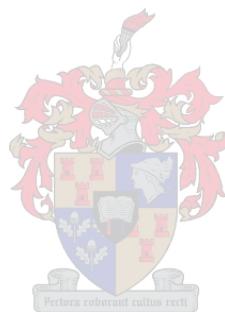


The Social and Spatial Manifestation of Gated Developments in the North-eastern Suburbs of Cape Town

Louis Welgemoed

*Thesis presented in partial fulfilment of the requirements for the degree of
Master of Arts at the University of Stellenbosch.*



Supervisor: Prof. SLA Ferreira
December 2009

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

December 2009

Copyright © 2009 Stellenbosch University

All rights reserved

ABSTRACT

Gated developments (GDs) are a global phenomenon with their presence and numbers increasing in many cities throughout the world. This is also true for cities in South Africa, including Cape Town which has seen a dramatic increase in the number of GDs during the last decade. GDs pose significant challenges to their surrounding urban environments and to cities as a whole because of the spatial and social fragmentation associated with such developments. The challenges created by GDs are especially relevant in the context of the post-apartheid planning goals of integration and sustainability of cities in South Africa. There is a pressing need to understand these GDs in their social and spatial contexts. This study examined aerial photographs to establish the spatial distribution of GDs, ascertain their growth over time and determine clustering of the phenomenon in the north-eastern suburbs of Cape Town. The architectural characteristics and the security measures employed by the GDs were investigated through field observations of a sample of GDs. The socio-economic and demographic features, as well as the daily activity spaces of the residents of the GDs, were determined in a questionnaire survey of a sample of these inhabitants. These investigations provided a detailed look at the gating phenomenon as it manifests in a post-apartheid city, namely Cape Town. The study is of particular interest to urban geographers, town and regional planners, and urban policy makers dealing with the integration of post-apartheid cities. The study found that the GDs constrain progress toward reaching the post-apartheid planning goals of integration and urban sustainability by their contribution to increasing urban fragmentation and urban sprawl through their clustering close to the urban edge. The GDs also promote social segregation through their high perimeter defences with low visual permeability which effectively separate the developments from their neighbourhoods. The use of a larger sample on which to base the socio-economic and demographic profiles of GD residents as well as the use of more recent aerial photography will enhance future studies of the gating phenomenon. A thorough analysis of travel patterns and traffic volumes in neighbourhoods with large clusters of GDs will advance an understanding of this phenomenon's effects on urban segregation and fragmentation.

KEYWORDS

Cape Town, common interest developments, Durbanville, enclosed neighbourhoods, gated communities, gated-community residents, homeowners' associations, security complexes, security villages, urban fortification, urban segregation

OPSOMMING

Sekuriteitsoorde is 'n globale verskynsel wat toenemend in teenwoordigheid en getalle wêreldwyd in die meeste stede voorkom. Dit is ook die geval in Suid-Afrikaanse stede, insluitend Kaapstad wat in die laaste dekade 'n dramatiese toename in die getal sekuriteitsoorde beleef het. Sekuriteitsoorde hou 'n paar gewigte uitdagings vir die omliggende stedelike omgewings en dié vir die groter stad in as gevolg van die ruimtelike en sosiale fragmentasie wat met hierdie ontwikkelings geassosieer word. Hierdie uitdagings is veral relevant vir die huidige Suid-Afrikaanse beplanningsbeleid wat na 1994 in werking getree het en wat stedelike integrasie en volhoubare stedelike ontwikkeling beklemtoon. Dit is belangrik om sekuriteitsoorde binne hulle sosiale en ruimtelike kontekste te bestudeer. Lugfoto's is bestudeer om die ruimtelike manifestasie (ligging, groei en konsentrasie) van hierdie verskynsel in Kaapstad se noordelike voorstede te ontleed. Verder is 'n steekproef van sekuriteitsoorde ter plaatse ondersoek om die argitektoniese kenmerke en die sekuriteit maatreëls van die ontwikkelings te bestudeer. Die sosio-ekonomiese en demografiese profiele sowel as die daaglikse aktiwiteitsruimtes van sekuriteitsoordinwoners is deur middel van 'n vraelysopname van 'n steekproef van inwoners vasgestel. Hierdie ondersoeke het 'n diepgaande blik op geslote ontwikkelings in stede wat gekenmerk is deur apartheidstyl beplanning (soos Kaapstad) gegee. Die bevindings is dus veral relevant vir stedelike geograwe, stads- en streeksbeplanners en stedelike beleidmakers wat met die integrasie van na-apartheidstede te doen het. Die studie het bevind dat hierdie ontwikkelings die bereiking van die na-apartheidsbeplanningsdoelwitte van stedelike integrasie en volhoubare stedelike ontwikkeling belemmer deur stedelike fragmentasie en stedelike wildgroei te bevorder deur konsentrasies van hierdie ontwikkelings naby die stedelike grens te vestig. Sosiale fragmentasie word ook deur hierdie ontwikkelings aangehelp deur hulle neiging om hoe grensmure met lae visuele deursigtigheid te gebruik wat effektief die ontwikkelings van hul buurt afsonder. Die studie kan verbeter word deur 'n groter steekproef te gebruik om die sosio-ekonomiese en demografiese profiele op te baseer, asook om jonger lugfoto's in te span. 'n Deeglike ondersoek van reispatrone en verkeersvolumes in die woonbuurte met groot konsentrasies geslote ontwikkelings sal 'n beter begrip van die verskynsel se impakte op stedelike segregasie en fragmentasie bevorder.

TREFWOORDE

Durbanville, geslote ontwikkelings, geslote buurte, huiseienaarsverenigings, Kaapstad, sekuriteitsdorpies, sekuriteitsoorde, sekuriteitsoordinwoners, stedelike fortifikasie, stedelike segregasie, veiligheidskomplekse

ACKNOWLEDGEMENTS

I sincerely thank:

- Prof SLA Ferreira for her guidance with this research project.
- Ms T Slabbert for her support and understanding.
- Mr JL & Mrs DE Welgemoed for their patience and support.
- Mrs I de Villiers for the distribution of questionnaires.
- Mr F Holm for the distribution of questionnaires.
- Mrs E de Villiers for the distribution of questionnaires.
- Mr L Rost for an insightful interview.
- Mr A Stander for an insightful interview.
- Mr S van der Walt for the interesting chapter headings and graphic representation of the demographic and socio-economic profile used in Chapter four.

CONTENTS

DECLARATION	ii
ABSTRACT	iii
OPSOMMING	iv
ACKNOWLEDGEMENTS.....	v
CONTENTS	vi
TABLES	x
FIGURES	xii
ACRONYMS AND ABBREVIATIONS	xiv
APPENDICES	xv
CHAPTER 1: INTRODUCTION: LIFTING THE BOOM.....	1
1.1 SOUTH AFRICAN CITIES, THE APARTHEID HERITAGE AND GATED DEVELOPMENTS	2
1.2 RESEARCH PROBLEM: GATED DEVELOPMENTS – THEIR SPACES AND PEOPLE	3
1.3 STUDY AREA: NORTH-EASTERN SUBURBS OF CAPE TOWN	7
1.3.1 Short history of gating in Cape Town	7
1.3.2 Property crime in the study area	10
1.3.3 Demographic, social and economic characteristics of the study area's residents.	11
1.4 CHAPTER OUTLINE	15
CHAPTER 2: THROUGH THE GATES: LITERATURE REVIEW.....	16
2.1 GATED DEVELOPMENTS DEFINED	16
2.2 KEY GATED-DEVELOPMENT CONCEPTS.....	17
2.2.1 Urban segregation and fragmentation	17
2.2.2 Social exclusion.....	18
2.2.3 Sense of community.....	19
2.2.4 Safety and security	19
2.2.5 Urban planning and management	20
2.2.6 Financial benefits.....	21
2.3 THEORIES AND MODELS	22
2.3.1 Postmodern urbanism.....	22

2.3.2	Club-goods theory	22
2.3.3	Middle-range theory	23
2.3.4	The driver-pressure-state-impact-response (DPSIR) model.....	24
2.4	EMPIRICAL RESEARCH ON GATED DEVELOPMENTS IN INTERNATIONAL AND LOCAL CONTEXTS.....	26
2.4.1	Gated developments in North American and British cities.....	26
2.4.2	Gated developments in Asian and Latin American cities.....	30
2.4.3	Gated developments in South African cities	32
2.5	SUMMARY.....	33
CHAPTER 3: BREACHING THE WALLS: METHODS AND RESEARCH DESIGN.....	36	
3.1	RESEARCH AIM, OBJECTIVES AND METHODS	36
3.2	AERIAL PHOTO SURVEY	37
3.3	FIELD SURVEY	40
3.4	SURVEY OF RESIDENTS	42
3.5	DATA CAPTURE AND ANALYSIS	43
3.5.1	Identifying the location of the gated developments.....	44
3.5.2	Determining the concentrations of gated developments	44
3.5.3	Obtaining data about the physical characteristics of the gated developments.....	46
3.5.4	Processing the data about gated development residents' demographic and socio-economic characteristics	46
CHAPTER 4: INSIDE THE WALLS: CHARACTERISTICS OF THE STUDY AREA'S GATED DEVELOPMENTS	48	
4.1	SPATIAL MANIFESTATION AND GROWTH OF THE GATED DEVELOPMENTS	48
4.1.1	Spatial patterns (location and concentration) of the complexes	48
4.1.2	Concentrations and sizes of the gated developments	50
4.1.3	Development (1998-2005) of the gated developments	54
4.2	PHYSICAL CHARACTERISTICS OF THE GATED-DEVELOPMENTS	56
4.2.1	Housing types and densities.....	56
4.2.2	Security measures.....	59
4.3	CHARACTERISTICS OF RESIDENTS AND THEIR DAILY ACTIVITY SPACES OUTSIDE THE GATED DEVELOPMENTS	66

