CHAPTER 3: METHODOLOGY AND RESEARCH DESIGN

This chapter describes the methodology and research design that underpinned the study and how data were analysed. It begins by providing the rationale behind selection of the study area. The second section summarises the processes involved in the selection of survey locations. Research design and implementation are outlined in the third section including descriptions of the survey instrument, the sample structure and the manner in which the survey was conducted. The fourth and final section deals with methods used for data analysis and the ways in which data were processed to enable analytical interpretation.

3.1 Selection of study area

The present study surveyed people living in a major metropolitan city. This was essentially for three main reasons. The prime influence was that, at the time the CWP hypothesis was proposed by Webber, he saw the phenomenon as generally relating to residents of large urban areas. Secondly, Australian research has suggested that there is less involvement in local social interaction beyond family and kin in urban communities than in rural ones (Dempsey 1990). Therefore, if it could be established that close social ties within neighbourhood areas have remained significant for people living in a large city, it should be even more evident in regional towns and in country localities. In other words, if CWPs are not dominant within a major city, then they are unlikely to dominate elsewhere within Australia. The city, then, was the place where it was appropriate for fieldwork to take place. The final reason for a metropolitan emphasis was due to practical considerations about how and where data could be collected. The geographical spread of a variety of survey locations and associated travel logistics meant fieldwork was suited to a single metropolitan area.

Choice of city

Sydney was chosen predominantly because of its status as Australia's largest city, both in terms of population and geographic area. In more recent times, it has been described as a world city (Connell 2000a) and there are claims that it is a key node in the global economy – a global city (Daly & Pritchard 2000). As might be expected, the Sydney metropolitan area has a range of socio-economic, demographic and community conditions. The study took account of this. Sydney was also suitable for pragmatic reasons. Its central business

district is within a five-hour drive from the researcher's place of residence. Thus it was relatively accessible for the extended and numerous periods of fieldwork demanded by the project.

Geographic scale of areas to be surveyed

The spatial unit selected for analysis for this research was the collection district (CD). The CD is the smallest geographic area for the collection and dissemination of census data. The geographic size of the CD is generally governed by number of dwellings; it is an area that can be managed by one census collector. This favoured its selection as the unit of analysis, given that such an area was manageable both in terms of gaining geographic familiarity and of negotiating it physically. In addition, statistical data at the CD level would provide relevant information about the demographic characteristics of each area.

Data from the 1996 Australian Bureau of Statistics (ABS) Population and Housing Census were used to provide basic data that guided selection of areas to be surveyed. 2001 Census data were not available at the time fieldwork commenced. (In recognition of this, 2001 Census results are referenced during description of the sample profile, with significant variances in CD characteristics that had developed during the inter-censal period from 1996 highlighted.) At the 1996 Census, 3,705,533 people were counted in the Sydney Statistical Division (SD) (ABS 2000) which covered a geographic area of 12,138 square kilometres. The Sydney SD was divided into 46 statistical local areas (SLAs), within which there were 6,542 census collection districts (ABS 1998a).

3.2 Selection of survey locations

A combination of selection criteria, heavily influenced by Baum et al.'s (1999) continuum for degrees of opportunity and vulnerability in Australian communities, was used to inform the selection of final CDs in the sample. Baum and his colleagues had devised an analytical framework based on 1996 Census data for categorising each of Australia's SLAs according to a continuum of "cluster types". The performance of a given locality was indicated by its position between the extremes of the bi-polar framework. Because performance measurements were based on residential data, these classifications suited the survey location selection procedures for this research. To ensure that a range of

demographic and socio-economic characteristics was represented in the survey sample, it was important that each cluster type was included in the final selection of survey locations.

Figure 3-1 indicates the relative levels of community opportunity and vulnerability for the five cluster types within the continuum for the Sydney metropolitan area. The cluster types have been numbered from one (most opportunity) to five (most vulnerability) within this study. Cluster types are subsequently referenced when the profile of survey locations are described. This typology formed the basis for selection of sample CDs, with each of the clusters represented in survey locations.

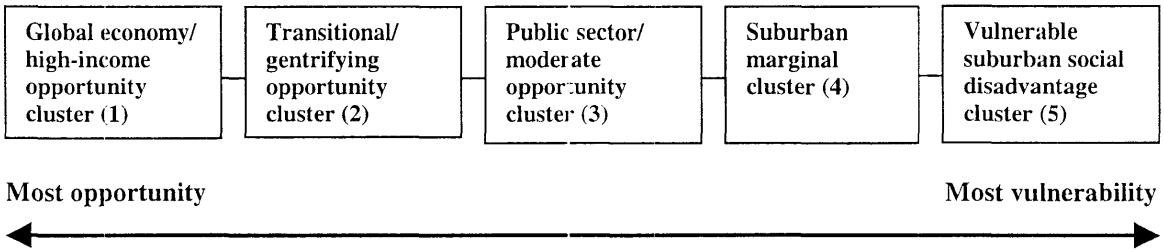

Figure 3-1: A continuum of opportunity and vulnerability clusters in Sydney
(after Baum et al. 1999)

Selection of survey locations was, however, based on more than Baum et al.'s (1999) continuum. In addition, 1996 Census data were referenced, reconnaissance and pilot testing were performed, and additional material was sourced to verify the suitability of potential CDs prior to final selection. The selection process occurred in four distinct stages: desktop analysis; on-the-ground reconnaissance; pilot test procedures and outcomes; and verification, including final selection. A detailed description of each stage is presented in Appendix 1.

In the initial stage (desktop analysis), localities were identified that had population densities, physical development, and infrastructure indicative of opportunities for CWPs, as well as neighbourhood interaction, to have developed. In addition, there needed to be a reasonable chance of interviewing respondents in meaningful ways. Therefore, in the interests of efficiency and efficacy, localities with high and low concentrations of some groups were avoided, leading to the exclusion of inner city and metropolitan fringe SLAs. Using the range of criteria outlined in Appendix 1, between five and seven contiguous CDs within each of nine geographically dispersed SLAs with varying demographic and socio-economic characteristics – 54 CDs in total – were identified in desktop analysis.

Stage two involved on-the-ground reconnaissance of the CDs that emerged from stage one. In addition to including diversity in socio-demographic characteristics and geographical dispersion, selected CDs needed to satisfy some practical considerations with respect to accessibility and safety for the researcher, such as terrain, traffic arrangement and night time street lighting and visibility. These aspects were verified during reconnaissance, as was confirmation of suitable types of land use (which obviously had to be residential). Culling in stage two reduced the number of CDs to 23 in eight different SLAs.

A pilot test was conducted as stage three in a CD in the SLA (cluster type one) that had been eliminated in the second stage. This enabled estimation of likely response rates and therefore sample size. Socio Economic Indexes for Areas (SEIFA) data produced from 1996 Census data (1998b) guided the fourth and final stage. The SEIFA Index of Urban Socio-Economic Disadvantage which uses indicators that reflect socio-economic levels of wellbeing such as might be afforded by low incomes and low educational attainment was used to measure candidate CDs for suitability and to check that they were representative of SLAs and, therefore, of Baum et al.'s cluster types. A high SEIFA score reflected a better-off situation than a low score.

Diversity of potential survey CDs was verified using Vinson's (1999) analysis of the distribution of social disadvantage in New South Wales. Vinson developed risk scores representing comparative measurements of cumulative disadvantage. A total of 578 postcodes throughout New South Wales were assessed.

Initially, selection of one CD from within each of the five cluster types was intended. A sixth CD was selected from cluster type one, partly in recognition of the geographic spread of the cluster type in the Baum et al. (1999) analysis, but largely because SEIFA (1998b) and Vinson (1999) data indicated greater ranges of urban disadvantage scores within this cluster type than were distinguished by Baum et al. (1999).

