Explaining the Census
Investigating Reasons for Non-Response to the ABS Census of Population and Housing

Meg Carter
Explaining the Census:
Investigating Reasons for Non-Response
to the ABS Census of Population and Housing

by Meg Carter

Institute for Social Research
Swinburne University of Technology
PO Box 218, Hawthorn
Victoria 3122, Australia
http://sisr.net

August 2009
PREFACE

This paper introduces some work currently in progress at the Institute for Social Research at Swinburne University of Technology. The study forms part of an Australian Research Council Linkage Project being undertaken by Swinburne in partnership with the Australian Bureau of Statistics (ABS).

The objective of the Linkage project is to improve the design and management of census operations in Australia, using methods drawn from the disciplines of Statistics and Information Technology. It will do this by developing a statistical model that can explain patterns of response and non-response in the 2006 census, and predict patterns of response that appear in 2011.1 Of particular interest to the project are localities where the level of ‘dwelling non-response’ – a concept defined in Section 2 of this paper – is high compared to others in their state.

The research undertaken in the Linkage project is the first of its kind in Australia. While some information about ‘undercount’ – another concept defined in Section 2 – is provided in ABS publications, there has been no detailed analysis of the ways in which levels of non-response to the census are related to other factors such as demographic characteristics, socio-economic measures or location. Investigation of these questions is happening progressively as the project proceeds. No findings from this work have as yet been published. After early analysis identified unexpectedly high levels of dwelling non-response in inner-city areas in Melbourne and in other states, the Institute for Social Research was contracted to do a qualitative study to find out why this might be so. This publication is a background paper for that study.

The raw data that are needed to enable close examination of patterns of non-response are protected by the privacy provisions to which the census is subject, and are not in the public domain. In designing this project we have referred to information found in ABS publications, supplemented by the broad information about levels of non-response in inner-city areas that was provided in the research brief that initiated our work.

The Swinburne/ABS Linkage project and the Institute for Social Research study are proceeding concurrently. Findings from the Linkage project’s ongoing analysis of census data will inform our work as they become available.

---

1 The Linkage Project is entitled ‘Integrated Intelligent Decision Support for Field Design and Management of Census Operations in Australia’. Researchers managing the project are Professor Andrew Flitman, from Swinburne University of Technology; and Mr John Moore, from the Australian Bureau of Statistics.
1 Introduction ................................................................. 1

2 Background ........................................................................ 2
  2.1 Census collections in Australia and elsewhere ...................... 2
  2.2 Concepts: undercount, non-response and non-participation ........ 5
  2.3 What do we know about non-participation in census? ............. 7
    2.3.1 Australia ................................................................... 7
    2.3.2 New Zealand ............................................................... 7
    2.3.3 United Kingdom .......................................................... 8
    2.3.4 United States ............................................................. 9
  2.4 Responses to non-participation in census ............................ 10

3 Ways of understanding non-participation in census .............. 11
  3.1 Avoidance ...................................................................... 11
  3.2 Strategic non-participation ................................................ 12
    3.2.1 Illegal activity ............................................................. 12
    3.2.2 Perceived intrusiveness ............................................... 13
    3.2.3 Confidentiality and trust ................................................. 14
  3.3 Disengagement ............................................................... 17
    3.3.1 Disengagement from society ........................................ 17
    3.3.2 Disengagement from democratic process ....................... 18
    3.3.3 Disengagement associated with urban design ................. 19
    3.3.4 Disengagement associated with mobility and tenure ....... 20
  3.4 Circumstantial non-participation ........................................ 21
    3.4.1 No contact with collector ............................................. 21
    3.4.2 Time pressure and domestic practice ............................. 22
    3.4.3 Mistake ..................................................................... 22
  3.5 Apparent non-participation ............................................... 22
  3.6 Social context and changes over time ................................ 22

4 Research questions and framework for analysis ................... 23

5 Data collection .................................................................... 25
  5.1 Location: Melbourne Docklands ........................................ 25
  5.2 Method: engaging people who are ‘hard to reach’ ................ 27

6 Conclusion ........................................................................ 29

References ........................................................................... 30

Figures
  Figure 1: Population statistics collections: comparison by country ... 4
  Figure 2: Framework for analysis of qualitative data ............... 25
1. INTRODUCTION

A census of population and dwellings is undertaken in Australia every five years. Its purpose is to provide high quality data for use in policy, administration and research by measuring the number and characteristics of people in Australia and the dwellings in which they live. Information obtained through the census is used to determine electoral boundaries and inform planning and allocation of funding for services provided through federal, state and local governments (ABS 2006).

The census sets out to collect a response from every person (except for overseas diplomatic staff) who is present in the country on census night. The Australian Bureau of Statistics (ABS) estimates that in 2006 the ‘undercount’, being the estimated percentage of people who were missed in the census, was 2.7%. Although by international standards this level of undercount is low, it is a substantial increase on the figure of 1.8% reported for the census in 2001 (ABS 2007, 2006).

Some categories of people have been identified as more likely than others to be undercounted in the census. The ABS makes special arrangements to promote the census and facilitate collection among identified groups, including people living in rural and remote areas, Aboriginal and Torres Strait Islander people, newly arrived migrants, people whose customary language is not English, people with disabilities, people living in institutional settings and people who are homeless (ABS 2007). The 2006 census identified a new group of people who were more likely than others to fail to participate: those residing in areas of high population density and high levels of socio-economic advantage in Melbourne, Sydney and the Gold Coast.

This finding was unexpected. It runs counter to patterns observed in previous research, in which non-participation in the census is more likely to occur among people who are ‘disadvantaged’, than among those who are not. Research unrelated to the census suggests that the pattern observed in 2006 may not be an aberration. Analysis of voter turnout in recent by-elections in Victoria and Queensland found that residents in affluent inner-urban areas had significantly lower than average rates of electoral participation (Reynolds 2007; Hoffman 2007; Costar 2008). This finding contradicts those from previous studies which had shown that people residing in areas of higher socio-economic status were more likely to vote, not less. There may be something going on in this demographic that we as yet know little about.

Non-participation among this group is of concern to the ABS because while strategies to engage other identified groups are in place and appear to be effective, no clear body of evidence exists to inform development of strategies to engage this one. This study will contribute to the development of such a body of evidence by examining the experience and views of residents of one such area, Docklands in Melbourne.

The topic of census completion and rates of return is located in what American statistician William Seltzer (1998:511) called the ‘understudied borderland’ between the disciplines of statistics and social science. Our analysis draws on the sociological concept
of the ‘situated actor’ (Smith 1999:5). It will consider participants’ behaviour regarding the census, in relation to their demographic characteristics and material situation, and their views and attitudes regarding government in general and the census in particular. It is concerned with ways in which people – in this case, residents of high-rise apartments in inner-city Melbourne – make sense of their environment, from the point of view of their own situation in time, place, personal history and culture.

This paper examines relevant literature and sets out a plan for the current research.

2. BACKGROUND

2.1 Census collections in Australia and elsewhere

Under the Census and Statistics Act 1905 (2006), the federal government is required to conduct a census of population and dwellings every five years. The Act establishes participation as compulsory, with the exception of two questions: one pertaining to religion, and the other, which was asked for the first time in 2006, asking if respondents agree for their personal information to be kept by the National Archives and made publicly available after 99 years. Penalties apply for refusing to complete census forms or for providing false or misleading information (ABS 2006).

Data collected through the census are used only in aggregate form, and disclosure of any information that may identify an individual is prohibited under the Act. Publicity preceding the census, as well as census forms and the Guide to Census distributed to each household, gives assurance that information will not be used in a way that would allow any individual or household to be identified. Running a census is labour-intensive. The ABS recruited approximately 43,000 field staff to work on the 2006 census, of whom 30,000 were employed to deliver and collect forms; these staff are known as ‘collectors’, ‘canvassers’ or ‘enumerators’. All persons employed in working on the census are required to sign an ‘undertaking of fidelity and secrecy’ under which they are prohibited from disclosing information pertaining to an individual, to any person or agency. The obligation to preserve confidentiality continues after employment with the ABS has ceased (ABS 2006; Commonwealth of Australia 2006).

The task of collectors is to deliver forms to every household and arrange a time to return to collect them when completed. If no resident is present at a dwelling when a collector visits, the collector will leave a card notifying of their visit and nominating a time at which they will return. If after at least three further visits the collector has been unable to make contact with any resident of the dwelling, census forms – consisting of the Household Form and the Guide to Census – are left. The Guide to Census provides information to assist with answering questions, gives information about the purpose of the census, reiterates its compulsory nature and describes its provisions for ensuring privacy. People living in institutional settings such as nursing homes or boarding houses each receive an Individual Form. People living in family or shared households who do not wish their details to be recorded on the Household Form are provided with an Individual Form on request.
After having been completed by the individual or, in the case of the Household Form, by one person on behalf themselves and other people residing that dwelling, forms are collected at the time arranged. Any person who does not wish the collector to see their completed form may place the form in a ‘privacy envelope’ to be opened by the Area Supervisor. Forms may be returned by mail if collection is not possible. In 2006 for the first time the census could also be completed online.