4.3.1 Residential background of the respondents.....	66
4.3.1.1 Length of stay	66
4.3.1.2 Types of housing	67
4.3.1.3 Ownership status	68
4.3.1.4 Experiences of crime	69
4.3.1.5 Motivations for deciding to reside in a GD complex	72
4.3.1.6 Perceived social status.....	75
4.3.1.7 Level of community cohesion	76
4.3.2 Residents' daily activities outside the communities	78
4.3.2.1 Travel to work	78
4.3.2.2 Modes of transport to workplaces	82
4.3.2.3 Shopping for groceries	83
4.3.2.4 Shopping nodes most often visited.....	85
4.3.2.5 Leisure nodes regularly visited	87
4.3.2.6 Visits to public parks.....	91
4.3.3 Gated-development residents and their governing bodies	93
4.3.4 Demographic and socio-economic profiles of the respondents	98
4.3.4.1 Gender of respondents and household size	98
4.3.4.2 Age	100
4.3.4.3 Marital status	102
4.3.4.4 Education level.....	103
4.3.4.5 Employment status	105
4.3.4.6 Occupations of respondents	106
4.3.4.7 Monthly income levels	107
4.3.4.8 Motor vehicle ownership.....	107
CHAPTER 5: CLOSING THE GATES: CONCLUSION	111
5.1 REVISITING THE AIM AND OBJECTIVES	111
5.2 SUMMARY OF SALIENT FINDINGS.....	111
5.2.1 The spatial investigation of the gated developments.....	112
5.2.2 The physical survey of the gated developments.....	112
5.2.3 The questionnaire survey of the gated-development residents	113
5.3 FINDINGS ASSOCIATED TO THE KEY GATED-DEVELOPMENT CONCEPTS	114
5.3.1 Urban segregation and fragmentation	114
5.3.2 Gated developments and social exclusion	115

5.3.3	Sense of community and gated developments.....	115
5.3.4	Safety and security features	115
5.3.5	Urban planning and management	116
5.3.6	Financial benefits of gated developments.....	116
5.4	FINDINGS RELATED TO THE MODELS AND THEORIES OF GATED DEVELOPMENTS	117
5.4.1	Postmodern urbanism.....	117
5.4.2	Club-goods theory	117
5.4.3	Middle-range theory	118
5.4.4	The DPSIR model.....	118
5.5	CONCLUSION.....	119
	REFERENCES	122
	PERSONAL COMMUNICATIONS.....	126
	APPENDIX A: CRIME NUMBERS FOR THE SPECIFIC SUBURBS.....	127
	APPENDIX B: FIELD SURVEY DOCUMENT.....	133
	APPENDIX C: COVERING LETTER USED IN QUESTIONNAIRE SURVEY	135
	APPENDIX D: ENGLISH VERSION OF THE QUESTIONNAIRE	136
	APPENDIX E: AFRIKAANS VERSION OF THE QUESTIONNAIRE.....	144
	APPENDIX F: RESPONSE SUMMARY OF THE QUESTIONNAIRE SURVEY	152

TABLES

Table 1.1	Levels of property crimes to population in the suburbs of the study area	10
Table 1.2	Racial composition of the residents in the suburbs of the study area, 2001	11
Table 1.3	Age distribution of the residents in the suburbs of the study area, 2001	12
Table 1.4	Highest education levels attained by the residents in the suburbs of the study area, 2001	13
Table 1.5	Employment status of residents in the suburbs of the study area, 2001	14
Table 1.6	Monthly income levels of the residents in the suburbs of the study area, 2001	14
Table 2.1	Summary of studies investigating the gating phenomenon in the United States of America	26
Table 2.2	Summary of studies investigating the gating phenomenon in Canadian cities	28
Table 2.3	Summary of studies investigating the gating phenomenon in British cities	29
Table 2.4	Summary of studies investigating the gating phenomenon in Asian cities	30
Table 2.5	Summary of studies investigating the gating phenomenon in Latin American cities and in Turkey	31
Table 2.6	Summary of studies investigating the gating phenomenon in South African cities ...	32
Table 3.1	Summary of objectives and methods employed to achieve these objectives	36
Table 3.2	Summary of the coverage and response rates of the questionnaire survey, 2008	43
Table 4.1	Distribution of Gated Developments among the suburbs comprising the study area, 2005	50
Table 4.2	Average size of gated developments and total area they cover by suburban area, 2005	53
Table 4.3	Distribution and growth of gated developments by suburban area in 1998, 2001 and 2005	54
Table 4.4	Percentage distribution of housing types and densities of GDs by suburban area, 2008	57
Table 4.5	Percentage distribution of access control types installed at GDs, 2008	59
Table 4.6	Percentage distributions of perimeter-wall types and their visual permeability, 2008	61
Table 4.7	Percentage distribution of security measures used at individual houses in the GDs, 2008	65
Table 4.8	Length of stay, number of residences and desire to move from GD reported by respondents, 2008	66
Table 4.9	Percentage distribution of ownership status of homes in surveyed GDs, 2008	68

Table 4.10 Percentage distribution of the types of crime reported by respondents, 2008	70
Table 4.11 Percentage distribution of crime levels in surveyed GDs compared to the surrounding neighbourhoods, 2008	71
Table 4.12 Percentage distribution of distances respondents travel daily to their workplaces, 2008	80
Table 4.13 Percentage distribution of modes of travel used to reach workplaces, 2008	82
Table 4.14 Percentage distribution of distances travelled for grocery shopping, 2008	84
Table 4.15 Percentage distribution of shopping centres most often visited for grocery shopping by respondents, 2008	86
Table 4.16 Percentage distribution of distances travelled for entertainment purpose, 2008	88
Table 4.17 Entertainment facilities and services offered at specific shopping centres, 2008.....	91
Table 4.18 Regularity of park visits according to suburbs, 2008.....	92
Table 4.19 Nature of involvement with GD associations and neighbourhood organizations, 2008	95
Table 4.20 GD household sizes according to suburban area, 2008.....	99
Table 4.21 Percentage distribution of household sizes and ages of household members, 2008	101
Table 4.22 Percentage distribution of respondents' age groups' marital status, 2008.....	103
Table 4.23 Distribution of education levels of respondents by suburban area, 2008	104

FIGURES

Figure 1.1 Research design for studying the spatial aspects of gated developments and the socio-economic profiles of their residents.....	6
Figure 1.2 Relative location of the study area in north-eastern Cape Town.....	8
Figure 2.1 The DPSIR model.....	24
Figure 3.1 A typical gated development showing its three distinguishing features.....	39
Figure 3.2 Typical physical features of four different gated developments.....	41
Figure 3.3 Location of the surveyed GDs and the spatial clusters in which they are located.....	45
Figure 3.4 Digitizing process of the outline shapes of selected GDs used to calculate housing density	47
Figure 4.1 Spatial location and cluster of gated developments in the study area, 2005	49
Figure 4.2 Concentrations and sizes of gated developments in the study area, 2005	51
Figure 4.3 Location and growth of gated developments, 1998 to 2005.....	55
Figure 4.4 Types of houses in the GDs, 2008	56
Figure 4.5 Percentage distribution of housing types in the GDs, 2008.....	58
Figure 4.6 Percentage distribution of housing densities in the GDs, 2008	58
Figure 4.7 Examples of access control to GDs	59
Figure 4.8 Examples of five types of perimeter walls around GDs, 2008	60
Figure 4.9 Examples of boundary visual permeability, 2008	61
Figure 4.10 Percentage of gated developments using the various types of perimeter defence, 2008	62
Figure 4.11 Permeability of perimeters of the surveyed gated developments, 2008	63
Figure 4.12 Percentage of security measures employed at homes in the surveyed gated developments, 2008.....	64
Figure 4.13 Percentage distribution of housing types in surveyed GDs as reported by respondents, 2008	67
Figure 4.14 Ownership status of homes in surveyed GDs, 2008	69
Figure 4.15 Percentages of the types of crimes as reported by respondents, 2008	70
Figure 4.16 Respondents' perception of safety in neighbourhoods surrounding their GDs, 2008	72
Figure 4.17 Respondents' reasons for choosing to reside in the surveyed GDs, 2008	73
Figure 4.18 Reasons for choosing to settle in the surveyed GDs, 2008.....	74
Figure 4.19 Respondents' responses to statements about their social status, 2008	76
Figure 4.20 Respondents' answers to statements about their community spirit, 2008	77