Overall, the selection process was designed to ensure that a broad cross-section of CDs representative of the diversity of a large city was selected so that the applicability of the CWP hypothesis could be explored. Six CDs were finally selected from the exhaustive process: Collaroy Plateau, Riverview, Strathfield, Roselands, Kingsgrove and Maroubra. CD locations are shown in Figure 3-2. Table 3-1 provides a summary for each survey CD

(in order of north-south geographic distribution) of 1996 Census data and classifications by cluster type. Cluster types and SEIFA indexes for CDs are listed in Table 3-2, further demonstrating the widely varying characteristics of the selected survey locations. Index intervals between selected CDs are also shown.

Table 3-1: Summary of final survey locations
(Source: ABS 1998a; Baum et al. 1999)

Survey location	*CD code*	*Cluster type*	*SLA*	*1996 Census population*	*Number of households*
Collaroy Plateau	1241007	1	Warringah	807	260
Riverview	1381704	1	Riverview	709	244
Strathfield	1410606	3	Strathfield	1,001	323
Roselands	1350402	5	Canterbury	714	264
Kingsgrove	1362106	4	Rockdale	750	259
Maroubra	1431506	2	Randwick	603	223

Table 3-2: Index intervals between SEIFA scores for survey locations
(Source: ABS 1998b)

Survey location (in descending order of Index of Disadvantage)	*Cluster type*	*1996 SEIFA Index of Disadvantage*	
		Index units	*CD Index interval**
Riverview	1	1156.65	
Collaroy Plateau	1	1112.39	44.26
Strathfield	3	1094.10	18.29
Maroubra	2	1051.83	42.27
Kingsgrove	4	1019.53	32.30
Roselands	5	1010.45	9.08
Overall Index intervals			146.20

* Difference between index units for consecutive CDs

Table 3-3 shows comparative rankings for the five cluster types and the four SEIFA index range scores. In addition, Table 3-3 displays Vinson's (1999) scores for the postcodes of the survey CDs, confirming considerable diversity in levels of social disadvantage within the survey locations. Vinson's ranking is such that the area ranked first is worse than the area ranked second, and so on (with the least disadvantaged area being ranked 578). The Sydney metropolitan area was not as disadvantaged as many regional areas, thus accounting for the range in the postcodes of the selected CDs and the absence of postcodes ranked below 276.

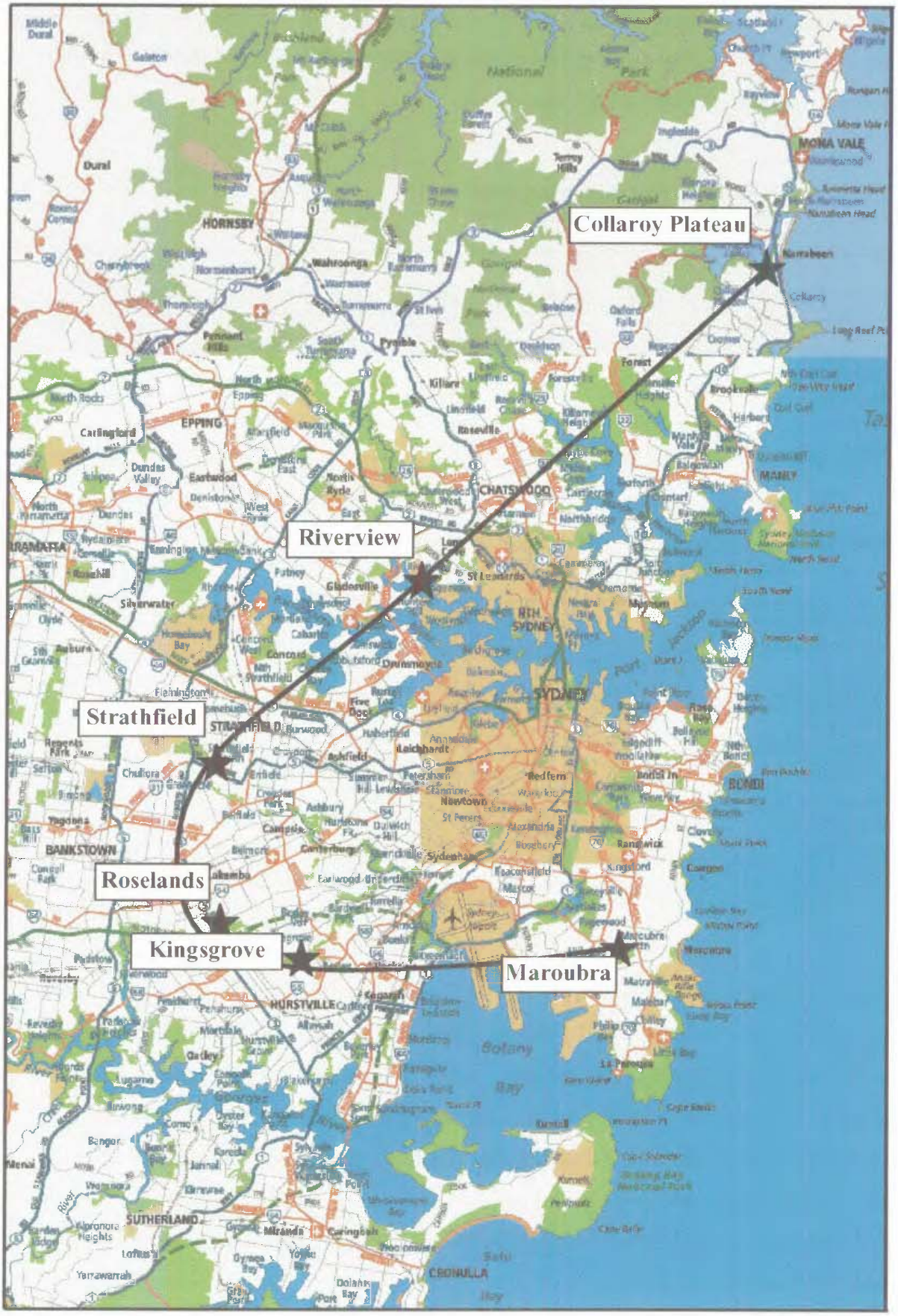

Figure 3-2: Location of survey collection districts

Table 3-3: SEIFA index range scores for cluster types for survey locations
(Source: ABS 1998b; Vinson 1999)

	Baum et al. (1999) Cluster	*SEIFA Index of Disadvantage*		*Vinson's Category of Cumulative Disadvantage*		
Survey location	*Type*	*Range score*	*Range no.*	*Risk Score*	*Rank*	*Post code*
Collaroy Plateau	1	1,040 – 1,140	2	1.23576	518	2097
Riverview	1	1,140 or greater	1	1.52147	554	2066
Strathfield	3	1,040 – 1,140	2	1.11167	507	2135
Roselands	5	Less than 960	4	0.00206	276	2196
Kingsgrove	4	960 – 1,040	3	0.43293	380	2208
Maroubra	2	960 – 1,040	3	0.56263	418	2035

3.3 Research design

The key focus of the study was to distinguish the relative importance of place-based communities, represented within contemporary Australia by six established urban areas in the nation's largest city, *vis-a-vis* other community types, and to identify the salience of local community factors in sense of belonging and wellbeing. Put simply, Webber's hypothesis strongly linked membership in CWPs to highly educated people in professional occupations and to those whose levels of spatial and temporal mobility had been enhanced by communications technology. Thus the hypothesis dictated that selected socio-demographic characteristics be collected to determine whether variations in types and intensities of community links and activities were a function of identifiable individual characteristics and opportunities. Neighbourhood and socio-demographic characteristics are to a large extent interrelated in that those who are well off have fewer constraints imposed with respect to where they live and thus are generally found in the more affluent areas of the city. Conversely, the least prosperous often live in disadvantaged areas. A cross-section of socio-economic factors and demographic profiles was ensured by the selection methodology for survey locations.

In addition to socio-demographic characteristics and use of communications technology, essentially four different types of data were collected to enable the diversity of community and social activity, and neighbourhood interaction and functioning, to be measured. First, factors that individuals recognised as important for a sense of belonging were sought along with measures of the nature and extent of identification and connection with the neighbourhood areas in which they lived. Second, the extent to which shops, services and facilities were used within neighbourhood areas or, alternatively, elsewhere was measured.