The census has four key questions concerning age sex, marital status and place of usual residence. The number and content of additional questions have varied over time. The 2006 census consisted of 60 questions, covering topics including: how residents of the household are related to one another; for each person their country of birth and those of their parents, their date of arrival in Australia, citizenship status, ancestry, languages spoken and religion; education, employment – including hours of work, the nature of work done, and name and address of place of employment – and income; any special needs, and time spent in unpaid domestic work and unpaid caring work; and information about the dwelling, including whether it is owned or rented, the cost of rent, number of bedrooms, and whether internet can be accessed from the dwelling (ABS 2006).

Delivery and collection of census forms is organised by Collection District. The size of a Collection District reflects the amount of work one collector can cover in the time available, usually around 230 dwellings. Collection Districts are aggregated to Statistical Local Areas, which are aligned where possible with Local Government Areas.

As noted above, the ABS makes special arrangements to facilitate participation in the census for identified groups who might otherwise be underrepresented. These include people with disabilities, people living in remote areas, people residing in institutional and semi-institutional settings and people with no fixed address, as well as people whose preferred language is not English, people of Aboriginal and Torres Strait Islander origin and new migrants. The census is publicised through communities in which targeted groups participate, and collectors are recruited from the communities in which they will be working. Staff working in institutions may be recruited as Special Collectors for the purpose of distributing and collecting forms among their residents.

 Shortly after collection is completed the ABS conducts a Post-Enumeration Survey (PES) as a way of assessing the accuracy and completeness of the census. In 2006 the PES obtained responses from a representative sample of 33,000 households. Census data are adjusted based on estimates derived from the PES, before public release (ABS 2006).

Not all developed countries collect population statistics using a census. Some establish population registers through which names and addresses of residents are recorded. Where this information is updated regularly, such registers can provide data that are as comprehensive and more accurate over time than those obtained through a census.

Among countries that collect population statistics by means of a regular census, most differ in process from Australia’s census in several ways. For example, census forms may
be delivered by mail-out or by a collector; forms might be completed by respondents or by an interviewer; forms may be lengthy or they may be short; forms may be collected or returned by post; census may be conducted at intervals of five years or ten; and census data may be amended using information collected through a PES, or not. New Zealand is the only country whose practice in conducting its census is directly comparable to that adopted in Australia.

In Australia and New Zealand census forms are delivered and collected by canvassers who make direct contact with residents, and they will visit a residence multiple times in order to achieve this. In this context a person is regarded as ‘hard to reach’ if it is difficult for the canvasser to find them at home. In contrast, in the US and UK most census forms are sent and returned by mail, and enumerators are employed to make contact only with the minority of people who are identified in advance as ‘hard to reach’. Enumerators interview these individuals and complete census returns on their behalf. In the UK and US contexts, then, ‘hard to reach’ means hard to reach by mail.

*Figure 1* presents a summary of differences in practice among countries whose literatures are considered in this paper. Some differences may appear to be minor, but when considering issues around non-response and ways to increase participation, differences in process may contribute in significant ways to outcome. It is important to keep local context in mind when reading literature from different countries about possible reasons for non-response and how to improve rates of participation.

<table>
<thead>
<tr>
<th>Country</th>
<th>Census or other</th>
<th>Frequency of collection</th>
<th>Compulsory</th>
<th>Completed by self or interviewer</th>
<th>Delivery and collection</th>
<th>E-return</th>
<th>PES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Census</td>
<td>Every 5 years</td>
<td>Yes</td>
<td>Self-enumerated</td>
<td>Delivery and collection by canvasser</td>
<td>Option in 2006</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Census</td>
<td>Every 5 years</td>
<td>Yes</td>
<td>Self-enumerated</td>
<td>Delivery and collection by canvasser</td>
<td>Option in 2006</td>
<td>Yes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Census</td>
<td>Every 10 years</td>
<td>Yes</td>
<td>Most selfenumerated, some by interviewer</td>
<td>2001 delivery by canvasser, return by post. 2011 both by mail, plus canvassing in identified areas</td>
<td>?</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Census</td>
<td>Every 10 years</td>
<td>Yes</td>
<td>Most selfenumerated, some by interviewer</td>
<td>Mail out, mail back, plus canvassing in identified areas</td>
<td>?</td>
<td>Yes but census not amended</td>
</tr>
<tr>
<td>European Union</td>
<td>Census 18 countries</td>
<td>Various</td>
<td>?</td>
<td>Various</td>
<td>Various</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Other method 23 countries</td>
<td>Various</td>
<td>?</td>
<td>Various</td>
<td>Various</td>
<td>?</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Census</td>
<td>Every 10 years, with ‘by-census’ in between</td>
<td>Yes</td>
<td>Enumeration by interviewer</td>
<td>Delivery and collection by enumerator</td>
<td>Option in by-census 2006</td>
<td>?</td>
</tr>
</tbody>
</table>

*Figure 1: Population statistics collections: comparison by country*
2.2 Concepts: undercount, non-response and non-participation

However carefully it is conducted, no census will succeed in obtaining responses from every person its planners wish to count. Statistical agencies use a variety of means to estimate the number, percentage, distribution and characteristics of people who are not counted. Estimates may be derived in different ways, and each type of estimate has different characteristics. In discussing these estimates, agencies use a number of different terms, of which those most relevant to our study are undercount, non-response and non-participation. Although these terms are commonly used in reports from statistical agencies they are rarely defined, they are not used consistently and their intended meanings are often unclear. This section describes how these terms have been understood in Australia and New Zealand, and proposes definitions for use in the present study.

In ABS publications, the term ‘undercount’ is used to refer to the difference between the number of people who were counted in the census and ABS estimates of the actual population (ABS 2007).

As noted above, data released by the ABS are not a direct translation of those collected on census day. Raw data from the census are adjusted, primarily on the basis of responses to the PES. PES data are used to calculate an estimate of the number of dwellings that did not receive a census form, and ‘imputed person records’ are created to compensate for these missing records. In addition, dwellings that received forms but from which no forms were returned may also be represented by imputed records. Imputed records are developed from ‘information provided by the Census collector about the dwelling and its residents’ and information derived from PES responses (ABS 2007). Responses may be imputed also where forms are returned but with not all questions answered.

In relation to the questions that are the concerns of this research, undercount is not the whole story. Undercount is different from ‘non-response’. The relation between the two concepts becomes clear if we think of data collected on census day as potentially incomplete at four levels, as shown in this typology developed by ABS researcher John Moore:

- **Coverage Non-Response**: the number of people or dwellings that were never found and so did not get a form;
- **Dwelling Non-Response**: the number of dwellings that received a form and from which no form was returned;
- **Incomplete Response, missing key fields**: the number of forms returned with one or more ‘key items’ (age, marital status, income) not completed;

---

2 In publications from the General Register Office for Scotland, imputed person records are described using the evocative phrase ‘synthetic individuals’ (Baffour 2006).

3 The description published by the ABS of the process by which data is manipulated prior to release, is not exhaustive (see Census of Population and Housing: Details of Undercount, 2007). The ABS adjusts raw census data in a variety of ways additional to those outlined in its publications.

4 I am indebted to John Moore for his contribution to the ideas developed in this paper. Without his input the task of identifying the meanings of concepts used in the literature around census participation would have been infinitely more difficult and frustrating. John’s work regarding census ontologies is currently being prepared for publication.
• *Incomplete Response, key fields completed but others missing:* the number of forms returned with key items completed but some other questions missed.

Undercount, as discussed in ABS publications, generally refers to *coverage non-response*. The present study is concerned with people who receive a census form but choose not to complete and return it, situations which fall within the category described here as *dwelling non-response*.

An outcome recorded as dwelling non-response may be the result of factors relating to administrative process or to respondent behaviour. For example, a census form may be delivered to a dwelling that is not tenanted, or residents may receive and complete a census form but the form is not collected. These are administrative problems for which remedies will be matters of process. Where residents receive a census form but choose not to complete or return it, this is a matter of respondent behaviour. Both these aspects of dwelling non-response are of concern to the ABS. The latter component, respondent behaviour, is more interesting sociologically and is the primary concern of our study.

It is important to note that because final census figures include imputed records that are created to compensate for various types of missing data, the actual level of dwelling non-response in a census may be much higher than the estimated level of undercount.

If this is not confusing enough, reports produced by statistical agencies in different countries frame concepts pertaining to missing data in different ways. Those most directly comparable to Australian practice come from New Zealand.

The Statistics New Zealand publication *A Report on the 2006 Post-enumeration Survey* (2007) describes the measures used to arrive at estimates of undercount for their census. Discussion in this document is framed in terms of ‘difficulty with enumeration’. Here ‘difficulty with enumeration’ refers to the broadest level of missing or incomplete return, encompassing dwellings not identified, forms not returned, forms returned late or incomplete, and people counted twice. In this context, the phrase ‘non-response’ appears to encompass coverage non-response as well as dwelling non-response and includes situations arising from administrative process, for example, when forms did not reach people or were not collected, and those arising from respondents’ behaviour, where people received forms but chose not to return them.