Figure 4.21 Distance travelled to work by respondents, 2008	78
Figure 4.22 Work destinations of GD respondents, 2008	79
Figure 4.23 Work destinations of GD respondents, 2008	81
Figure 4.24 Distances usually travelled by respondents for grocery shopping, 2008	83
Figure 4.25 Distances usually travelled by respondent age groups for grocery shopping, 2008	84
Figure 4.26 Shopping centres visited for grocery shopping, 2008.....	85
Figure 4.27 Percentages of respondents visiting alternative shopping centres for grocery shopping, 2008	86
Figure 4.28 Percentages of respondents travelling various distances for their entertainment needs, 2008	87
Figure 4.29 Percentages of distances usually travelled by respondent age groups for recreational needs, 2008	89
Figure 4.30 Shopping centres visited for entertainment and recreation needs, 2008.....	90
Figure 4.31 Regularity of visits to public parks, 2008	91
Figure 4.32 Regularity of visits to public parks according to age of respondents, 2008	93
Figure 4.33 GD residents' affiliation with GD and neighbourhood associations, 2008	94
Figure 4.34 The most important functions or roles of governing bodies, 2008	96
Figure 4.35 Degree of influence or control by governing bodies on GD residents, 2008	97
Figure 4.36 Size of respondents' households, 2008	98
Figure 4.37 Percentage distribution of respondents by age groups, 2008	100
Figure 4.38 Percentage distribution of household members' age groups, 2008	101
Figure 4.39 Percentage distribution of respondents' marital status, 2008	102
Figure 4.40 Respondents' highest level of education, 2008	104
Figure 4.41 Percentage distribution of respondents' employment status, 2008.....	105
Figure 4.42 Distribution of respondents according to occupations, 2008.....	106
Figure 4.43 Distribution of gross monthly income, 2008	107
Figure 4.44 Distribution of respondents' motor vehicles owned and regularly used by their households, 2008	108
Figure 4.45 Profile of a typical GD resident in the study area.....	109

ACRONYMS AND ABBREVIATIONS

GD	Gated Developments
HOA	Homeowners' association
CID	Common interest development
DPSIR	Driver-pressure-state-impact-response-model
CPTED	Crime prevention through environmental design

APPENDICES

Appendix A:	Crime numbers for the specific suburbs	127
Appendix B:	Field survey document	133
Appendix C:	Covering letter used in questionnaire survey	135
Appendix D:	English version of the questionnaire	136
Appendix E:	Afrikaans version of the questionnaire	144
Appendix F:	Response summary of questionnaire survey	152

CHAPTER 1: INTRODUCTION: LIFTING THE BOOM

The desire for safety and security has been identified as one of the major driving forces in the rapid growth and spread of Gated Developments (GDs) throughout the world (Low 2003; Blandy & Lister 2005; Roitman 2005; Lemanski 2006; Genis 2007; Landman 2007). A significant effect of this so-called “gating” is the increased segregation of both the social and the physical urban environment (Lang & Danielsen 1997; Landman 2007). This residential phenomenon has the potential to dramatically transform the South African urban environment and to drastically affect the long-term ability of our cities to become and remain sustainable¹ (Landman 2000a). Consequently Landman (2000c) has pointed out that South African cities continue to be marked by fragmentation and segregation due to the unique political and planning history of the country². GDs therefore have the potential to negatively contribute toward this fragmentation, both physically and socially. Given the unique characteristics of South African cities, it becomes important to understand the phenomenon of gating in the context of our cities at the neighbourhood scale.

A gated development is a group or collection of housing units enclosed by a physical boundary such as walls or fences and which prevents access by non-residents by means of gates or booms at entrances. GDs first appeared in South Africa in Durban and Johannesburg in the early 1990s but have only become popular in Cape Town in the last five to seven years (Lemanski, Landman & Durington 2008). Drives through most large urban areas in South Africa will show the extent to which these types of communities have proliferated. GDs are by no means restricted to South Africa as they are a worldwide phenomenon. Landman (2000a) states that GDs occur in increasing numbers throughout the world in the First World and even in Third World countries.

This chapter initially examines the characteristics and problems associated with apartheid cities and looks at post-apartheid cities and the impacts that GDs are having or could have on these cities. The chapter then articulates the research problem and provides an explanation of the research design, methodology and goals, followed by a description of the study area. The chapter finally outlines the remainder of the thesis contents.

¹ A sustainable city refers to a city which strives for: economic efficiency in the use of development resources (including goods and services provided by the natural environment); social equity in the distribution of development benefits and costs (with special emphasis on the needs of low-income groups); avoidance of unnecessary exclusion of future development options (Landman 2000a: 2).

² 1948–1994 A unique political and planning history marked by race-based residential segregation, also known as the “apartheid era”.

1.1 SOUTH AFRICAN CITIES, THE APARTHEID HERITAGE AND GATED DEVELOPMENTS

Post-apartheid cities are unique due to the effects of the political and social histories of South Africa. To understand the impact of GDs on these cities, it is necessary to examine the features which make our cities distinctive. Landman (2008) provides a starting point by listing the following attributes of South African post-apartheid cities:

- the diversity of the urban residents living together in these cities;
- the specific political and socio-economic environment present in these cities;
- particular crime patterns and a relatively high crime rate;
- proportionately high levels of fear of crime;
- low levels of trust in the police in many communities;
- a heritage of fragmented and separated urban environments, resulting from previous urban planning;
- large differences in existing facilities and services accessible to particular residents of these cities;
- suspicion about the capacity and the ability of local governments in South Africa to deliver services; and
- notorious extremes between the rich and the poor.

She adds that post-apartheid cities are marked by fragmentation, spatial dislocation, separation, mono-functional zoning and by low-density suburban sprawl (Landman 2008).

It is no wonder that at the advent of the 1990s of the key issues facing post-apartheid cities was to overcome the fragmentation of our communities and the urban fabric. Consequently, much post-apartheid planning has been aimed at integrating South African cities, spatially as well as socially (Landman 2000d). Landman (2003) points out that the goal of post-apartheid planning is to stimulate multi-faceted and multi-layered integration (spatial, social and institutional) in line with international trends towards sustainable development³. These progressive schemes are, unfortunately, undermined by the social and physical structures created under apartheid (Van der Walt 2003).

³ Sustainable development not only refers to development that can be sustained but to the type of development necessary to achieve a state of sustainability (Landman 2007).

Another aspect that continually threatens post-apartheid planning goals is the way in which the state regulates the private development of land. Mabin (2005) has pointed out that on the periphery of many South African cities there is a movement away from the state creating spaces of development toward private interests shaping those spaces themselves, and that private-sector interests are playing a determining role in spatial change. This new relationship between public planning and private-sector interests has tended to intensify separations related to income, wealth and forms of employment, thereby increasing segregation and fragmentation in post-apartheid cities (Mabin 2005). GDs are a prime example of such private developments that impact on the structure of South African cities by increasing segregation and fragmentation, and so doing they undermine the goal of sustainability⁴ (Landman 2000a; 2007). It becomes clear that the proliferations of GDs in post-apartheid cities are having dramatic effects on these already precarious urban environments. It is therefore important to understand GDs, their residents and the possible impacts of these communities so as to ensure the attainment of sustainable cities in the future.

The research problem, the research design as well as the methods used in the research are briefly discussed in the next section.

1.2 RESEARCH PROBLEM: GATED DEVELOPMENTS – THEIR SPACES AND PEOPLE

GDs are rapidly springing up in residential areas in many South African cities, especially Johannesburg, Cape Town, Pretoria and Durban (Landman 2000a; 2002b; 2002c; Tshehla 2003; Landman 2004; Lemanski 2006; Lemanski, Landman & Durlington 2008). The recent creation of a policy document by the City of Cape Town municipality dealing specifically with the regulation of GDs in Cape Town is another indication of the increasing popularity of these communities in this city (City of Cape Town 2007b). In most cases these GDs can have dramatic effects on both society and the built environment. Landman (2000c) notes that if the rapid growth of GDs is ignored, urban planners and local authorities could be confronted with large numbers of enclosed cells throughout the urban landscape dramatically affecting the character of the built environment of our cities. GDs, by their very nature, exclude certain “unwanted” members of society, consequently impacting on the levels of racial and social integration in South African cities (Landman 2007).

⁴ Landman (2007) indicates that the term sustainability refers to the state that would allow the sustained existence of the human race. Further she notes that to achieve sustainability a balance must be created between the needs of humans and the carrying capacity of the planet and also the continued protection of this capacity to ensure that future generations’ needs can be met.