Third, distribution of close social ties with kin and friends was established, together with how contacts were maintained, and what kinds of interactions occurred in formal groups. Finally, behaviour of individuals with respect to the nature and geographical extent of travel patterns and social contacts was collected.

Design of survey instrument

Data were collected in a survey instrument that contained five parts. It had a framework that paralleled the five different types of data identified for collection – socio-demographic and communications technology data plus four types of data relating to social and community activities. Some material was collected during an initial interview session but most data were collected in a survey booklet that was left for completion and subsequent collection by the researcher.

This approach to survey instrument design and implementation was dictated by three main factors. First, most survey responses, other than those relating to socio-demographic and communications data, were predicated on individuals having a mental image or concept of what (if anything) constituted *their* neighbourhood area. The concept of "neighbourhood" was discussed with participants during interview sessions and neighbourhood areas identified. This involved using a projective technique (Walmsley & Lewis 1993) whereby respondents were asked to indicate the neighbourhood area with which they identified by drawing a line on a street plan. Cognitive mapping exercises similar to this approach have been effectively employed by many researchers (for example, Gold 1980; Lee 1968; Willmott 1967; Wilson & Womersley 1968).

Second, the survey instrument contained a seven-day diary which was left with participants so that entries could be made. The third defining factor was an expectation (subsequently validated) that some people would not devote time to an extended interview session.

For these reasons, one section of the survey instrument (Part A) was completed during an initial interview session and the remainder (Parts B - E, including diaries) was left with participants for subsequent completion. The interview session not only involved cognitive mapping of neighbourhood areas but was also used to familiarise participants with the requirements of the survey. A minimum of ten minutes was envisaged as essential and reasonable for this purpose. (Whilst this was achieved for people with limited time, in the

majority of cases, interview sessions took considerably longer.) Information about use of shops, services and facilities was also sought at this stage, in part to reaffirm the area that constituted respondents' personal neighbourhoods but also to achieve a consistent approach to the recording of this information.

The final survey instrument (see Appendix 2) was presented in these five identifiable parts. Table 3-4 summarises survey concepts, variables and questions that were included. A brief description of each part follows.

- **Part A** involved identification of neighbourhood areas. To achieve this, respondents were asked to think about their mental image of their neighbourhood or "home patch" and to draw a line that represented its boundaries on a map of their locality. They were sometimes prompted to consider whether their neighbourhood boundaries were defined by: natural or infrastructure barriers; homogeneity or heterogeneity of the area; functional aspects; people interaction; or mental images of an invisible line that, when crossed, meant they were "home". Whilst the concept was difficult for a few to grasp and, for others, boundaries were essentially non-existent, there were, in the main, recognisable limits within the intended scale.

  Part A also determined the extent of use of the neighbourhood for shopping, services and facilities by comparison with other locations or sources. Respondents were asked about types of shops and facilities as well as activities and services generally used and where these were located, with their responses in respect of use, location and access recorded by the researcher.

Parts B, C, D and E were within the survey booklet. These parts were described to participants and the booklets left for completion.

- **Part B** asked respondents what they thought and how they felt about their neighbourhood area. It explored important aspects for belonging, and identification and connection with neighbourhood.
- **Part C** asked how, where and with whom close social ties were maintained, including where and what types of interactions occurred with formal groups.

Table 3-4: Survey concepts, variables and questions

Survey concepts	*Variables*	*Questions*	*No.*
Sample profile:			
	Length of residence	How long have you lived in the area you identified as your neighbourhood on the map in Part A?	B1.
	Gender	What is your gender?	D1.
	Age	What is your age in years?	D2.
	Household size	How many people live in your household?	D3.
	Live with a partner	Do you live with a partner?	D4.
	Children living at home	If you are the parent (including step-parent) of any children living in this household, then: *(nominate age range of children, if applicable)*	D5.
	Preferred language at home	What language do you prefer to speak at home? *(English/other)*	D6.
	Born overseas	If you were not born in Australia, how many years have you lived here?	D7.
	Employment status Hours worked per week	Are you employed (including self-employed)? If yes, usually for how many hours each week?	D8.
	Education level	What is the highest level of formal education you completed? *(nominate applicable category)*	D10.
	Income source	What is your main source of income? *(nominate applicable category)*	D9.
	Income per week	What is the gross income you usually received each week? *(nominate applicable category)*	D16.
	Motor vehicle use	Do you own a motor vehicle, or have access to one for your regular use?	D14.
	Home ownership	Do you own or are you purchasing your home?	D15.
	Computer use skills	If you use a computer, how good are your skills with it? *(nominate applicable category)*	D11.
	Internet use at work Internet use at home	Do you use the internet, either at work or at home?	D12.
	Own mobile phone	Do you own a mobile phone?	D13.

Table 3-4: Survey concepts, variables and questions (continued)

Survey concepts	*Variables*	*Questions*	*No.*
Identification with neighbourhood:			
	Neighbourhood area	At the outset, respondents were asked to outline the area they thought of as their neighbourhood or "home patch" on a map of their general locality.	A.
	Where is home?	What locality or neighbourhood do you think of as "home"?	B2.
	Feelings about moving away	How would you feel about having to move away from your neighbourhood? *(nominate level of happiness)*	B5.
	Plans to move within 6 months Plans to move within 5 years	Do you have plans to move away from your neighbourhood (a) within 6 months and (b) within 5 years? *(nominate possibility/probability of move)*	B6.
	Share common interests	How often do you meet someone who shares a common interest with you and also lives in your neighbourhood (but at a different address)?	B7.
	Work outside neighbourhood	Do you travel outside your neighbourhood for paid work?	B8.
	Distance travelled to work or main interest	How far do you usually travel away from your home to go to your main place of work, or if you don't work, for your main outside interest? *(nominate distance category)*	B9.
Use of neighbourhood areas:			
Use of shops, services and facilities	Daily basic supplies General household supplies Meals to/away from home Banking Small home purchases or services Personal care General health services Child-, aged-, home-, or respite-care, meals-on-wheels etc. General government services Family & community services, other health & welfare services Schooling Church services and/or spiritual care Recreation, sport or hobbies Culture or entertainment	Part A of the survey was notated by the researcher in discussion with respondents. It sought to find out utilisation levels of facilities or services available within the local area and elsewhere, and ease of access.	A.

Table 3-4: Survey concepts, variables and questions (continued)

Survey concepts	*Variables*	*Questions*	*No.*
Locations visited away from home	Trip diary days Locations visited Purpose of visit	Respondents maintained a Trip Diary for 7 days, indicating where they went and for what purpose.	E.
Social contacts from within the home	Social contact diary days Location of contacts Methods of contact Contacts received/made	Respondents maintained a Social Contact Diary for 7 days indicating with whom they had contact whilst at home, and how.	E.
Social networks:			
Neighbourly interaction	Neighbours get along	In general, do you think people in this neighbourhood get along with each other?	B10.
	Exchange favours	Do you exchange favours (such as doing errands, or lending tools, or books and magazines) with your neighbours?	B13.
	Know neighbours	How many households are there in your neighbourhood where you are on "first name" terms with at least one adult member (that is, someone who is 18 years of age or more)?	B16.
Close friends	Number of friends indicated (maximum of 5)	Thinking of up to 5 adult friends or relatives who you feel closest to (but not a partner, or relatives living in the same household as you), please answer the following questions *(summarised below)*:	C1.
	Face-to-face meetings By phone By writing letters By email or facsimile	How do you generally keep in touch?	
	Location of close friends	Where do they live?	
	Relative Workplace colleague Friend Acquaintance	What is your relationship?	
	Closeness of relationship	How close are you?	
	Years known each other	How many years have you known each other?	