Reading publications from government statistical agencies in New Zealand and Australia shows not only that difficulty with enumeration has many aspects, but also that these may be named differently in different reports. It is not always possible to see to what extent the ‘undercount’ or ‘non-response’ discussed in a particular document represents the particular component of non-response that is the concern of this study.

Our main concern is with people who receive a census form and choose not to complete or return it. This practice has no name of its own that is used consistently in literature considering census enumeration. In this paper we give it the name ‘non-participation’.
2.3 What do we know about non-participation in census?

2.3.1 Australia
The ABS reported the level of undercount in the 2006 census as 2.7%. Overrepresented in the undercount in this and previous censuses are people living in rural and remote areas, people of Aboriginal and Torres Strait Islander background, newly arrived migrants and people who have limited literacy in English, people with disabilities, people living in institutional settings and people who are homeless (ABS 2006). In the 2006 census high levels of dwelling non-response were recorded from inner-urban areas of high population density and high levels of socio-economic advantage.

The level of dwelling non-response for the 2006 census was 4.1% (ABS 2008).\(^5\) It is not possible to determine what proportion is made up of untenanted dwellings that received census forms or of dwellings from which forms were completed but not collected, and what proportion represents individuals or households who chose not to participate.

The level of estimated undercount is low by international standards, and non-participation has not been seen as a significant issue in this country. Consequently, little has been written in Australia about undercount, dwelling non-response, or non-participation in census. Using ABS data it would be possible to examine dwelling non-response at a high level of detail, for example, by identifying the level of dwelling non-response at Collection District level, and examining relationships between dwelling non-response and particular demographic characteristics. It would also be possible to examine changes over time in successive collections. Such analysis will be undertaken as part of the broader Linkage project being carried out by Swinburne University in partnership with the ABS.

2.3.2 New Zealand
Statistics New Zealand identified the net undercount for the 2006 census as 2%. Men were more likely than women to be undercounted, as were people aged fifteen to 29 years and people of Asian and Pacific descent. The rate of undercount among these groups has been increasing, in spite of special measures to encourage participation. Enumerators reported difficulty in gaining access to high-rise apartments in inner-city Auckland. It was also difficult to determine which apartments were tenanted and which were vacant. A high rate of non-response was recorded for this area (Statistics New Zealand 2007).

The figure cited by Statistics New Zealand (2007) as ‘non-response’ in the 2006 census is 5.2%. Non-response in this context appears to include coverage non-response and dwelling non-response. Statistics New Zealand estimated that in the 2006 census 0.4% of dwellings did not receive forms, which implies a dwelling non-response figure of 4.8% (how these figures relate to the estimated undercount of 2% is not clear).

\(^{5}\) This figure is reported in a technical note discussing the question about religious affiliation. Specific consideration of dwelling non-response, as distinct from undercount, does not feature in major reports on the census. Note that the figure for dwelling non-response is substantially higher than the reported undercount.
Statistics New Zealand reports that non-response has been increasing over time, from 4.4% in 1996, to 5% in 2001, to 5.2% in 2006. Difficulty with enumeration more generally has also increased over this period. ‘Some form of difficulty with enumeration’ was reported in respect of 9.3% of the population in 2006, compared with 7.2% in 2001. The report notes that these figures are likely to be underestimates, as a person who deliberately avoids the census is likely to also deliberately avoid the PES (Statistics New Zealand 2007).

Thus while the level of undercount reported for the New Zealand census in 2006 is lower than that in Australia, the level cited as non-response is higher. It is possible that these differences reflect, in part, differences in the ways in which the concepts have been defined and the figures arrived at. In New Zealand, as in Australia, it is not possible to estimate the number or percentage of people who received a census form in 2006 and did not return it.

2.3.3 United Kingdom
The most recent census in the UK was conducted in 2001. The Office for National Statistics reports the level of undercount from that census as 6.1%, and the rate and distribution of undercount is seen as a matter of concern. The paper UK Census Coverage Assessment and Adjustment Methodology notes that:

Undercount levels have on the whole been increasing over the past few decades [and] the differential nature of the undercount has worsened … [U]ndercount does not usually occur uniformly across all geographical areas or across other sub-groups of the population, [with the result that] measurement of small populations … is becoming increasingly difficult. In terms of resource allocation this is a big issue, since the populations that are missed can be those which attract higher levels of funding (Abbott 2008).

The 2001 census adopted a range of measures to minimise undercount, including employing extra enumerators in areas expected to be ‘hard to count’, and conducting a Census Coverage Survey shortly after the census. Even after adjustment based on data from the survey, the census was seen to have significantly undercounted in inner-city areas. One factor identified as contributing to this outcome was the use, by field staff, of address registers which were found to have omitted a large number of dwellings. As it is intended that forms for the 2011 census will be delivered by mail rather than by canvasser, this shortcoming is significant (UK Statistics Commission 2004).

Rahman and Goldring (2006) matched responses from the 2001 Census Coverage Survey with census returns in order to identify characteristics of households that appeared in the survey but not in the census. They identified characteristics of tenure, ethnicity, age, household structure, residential mobility, income and occupation as associated with households that did not appear in the census. In order of importance, the characteristics were: renting privately; being of Black, Asian, Chinese or mixed ethnic group; paying part rent/part mortgage; comprised of only a single person; the average age of the people within the household being between 23 and 34; and the average age of the people within
the household being over 70. Next came renting from housing associations or the council; households in which more than two-thirds of occupants had a different address one year earlier; living in commercial buildings; in an area with a higher IMD Income score; and the average age of the people within the household being between 60 and 69. Of lesser importance were living in accommodation that is not self-contained; living in a converted/shared house; the average age of the people within the household being under 23; containing a single parent family; and more than two-thirds of occupants aged 18-29 are students (Rahman and Goldring 2006:11).

Reports produced by the Office for National Statistics do not disaggregate components of undercount in terms of coverage non-response, dwelling non-response or non-participation. I have located no document that cites the estimated level of dwelling non-response in the 2001 census. As in Australia and New Zealand, it is not possible to estimate the number or percentage of people who received a census form in 2006 and did not return it.

2.3.4 United States
The most recent census in the US was conducted in 2000. The level of undercount reported by the US Census Bureau (2000a) for that census is between 0.96% and 1.4%. This represents a decline from the level of 1.6% reported for the previous census in 1990.

Although these reported levels of undercount are comparatively low, the extent and distribution of census non-response is a highly political issue in the US. Post-Enumeration Surveys conducted for each census since 1950 have shown undercount to be concentrated in disadvantaged inner-city areas. Although special measures were implemented in 1990 to enumerate urban dwellers and street sleepers, people who were Black, Hispanic, poor and homeless were disproportionately undercounted in that census (Choldin 1994). Whether census data should be adjusted on basis of data from these surveys is the subject of ongoing dispute. To date, adjustment of census data has not occurred, although surveys conducted since 1990 have been explicitly designed for this purpose (US Census Bureau 2004).

Use of census data without adjustment for undercount has the result that jurisdictions with high concentrations of urban poor receive less program funding, and less political representation, than would otherwise be the case. A series of lawsuits was initiated around this issue after the 1990 census. Urban sociologist Harvey Choldin (1994) argues that adjustment of census data has been advocated by states, cities and interest groups who thought they would gain by it, and opposed by those who thought they would lose. In Choldin’s view, in this way an exercise that should have been an impartial expert process has become embroiled in politics.

Koch and Cebula (2004) examined data from the 2000 PES to identify the distribution of ‘non-response’ among different segments of the population. Their analysis showed two

---

6 It is not clear in any of these publications how the concept ‘non-response’ is related to the concept ‘undercount’. I have been unable to find any document that gives an estimate of the level of dwelling non-response in US census collections.
dimensions as statistically significant: demographics and location. States in the northeast, south and west had a higher level of undercount than those in the midwest, while people who were Black, Asian, young, of low income and of little education were more likely than others to be omitted from the census.

***

While this brief survey allows us to compare the reported levels of undercount in these countries, such an exercise is likely to be misleading. Comparisons are complicated by ‘differences in sample size, in enumeration procedures and practices, and in the nature and size of sampling and non-sampling errors. The precise impact of these variations on the undercoverage levels cannot be readily ascertained’ (Statistics New Zealand 2007:13).

Comparable estimates of undercount are not easy to arrive at. Estimates of dwelling non-response are even more difficult to find. It appears to be not possible to identify, in any reliable way, the number and proportion of people in any country who receive census forms but choose not to complete and return them.

2.4 Responses to non-participation in census

In Australia the census is accompanied by a broadly based information campaign that emphasises its importance and gives assurance about confidentiality, and special measures are implemented to enable access and encourage participation among members of the groups identified as more likely than others to be undercounted. The high rate of participation in the census in Australia relative to other countries is taken as evidence of these strategies’ effectiveness.