Landman (2008) has recently identified a number of concerns about the spread of GDs in South Africa, namely

- the legal implications regarding the enclosure of public space;
- the privatization of public functions such as road maintenance and its implications for taxes;
- the fragmentation of urban areas;
- the values of properties or houses in enclosed areas;
- the gain or loss of social connection and contact and increasing social exclusion and separation;
- the perception of safety versus actual reports of crime decreasing in GDs; and
- the role of private security in enclosed areas.

Given the above concerns, a number of questions arise relating to GDs: Where are these developments located? How has the extent of the phenomenon grown over time? What are the characteristics of these developments and their residents? What are the interactions between these developments and their surrounding urban areas? These questions are very relevant and they are of considerable interest to urban planners, estate agents, property buyers, property managers, politicians, policymakers and geographers.

Consequently, to help answer these questions, this study will, from a geographical perspective, examine the salient features of GDs in a specific geographical location in South Africa, namely the north-eastern suburbs of Cape Town. The overarching aim of this study is to gain better insight into the social and spatial manifestation of GDs as an current international phenomenon and more specifically in the north-eastern suburbs of Cape Town.

To achieve this aim various objectives have been set, namely

- to get a grip on the appropriate conceptual base (models and theories) for the study of GDs by reviewing the current international scholarship in this regard;
- to map the spatial manifestation of GDs in the north-eastern suburbs of Cape Town by using aerial imagery and GIS (geographical information systems) analysis;
- to record and analyse the growth of the phenomenon from 1998 to 2005 using GIS software;
- to calculate and map the concentrations of GDs in the study area;
- to determine the density in each GD development in the study area;

- to ascertain the demographic and socio-economic profiles of the residents of these communities; and
- to uncover the interactions of the residents of these communities with their surrounding urban areas as indicated by the residents' daily activity spaces.

The location, extent and growth of the GDs were determined and mapped from aerial photographs taken in 1998, 2001 and 2005. The built characteristics of the GDs were examined by visiting selected GDs during 2008 and recording some of their specific physical features, such as the entrance gates, the layout and the architecture of these developments. Demographic and socio-economic data, as well as data pertaining to the activity spaces of the residents of these communities, were gathered in 2008 through a questionnaire survey of residents of selected GDs. The findings of these investigations are reported in Chapter four.

Figure 1.1 depicts the steps in the research procedure. Step one entails the literature review and formulation of the research problem. The second step focuses on the spatial mapping of the GDs, and the third step involves the mapping and analysis of the growth of the phenomenon. Step four is the identification of the physical characteristics of GDs, while the fifth step entails the gathering of the demographic and socio-economic information. Step six deals with data capture, formatting and analysis. Step seven examines the residents' interaction with their daily activity spaces. Finally, step eight interprets and synthesizes the findings.

The following section defines and gives the rationale for choosing the study area and contextualizes it in terms of the city of Cape Town. The chapter concludes with an outline of the remainder of the report.

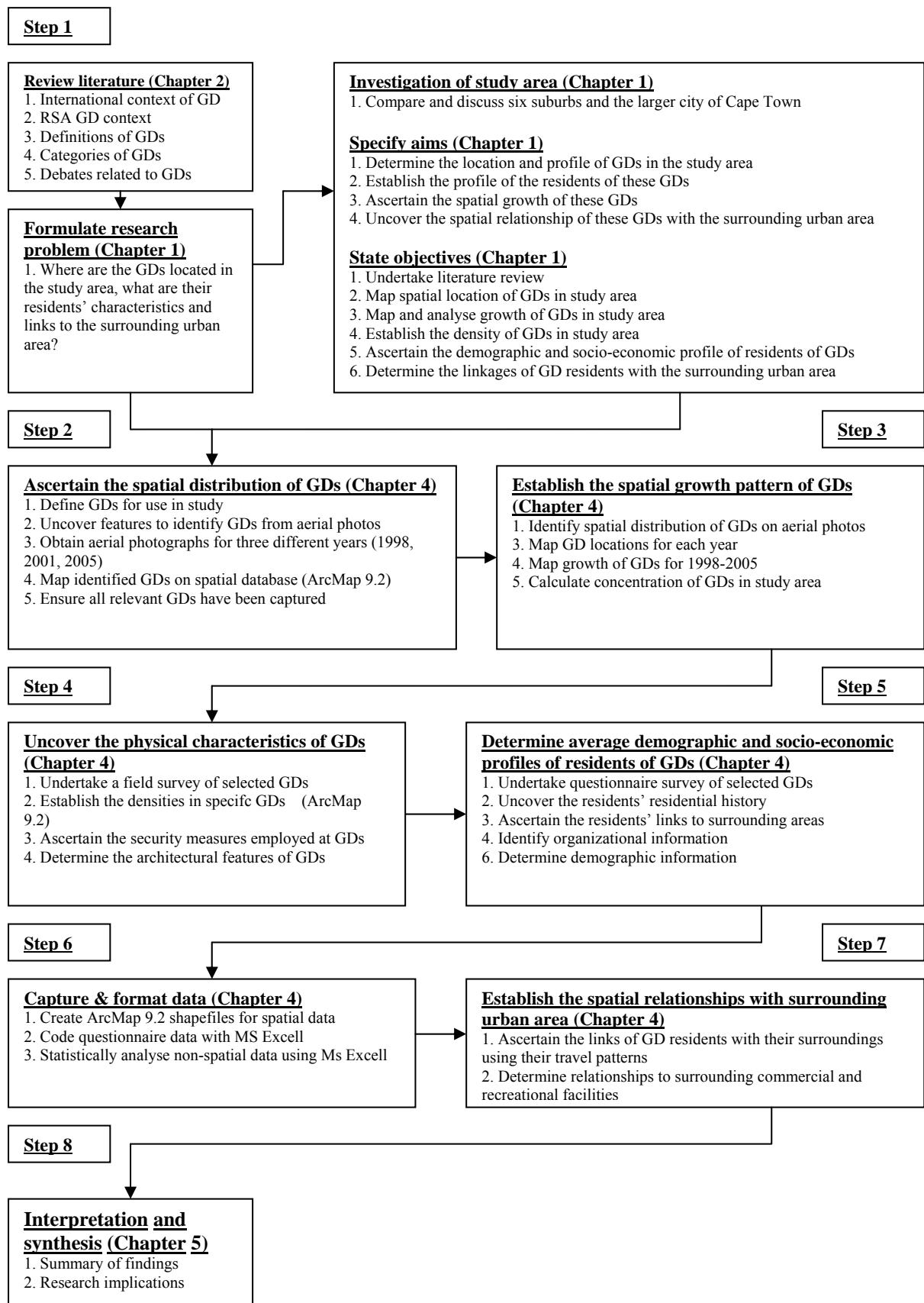


Figure 1.1 Research design for studying the spatial aspects of gated developments and the socio-economic profiles of their residents

1.3 STUDY AREA: NORTH-EASTERN SUBURBS OF CAPE TOWN

The study area comprises six suburbs in the larger metropolitan area of Cape Town. These suburbs are: Bellville, Brackenfell, Durbanville, Kraaifontein, Kuilsriver and Parow. Figure 1.2 shows the location of the study area in the larger metropolitan area as well as its regional context. These six suburbs cover approximately 170 km² (7%) of the 2461 km² of the greater Cape Town. The N1 highway runs through four of the six suburbs in the study area. This road divides the study area into the more affluent areas to the north and the less prosperous sections to the south. The six suburbs accounted for approximately 251 600, (8.4%), of the metropolitan areas approximately 2 994 800 residents in 2001 (City of Cape Town 2008b). The six suburbs were selected because concentrations of GDs were observed in the study area. Another aspect determining the selection of these suburbs was the range of economic conditions which characterizes this area. This economic diversity meant that GDs housing residents from a wide range of income levels could be investigated. The GDs in the study area are mostly located on the urban-edge and definitely contribute to urban sprawl. This spatial location allows the study of the possible additional impacts that these GDs have on urban sprawl in this area. By including prosperous as well as less well-off suburbs, the study area provides examples of the different types of GDs in the greater Cape Town metropolitan area.

The subsequent sections describe and discuss the historic development of GDs in Cape Town, the property crime situation in the study area and the demographic, social and economic characteristics of the residents of the suburbs comprising the study area.

1.3.1 Short history of gating in Cape Town

Cape Town is the country's oldest city and its historical development, population dynamics and topography all contribute to the distinctive nature of GD growth in this metropolitan area (Lemanski, Landman & Durington 2008). The following synopsis of the expansion of GDs in Cape Town is based on Lemanski, Landman & Durington's (2008: 141-144) exposition.

"The apartheid era in Cape Town saw the creation of government-produced dormitory areas, or townships, to the south-east of the city. These areas generally had insufficient engineering services, social infrastructure or recreational areas and were dependent on the rest of the city for employment and basic commodities. The more affluent white suburbs to the north (the location of the study area) and south of the city prospered and diversified under apartheid and were characterized by homeownership and commuting by motor car. This led to residential polarization and growing inequalities between these residential areas of the city.