Table 3-4: Survey concepts, variables and questions (continued)

Survey concepts	*Variables*	*Questions*	*No.*
Social contacts	Number of social contacts indicated (maximum of 5)	Thinking of up to 5 adult friends or relatives with whom you've probably had most social contact over about the last 4 weeks (but again, not a partner, or relatives living in the same household as you), please answer the following questions *(summarised below)*:	C2.
	Face-to-face meetings By phone By writing letters By email or facsimile	How do you generally keep in touch?	
	Location of social contact	Where do they live?	
	Relative Workplace colleague Friend Acquaintance	What is your relationship?	
	Closeness of relationship	How close are you?	
	Years known each other	How many years have you known each other?	
	Also a close friend	Was this person listed in C1 above?	
Organisation memberships	Number of memberships	In the past 12 months, have you actively participated in a publicly recognized club, association or group?	C3.
	Types of formal groups Location of formal groups	If you answered "yes" to C3, please show the name of the club or group or if you prefer, the type, and where the activities generally occurred.	C4.

Table 3-4: Survey concepts, variables and questions (continued)

Survey concepts	*Variables*	*Questions*	*No.*
Belonging to neighbourhood:			
Neighbourhood satisfaction and safety	Satisfaction with neighbourhood	In general, how satisfied are you with your neighbourhood as a place to live? *(nominate level of satisfaction)*	B4.
	Safety in street	In general, do you feel safe walking in your street after dark?	B18.
	Neighbourhood reputation	What sort of reputation do you think your neighbourhood has as a place to live?	B19.
Social capacities and civic qualities	Trust neighbours	In general, do you think people in your neighbourhood can be trusted?	B11.
	Greet strangers	Do you say "hello" to people you might recognise but don't really know in places like the supermarket or on public transport?	B12.
	Mail collect by neighbour	If you go away for a few days, do you ask someone you know in your neighbourhood (other than a close relative) to collect your mail?	B14.
	Leave house key with neighbour	If you go on holidays, do you leave a key to your home with someone you know in your neighbourhood (other than a close relative)?	B15.
	Accept neighbours	If someone different (perhaps of a different age group, ethnicity or religion) moves into your street, do you think neighbours would generally be prepared to accept this person?	B17.
	Civic participation	In the past 12 months, have you signed a petition, contacted or written to a councillor or member of parliament, written a letter to the editor, or attended a Council meeting or protest meeting?	B20.
	Social participation	In the past 12 months, have you as an individual volunteered your unpaid time to do something for someone in the neighbourhood(s) you've lived in, other than a close relative?	B21.
	Self interest	In general, do you think most people in this neighbourhood are only interested in what's best for them? *(place representative mark along a line)*	B22.
	Volunteer help	In general, do you think most people in this neighbourhood, if asked, would volunteer time for a project that would benefit the neighbourhood, but not necessarily themselves? *(place representative mark along a line)*	B23.
Salience of issues	Family Friends Good neighbours Local facilities, shops and services Knowing and mixing with local people Local physical environment Local clubs or groups Location of work or main interest	In general terms of what gives you a sense of belonging to a place, how important to you are the following? *(nominate level of importance of each nominated category)*	B3.

- **Part D** captured relevant demographic characteristics, features relating to socio-economic status of participants and their use of communications technology. This information described the profile of the sample units for each survey location.
- **Part E** recorded travel patterns away from the home within a Trip Diary and social contacts whilst at home within a Social Contact Diary that respondents were asked to keep for seven consecutive days.

The University of New England (UNE) Human Research Ethics Committee evaluated the final draft survey instrument and the general format of the survey schedule. A pilot test of a sample of 55 dwellings from a Concord CD was selected for the pre-test, conducted in June 2002, to clarify question wording and survey administration techniques. This also informed potential participation rates, a consideration that was factored into the final stage of the selection process to determine target sample size. Field procedures such as the timing of advance notifications and survey and collection methods were also trialed at this time. Only minor changes to the wording of two questions were deemed necessary as a consequence of this pre-testing process. Having described the nature of the survey instrument, factors pertinent to the sample structure are examined next.

Sample structure

Dwellings in the six selected CDs represented the sample population for the study. All residential dwellings were included in the sampling frame, irrespective of type of building (free standing house; common-wall duplex or villa; unit, apartment or flat in multi-dwelling residential blocks).

In the survey, 50% of dwellings were targeted as sample units. Systematic sampling was employed within each CD, with the selection of a skip interval of two informed by the pilot test and based on anticipated response rates. Inclusion of all dwellings was unrealistic due to the size of the CDs and resource limitations. As streets generally formed CD boundaries, only the side included in the CD was classified as within the sample frame.

Residential buildings in survey locations comprised overwhelmingly single household dwellings. When dual- or multi-dwelling buildings were encountered, 50% of dwellings in such structures were surveyed. If the site of a sample unit was in the process of

redevelopment, a dwelling on an adjoining property was substituted. If the substitute sample unit was also not valid, no further substitution was attempted.

Survey sample structure and response rates are summarised in Table 3-5. In total, 843 dwellings were surveyed; this represented 49.7% of dwellings in the selected CDs at the time of the 2001 Census data. Respondents in a total of 211 dwellings (25% of sample units) agreed to participate. In 13 dwellings, two members of the same household took part. From the 224 people who commenced the survey, 17 did not complete (only one of these was from a two-respondent household). Therefore, the final number of responses was 207, which included dual-participation from 12 dwellings.

Table 3-5: Survey sample structure and response rates

	Collaroy Plateau	*River-view*	*Strath-field*	*Rose-lands*	*Kings-grove*	*Maroubra*	*Total*
Total CD dwellings (2001 Census)	283	280	313	261	322	236	1,695
Original sample (dwellings)	139	136	179	129	142	118	843
of which:							
vacant	8	2	8	2	4	4	28
language barrier	0	2	17	10	20	1	50
not eligible	5	7	6	3	2	0	23
no contact	28	38	44	28	30	19	187
Eligible sample (dwellings)	98	87	104	86	86	94	555
from which:							
not convenient	5	13	13	7	11	10	59
refusals	53	33	50	57	45	47	285
Respondent dwellings	40	41	41	22	30	37	211
from which:							
Respondents for Part A (persons)	43	46	44	23	31	37	224
of which:							
Parts B - E *incomplete*	3	1	4	3	1	5	17
Final responses (persons)	40	45	40	20	30	32	207
Final responses (original dwellings)	28.8%	33.1%	22.3%	15.5%	21.1%	27.1%	24.6%
Final responses (eligible dwellings)	40.8%	51.7%	38.5%	23.3%	34.9%	34.0%	37.3%
Completion rate: Returned survey booklets *	93.0%	97.8%	90.9%	87.0%	96.8%	86.5%	92.4%

* survey booklets returned (Parts B &D min.) as percentage of respondent persons for Part A

During fieldwork, a number of factors excluded units in the original sample from survey participation. For example, face-to-face contact could not always be established with residents; such dwellings were classified as "no contact". Of course, some dwellings where no contact was made could have been temporarily or semi-permanently vacant. However, dwellings were deemed to be *vacant* only when this could be confirmed. Some dwellings could not be included due to lack of proficiency in English of occupants – a "language barrier". If persons could not satisfy other criteria necessary for participation,

such as requirements relating to age, resident status or literacy skills, the sample was categorised as "not eligible".

All remaining sample units were classified as eligible. The non-response rate included people who were not able to participate because it was "not convenient". This was generally because of illness (of the contact person or a family member who was being cared for), absence for all or part of the survey week, or having babies or very young children needing constant attention. A variety of other reasons were also noted as not convenient rather than a direct refusal to participate, including disabilities (such as blindness), death in the family, very imminent arrival of a new baby, being in the process of moving out or moving in, or for religious reasons.

When contact was made but eligible occupants chose not to participate, it was recorded as a "refusal". This applied to approximately one dwelling out of three (33.8%) or 285 in total. Rejections were, in the main, polite and often after considerable discussion had taken place.

When Part A had been completed but the survey booklet could not be collected or was not returned, the survey was "incomplete". If vital responses in the complex survey instrument were missing, the survey was also treated as incomplete and not included in the final analysis. In other words, a survey was "completed" only when the survey instrument had been recovered and critical responses allowing meaningful analysis had been provided. The completion rate for distributed survey booklets was 92.4%. This high rate was in part a function of persistence in collecting survey booklets but also of the informative nature of the interview session. Respondents were made aware of the value to research of their involvement and the importance of completion of survey requirements. People who indicated they probably would not be able to maintain the week-long diary were not encouraged to participate further.