Census operations in New Zealand include publicity targeted to the groups likely to be overrepresented in the undercount, particularly young people and those of Maori and Pacific Islander descent. In 2006 special measures were undertaken to encourage participation among the hard-to-contact residents of inner-city apartments in Auckland, including media releases urging them to contact the census helpline to obtain forms (Statistics New Zealand 2006, 2007). In both Australia and New Zealand, strategies employed in 2006 were not sufficient to prevent a decline in the rate of response.

The UK census in 2011 will be complemented by a Census Coverage Survey designed around a two-stage sample with a focus on areas identified as ‘Hard to Count’. The survey will be a short questionnaire, administered in a face-to-face interview with one member of the household. Crucially, households will be identified by maps not by lists: interviewers will walk through their designated areas and make contact with residents at every dwelling they find. They will ‘call as many times as necessary’ in order to make contact with residents (Abbott 2008).

In the UK and US concerns about the magnitude and distribution of undercount has led to debate about whether the census should be supplemented with data from unrelated
collections. Options considered include, in the UK, a ‘robust and continuously updated national address register’ (UK Statistics Commission 2004) and, in the US, the possibility of including a question asking for respondents’ social security numbers ‘to facilitate data sharing’ (Presser et al. 2000). Options like these have not been canvassed in Australia.

Another response to high rates of non-participation has been to abandon census collections altogether. Germany and the Netherlands are two countries that have done this. In these countries the census had been a focus of popular protest, arising from concerns about privacy and the potential for information collected to be used to support discriminatory treatment of identified groups. No census has been conducted in the Netherlands since 1971; this had a very high rate of non-response, and the one planned for 1981 was cancelled. In Germany in the 1980s a number of community groups mobilised opposition, culminating in calls to boycott the census that was planned for 1983. That census was postponed, and when finally conducted in 1987 had a very high rate of non-response. No census has been conducted in Germany since that date. In both countries, statistics are now collected by means of population registers (Bennett 2008).

3. WAYS OF UNDERSTANDING NON-PARTICIPATION IN CENSUS

Our concern is with people who have the opportunity to participate in the census but who choose not to do so. This section draws on literature from the fields of statistics, history, sociology and urban planning to consider some of the ways in which non-participation has been thought about.

One way of organising this material is by thinking about non-participation as falling along a continuum, as described below:

1 2 3 4 5

At the left you would place people who actively avoid participation. At the right you would place those who would have no objection to participation but for some reason fail to do so. Positions along the continuum may be described as avoidance, strategic non-participation, disengagement, circumstantial non-participation and apparent non-participation. Literature around non-participation is discussed here under each of these headings, with a focus on what these approaches can contribute to our understanding of the attitudes and behaviour of people residing in inner-city areas of high population density and high levels of socio-economic advantage.

3.1 Avoidance

People who successfully avoid being located for the census appear in statistical reporting as coverage non-response, or ‘dwelling not found’. Individuals who actively avoid being found for the census are usually characterised as disadvantaged, and often as homeless. Populations considered in the literature include people making a marginal living through

---

7 This option was considered for the 2000 US census, but was not taken up. See US Census Bureau (2000b).
sex work or drug trafficking, illegal immigrants and, in the US, people living in abandoned inner-city buildings that are not listed as ‘dwellings’ for the purpose of census field operations. Choldin notes that ‘people living in certain situations have good reasons to avoid contact with the government, [and] no amount of advertising and community relations will work to convince them that it is safe and in their interest to disclose themselves to the census’. He argues that this component of census undercount is an inevitable consequence of the ‘great material inequality’ that exists in US society (Choldin 1994: 230).

While most people who live in expensive inner-city apartments could not be regarded as disadvantaged, some residents of the areas that are the subject of this study may avoid the census because their livelihood or immigration status is in some way illegal. One example suggested by anecdotal reports is overseas students whose visas have expired or who are engaged in paid work that is in excess of the hours permitted by their visas, or that is ‘off the books’ and not taxed. Another is women who ‘reside’ in luxury apartments as sex workers, working long hours but receiving only a small proportion of their earnings. Where such people live in dwellings where census forms are received, a choice to not complete the census would be characterised as ‘strategic non-participation’.

### 3.2 Strategic non-participation

Strategic non-participation refers to people who receive census forms at their place of residence but have particular reasons for choosing not to complete and return them. The common thread in discussions of strategic non-participation is the idea that people may feel they have more to lose than to gain by participating. Some possible explanations for strategic non-participation are discussed below.

#### 3.2.1 Illegal activity

To a person who is engaged in activities that require discretion in dealing with government agencies, completing a census form might not seem like a good idea. Such activities might include understating income in order to minimise tax or child support obligations, concealing a de facto relationship in order to receive social security payments, being engaged in employment that is paid in cash, involves illegal activity or contravenes visa conditions, or being in the country without a valid visa.

American researchers Koch and Cebula (2004) tested a selection of popular hypotheses about who was likely to not respond to the census, and why. Of the nine hypotheses they considered, several proved to be robust: households more likely to be undercounted were those in which residents were Black, Asian, of low income and had low levels of education (households with these characteristics also report lower levels of trust in government, as discussed below). The characteristics identified are those of people whose opportunities to earn a living through legal means are limited by circumstance.

In Scotland, the General Register Office (2007) conducted focus groups with young men with low levels of education, a group they had identified as more likely than others to not return census forms. Some they saw the census as an opportunity for the government to
‘catch me out’ in some way and possibly reduce their social security benefits. Suspicion was aroused especially by questions about income, work hours and other household members. In presenting its findings the General Register Office described the respondents’ comments as reflecting a ‘lack of understanding’ of the purpose of the census and of the strength of its confidentiality provisions.

Scenarios describing non-participation in census as associated with illegal activities generally feature people who have low levels of education and are living on low incomes. Practices such as selective representation of income in order to minimise tax or to avoid child support obligations can be engaged in also by people who are well educated and relatively wealthy. Activities such as failing to declare some income for taxation purposes – like indulging in commonly used illegal drugs – may be regarded as ‘technically’ illegal but socially normal. Where illegal activity is normal, selective representation becomes normal also. A person engaged in selective representation of their circumstances to government agencies may regard disclosure of personal information as required by the census as imprudent.

A person who elects for these reasons not to participate in the census is unlikely to participate in research that is associated with a government body. While this kind of strategic non-participation may be a factor in non-response to census in the localities we are considering, it is not likely to be disclosed in this research.

UK and US studies have found that people with lower levels of education are more likely to choose not to participate in the census than those who are more highly educated. In contrast to these findings, initial analysis of ABS data suggests a correlation between non-participation and higher levels of education. The idea that the more well informed a person is, the more likely they might be to be sceptical about the census, is considered below.

### 3.2.2 Perceived intrusiveness

For some people, choosing not to complete or return their census is less about deliberate strategy than cultural norms. Many of the questions may be perceived as intrusive, asking about matters that they consider to be private, and certainly no business of the government.

The question about religion is regarded as potentially sensitive in this way, and answering it is optional. Questions about income and employment enter into areas that are taboo subjects in English-speaking cultures (Singh 1997; Wilson 1999). People may be unwilling to answer questions that touch on these subjects even if they are doing nothing illegal that they wish to conceal. Other questions dealing with matters regarded as personal may also be regarded as unnecessarily intrusive.

Assurances of confidentiality, along with practices like providing privacy envelopes for completed returns, are intended to address concerns such as these. Some people may not find these assurances convincing.
3.2.3 Confidentiality and trust

The theme underpinning each type of strategic non-participation discussed above is trust: in particular, trust in governments to do as they say and use information provided in the census only in accordance with their stated intentions.

Several studies have examined the relationship between trust in government and participation in the census. In an analysis of responses to the US Survey of Census Participation, Couper et al. (1998) found that whether someone participated was not related to their reported attitudes to the census, but to whether or not they had concerns about the privacy of information provided. The central factor here is respondents’ views about whether the government could be trusted to use information collected in the census only for its stated purpose.

Privacy concerns have been particularly pertinent in the US. Responding to concerns about the level of undercount among poor urban populations, the Census Bureau considered including in the 2000 census a question asking respondents to provide their social security number. This could be used to match census responses with data from other collections. A survey conducted to canvass views about this possibility found that people’s willingness to provide their social security number in the census was not related to how much they know about the purpose and uses of the census, or about its confidentiality provisions. It was related to responses to questions about trust. Those who reported high levels of trust in their government ‘to do what is right’, and in the Census Bureau to keep information confidential, were more likely to be willing to provide their social security number. Those who reported low levels of trust were unwilling to do so (Presser et al. 2000).

Low levels of trust in governments have been consistently reported in surveys in many countries. Donovan et al. (2007) compared responses to questions about trust in government in surveys conducted in 29 countries, finding that only in Norway did more than 50% of respondents agree or strongly with the statement: ‘Most of the time we can trust people in government to do what is right’. Australia came fifth on the list, with 40% of people agreeing with this statement. Although less than half of Australian respondents agreed that their government could be trusted, compared with other countries this level of trust is relatively high.