Figure 1.2 Relative location of the study area in north-eastern Cape Town

This process was intensified by the use of coloured residential areas as buffers between the white suburbs and black African areas. This resulted in the white population of the city being separated by significant spatial and social distances from other population groups in the city. The city's urban environment changed little after apartheid, ensuring that the apartheid-era urban structure remains dominant in Cape Town to this day. The strong private property market and Cape Town's relatively small black middle class have also contributed to the dominance of this urban structure. The practice of locating post-apartheid low-cost housing on affordable and vacant land, usually on the urban periphery, has also contributed to the continuance of this structure. Thus the urban experience in Cape Town is strongly marked by segregation. Private residential, commercial and business developments in present-day Cape Town are concentrated to the northern and southern regions of the city, both these areas benefited from apartheid policies, while investment in the poor areas to the south-east of the city has been virtually nonexistent. The topography of Cape Town has also played a role in the city's urban development, with development constrained by Table Mountain to the west and the ocean to the south. GDs only became popular in Cape Town during the past five to seven years. This was due, on the one hand, to the lower levels of crime experienced by Cape Town's residents compared to other cities such as Johannesburg, and on the other hand, to the geography of the city characterized by relatively large spatial distances between the different population groups in the city. In the mid 1990s property crime began to encroach into the affluent white suburbs precipitating the development of GDs. Enclosed neighbourhoods are rare in Cape Town because when restricting access to a road or suburb in Cape Town, the local authority does not maintain the area and it becomes the responsibility of the applicants. It is therefore easier to move to an entirely private development than to privatize an existing neighbourhood in Cape Town. Because of the historical development of the city, most GDs in Cape Town are situated in the prosperous, mainly white, suburbs located on the northern and southern arms of urban development radiating from the city centre.”

This research focuses on the suburbs sited on the northern arm of urban development and includes affluent, mainly white, suburbs as well as middle-class and less-prosperous suburbs. As the fear of crime and the desire for safety and security are regarded as major forces driving the proliferation of GDs (Low 2003; Blandy & Lister 2005; Roitman 2005; Lemanski 2006; Genis 2007; Landman 2007; Lemanski, Landman & Durlington 2008), it is important to examine property crime in the study area to better understand the concentration of GDs there.

1.3.2 Property crime in the study area

Lemanski, Landman & Durlington (2008) indicate that the sudden proliferation of GDs in Cape Town occurred because of an increase in property crime in the prosperous, mainly white, northern suburbs. To better understand the concentration of GDs in the study area it is necessary to examine the level of property crime occurring in the suburbs comprising the study area and to compare this level to the larger city. For this purpose property crime was defined as burglaries occurring at residential as well as business properties. The numbers of reported property crimes were obtained from the South African Police Service's webpage (South African Police Service 2008). Table 1.1 shows the number of property crimes per 10 000 inhabitants for each suburb, the study area and the larger city.

Table 1.1 Levels of property crimes to population in the suburbs of the study area

Suburbs	Property crimes per 10 000 inhabitants					
	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008	Average 2003 to 2008
Bellville	431	321	311	386	365	363
Brackenfell	253	205	177	172	177	197
Durbanville	262	244	247	310	307	274
Kraaifontein	377	283	241	246	242	278
Kuilsriver	629	438	183	202	210	332
Parow	151	121	122	137	160	138
Study area	343	261	204	230	233	254
Cape Town Metropolitan Area (Including the study area)	136	118	110	123	121	122

Note: Crime numbers refer to the number of crimes per 10 000 inhabitants for a specific area. See Appendix A for actual crime numbers

Source: South African Police Service (2008)

Table 1.1 clearly indicates that the level of reported property crime in the study area exceeds that of the city at large. These figures appear to confirm the notion that increased levels of property crime have contributed to the concentration of GDs in the study area (Lemanski, Landman & Durlington 2008). The suburbs of Bellville, Kuilsriver, Kraaifontein and Durbanville stand out as having high levels of property crime compared to the other suburbs in the study area and the larger city. It can be expected that these four suburbs would have more GDs than the other suburbs and that these GDs would be designed with safety and security emphatically in mind. Parow, on the other hand, has the lowest level of property crime in the study area and as such there should be relatively fewer GDs in this suburb. These expectations are looked at later. The

following section describes the demographic, social and economic characteristics of the study area's residents.

1.3.3 Demographic, social and economic characteristics of the study area's residents

The characteristics that will inform this section are based on Census 2001 statistics⁵ as compiled by the Strategic Development Information branch of the City of Cape Town municipality (City of Cape Town 2008b). This section begins by analysing the racial characteristics of the residents in the study area, followed by an examination of the age distribution, education level, employment status and income levels of these residents. Table 1.2 gives the racial composition of the six suburbs in 2001.

Table 1.2 Racial composition of the residents in the suburbs of the study area, 2001

Suburb	Racial composition				Total Population
	White (%)	Coloured (%)	Black (%)	Indian/Asian (%)	
Bellville	84.6	11.0	3.8	0.6	38 104
Brackenfell	65.7	30.6	3.0	0.7	35 679
Durbanville	88.0	9.2	2.3	0.5	29 626
Kraaifontein	47.6	49.5	2.3	0.6	41 513
Kuilsriver	29.5	60.4	9.5	0.6	44 794
Parow	42.0	53.0	3.2	1.8	61 878
Study area	55.9	39.0	4.2	0.9	251 594
Cape Town Metropolitan Area (Including the study area)	18.8	48.1	31.7	1.4	2 994 800

Source: City of Cape Town (2008b)

The white population group is clearly the largest in the study area, with the coloured population group being the second largest group. Characteristically, the study area has only small proportions of black and Indian/Asian inhabitants. The racial composition of the residents in the study area differs markedly from the rest of the city and this can be ascribed to the location of the study area in the middle-class, mainly white, northern suburbs which benefited from apartheid policies. Bellville, Brackenfell and Durbanville are predominantly white, while Kraaifontein, Kuilsriver and Parow are characterized by large coloured populations. This is probably a legacy

⁵ Demographic data from the 2001 census are the most current and complete population data for South Africa (Lemanski, Landman & Durlington 2008).

of apartheid policy of using the coloured population group to separate the white and black population groups.

An assessment of the age distribution of these residents (Table 1.3) indicates that the inhabitants of the study area have larger proportions of individuals over the age of 45 years and are older when compared to the inhabitants of the surrounding city. The suburbs of Bellville, Durbanville and Parow stand out as having larger percentages of elderly residents - 65 and older compared to the other suburbs in the study area as well as the city as a whole. Bellville, Durbanville and Parow suburbs also have large percentages of their inhabitants who are middle aged, between 45 years and 64 years, compared to the other suburbs in the study area and adjoining city. In sum table 1.3 indicates that the inhabitants of the study area are noticeably older when contrasted with the whole city. The large number of GDs in the study area, as well as the comparably older nature of its inhabitants, appears to indicate that this type of residential development caters to older buyers.

Table 1.3 Age distribution of the residents in the suburbs of the study area, 2001

Suburb	Age distribution						
	Under 18 years (%)	19-24 years (%)	25-34 years (%)	35-44 years (%)	45-54 years (%)	55-64 years (%)	65 years or older (%)
Bellville	26.4	12.2	17.2	15.8	12.1	8.1	8.2
Brackenfell	34.8	12.2	20.5	16.4	8.8	4.4	2.9
Durbanville	26.1	7.8	19.0	17.1	12.7	9.0	8.3
Kraaifontein	33.3	12.1	21.2	14.8	9.4	5.5	3.7
Kuilsriver	33.3	10.6	17.5	16.9	10.3	6.0	5.4
Parow	28.0	11.6	16.6	15.7	11.6	8.0	8.5
Study area	30.2	11.5	18.5	16.0	10.8	6.8	6.2
Cape Town Metropolitan Area (Including the study area)	34.5	12.1	18.5	14.9	9.4	5.6	5.0

Source: City of Cape Town (2008b)

Table 1.4 shows the levels of education attained by the residents of the study area in 2001. The inhabitants had proportionately higher levels of education than the average residents of Cape Town. The suburbs of Durbanville, Bellville, Brackenfell and Kuilsriver all have large proportions of residents with higher levels of education, or residents with tertiary qualifications, when compared to Parow, Kraaifontein and Kuilsriver and the city. Durbanville has exceptionally large proportions of residents with tertiary qualifications when compared to the

other suburbs and the city. The higher levels of education (grade 12 and higher) of the residents of the study area as a whole could be partially attributed to the study area being located in the wealthier northern suburbs of Cape Town.

