</p>	<p> <input type="checkbox"/> None (includes bedsitter) <input type="checkbox"/> 1 bedroom <input type="checkbox"/> 2 bedrooms <input type="checkbox"/> 3 bedrooms <input type="checkbox"/> 4 bedrooms <input type="checkbox"/> 5 bedrooms or more </p>
<p>44 How much does your household pay for this dwelling?</p> <p>- Include rent and mortgage repayments and site fees if caravan park or manufactured home estate. - Exclude water rates, council rates, repairs, maintenance and other fees. - If no payments please mark 'NIL' box</p>	<p>\$ <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> per week</p> <p style="text-align: center;">OR</p> <p>\$ <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> per fortnight</p> <p style="text-align: center;">OR</p> <p>\$ <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> per month</p> <p><input type="checkbox"/> NIL</p>
<p>45 Mark the box which best describes this dwelling.</p> <p>- Owners include owners of caravans, manufactured homes, or houseboats regardless of whether or not the site is owned.</p>	<p> <input type="checkbox"/> Fully owned → Go to 48 <input type="checkbox"/> Being purchased → Go to 48 <input type="checkbox"/> Being purchased under a rent/buy scheme <input type="checkbox"/> Being rented <input type="checkbox"/> Being occupied rent-free <input type="checkbox"/> Being occupied under a life tenure scheme → Go to 48 <input type="checkbox"/> Other </p>
<p>46 If this dwelling is being rented who is it rented from?</p>	<p> <input type="checkbox"/> Private landlord not in the same household <input type="checkbox"/> Real estate agent <input type="checkbox"/> State public housing department <input type="checkbox"/> Community or co-operative housing group <input type="checkbox"/> Employer - Government <input type="checkbox"/> Employer - other <input type="checkbox"/> Other </p>
<p>47 If this dwelling is being rented, was it furnished by the landlord?</p>	<p> <input type="checkbox"/> Yes, fully furnished <input type="checkbox"/> Yes, partly furnished <input type="checkbox"/> No, unfurnished </p>

**APPENDIX 4: Comparison of Classifications for Housing for the 1996 Census,
1994 Australian Housing Survey and 1995-96 Survey of Income
and Housing Costs**

<i>Census classifications</i>	<i>AHS Classifications</i>	<i>SIHC Classifications</i>
<i>Tenure</i>	<i>Tenure</i>	<i>Tenure</i>
Fully owned	Owner	Owner without a mortgage
Being purchased	Purchaser	Owner with a mortgage
Being purchased rent/buy scheme	Purchaser	Owner with a mortgage
Rented	Renters	Renters
Occupied rent free	Rent Free	Rent free
Occupied under life tenure scheme	Other	Other
Other	Other	Other

**APPENDIX 5: Standard Errors for Rent and Housing Loan Repayments, 1994
Australian Housing Survey and 1995-96 Survey of Income and
Housing Costs**

<i>Weekly Rent</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>	
	<i>Per cent</i>	<i>Std Error</i>	<i>Per cent</i>	<i>Std Error</i>
\$0- \$24	1.3	0.13	1.6	0.31
\$25 - \$49	13.0	0.39	12.6	0.76
\$50 - \$74	12.7	0.39	10.4	0.71
\$75 - \$99	12.1	0.38	12.4	0.75
\$100 - \$124	17.6	0.45	16.3	0.83
\$125 - \$149	15.9	0.43	14.8	0.80
\$150 - \$174	13.8	0.40	12.8	0.76
\$175 - \$199	5.4	0.26	7.2	0.60
\$200 - \$224	3.0	0.20	4.3	0.49
\$225 - \$249	1.8	0.16	3.0	0.42
\$250 - \$274	1.2	0.13	1.8	0.33
\$275 - \$299	0.4	0.07	1.0	0.25
\$300 - \$399	1.2	0.13	1.3	0.28
\$400 +	0.8	0.21	0.5	0.16