Part E trip and social contact diaries for the 207 respondents in the final sample represented diary entries for a combined total of 1,409 days, or 201.3 weeks. Four respondents did not commence the diaries at all and another three did not complete the full seven days, accounting for 40 "missing" diary days altogether (1,409 = 207 x 7 - 40).

People not proficient in English reduced response rates by 5.9%. In addition, the high non-contact rate of 22.2% (187 dwellings in total) could have been due in part to people not responding to the researcher's door-knock, specifically because of lack of proficiency in English. It was more apparent within CDs which had comparatively large proportions of people who spoke languages other than English that sometimes the door was not answered even when houses were conspicuously occupied at time of visitation.

In the Strathfield CD, the number of gated dwellings contributed to the comparatively low contact rate by comparison with the other sample CDs. In this survey location, 23 dwellings in the original sample units (12.8%) were "gated", meaning that access to such buildings was controlled electronically or keyed. Although intercoms were generally present, voice contact could not be made with residents in 16 gated dwellings. Residents of the two gated dwellings who *did* agree to participate in the survey expressed surprise that contact had been attempted; they thought the security systems and unwelcoming appearances would be too intimidating. In some instances, attempts to contact residents of gated houses were ignored, even though it was apparent that dwellings were occupied at the time. In other cases, there was no further response from occupants of such houses after identification and purpose of the visit had been stated. These varying reactions suggest that the additional security afforded by gated houses was expected, among other things, to deter unscheduled contact. Of course, high security levels could be associated with dwellings left vacant for long periods of time, with extended absences also contributing to the researcher's inability to make contact with residents of gated dwellings. Whether or not such groups are more or less likely to participate in local community affairs can only be speculated on.

Reluctance to participate in the survey and disinterest were widespread. Indeed, there was considerable opposition by many residents in the eligible sample to participate in any type of survey. Suspicion about the integrity and usefulness of research projects in general seemed to be widespread. In addition, concerns were expressed that results would be inappropriately used in marketing programs. An often-repeated reaction from residents was that they were "surveyed out". Many residents were apparently not able or prepared to distinguish between research and marketing surveys.

Conversely, the approach adopted proved to be sufficiently conciliatory and interesting to involve some residents who stated that they normally refused to take part in any type of

surveys and, in some cases, for them to initiate phone contact in the field. Many participants volunteered complimentary remarks regarding the manner in which contact was made and maintained, and cooperated cheerfully and willingly. Others did so through stated appreciation of the relevance of the study and out of a sense of obligation. It is anticipated higher response rates would have been achieved if maintenance of diaries for seven days had not been a requirement.

Conduct of survey

Fieldwork was conducted during a six-month period from June 2002 through to mid-December 2002. School holidays and holiday weekends were avoided as survey periods in order to focus on recording normal activities in the diaries. Including reconnaissance and pilot testing, a total of 77 days were spent in the field.

Fieldwork within each CD comprised three stages over a three-week period (see Table 3-6). The first stage involved distribution by mail of an "Advance Information Letter" (Appendix 3) to each sample dwelling within a CD, which advised residents of the impending survey. CD boundaries had been marked on maps for each survey location; these maps were used to qualify the postal address of sample dwellings during reconnaissance. Poster displays around each locality also advertised the research. Officials in geographically relevant police stations were advised of timetables for fieldwork for each survey location in case concerned residents made enquiries.

Table 3-6: Schedule for location surveys

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
		1 Post Advance Information Letter	**2**	**3**	**4**	**5**
6	**7**	**8**	**9** Fieldwork Day 1	**10** Fieldwork Day 2	**11** Fieldwork Day 3	**12** Fieldwork Day 4
13 Fieldwork Day 5	**14** Fieldwork Day 6	**15**	**16**	**17**	**18**	**19** Collection Day 1
20 Collection Day 2	**21** Collection Day 3					

Stage two commenced eight days after posting the information letter and continued over six consecutive days. Face-to-face contact with participants in sample dwellings was attempted during this time. If nobody was at home when the first approach was made, a

"call card" was left. The same dwelling was subsequently revisited at different times of the day or evening compared with earlier visits. Up to three separate calls were generally made to each sample dwelling in an attempt to establish contact.

When contact was made, the objectives of the study were outlined, obligations of participants described and eligible persons invited to participate. Part A was completed with those who agreed to take part, the other four parts of the survey instrument in booklet form were discussed, and the booklet left for completion. Encouragement cards were posted to all participants midway through the seven days during which diaries were kept.

The third stage for each survey location commenced ten days after the first day of initial interviews within a sample CD. This stage entailed collection of completed questionnaires and diaries (Parts B through E) over three consecutive days. Up to two calls to a dwelling were made to attempt collection of a booklet. If the first collection call was unsuccessful, a postcard was left advising that collection had been attempted. In addition, a reply paid envelope was attached. This provided the participant with the option of securing the booklet in the envelope for postage to the university or for subsequent "no contact" collection (in such cases, booklets for collection were generally left under door mats). Alternative methods of collection were essential given the difficulty of locating people at home. If subsequent collection calls were also unsuccessful and monitoring of postal returns continued to indicate a missing survey booklet, a different postcard and reply paid enveloped were dispatched by mail requesting booklet return. In summary, a minimum of two and a maximum of five calls were made to each sample dwelling to elicit participation and to achieve survey completion.

3.4 Data analysis

The survey instrument resulted in a significant volume of data, requiring detailed statistical analysis. In the main, a pre-established coding scheme was used for data capture. However, some scaled questions required the measurement of a representative mark along a line and the allocation of a proportional percentage value to such responses. Coding categories included an option for missing data. Data were analysed using SPSS (Version 11.0 for Windows) statistical package

To permit the size of neighbourhood areas to be analysed in respect of use of neighbourhood, individual areas as defined on survey location maps were measured using a planimeter and the results entered. So that composite figures could be produced showing individual neighbourhood areas for all participants from each survey location, lines that defined neighbourhood boundaries were digitised using Micrographix Designer (Version 7). This software was also used to produce figures for each survey location, including dispersal of memberships in formal groups, close friends and social contacts.

Tables presented throughout the document do not include any missing data. In other words, the total number of responses (n =) in each table will vary from the number of respondents in the final sample (207) depending on response rates for different questions. Because of the dimensions of the final data matrix and, in a number of instances, the low levels of data recorded for some responses, data categories were condensed prior to analysis. This required some reclassification of categories to avoid small numbers, as indicated in the following results chapters.

Significance testing was carried out where it was meaningful using Chi-squared non-parametric tests of statistical significance. When significant results are presented, Chi-square values are given. If tables and accompanying discussion reference tests that produced insignificant results, that fact is clearly stated. Of course, statistical significance does not necessarily indicate causality. Significant results, however, suggest clues for further investigation. Importantly, it is acknowledged that statistical significance and significance in terms of wellbeing might not necessarily be the same.

In some cases, small numbers of responses meant that the data did not satisfy the assumptions of Chi-square, and whilst cross-tabulations were performed, no testing for statistical significance could be reported. However, where appropriate, noteworthy differences are highlighted and discussed in chapters analysing results. In such cases, there will, of course, be no mention of significant differences or Chi-square values.

The systematic selection of survey locations, combined with careful preparation of the survey instrument, as well as insight gained by a thorough pilot test preceding actual data collection, and diligence in the execution of all facets of the survey over an extended period of time produced a large data set of excellent quality. The following chapters report

the results obtained from the research. A conceptual diagram of the data analysis process is presented in Figure 3-3.

Description of the six survey locations is contained in the next chapter. Because survey locations were so diverse, an appreciation of their varying characteristics is essential for interpretation of results. Where survey locations have been described in the text, they have been included in order from Collaroy Plateau in the north, through an arc to Riverview, Strathfield, Roselands, Kingsgrove and, finally, Maroubra in the south.