Table 1.4 Highest education levels attained by the residents in the suburbs of the study area, 2001

Suburb	Highest education level attained				
	No schooling (%)	Grade 10 (%)	Grade 12 (%)	Diploma / degree (%)	Post-graduate degree (%)
Bellville	0.7	27.1	61.4	7.2	3.6
Brackenfell	0.7	30.4	61.4	4.9	2.6
Durbanville	0.7	17.1	36.3	36.5	9.4
Kraaifontein	1.8	48.3	46.6	2.0	1.3
Kuilsriver	2.3	44.3	45.1	5.2	3.1
Parow	1.8	51.9	42.8	2.4	1.1
Study area	1.0	38.8	51.6	5.5	3.1
Cape Town	4.2	57.8	32.5	3.4	2.1

Source: City of Cape Town (2008b)

Next the employment status of the residents in the study area is investigated. Table 1.5 specify the percentages of the inhabitants of the suburbs in the study area who were employed or unemployed in 2001. The table shows that 90% of the inhabitants of the study area were economically active. This means that almost 20% more of the inhabitants in the study area were employed when compared to the employment levels of the average citizens living in Cape Town. The employment ratios of Durbanville, Bellville and Brackenfell suburbs all well exceeded 90%, whereas the suburbs of Kuilsriver, Parow and Kraaifontein had unemployment ratios in excess of 12%. Although these proportions were high when compared to the other suburbs in the study area, they were low compared to Cape Town's unemployment rate of nearly 30%. These high levels of employment among the residents of the suburbs comprising the study are again attributable to the study area being part of the wealthier northern suburbs⁶ of Cape Town.

This section discussed the employment status of the residents in the study area. This discussion is continued with an examination of the monthly incomes of these residents.

⁶ Wealthier or affluent suburbs refer to suburbs with residents who tend to have higher incomes, while less affluent suburbs refer to suburbs whose residents who have lower incomes.

Table 1.5 Employment status of residents in the suburbs of the study area, 2001

Suburb	Employed (%)	Unemployed (%)
Bellville	95.5	4.5
Brackenfell	93.8	6.2
Durbanville	96.1	3.9
Kraaifontein	87.6	12.4
Kuilsriver	85.0	15.0
Parow	86.4	13.6
Study area	90.1	9.9
Cape Town	70.8	29.2

Source: City of Cape Town (2008b)

Table 1.6 shows the income levels of the residents of the suburban areas, in 2001.

Table 1.6 Monthly income levels of the residents in the suburbs of the study area, 2001

Suburb	Low income (%)	Middle income (%)	High income (%)
Bellville	13.5	84.1	2.4
Brackenfell	12.4	85.8	1.8
Durbanville	13.4	77.8	8.8
Kraaifontein	23.7	75.0	1.3
Kuilsriver	24.9	73.4	1.7
Parow	25.3	73.7	1.0
Study area	19.4	78.1	2.5
Cape Town	42.2	55.6	2.2

Source: City of Cape Town (2008b)

The low-income category includes individuals earning up to R1600 per month, the middle-income category refers to individuals earning between R1601 and R25 600 monthly, and the high-income category those earning more than R25 600 per month. According to the table the study area's middle-income inhabitants exceed the city's by 22.5% (City of Cape Town 2008b). Similarly, the proportion of the study areas' residents in the low-income category is almost 20% less than that of the city's citizens. The relatively high levels of income of the residents in the study area reflect their location in the wealthier northern suburbs of the city. Durbanville, Bellville and Brackenfell all have large proportions of residents in the middle- to high-income

categories whereas Kraaifontein, Kuilsriver and Parow each have 10% less middle-to-high income earners. When compared to the whole city, the proportion of the study area's residents in the middle- to high-income categories is almost 20% more. In the study area the Durbanville suburb has the largest proportion of residents in the high-income category and four times greater than the study area's and Cape Town's proportions. According to the examination of the demographic, social and economic characteristics of the suburbs in the study area has shown that the suburbs have predominantly white and coloured populations; relatively large percentages of middle-aged and elderly residents; and comparatively larger proportions of residents with higher levels of education. The study area suburbs also accommodate fairly large proportions of residents who are economically active and also rather large proportions of residents with middle-to high-income levels compared to the whole city. Durbanville, Bellville and Brackenfell stand out as having the largest proportions of residents with high levels of education and income, and comparatively large proportions of middle-aged and elderly residents. It follows that these three suburbs should have large concentrations of GDs as the residents would be able to afford this type of residential development. The Kraaifontein, Kuilsriver and Parow suburbs have smaller proportions of residents with high levels of education and income when compared to the other suburbs in the study area, although these proportions are still relatively high compared to those of the city. The characteristics examined above show that the residents of the study area tend to be economically active, relatively older, well-educated with rather higher levels of income than the city as a whole.

1.4 CHAPTER OUTLINE

The first chapter introduced the concept of gating and described the South African urban context in which this relatively new phenomenon is occurring. The chapter also briefly described some features of the study area as well as examining the demographic, social and economic characteristics of the study area's residents. Chapter two presents a theoretical framework in which the gating phenomenon is couched by discussing key concepts related to GDs, the various definitions used in the field, and empirical findings and methodologies identified from current literature. The third chapter provides the research methodology followed in the study by looking at the instruments used, the sample design and sampling methods employed, the data collection and fieldwork practices and data capture and editing. Chapter four presents the results of the spatial, physical and socio-economic analyses of the study area's GDs and their residents. Chapter five concludes the report by summarizing the research findings and relating these findings to existing gating literature and theory as well as drawing conclusions, noting avenues of future research and finally discussing the shortcomings of the study.

CHAPTER 2: THROUGH THE GATES: LITERATURE REVIEW

Only in the last ten years has research into the GD phenomenon begun in earnest. In an international context, Landman (2007) has pointed out that as little as ten years ago little research had been undertaken or published on GDs, the notable exceptions being the important studies by Blakely & Snyder (1997) and Low (2003) which helped establish the larger urban and social context in which GDs functioned. Since the 1990's there has been a burgeoning of studies examining various aspects of GDs from a range of disciplinary standpoints (Landman 2007). This chapter provides a concise review of the GD literature. It begins with an examination of the definitions and characteristics of a typical GD followed by a brief description of the key concepts relating to GDs. Relevant models and theories are then highlighted and discussed. Empirical findings and methods used in the study of GDs are examined and discussed next and the chapter concludes by summarizing the salient aspects of the literature review.

2.1 GATED DEVELOPMENTS DEFINED

The concept of a GD has been defined and redefined by many authors over the last two decades but despite these disparate interpretations, some common features have emerged. For the purposes of this study, four main aspects have been selected from the literature, namely

- **restricted access** (Blakely & Snyder 1997; Landman 2000c; Van de Wetering 2000; Gooblar 2002; Low 2003; Raputsoa 2003; Atkinson & Flint 2004; Grant, Greene & Maxwell 2004; Blandy & Lister 2005; Roitman 2005; Taleb 2005; Wu 2005);
- **residential nature of the development** (Blakely & Snyder 1997; Gooblar 2002; Low 2003; Atkinson, Blandy, Flint & Lister 2005; Grant 2005a; Roitman 2005; Blandy, Dixon & Dupuis 2006; Giglia s.a.);
- **privatization of public space** (Blakely & Snyder 1997; Landman 2000c; Gooblar 2002; Miao 2003; Roitman 2005); and
- **private governance** (Atkinson & Blandy 2005; Atkinson, Blandy, Flint & Lister 2005; Blandy & Lister 2005; Blandy, Dixon & Dupuis 2006).

By combining these characteristics one can define a GD as *a residential area where access is restricted to residents only by some form of gate and physical boundary, where previously public space is privatized and which is governed by some form of mandatory private authority*. This definition is used in the study.

Security villages (another name for a GD), according to Landman (2000c), are private developments where the entire area is developed by a private developer. These developments are physically walled or fenced off and usually have security gates or controlled access points with or without a security guard. The roads in these communities are private and, in most cases, the management and maintenance is undertaken by a private management body (Landman 2000c; 2002b). The GDs identified in the study area all fit this description of security villages. The following section considers key GD concepts.

2.2 KEY GATED-DEVELOPMENT CONCEPTS

The popularity of GDs throughout the world has caused a lively international debate focusing mainly on the reasons for these developments, what their characteristics are, and what their consequences could be (Landman 2007). The debate has centred on a number of key concepts about GDs. Six of these are examined in this section, namely

- Urban segregation and fragmentation;
- Social exclusion;
- A sense of community;
- Safety and security;
- Urban planning and management; and
- Financial benefit.

2.2.1 Urban segregation and fragmentation

GDs are by nature physically separated from the surrounding urban fabric and by restricting access to residents only they create closed pockets resulting in a coarse urban residential structure (Landman 2000b). Such pockets of restricted access mean that urban travellers are forced to navigate around these areas, increasing their travel times and decreasing the efficiency of cities (Landman 2000b). Clearly, GDs impact not only the daily activity patterns of people, but also urban form and function (Landman 2000b). The physical separation of GDs from their surrounding urban areas unfortunately leads to a social as well as a spatial separation of the residents of these communities and the surrounding communities (Blakely & Snyder 1997; Landman 2000b; Gooblar 2002; Low 2003; Atkinson & Flint 2004; Grant, Greene & Maxwell 2004; Wu & Webber 2004; Le Goix 2005; Mabin 2005; Thuillier 2005; Irazábal 2006). Atkinson & Flint (2004) and Giglia (s.a.) go further by arguing that GDs provide a refuge that is attached to social networks via paths which are used to avoid unwanted social contact, thereby creating a seam of partition running spatially and temporally through cities.