Bean and Denemark (2007), using data from the Australian Survey of Social Attitudes (AuSSA), reported that in the 2005 survey 33% of participants answered ‘agree’ or

---

8 The analysis presented by Presser et al. (2000) is idiosyncratic. They frame their analysis around the concepts of ‘affect’ versus ‘knowing’. Being informed about the census is classified as ‘knowing’, and responses to questions about trust are taken to represent ‘affect’. The analysis concludes that people’s views about providing social security numbers in the census are informed more substantially by affect than by knowing. The implication is that responses based on affect – a fancy word for feelings – are irrational and of a lesser status than responses based on knowledge. This focus on faux-psychological constructs obscures the key finding that respondents who report low levels of trust in government are unwilling to provide information that will enable data matching.

9 The AuSSA has been conducted every two years since 2003 by the Australian National University. The 2005 collection obtained responses from a statistically representative sample of 3,900 people.
‘strongly agree’ to the statement ‘You can’t trust the government to do what’s right’. The figures reported by Donovan et al. (2007) and Bean and Denemark (2007) sit oddly together. If 33% agree that you can’t trust government, and 40% agree that you can, then do 27% have no opinion? It may be that questions framed in different ways – statements of ‘can trust’ and ‘can’t trust’ – elicited contradictory responses. Perhaps many respondents did not have a view about the trustworthiness or otherwise of government. It is also possible that some respondents did not find the questions meaningful.

Bean (2005) used findings from an AuSSA survey conducted in 2003 to examine relationships between trust and levels of education. In this survey, people with post-secondary qualifications were more likely to agree with questions about trust. While people with more education were almost twice as likely to agree that ‘most people can be trusted’, when asked about trustworthiness of government the difference was much smaller. Unlike their less-educated fellows, people with post-secondary qualifications trust their government less than they trust people in general. Bean noted that levels of trust appear to have fluctuated over time, following a cyclical pattern associated with the age of the incumbent government. The relationship between trust in government and level of education, and changes in that relationship over time, would be a fruitful area for further research.

In examining questions of trust, survey studies, like any other method, have limitations. Questions like those asked in the AuSSA surveys give no room for nuance. They provide no scope for people who feel that trustworthiness of government varies over time, or from one situation to another, to express this view or illustrate it with examples. Exploratory research using qualitative methods could provide useful insights in this area to aid in interpreting findings from AuSSA and other surveys.

A rarely cited body of historical work suggests a further reason why some people may see participation in statistical collections as potentially perilous. American statistician William Seltzer and historian Margo Anderson (Seltzer 1998; Seltzer and Anderson 2001, 2002) have documented multiple instances in which census or other population data systems have been used by governments to identify and act against individuals who are members of specified groups.

Seltzer and Anderson report that census and other administrative data collections were used to enable identification, internment and extermination of people of Jewish descent in Germany and occupied countries during the Second World War. Between 1929 and 1939 the German census asked progressively more detailed questions about religion, concerning at first religious belief, then affiliation, then affiliation of parents and grandparents. The 1939 census included a four-page supplement of extra questions for people of Jewish descent. In occupied countries and later in Germany, information was collected also through population registers that followed individual members of designated groups over time. These were updated annually or monthly. The sophistication of these administrative systems had profound effects on people’s lives. Of the occupied countries, the one with the most efficient statistical system had the highest proportion of its Jewish population exterminated during the war (Seltzer 1998).
Seltzer notes that this history is rarely talked about among demographers and statisticians in the countries where it took place. In Europe and elsewhere professionals meet to discuss the technical merits of statistical systems, but not those systems’ potential for abuse. It is curious that many countries of the European Union now use population registers in preference to a census, given that registers have been shown to have a greater potential for abuse.

Seltzer and Anderson (2001) identify nine countries in which government statistical systems have been used to support human rights abuses. These are Germany, Poland, France, the Netherlands, Norway and Romania, where abuses were perpetrated against Jews and Gypsies during the Second World War; the US, which acted against Native Americans in the 1890s and Japanese Americans after 1940; the Soviet Union, which persecuted various minority populations between 1919 and 1939; and Rwanda, which employed statistical collections to support genocide against the component of the population that was identified as Tutsi. Immigrants to Australia from any of these countries might see reason to avoid participation in statistical collections run by governments.

Australia also has a history of using data obtained through official statistical collections to enable monitoring and detention of members of identified groups. Compulsory registration of ‘aliens’ was introduced in the First World War to enable identification and tracking of people who were not British subjects. The requirement for registration continued under the Aliens Registration Act 1920, but its practice lapsed because state governments would not administer the program without funding from the Commonwealth. With the outbreak of the Second World War, new measures were enacted to enable identification and monitoring of aliens, with the result that many were interned and others had their movements restricted. The Aliens Act 1947 continued the requirement for registration, and during the Cold War ASIO built this into a mechanism for generating lists of aliens to intern should an emergency arise. The Aliens Act ceased to operate in 1984 (National Archives Australia 2009).

Existing legislation in Australia is sufficient to allow monitoring of identified groups should the need be perceived. The Census and Statistics Act 1905 (2006) empowers the Government Statistician to undertake additional collections, including for a ‘specified class of persons’, and to make participation compulsory. The minister can make a directive for disclosure of information collected under the Act, with the exception only of ‘information of a personal or domestic nature [disclosed] in a manner that is likely to enable the identification of that person’ (Commonwealth of Australia 2006). The Census and Statistics Act protects the confidentiality of individuals, but offers no such protection to identified groups.

The capacity of governments to monitor and share information about their populations has been expanded in English-speaking countries in response to the terrorist attacks of September 11 2001. For example, the US Patriot Act, introduced in October 2001, permits disclosure of information held by some government agencies that had previously
been protected as confidential (Seltzer and Anderson 2002). In the UK the Statistics and Registration Service Act 2007 permits agencies to disclose information that would otherwise be confidential when required for the purposes of a criminal investigation or in the interest of national security (Seltzer 2008).

When the Statistics and Registration Service bill was before the UK parliament, government MP John Healey stated that its provisions served only to regularise a situation that already existed, as ‘the Office for National Statistics can at present make disclosures for the purpose of national security if a good enough case is made’ (Seltzer 2008). Seltzer asks:

Is this really the case? If so, it runs counter to the UK’s strong support at the United Nations for the Fundamental Principles of Official Statistics, [as well as] responses over the years to various Parliamentary questions related to census confidentiality, and statements over the years by many former UK chief statisticians.

Events such as these confirm the experience of history that, in times of perceived national emergency, confidentiality requirements enshrined in legislation can readily be overridden. These accounts have some relevance to the current study. People who themselves, or their families of origin, have been members of groups involved in the histories outlined above might regard strategic non-participation as the best response to census.

Relationships between education, information, personal and family history, trust in government and willingness to participate in the census would merit further investigation.

### 3.3 Disengagement

Various scholars have suggested that people who feel disengaged from political and social processes may see the census as irrelevant. Some have considered it as a form of community involvement, broadly analogous to voting. Others have considered disengagement in relation to characteristics of tenure or urban design. In some discussions, disengagement is seen to be associated with a lack of ‘social cohesion’.

#### 3.3.1 Disengagement from society

In the US Couper et al. (1998) used survey data to examine the theory that people who feel disengaged from society are less likely to participate in the census. Their analysis found no correlation between participation in the 1990 census and responses to questions taken to indicate ‘attachment’ and ‘alienation’. As noted above, the authors found that participation was not significantly associated with attitudes towards the census, but was closely related to concerns about privacy.

Disengagement has also been identified by the General Register Office for Scotland (2007) as a factor contributing to non-participation in the census. Young men participating in focus groups conducted on its behalf felt that the census was irrelevant to
them. Census, in this view, is something that is of concern to old people and the middle class, not to disenfranchised urban youth.

Some researchers have suggested that, in countries characterised by high levels of inequality, people who are wealthy or who earn high incomes and whose personal networks are distributed over a broad geographic area may feel little connection with the societies in which they live. Feelings of separation from local environments may be reinforced by design characteristics such as ‘gating’ of residential communities and security arrangements in apartment complexes (Blandy and Lister 2005). Possible associations between such feelings of disengagement and disinclination to participate in the census have not yet been examined.

3.3.2 Disengagement from democratic process
Several studies have considered the relation between census and voting. In the US Koch and Cebula (2004) found that states with a higher proportion of residents who were not registered to vote had a higher rate of non-response in the census, although further analysis showed that the correlation between these variables was not statistically significant.

In Australia there appears to be a relation between electoral and census participation among residents of the areas that are the subject of this study. Recent studies have identified a decline in electoral participation in locations identified by the ABS as having a high rate of dwelling non-response in the 2006 census.