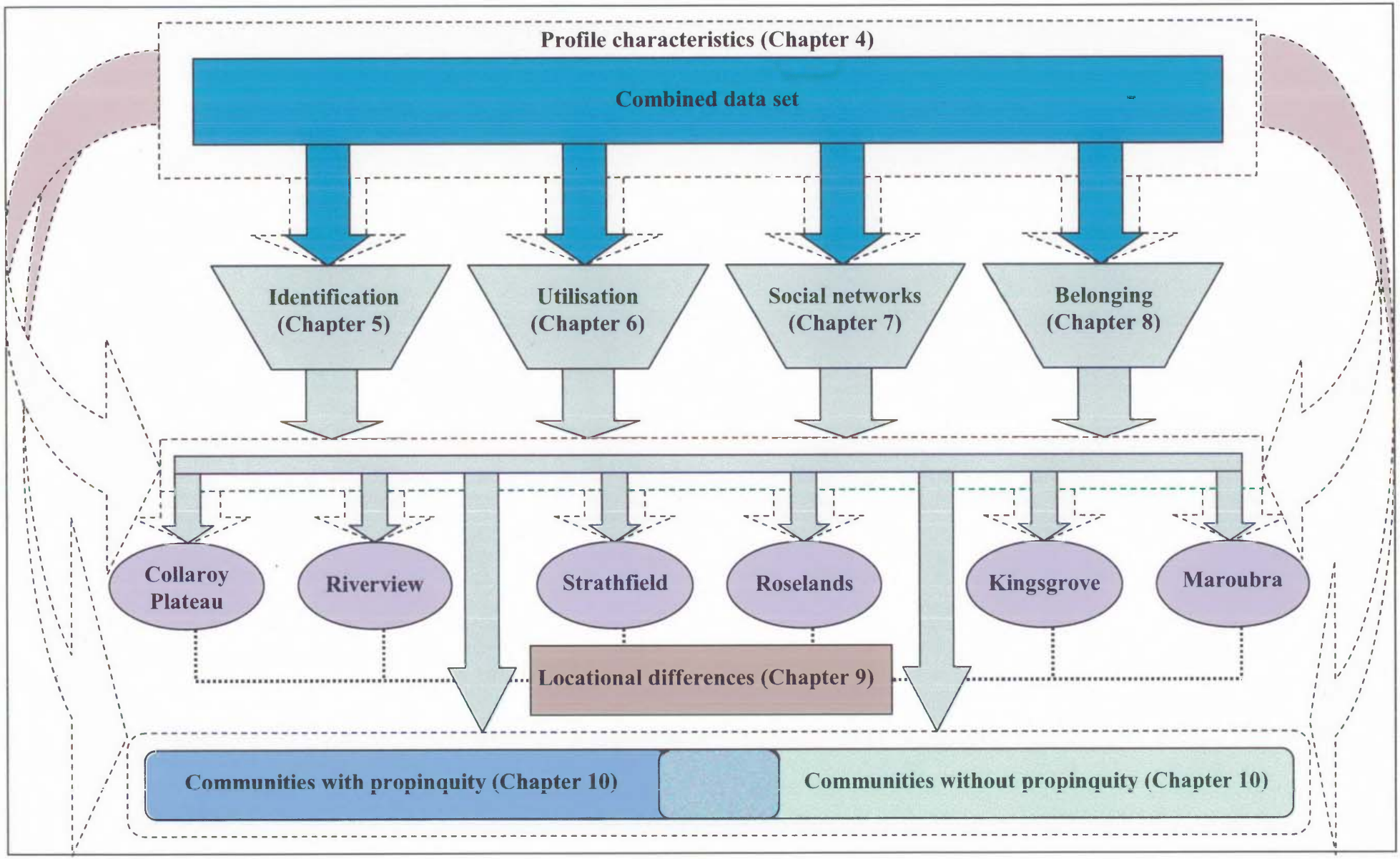

Figure 3-3: Process of data analysis
(NB. Positions, shapes and sizes of elements are representative only)

CHAPTER 4: DESCRIPTION OF SURVEY LOCATIONS AND FINAL SAMPLE

The survey locations were chosen to represent the demographic and socio-economic heterogeneity inherent within a diverse metropolitan area. In addition, each survey location had distinctly different outward appearances with respect to physical environments (both natural and built). The chapter begins by describing the recent economic performance attributes and physical characteristics of each location. Next, socio-demographic characteristics collected from participants are compared against 2001 Census data in order to assess the representativeness of the final sample with respect to the total population of the six survey locations. Finally, inter-relationships between the different types of data that describe the sample are identified, discussed and summarised.

4.1 Description of survey locations

This section describes physical and geographical features of each survey location as well as varying attributes based on cluster type within the Baum et al. (1999) framework for communities of opportunity or vulnerability.

Collaroy Plateau

Collaroy Plateau is a Sydney Northern Beaches suburb 22 kilometres from Sydney central business district (CBD) in the Warringah SLA (Figure 4-1). A CD from this suburb was one of two survey locations from within SLAs for cluster type one, with economic performance categorised by Baum et al. (1999) as "global economy/high-income opportunity". However, the suburb was peripheral to many others within this cluster type not only because of its geographic distance from the CBD but also in terms of economic growth. It had not experienced levels of growth during the current era of globalisation and economic restructuring (measured within the framework devised by Baum and his colleagues) to the same extent as many other locations with this classification of community opportunity.

Collaroy Plateau has a predominantly suburban residential character. It has generally been recognised as having comparatively high levels of socio-economic status, measured with

respect to education and income and reflected in above-average (by Sydney standards) property values. It has a high level of residential amenity when physical environmental factors such as vegetation, air and noise pollution, traffic flows and aesthetic appeal are considered.

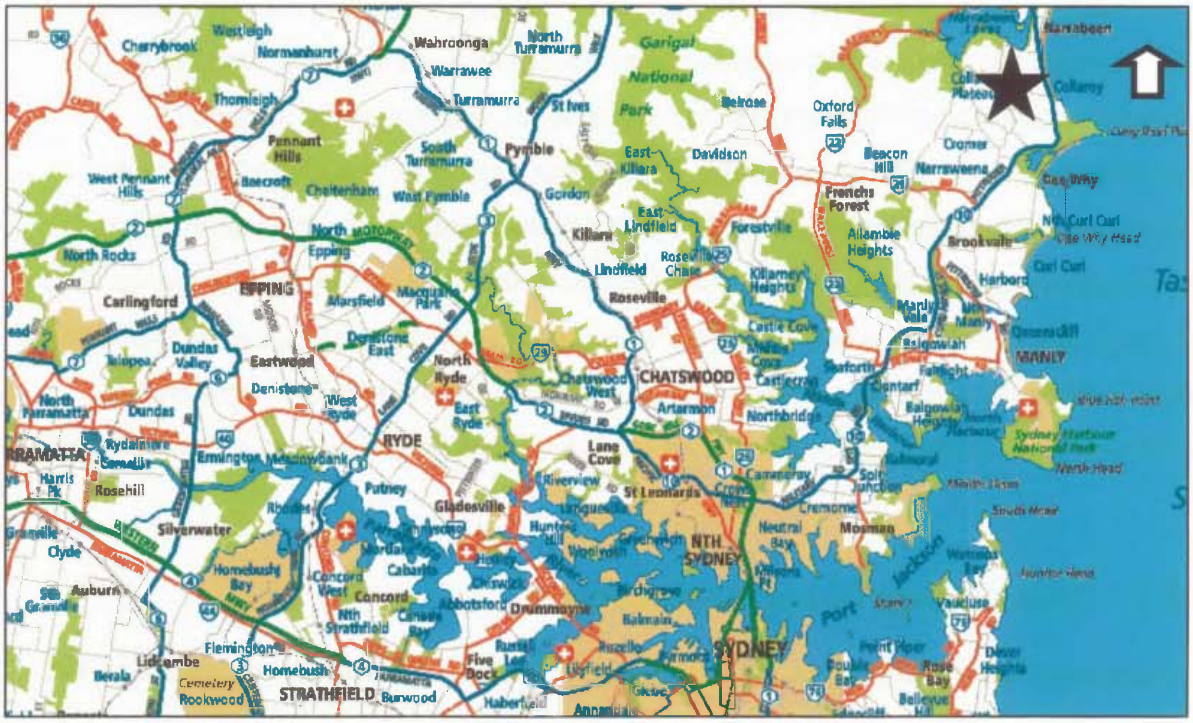

Figure 4-1: General location of Collaroy Plateau survey CD (denoted by star symbol)

One CD was selected from Collaroy Plateau as a survey location. Justification for its inclusion as a community of opportunity was further illustrated in the 2001 Census by a low rate of unemployment (2.1%) by comparison with the state-wide rate at that time. Public transport is road-based, with Pittwater Road immediately to the east the major link route. Many people volunteered that having access to motor vehicles was essential because public transport services were inferior.