Although little empirical evidence is available to support the relationship between GDs and urban fragmentation and segregation, it is indisputable that a link exists (Blakely & Snyder 1997; Landman 2000b; Rehder 2002; Atkinson & Flint 2004; Le Goix 2005; Mabin 2005; Vesselinov, Cazessus & Falk 2007). This raises the issue of the sustainability of these areas regarding urban management, urban sprawl, social cohesion and resource-conserving mobility, as well as quality urban life in terms of social equity in the distribution of development costs and benefits (Landman 2000a; 2000b).

2.2.2 Social exclusion

For many people the physical separation, access control and community associations of GDs give them an illusion of control and stability which they desire (Lang & Danielsen 1997; Landman 2000b). Concisely, the residents of GDs want to protect their investment and their privacy (Landman 2000b; Atkinson & Blandy 2005). This desire for privacy raises questions about the impact it may have on the broader social dynamics of cities (Landman 2000b). She (Landman 2000b) argues that although neighbourhoods have always been able to exclude potential residents through discrimination and housing costs, residents of GDs now have the ability not only to exclude potential residents but also the casual passer-by. This loss of social contact could lead to a ‘them and us’ attitude in GDs which in turn could lead to the notion that GDs represent elite space (Blandy & Lister 2005; Lemanski 2006; Genis 2007). Both Blakely & Snyder (1997) and Landman (2000b) further maintain that GDs exclude and separate members of society, notably minorities, as well as the poor and the disenfranchised, and that this exclusion imposes social costs on those left outside the gates.

This social exclusion is of particular concern in South Africa where apartheid history has left a legacy of a racially-divided society. Ballard (2005) points out that GDs form part of a family of spatial strategies used by white South Africans to manage a core contradiction between the identities to which they aspire and the place they live. In contrast Vesselinov, Cazessus & Falk (2007) found that GDs as a residential choice in America have become popular among different ethnic and racial groups. They continue and note that although GDs are popular among different racial groups, there is no indication that there is increased diversity in GDs (Vesselinov, Cazessus & Falk 2007).

The social exclusion caused by GDs directly affects the issue of individual rights to public space and the fundamental principle of democracy (Landman 2000b). Blakely & Snyder (1997) state that when public services are privatized and when community responsibility stops at the gates, the function and very idea of democracy is threatened. Landman (2000a) indicates that social exclusion can be detrimental to long-term urban sustainability and warns that the very measures

implemented to address crime and instability could become major sources of conflict in our cities.

2.2.3 Sense of community

Supporters of GDs contend that the residents of GDs develop a sense of shared identity and security which in turn leads to a strong sense of community (Blakely & Snyder 1997; Landman 2000b). There is some debate in the literature about this contention. Atkinson & Flint (2004) and Blandy & Lister (2005) found signs of internal conflict among residents of GDs in the United Kingdom. In contrast, Manzi & Smith-Bowers (2005) found that GDs increased social cohesion among residents by involving them in the management process.

Landman (2000a) holds that a reduced sense of community, coupled with increased conflict, can lead to negative relations between neighbours, and that this could have a significant impact on the quality of life and on building liveable and vibrant cities. This lack of community cohesion and the increased conflict in GDs could influence local participation, community democracy and the daily management of an area.

2.2.4 Safety and security

The issue of safety and security, as it relates to GDs, impacts on three features: reduction of crime, displacement of crime and response times in emergencies (medical emergencies, police emergencies and fire emergencies) (Landman 2000a). This section examines these three aspects in turn.

Fear of crime and the need for safety and security have been cited as primary driving forces behind the rapid spread of GDs, but there are diverse opinions on whether GDs do in fact reduce crime (Landman 2000a; Low 2003; Blandy & Lister 2005). Blakely & Snyder (1997) found that some GD residents did report a reduction in crime, but they point out that gates and fences cannot keep serious criminals out, and that they cannot prevent residents from committing crimes (Blakely & Snyder 1997). Low (2001) and Grant (2005a) found that although residents of GDs agreed that gates and fences cannot prevent crime, they report that it made them feel safer. Landman's (2004) investigation revealed that crime and the fear of crime were significantly reduced by GDs in South Africa. Evidently, although GDs do not prevent all crime, they do reduce crime in some cases, and the fear of crime in most cases (Blakely & Snyder 1997; Landman 2000b; Low 2001; Landman 2004).

Gates and walls present an obstacle to criminals, encouraging them to focus rather on the communities without such security measures, thereby displacing crime (Blakely & Snyder 1997;

Landman 2000b; Gooblar 2002; Atkinson, Blandy & Lister 2005). This displacement of crime could lead to a ‘snowball effect’ where surrounding neighbourhoods are forced to consider gating because of crime displaced by existing GDs, something which could spread throughout a city and dramatically impact urban management and sustainability (Landman 2000a).

The third aspect related to safety and security is response times in emergencies. Landman (2000a) reasons that in some instances the most direct route for emergency workers is blocked by GDs, hence increasing response time and decreasing the chances of a victim’s survival. Access to GDs is another problem for emergency services, because often emergency service workers must rely on residents to provide access which could inevitably cause delays (Rost 2008, pers com).

In terms of safety and security GDs obviously have implications which range far wider than the community itself because they could have detrimental effects on urban management and sustainability (Landman 2000a; 2000b).

2.2.5 Urban planning and management

Service provision, the nature of roads, general urban maintenance, the functioning of public safety and the role of private homeowners’ associations (HOAs) are all affected by GDs (Landman 2000b). According to Landman (2000b), if the streets in a GD are public streets the local authority should be responsible for their maintenance, but then access to these roads cannot be denied legally. In cases where roads are private the homeowners’ association becomes responsible for their maintenance and servicing which takes control of the governance of the community out of the hands of the local authority and raises questions about the ability of HOAs to maintain and repair these communities over long periods of time as facilities deteriorate and repair costs increase (Landman 2000b).

Consequently, the line between the private and public realms becomes blurred (Blakely & Snyder 1997; Stark 1998; Landman 2000b). In this context, GDs could become mechanisms to privatize public space and transfer the traditional role of local government to private governments like homeowners’ associations (Landman 2000b). These associations have the potential to create powerful private governments which could threaten the existence of local governments in the traditional sense (Landman 2000b).

Chen & Webster (2005) and Wu (2005) found that HOAs in Taiwanese and Chinese cities were more efficient at delivering services to residents of GDs than the local governments. The efficiency of HOAs could place more pressure on local governments and increase the privatization of the latter (Low ca 2008).

Landman (2000a) asserts that such ‘privatisation for the few’ has the potential to create and amplify social division and conflict between residents and local government. This raises concerns about the traditional role of local government and the potential impacts of GDs on the future governance of urban areas (Landman 2000a).

2.2.6 Financial benefits

The governing bodies of GDs, or HOAs, have the potential to form powerful lobbying forces which, in many cases, press for more favourable tax treatment, resist taxation completely or demand tax rebates for their GDs (Landman 2000a). These associations argue that their members do not use all the local services and are already paying for services and, as such, they should not have to pay taxes (Landman 2000b). Such demands for reduction of or exemption from taxes could have significant impacts on the realization of a sustainable urban economy which calls for the cross-subsidization of urban areas, equitable distribution of resources and shared public amenities (Landman 2000a).

Another major motivational factor for residing in GDs is the perceived increase in property values in these developments (Blakely & Snyder 1997; Landman 2000b). Landman (2000b) points out two views about the effect GDs have on property values. The first is that gating increases property values, while the second argues that gating neither preserves nor increases property values (Landman 2000b). Blakely & Snyder (1997) found no evidence that GDs, in American cities either commanded a price premium or maintained their values better than non-GDs. In contrast, Douglas & Hsieh (2001) found that the benefits provided by gating did increase property values in GDs in American cities. The debate remains open and the answer inconclusive, but as Landman (2000b) points out, nobody disputes the fact that a large part of the attraction of GDs revolves around the potential financial benefits from increased property values in such developments.

Landman (2000b) further states that the danger of GDs is that they offer a competitive advantage over older traditional neighbourhoods. She explains that as more well-to-do families move into GDs the older traditional neighbourhoods decline, which makes even more affluent families decide to move into GDs intensifying the gating phenomenon further and resulting in dramatic impacts on the surrounding urban areas (Landman 2000b).

The above six issues raised by Landman (2000b) make it clear that GDs have become an important urban phenomenon that is – and will continue to be – a significant force shaping urban environments in the future. She further notes that these issues have the potential to dramatically influence and inform urban decision-making and design (Landman 2000b).