In 2007, by-elections held concurrently in two areas of Melbourne – Williamstown and Albert Park – created a kind of ‘natural experiment’ around the question of socio-economic factors and voter turnout. Albert Park is an affluent suburb adjacent to the City of Melbourne. Williamstown, while also close to the city, records a lower level of socio-economic advantage than Albert Park and is home to a greater diversity of residents.

In the 2006 state election voter turnout of 91.8% in Williamstown was close to the state average, while turnout in Albert Park was among the lowest, at 85.7%. While turnout at by-elections is usually lower than at general elections, at the 2007 by-elections the difference between the two localities increased, with only 70.8% of eligible residents in Albert Park casting a vote, while turnout in Williamstown (at 84.9%) was within the expected range.

The very low turnout in Albert Park relative to Williamstown runs contrary to the commonly accepted view that areas of high socio-economic advantage have higher than average levels of participation in democratic processes (Costar 2008). This counterintuitive trend in voter turnout has been observed also in Queensland where at a 2007 state by-election in the electorate of Brisbane Central only 67.8% of eligible residents turned out to vote (Williams 2007; Reynolds 2007).

In one analysis, the unexpectedly low turnout in Albert Park in 2007 has been attributed to the effects of low ‘social cohesion’ (Hoffman 2007). In Hoffman’s study, social
cohesion is indicated by a measure comprised of factors including: age, place of birth, citizenship, religious identification and participation in voluntary work; residential mobility, population density, dwelling type and tenure; and household structure, in particular, the presence of a partner and children. Comparing Albert Park with the rest of the state on these variables, the biggest difference is population density and stability. Albert Park has more townhouses and apartments, fewer homeowners, more renters and more residents who have not lived in the area for long, than other areas of Melbourne. Hoffman concludes that in Albert Park it was ‘low social cohesion’ that led to the lower than expected participating in voting.

The recent and unexpected decline in both electoral and census participation among residents of high-status, high-density inner-urban areas lends support to the idea that the census can be regarded as a form of civic participation. Hoffman (2007) argues that the key factors at play in this decline are urban form, population density and residential mobility. The other characteristics that distinguish these localities from comparable urban areas relate to socio-economic advantage: education, occupation and income.

The apparent association between socio-economic advantage and disengagement from civic participation is both unexpected and provocative.

### 3.3.3 Disengagement associated with urban design

Some studies have considered an association between social cohesion and connectedness (the opposite of disengagement) and ‘neighbourhood’, a term used to denote material aspects of residential environments, usually in relation to urban design. ‘Weak instrumental ties extending within and without the neighbourhood’ have been argued to be instrumental in developing social capital and fostering a sense of community in urban residential environments (Bridge 2002).

UK researchers Forrest et al. (2002) looked at the relation between design, demographic characteristics and community connectedness in three high-density residential areas in Hong Kong. They examined differences between views expressed by residents of new and older areas, and of middle-class and poorer localities. Respondents reported a greater sense of connectedness in areas where populations were stable and culturally homogeneous. People who spent more time in the local area felt more connected, especially women with children attending local schools, elderly people and housewives. People reported a lesser degree of connectedness in middle-class areas where many residents worked long hours.

Also in the UK, Bridge et al. (2004) conducted a comprehensive review of the literature on ‘neighbouring’ in the UK, US and Europe. A consistent finding in this research is that long-term residents, women and people who lived in family households were more likely than others to have active social networks in their local area. The association between local interactions and socio-economic factors such as education and income is ambiguous. People who were more highly educated and had higher incomes knew more of their neighbours by name, talked to them more and visited them more frequently. At
the same time, people who were more economically disadvantaged relied more heavily on neighbours for friendship and support.

The literature discussed by Bridge et al. considered a variety of residential environments, ranging from detached suburban dwellings to urban high-rise.\textsuperscript{10} Its findings indicate that crowded conditions in high-density developments act to inhibit interaction between residents. In these environments, provision of generous and welcoming public spaces such as parks and cafes is one way to promote interaction. In areas where a high proportion of residents were renters or had lived in the area for only a short time, worked long hours and had more links outside the local area than within it, levels of interaction between residents would be expected to be lower. In developments that are home to a high proportion of long-term residents and people who do not spend long hours working outside the local areas, levels of interaction would be higher.

The authors noted that most research on this topic has been based on information obtained through ‘large-scale questionnaires’. They concluded that:

> There is an underrepresentation of detailed qualitative work that investigates the mechanisms of neighbourliness rather than attitudinal recall of its prevalence or paucity (Bridge et al. 2004).

High-density housing in Australia is less ‘dense’, and its population is more mobile, than high-density housing in places such as Hong Kong. It has been perceived as a temporary housing option, marking a stage of transition for young adults after leaving the family of origin and before moving to a house in the suburbs to raise kids. More recently, apartments in inner-city areas have been marketed to couples whose children are grown or those planning for retirement, for whom residing close to town offers advantages described as ‘lifestyle’. Apartment living can be seen as giving the opportunity of moving away from an established residential neighbourhood where everyone is well known, to the relative anonymity of the city. Neighbourhood and connectedness can be valued differently, and can mean vastly different things, to different people.

Some Australian researchers have argued that if high-density housing becomes a long-term tenure for some population groups, developments that don’t provide housing for families and space and facilities for children risk becoming ‘child-free high-density zones’, with little sense of neighbourhood or community (Randolph 2006).

These arguments lend support to the view that people in high-density environments may feel little connection with events occurring in their immediate neighbourhoods. How they might extend to feelings of connectedness with civic events more broadly is less clear.

\textsuperscript{10} A distinctive characteristic of Australian housing markets is that properties closer to the inner city are more expensive than those further out. In contrast to the US and elsewhere, in Australia residents of high-density residential developments in inner-city areas have higher than average levels of income, education and occupational status.
3.3.4 Disengagement associated with mobility and tenure

Other possible reasons for disengagement concern mobility and tenure. High levels of residential mobility and a high proportion of rental properties are a feature of each of the areas identified as having lower than expected voter turnout in recent by-elections and high levels of dwelling non-response in the 2006 census.

As well as accommodating long-term rental arrangements, apartments in desirable locations close to the inner city may be used as ‘semi-hotel accommodation’, let on a short-term basis to tourists or business travellers (Randolph 2006). Many apartments in inner-city Melbourne are occupied by overseas students who are there only for the duration of their course of study. People who are residing in the area only temporarily may feel that a place-based collection such as the census is of no concern to them.

Many high-rise apartment complexes in inner-city Melbourne are relatively new. People have not lived there long, and the ‘weak instrumental ties’ that establish connections between residents have had little time to become established. In 2006 many residents of such apartments would have met the definition of ‘high residential mobility’.

3.4 Circumstantial non-participation

Some people who have no objection to completing a census form may not do so for reasons unrelated to the census. Reasons suggested in the literature include time pressure and domestic practice, having no contact with census collectors, or a mistaken belief that the census does not apply to the resident’s situation.

3.4.1 No contact with collector

A person who has no objection to participating in the census may fail to do so because they have no contact with a census collector, so that even if forms are delivered to a dwelling, residents may not be aware of their significance. Built environment, cultural practices and time pressure all play a role here.

Collectors employed by Statistics New Zealand for their 2006 census encountered difficulties in gaining access to high-rise apartment dwellings in Auckland in order to deliver forms to residents (Statistics New Zealand 2007). In many apartment buildings entry requires a key or swipe card, or external doors to be unlocked remotely by a resident. If a collector is able to negotiate access to a building in order to knock on doors, residents may be unwilling to answer their doors to a stranger. Field staff engaged by the ABS for the 2006 census encountered similar difficulties in areas with secure high-rise apartments. Analysis of ABS data will indicate the extent to which having no contact with census collectors was associated with dwelling non-response in 2006.

The effects of time pressure and of cultural practices create further obstacles for collectors. In areas where people live in small apartments and work long hours, evening meals and social gatherings are more likely than in the suburbs to take place in public spaces such as restaurants and bars rather than in residents’ homes. The effects of urban
form combine with those of busyness to compound the difficulties faced by census collectors in attempting to find residents at home.

### 3.4.2 Time pressure and domestic practice

A person who does long hours of paid and/or unpaid work may have little time left over in which to complete forms. Future analysis of ABS data will show whether households in which residents work long hours are over-represented among dwelling non-responses.

How busy members of a household are also has implications for how mail is dealt with. Some studies have suggested that unintended failure to complete the census could be related to domestic practice. In their analysis of response to the US census Couper et al. (1998) found that households in which mail was left to pile up were less likely to return census forms than those in which it was dealt with immediately. Households whose residents were unrelated to each other were also less likely to participate in the census.

There is an extensive literature in Australia that examines arrangements for domestic labour in various types of households. ABS time use surveys have asked respondents to record time spent on ‘household management’ tasks which include dealing with mail and filling in forms on behalf of the household (ABS 1999). Qualitative studies have shown that responsibility for household management tasks is an area of dispute in many households, particularly those in which both members of a couple are engaged in full-time paid work. One strategy for resolving such conflict is to leave certain tasks undone (Carter 2006). In households in which everyone is busy with other priorities and no-one sees themselves as responsible for dealing with official mail that relates to the household as a whole, the census may easily go uncompleted.