As the suburb's name suggests, the locality occupies a distinctly upland area that is separated from a very narrow coastal plain by a steep vegetated escarpment. These features form a discrete geographical area and, together with the adjacent Tasman Sea, represent natural barriers for many of its residents. The land immediately to the south and west is not so steep, permitting continuous urban development. Narrabeen Lakes to the north is one of the many attractions of the general area. Figure 4-2 shows the boundaries of the survey location.

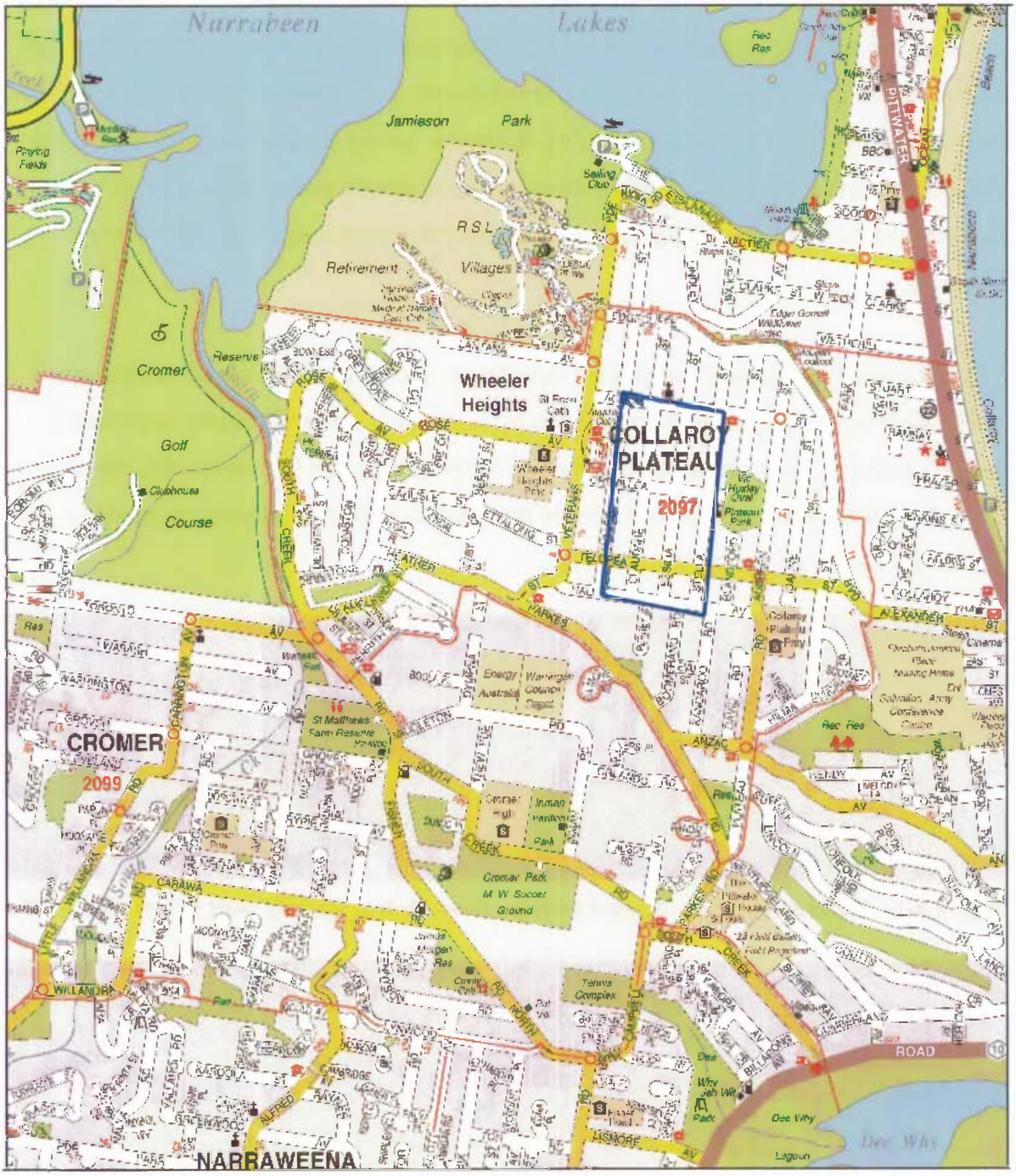

Figure 4-2: Boundaries of Collaroy Plateau survey location

Within the selected CD, residential houses were predominantly freestanding suburban dwellings of varying ages (see, for example, Figures 4-3, 4-4 and 4-5). Some of the original cottages built on the plateau as "weekenders", prior to the provision of power, water and sealed roads in the decade following World War II, were evident. Some recent redevelopments had occurred or were underway at the time of the survey, with most resulting in large (by Collaroy Plateau standards) two-storey houses.

The area is physically attractive. Altitude allows access to ocean breezes which contribute to a pleasant summer climate. Many neighbourhood children used the shady, well grassed and vegetated nature strips as playing and recreational areas, attesting to the generally relaxed atmosphere of the suburb. During fieldwork, young children and teenage girls in swimming costumes leisurely walked neighbourhood streets, providing a contrast with respect to perceived levels of neighbourhood safety by comparison with other survey locations.

The CD's relative degree of geographic detachment and its general absence of through traffic were understood to have contributed to its apparent sense of security and overall appeal. It shares these characteristics with Riverview, the other CD within this cluster type. Both these CDs experienced most of their earlier residential development in the decade following the Second World War.

Figure 4-3: Collaroy Plateau – Modest cottages most likely originally built as "weekenders"

Figure 4-4: Collaroy Plateau – Indoor space extended by second storey additions

Figure 4-5: Collaroy Plateau – Recent renovations and redevelopments

Riverview

A suburb from the SLA of Lane Cove in Sydney's lower North Shore, 13 kilometres from Sydney CBD (Figure 4-6), was the second example of a "global economy/high-income opportunity" community (Baum et al. 1999). More so than Collaroy Plateau, it represented those localities where the labour force was most strongly tied to Australia's integration into the global economy, with workers heavily involved in symbolic analyst occupations in the producer services sector, such as insurance, banking, engineering and business services (Baum et al. 1999). The increasing dominance of producer services industries in this cluster type is represented by the rapid development of offices at, for example, nearby North Sydney and Chatswood.