<i>Monthly Housing Loan Repayment</i>	<i>1994 AHS</i>		<i>1995-96 SIHC</i>	
	<i>Per cent</i>	<i>Std Error</i>	<i>Per cent</i>	<i>Std Error</i>
\$1 - \$199	7.0	0.29	6.2	0.59
\$200 - \$399	12.4	0.38	10.4	0.72
\$400 - \$499	10.1	0.34	8.4	0.65
\$500 - \$599	9.4	0.33	10.0	0.71
\$600 - \$699	11.6	0.37	10.4	0.72
\$700 - \$799	9.3	0.33	8.3	0.66
\$800 - \$899	10.6	0.35	10.5	0.73
\$900 - \$999	5.3	0.26	5.9	0.57
\$1000 - \$1099	7.0	0.29	8.0	0.65
\$1100 - \$1199	2.7	0.19	4.2	0.49
\$1200 - \$1299	2.6	0.18	3.1	0.43
\$1300 - \$1399	2.8	0.19	4.1	0.49
\$1400 - \$1499	1.4	0.13	1.6	0.32
\$1500 and over	7.8	0.30	8.8	0.67

APPENDIX 6: Description of Types of Non-Private Dwellings

<i>Category</i>	<i>Description</i>
Hotel, Motel	Establishments providing commercial hotel & motel services, predominantly for transient guests.
Nurses' Quarters	Accommodation for nursing staff predominantly working in public or private hospitals, nursing homes etc.
Staff Quarters	Group accommodation (ie hostel type structure with common living and eating facilities) provided by an employer for his/her employees.
Boarding House, Private Hotel	Other establishments providing accommodation predominantly for resident guests.
Boarding School	Primary and secondary boarding schools providing facilities for pupils.
Residential College / Hall of Residence	Group accommodation ie provided by universities, colleges, etc., for students.
Public Hospital (not psychiatric)	Establishments providing medical care for in-patients of hospitals supported & controlled by public bodies.
Private Hospital (not psychiatric)	Establishments providing medical care for in-patients of hospitals not controlled by public bodies.
Psychiatric Hospital or Institution	Establishments providing residential care and/or treatment for in-patients suffering from mental disorders/disabilities.
Hostel for the disabled	Institutions providing mainly residential care for people with a disability.
Nursing Home	Establishments providing mainly nursing care for in-patients.
Accommodation for the Retired or Aged-Cared	Accommodation (ie. hostel type structure with common living and eating facilities) provided for retired and aged people who, in general, are in good health and capable of looking after themselves.
Hostel for the Homeless, Night Shelter, Refuge	Institutions providing cheap or free residential accommodation on a nightly basis to homeless and destitute adults, institutions providing emergency residential accommodation for homeless and destitute persons.
Childcare Institution	Residential childcare establishments (government or non-government) consisting of one or more dwellings controlled by a single on-site administration (government or non-government) and other homes for children.
Corrective Institution for Children	Institutions providing mainly corrective care for children and young persons under 18 Years of age; juvenile hostels.
Other Welfare Institution	Other institutions providing mainly residential care for adults in need of care.
Prison, Corrective or Detention Institution for Adults	Institutions providing mainly rehabilitative and/or corrective treatment for offenders or alleged offenders aged 18 years or more.
Convent, Monastery, etc.	Institutions providing mainly group accommodation for members of religious orders.
Other, please Specify	Any establishment or institution providing communal accommodation not covered above.

Reference List

Australian Bureau of Statistics (1991) Census Working Paper 95/1, *1991 Census Data Quality: Housing*.

Australian Bureau of Statistics (1992) Census Working Paper 93/2, *Comparison of Self-Coded and Write-in Responses: July 1992 Test*.

Australian Bureau of Statistics (1996a) *1996 Census Dictionary*: Cat. no. 2901.0

Australian Bureau of Statistics (1996b) *Information Paper: Census of Population and Housing: Data Quality - Undercount*.

Australian Bureau of Statistics (1996c) Census Working Paper 97/1, *1996 Census: Homeless Enumeration Strategy (Evaluation of the Field Objective)*.

Australian Bureau of Statistics (1996d) Census Working Paper 96/2, *Census Form Design Testing Program*.

Australian Bureau of Statistics (unpublished) for the Housing Statistics Users Advisory Group Meeting (1998), *Underenumeration of Public Housing Tenants in Victoria (Discussion Paper)*.

Australian Bureau of Statistics (1987-1996) *Building Approvals, Australia*. Cat. no. 8731.0

United Nations (1980) *Principles and Recommendations for Population and Housing Censuses*, Series M, No.67, United Nations, New York.