### 3.4.3 Mistake

Some people who are willing to participate in the census may believe they are not required to do so. For example, those who receive census forms while on holiday away from home may think they are not required to complete the census at their temporary address. Overseas students or tourists who are in the country for a limited time may believe they are not required to complete the census.

### 3.5 Apparent non-participation

In some situations residents may complete census forms, but because the forms are not collected they appear not to have done so. This kind of non-participation is associated with work hours and household structure, as it is difficult for a census collector to make contact with residents of a household in which there was no-one at home in the daytime or early evening. Apparent non-participation would also occur where forms were delivered to a dwelling that was not tenanted at the time of the census, for example, in apartments that are let for short periods to people on holiday or to business travellers. If the dwelling was considered by the ABS to be tenanted, this dwelling non-response would appear to be the result of residents choosing not to participate.
3.6 Social context and changes over time

Another way to think about non-participation in census is to consider changes over time and how these are related to changes in social, environmental, cultural, political and economic contexts. While there appears to be little written about this, anecdotal information suggests that census participation in Australia has varied over the past few decades in ways that relate directly to changes in culture and politics.

According to this account participation can be mapped as a curve, coming from lower levels in the 1970s and increasing to its highest rates in the late 1980s and 1990s before declining again in the 2000s. Participation was at its highest during periods in which Australia experienced relatively little social unrest. It was lower during times of unrest associated with government participation in actions such as unpopular wars – first in Vietnam, then in Afghanistan and Iraq – and the dismissal of the Whitlam government in 1975. This account suggests that the high levels of participation recorded in Australia in the 1980s and 1990s may be an aberration rather than the norm. It is possible that changes over time in participation in the census may correspond with changes in levels of voter turnout. I was unable to locate any published studies that consider this.

Changing rates of participation in the census, and in elections, may reflect changing levels of trust in government. Donovan et al. (2007) observed that very little data exists to enable retrospective tracking of changes over time. Questions asked in different surveys are not directly comparable, and differences in sampling and presentation further limit comparison between surveys. What data there is suggests that levels of trust have fluctuated over time.

While it is beyond the scope of the present research, the relation over time between levels of participation in the census, rates of electoral participation, levels of trust in government, and changes in social, environmental, cultural, political and economic contexts would be a rewarding avenue for further study.

4. RESEARCH QUESTIONS AND FRAMEWORK FOR ANALYSIS

The purpose of this project is to answer two questions that are of concern to the ABS, whose interest is in arresting an apparent decline in rates of participation in the census. The questions are:

To what extent is the high rate of dwelling non-response in areas identified by the ABS as being of interest to this study the result of characteristics of people who reside there, and to what extent is it the result of aspects of field operations practice over which ABS has control? (More simply: ‘Is it us or is it them?’)

What can the ABS do differently in order to improve the rate of dwelling non-response in these areas?
The design of our project is informed by findings from preliminary analysis of ABS data regarding the levels and distribution of dwelling non-response in the 2006 census. These indicate that areas of interest are those in the inner city that have high levels of socio-economic advantage and in which most residents live in secure, high-cost, high-rise apartments. These findings suggest that the primary question for our research will be:

*Why are residents of high-cost, high-rise apartments in inner-city Melbourne more likely than residents of other areas to fail to participate in the census?*

As findings from further analysis regarding levels and distribution of dwelling non-response become available, these may refine the focus of our primary question and generate further questions to be investigated.

***

One way to examine our primary question is to identify relations between rates of dwelling non-response and other variables, including characteristics of location, and demographic characteristics such as education, income, occupation, country of birth, nature and duration of tenure, or household structure. This analysis will be conducted as part of the broader project of which this study is one component. However, in relation to the present question, statistical methods have some important limitations.

ABS data for the areas of interest are less robust than we might like, as the relatively high rate of dwelling non-response means that final census data include a higher than desirable ratio of imputed records to actual returns. More pertinently, while statistical methods show aggregates and correlations from which factors influencing people’s behaviour can be inferred, they are unable to show how the situation looks from the point of view of the people being studied.

This project will use qualitative methods to examine what residents of identified areas say about their views and behaviour in relation to the census, and consider those responses in relation to locational, demographic, material and cultural factors. The challenge for the project will be in engaging participation from members of this ‘hard to reach’ group.

The literature discussed in the previous section suggests a framework for analysis. This can be visualised as a matrix in which one axis represents different types of participation or non-participation, and the other represents factors that may be associated with, or influence, attitudes and behaviour in relation to the census.

Non-participation may be mapped on a continuum ranging from avoidance, to strategic non-participation, to disengagement, to circumstantial non-participation, to apparent non-participation. For purposes of our analysis we may add a final category: effective participation. These categories form one axis of our matrix.
The other axis concerns factors that may influence behaviour in relation to the census. These may be grouped under six headings.

- **Characteristics of individual residents**, including age, citizenship, cultural background, education, occupation and hours of work;
- **Characteristics of households**, including number of residents, their ages and occupations, whether they are related to each other and if so how, and arrangements regarding household-related administrative tasks;
- **Characteristics of tenure**, including how long the occupants have lived at their current address, whether they rent, own or are purchasing the dwelling, and how long they intend to stay there;
- **Individuals’ views and feelings** regarding community, government and its agencies, and the census, and how these are influenced by their personal situations and the experiences and views of their families of origin;
- Whether any aspect of an individual’s situation necessitates ‘selective representation’ of their circumstances in dealings with government agencies;
- **Characteristics of place and built environment**, including any practical impediments to access by census collectors.

Taken together these ideas form a matrix, as illustrated in Figure 2. This provides a starting point for analysis of qualitative data generated by our study.

<table>
<thead>
<tr>
<th>Characteristics of individuals</th>
<th>Characteristics of households</th>
<th>Characteristics of tenure</th>
<th>Individuals’ views</th>
<th>Selective representation</th>
<th>Built environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidance</td>
<td>Strategic non-participation</td>
<td>Dis-engagement</td>
<td>Circumstantial non-participation</td>
<td>Apparent non-participation</td>
<td>Effective participation</td>
</tr>
</tbody>
</table>

*Figure 2: Framework for analysis of qualitative data*
5. DATA COLLECTION

5.1 Location: Melbourne Docklands

Planning for this project is based on preliminary analysis conducted for the Swinburne/ABS Linkage project of the levels and distribution of dwelling non-response in the 2006 census. Findings from this analysis indicate that dwelling non-response is unexpectedly high in affluent areas of inner-city Melbourne in which the main form of residential dwelling is secure, high-rise apartments. Melbourne Docklands, an area with a concentration of high-rise, secure, high-price apartments, exemplifies the characteristics of built form, and the demographic profile, that are indicated by this analysis as being of interest to our study.\textsuperscript{11} As this locality is likely to be one from which our interview sample will be drawn, this section describes aspects of Melbourne Docklands in some detail.

Images of Docklands can be seen at http://www.docklands.com.au. The population as reported in the 2006 census, was 3,937 residents, a large increase on the 658 reported in 2001. Many more people work in Docklands than live there. In 2008 there was a ‘daily estimated working population’ of approximately 12,000. The City of Melbourne estimates that by 2020 the area will have 17,000 residents, a working population of 40,000 and 20 million visitors per year (Coomes Consulting Group 2008).

Residential accommodation in Docklands is mostly high-rise. Developments are marketed to be attractive to investors and potential residents. All residential projects are marketed as high quality, described as ‘stylish’, ‘luxury’, ‘premium’ or even ‘palatial’. Some developments are marketed as ‘green’, with eco-friendly design, solar power and rainwater harvesting.

Responsibility for infrastructure in Docklands rests with the City of Melbourne and the state government’s ‘sustainable urban development agency’, VicUrban (www.vicurban.com). Plans for further infrastructure development include establishment of a community library, expanding existing TAFE facilities, and establishing a primary school. Recent planning undertaken on behalf of the City of Melbourne and VicUrban notes that provision for public spaces and affordable housing is outside its scope (Coomes Consulting Group 2008).


The 2006 census shows the demographic profile of Docklands to differ from that of metropolitan Melbourne overall. Residents are more likely to be young, born overseas,

\textsuperscript{11} Until findings from further analysis being undertaken for the Linkage project are available, our choices regarding locations selected for sampling from must be regarded as tentative.
and earning high incomes. More are aged between 20 and 34 years (54% compared with 22%), fewer are aged under 14 (4% compared with 19%) and fewer over 65 (3% compared with 13%). Fifty-six percent of Docklands residents are male, compared with 49% across metropolitan Melbourne.

Docklands residents are more likely to be born overseas (36% compared with 29%) and less likely to be Australian citizens (56% compared with 84%). Of those born overseas, China, England, New Zealand, Malaysia and Indonesia were most commonly reported countries of birth. On census night 8% of residents were overseas visitors. Docklands residents reported significantly higher median incomes than people residing in other areas of metropolitan Melbourne. The median income was twice that reported in Victoria.