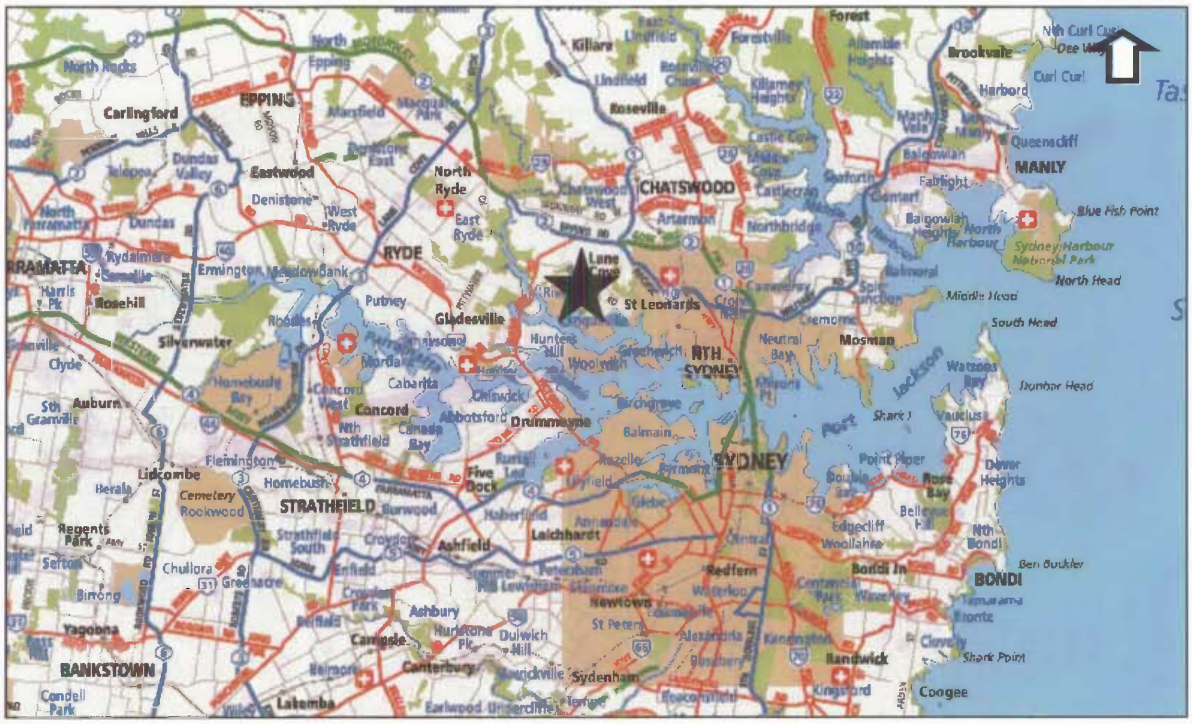

Figure 4-6: General location of Riverview survey CD (denoted by star symbol)

This area has experienced substantial increases in residential property prices in recent years and housing is expensive even by Sydney standards (Darcy 2000). It has high quality residential amenity and, based on education and income (ABS 1998b), higher socio-economic status than Collaroy Plateau. It is the type of locality where many of the "movers and shakers" in the new informational economy would seek to live. Characteristics of this SLA included high rates of human capital (as indicated by the large proportion of people holding university degrees), high levels of income and low levels of disadvantage, such as unemployment or housing stress (Baum et al. 1999).

One CD from the geographically small (by Sydney standards) harbour-side suburb of Riverview, within the Lane Cove SLA and with the same postcode as the suburb of Lane Cove, was selected as a survey location. The CD's comparatively low unemployment rate of 2.2% at the time of the 2001 Census (ABS 2002) exemplifies its high level of community opportunity. The area is complemented by superior public transport, in part as a result of recent action by an empowered community, and other services. The Pacific Highway and Epping Road are major traffic routes to the north and north-east respectively and the main road of Burns Bay Road to the west forms a physical and psychological barrier to people's perceptions of neighbourhood areas and activity nodes. The suburb adjoins the harbour waters of Tambourine Bay to the south, and a large private school, St Ignatius (Riverview) College, to the west. A heavily vegetated nature reserve with steep natural terrain and a watercourse defines the eastern boundary of the CD. Figure 4-7 shows the boundaries of the survey location.

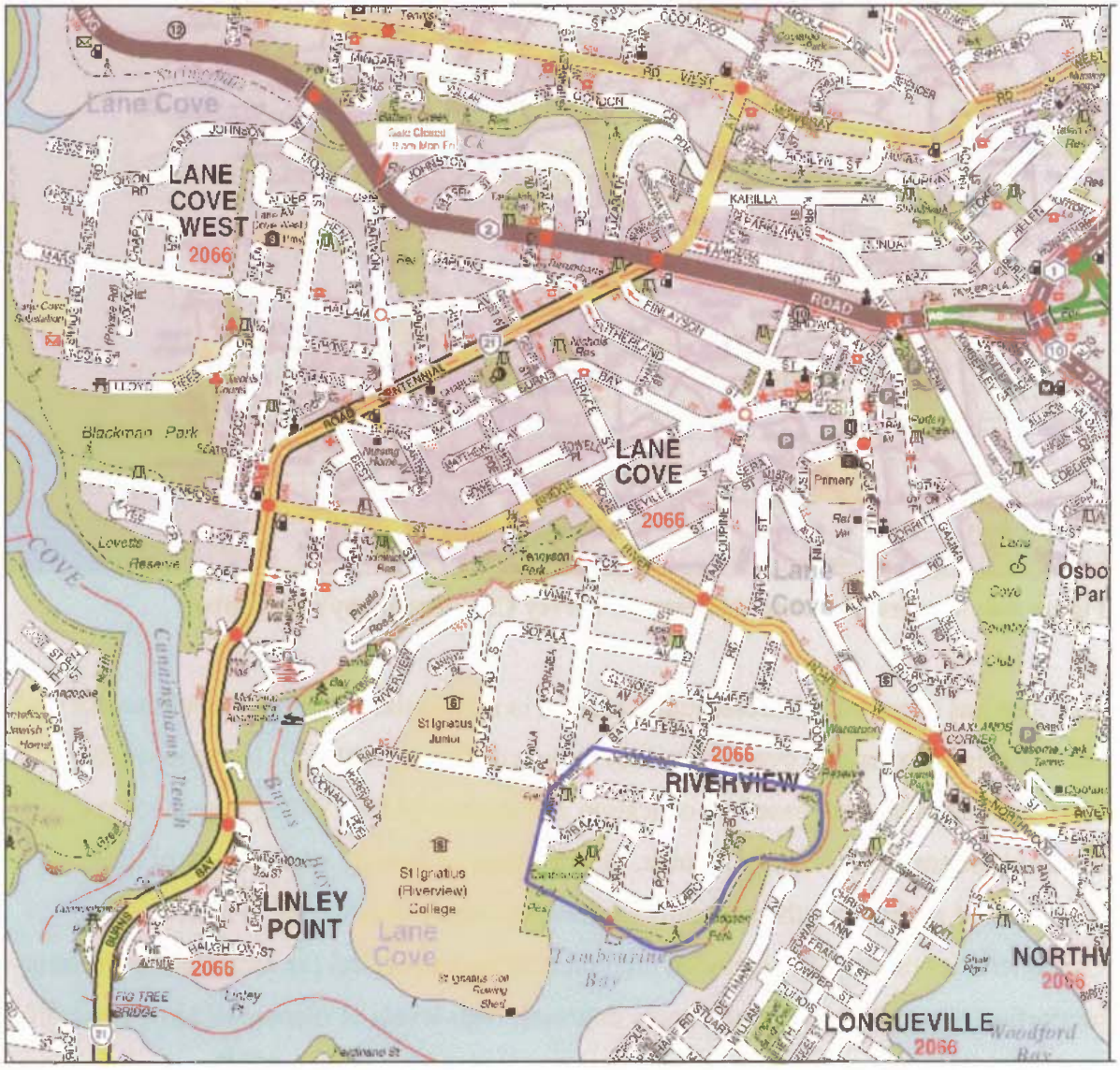

Figure 4-7: Boundaries of Riverview survey location

All residences were freestanding suburban dwellings, with older stately homes often situated on large blocks (see, for example, Figures 4-8, 4-9 and 4-10). Established trees within private land holdings as well as on nature strips and within parks and reserves are abundant. The dense vegetation, undulating to steep terrain, and proximity of the harbour contribute to the general attractiveness of the area.

The suburb was largely developed for war service homes in the decade following World War II and some of the earlier occupants were still in residence. Some new redevelopments were evident, predominantly in the form of major capital expenditure to upgrade existing buildings. By contrast, the Department of Housing owned a small number of modest homes that appeared to have not been altered substantially over the years. This variability in housing type has historically been a feature of many Sydney suburbs undergoing evolutionary processes through changes in tenure, housing costs and dwelling types (Darcy 2000).

Figure 4-8: Riverview – Modest post-war developments

Figure 4-9: Riverview – Enhanced by attractively vegetated private and public property

Figure 4-10: Riverview – Recent renovations and redevelopments