Compared with all of metropolitan Melbourne, people residing in Docklands were more likely to be employed full-time (51% compared with 37%), less likely to be employed part-time (11% compared with 17%) and less likely to be not in the labour force (14.7% compared with 32.4%). Forty-four percent have a bachelor’s degree or higher, compared with 36% in metropolitan Melbourne, and 8% have postgraduate qualifications. Research undertaken for the City of Melbourne in 2004 found that 17.8% of Docklands residents were attending an academic institution. Of these just over half (9.5%) were enrolled at a university. Many were international students (Coomes Consulting Group 2008).

Almost all dwellings in Docklands are units or apartments; 64.5% are rented, compared with 24.5% in all of Melbourne. Almost 12% are being purchased and 5.6% are fully owned by residents. In 2006 median rent was twice the level of elsewhere in the state, being $370 per week, compared with $200 per week in Melbourne and $185 across Victoria. A far higher proportion of dwellings was unoccupied in Docklands than in Melbourne overall (23.4% compared with 8.1%).

Average household size in Docklands is smaller than in the rest of the city or the state (1.9 residents compared with 2.6). There is a lower proportion of family households (53%), and a higher proportion of lone person households (26.9%) and share households (10.2%). Of family households in Docklands 72% are of couples with no children, compared with 34.1% of family households in metropolitan Melbourne. Substantially fewer family households have resident children (14.2% compared with 48.4%). Only 5% of family households in Docklands are of single parents with children.

Residential development in Docklands incorporates many features associated in the literature with ‘low social cohesion’, in consisting of high-rise apartments with secure access and limited provision of shared space. Characteristics of tenure, as well as levels of residential mobility, household structure and hours of paid work have also been associated with difficulties in developing the ‘weak instrumental ties’ that contribute to a sense of connectedness with local neighbourhood. Docklands residents present a number of the characteristics identified by Brackertz and Meredyth (2008) as associated with populations that are ‘hard to reach’ for the purposes of consultation or research.
If we wish to do interviews with people living in these neighborhoods, we will need to find ways to engage them. Some of the challenges associated with engaging such populations are discussed below.

5.2 Method: engaging people who are ‘hard to reach’

The term ‘hard to reach’ usually refers to disadvantaged populations that have been difficult to engage in consultation or research. Brackertz and Meredyth (2008) conducted a study that aimed to identify characteristics of hard to reach groups and approaches that had been successful in involving them. Those that are likely to apply to residents of Melbourne Docklands include not having lived long at their current address, living in rented accommodation, working long hours and having a high income. Others that may be relevant include distrust of government agencies and irregularities with income or immigration status.

Brackertz and Meredyth conducted a series of case studies of consultations run by local government with communities that were hard to reach. Participants identified a range of reasons for their disinclination to participate in consultations, many of which correspond with those suggested for non-participation in census. Reasons include a perception that consultation would have no effect, that the costs involved would outweigh any likely benefits, having no interest in the issues being discussed, and a wish to avoid conflict. Some respondents identified time constraints as a factor. Many demonstrated a negative perception of governments in general, or of the particular agency involved, and cynicism about the uses to which information would be put.

The reasons identified here fall along the continuum discussed in section 3 above, from strategic non-participation, to disengagement, to circumstantial non-participation. Brackertz and Meredyth (2008) describe these positions as ‘rational apathy’.

The authors identified three strategies for engaging hard to reach groups. The first is overcoming any prejudice against the group on the part of the people who are doing the approaching. The second is finding out as much as possible about the identified group. The third strategy is adapting methods to suit the people you want to engage. Suggestions include recruiting researchers from the identified group, promoting the consultation through media that the group use, making contact through the services, networks and people they engage with, convening informal meetings and events, offering relevant incentives, ensuring easy access and using language the group will understand.

Brackertz and Meredyth (2008) also comment on research methods, noting that while questionnaires using closed-end questions can generate data suitable for statistical analysis, these are not the most effective way of engaging with groups that are hard to reach. In this context their ‘main drawback … is that they rely on closed questions that limit the data obtained’. Questionnaire surveys assume that the questions asked are the ones most relevant to the topic of interest. They also assume that the questions asked mean the same thing to the respondents, as they do to the people who wrote the survey. Fixed-choice questionnaires that permit only pre-determined answers provide no room
for participants present other perspectives on an issue. Such methods offer limited opportunity to see things that the researchers have not already identified as important.

The authors argue that in seeking information from members of hard to reach groups, qualitative methods have several advantages, as they ‘provide greater opportunity to gain an understanding of social processes and the reasons for certain attitudes or behaviours’. They note also that ‘snowball sampling can be an effective and cost efficient way to recruit [participants]’ for studies seeking to engage such groups:

While qualitative methods tend to be more resource intensive, the benefits for engaging with hard to reach groups are that in addition to providing … information about their needs and attitudes, such methods also provide the opportunity to build relationships … Depending on the method chosen, qualitative methods can also be used to change behaviours and to gain community support for certain issues.

These suggestions are reflected in the broader literature on research methods. Research studying a group or topic that’s new is exploratory. Qualitative methods provide an opportunity to identify issues not previously seen as important. They allow us to place participants’ responses in context and can show us things that we did not expect (Coulon 1995; Rice and Ezzy 1999; Singh and Richards 2003; Smith 1990, 1999; Verschuren 2003). Semi-structured interviews allow time to see what the questions asked mean to the participant, and to follow themes that the participant identifies as important. They provide an opportunity to establish rapport, and invite a participant to reflect on the topic and give a thoughtful response. These methods can get beneath the ‘cover story’. They are particularly useful for investigation of sensitive topics, where surveys asking for short answers elicit socially acceptable responses while other stories and perspectives remain unspoken (Carter 2007, 2006). Qualitative methods can be resource-intensive but they provide information that you don’t get otherwise.

Studies using methods like this work with relatively small numbers. Findings derived from the samples used in qualitative studies cannot be generalised to the population as a whole. For the present study, to obtain a sample that could begin to be representative we would need to recruit at least 1,000 participants. This is not practicable for two reasons. Within the resources available to the project, it would not be possible to interview that many people. More pertinently, given the nature of the research it is highly unlikely that 1,000 people in the identified areas would agree to participate.

In this project the biggest challenge we face is getting people to talk to us. Consequently our first priority is to devise a strategy that will get us access to people who would normally not want to talk to a researcher. In this situation recruiting through snowball sampling has much higher likelihood of success than recruiting through methods that involve cold-canvassing, as would be required if we were seeking large numbers. A critical part of the process, for us, will be identifying ‘gatekeepers’ through whom we can establish initial contact with residents of the buildings from which we wish to sample.
Our chosen methods suit our present purpose. They allow us to ask questions in a way that gives people an opportunity to reflect on the way they view a situation, and on their behaviour. These methods can generate ideas that we had not thought of, and provide new ways of thinking about familiar themes. Responses from a small number of people can be sufficient to achieve this aim. This approach will provide information that will be useful in thinking about what the relations identified through analysis of statistical data mean.

6. CONCLUSION

Governments in Australia, and the people who live here, have an interest in ensuring that the historically high levels of participation in the census in this country are maintained. This study will contribute to work undertaken by the ABS to decrease the rate of non-response in the census, by examining factors influencing participation among a newly identified ‘hard to reach’ group. Findings generated by this study will be of interest also to scholars and others investigating the apparent decline in electoral participation among residents of these areas.

The research involves some risks. The first is that it will be, inevitably, an intervention in the area that is studied. This study will identify a particular demographic – people residing in affluent, high-density areas close to the inner city – as more likely than others not to participate in the census. Identifying this demographic as a new ‘hard to reach’ group for the census has the perverse effect of offering non-participation as a characteristic of a prestigious, highly educated, well-heeled inner-urban identity. This association has potential to glamorise disengagement, by association with a desirable and well-marketed brand.

A further risk is that by giving publicity to difficulties associated with the census, the study may have potential to undermine the confidence of the public, and of data users, in the completeness and integrity of census data (Salucci et al. 2002). These risks will be managed here by conducting a qualitative study that operates on a small scale, with a low profile, examining in detail the experience and views of a small number of people.

Why are residents of advantaged, inner-city high-density areas more likely than residents of other areas to fail to participate in the census? By talking to a number of such residents, this is what we aim to find out.
REFERENCES


Hoffman, R. (2007) *Explaining Low Voter Turnout in the 2007 Albert Park By-election* Student report, HAP332 Political Science Research Internship, Swinburne University of Technology, Melbourne


Presser, S., Singer, E. and VanHoewyk, J. (2000) ‘Knowing versus feeling as factors in willingness to provide information to the census’ in *Social Science Research* 29(1):140-147


Nonresponse Group, Arlington, Va.


—— (1999) *Writing the Social: Critique, Theory and Investigations* University of Toronto Press, Toronto


Williams, P. (2007) ‘Citizens should stand up to be counted’, *Courier Mail*, Brisbane, 27-28 October