2.3 THEORIES AND MODELS

GDs are studied by an assortment of disciplines, such as economics, geography, psychology and sociology. This diverse attention has spawned a number of theories and models to help understand this phenomenon, its effects and its possible future impacts. This section highlights and discusses four theories and models identified in the reviewed literature to be relevant to this study. Postmodern urbanism's relationship to GDs is considered first, followed by treatments of club-goods theory, middle-range theory and the DPSIR model.

2.3.1 Postmodern urbanism

Postmodern urbanism is a reaction to modernism and its image of perfection and utopia (Landman 2002a; Rehder 2002). Landman (2002a) points out that in modern design form follows function, whereas in postmodern design form follows fiction, fear, finesse and finance. GDs are good examples of postmodern urbanism because these communities recreate secure and peaceful spaces (form follows fear) having a distinctive identity and style (form follows fiction and finesse) all with the purpose of ensuring a specific lifestyle and providing social and economic control (Landman 2002a). This is achieved through the privatization of public space, services and governance (form follows finance) (Landman 2002a). Landman (2002a) avers that GDs, as with many other postmodern urbanist interventions, lead to a growing decline of meaningful public space and to a desire to control one's space. Postmodernism provides a feasible description of the underlying cause of the proliferation of GDs, but the theory does not intimate possible effects and impacts of the gating phenomenon.

2.3.2 Club-goods theory

Manzi & Smith-Bowers (2005) point out that GDs can be seen as a type of good (the club good), which, like private goods, have exclusive benefits which are allocated through groups. They explain that this allows the club members (residents of the GDs) to enjoy the benefits of a private good and a public good while being unlike a private good which is limited to the individual or a public good which can be used by all. A club good is neither a private good nor a public good in the traditional economic sense, but a hybrid in which a self-selecting community shares a range of benefits and reduces the costs of public good 'congestion' by the use of its pricing and membership requirements (Manzi & Smith-Bowers 2005).

GDs can therefore be analysed in economic terms as club goods because while there is sharing of benefits (which is the definition of a public good) there is also exclusivity of benefits (the definition of a private good) (Manzi & Smith-Bowers 2005). It is this hybrid quality which has led to the concept of club economics being applied to GDs (Manzi & Smith-Bowers 2005).

Manzi & Smith-Bowers (2005) argue that in economic terms GDs are merely a recent example of the growth of privately-owned collective goods such as shopping malls, business parks, timeshare apartments, golf and squash clubs, and that the growth of this phenomenon is because the rights and obligations of this desired and scarce good (the GD) are now being priced competitively for more households. Both Glasze (2005) and Manzi & Smith-Bowers (2005) view GDs as an inevitable result of market forces.

Wu (2005) found that club-goods theory, rather than fear of crime, provided a better explanation for the transition from work-unit compounds to GDs in China. Glasze (2005) found that club-goods theory is inadequate too explain the historic and regional development of GDs, and that this theory, in general, is not sufficient when evaluating the potentially disruptive effect of GDs on the urban environment.

2.3.3 Middle-range theory

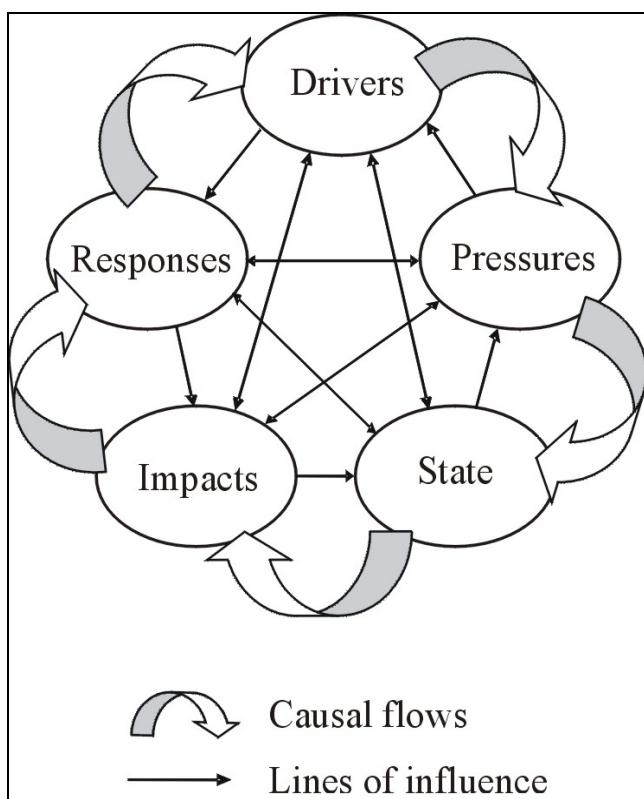
Vesselinov, Cazessus & Falk (2007) analysed GDs as a nexus of social and spatial relations in the context of urban inequality. The authors make use of Tickamyer's (2000) sociological framework for incorporating space into the study of inequality. The framework specifies three modes in the application of space in the examination of inequality. The first mode is related to the definition of spatial units and the incorporation of systems of social inequality in those units. Vesselinov, Cazessus & Falk (2007) used GDs as their spatial unit and household stratification and labour-market divisions in these GDs as their system of social inequality. They found that GDs added a new layer of spatial separation to the urban environment.

The second mode looks at the sources of advantage and disadvantage from a spatial perspective (Tickamyer 2000). Vesselinov, Cazessus & Falk (2007) identify a number of advantages offered by GDs, such as security from crime, protection of property values and a higher sense of community. But Vesselinov, Cazessus & Falk (2007) do indicate that a number of empirical studies did not produce clear findings that GDs do in fact offer these advantages.

The third mode examines political control of the urban environment and urban economy or the interplay of interests and institutions in the built and natural environment (Vesselinov, Cazessus & Falk 2007). Vesselinov, Cazessus & Falk (2007) found that the combination of the interests and actions of local government, real-estate developers, the media and consumers combine to create structural conditions which will ensure the future proliferation of GDs. Middle-range theory explains the link between GDs and social segregation, and also makes strong predictions about the future proliferation of GDs (Vesselinov, Cazessus & Falk 2007).

2.3.4 The driver-pressure-state-impact-response (DPSIR) model

Landman (2007) explains that in the DPSIR model human activities and external forces, or drivers, are seen to produce pressures that can induce changes or impacts on the condition of the biophysical and socio-economic environments and thus on the state of human settlements. Society responds to these changes in pressure with policies and programmes designed to prevent, reduce or mitigate the pressures and their impacts on the biophysical and socio-economic environments (Landman 2007). Figure 2.1 demonstrates the interactions among the different components of the DPSIR model.



Source: Landman (2007:4)

Figure 2.1 The DPSIR model

Landman (2007) describes that the main drivers concerning GDs in the South African context can be divided into large forces of change (global, national and suburban level changes) and local social and technical factors (social values, financial gain and public service delivery). These drivers combine to produce the pressures that drive the growth of GDs in South Africa (Landman 2007). These pressures are either indirect (spatial, social, economic and political) or direct pressures (Landman 2007). Given these drivers and pressures, the condition of the urban environment can be described using three main determinants: quality of life, biophysical environment and governance.

The aspects identified from the condition of the urban environment have both human and environmental consequences (Landman 2007). These consequences or impacts are categorized into four groups, namely spatial (spatial fragmentation and separation), socio-economic (reduced quality of life for those outside the GDs), environmental (urban sprawl, increased water consumption and air and noise pollution due to increased car use) and institutional (increased privatization of governance) (Landman 2007).

The model also takes into account the responses to these impacts. Landman (2007) states that there is no South African national policy response to GDs and only a small number of our local authorities have created policies, note that the City of Cape Town has produced a policy document that aims to control this phenomenon (City of Cape Town 2007b), to respond to GDs in their areas of jurisdiction. Society has also responded through the media and public lobby groups either for or against different types of GDs (Landman 2007).

By applying this model to the gating phenomenon in South Africa, Landman (2007) has found that GDs are not conducive to greater sustainability in the post-apartheid city. She continues noting that GDs are complex systems requiring more than just a focus on cause and effect to understand their development and consequences. The DPSIR model has a demonstrated ability to incorporate and consider the multitude of different aspects related to GDs and, as such, is useful model in the study of GDs.

The theories and models examined in this section reflect the growth in the study of the gating phenomenon throughout the world. Early theories focused on the social (postmodernism theory) and economic (club-goods theory) causes of the rapid growth of GDs. Later theories and models (middle-range theory and the DPSIR model) place more emphasis on the analysis of GDs as part of a socio-economic, political and environmental system rather than looking for a specific cause and effect of this phenomenon. It seems likely that future GD models and theories will incorporate the analysis of the dynamic relationships between politics, society, economics and the built environment at many different levels of scale – from neighbourhood to global – in similar fashion to the DPSIR model. The next section examines recent empirical findings and methods used in GD studies both internationally and locally.

2.4 EMPIRICAL RESEARCH ON GATED DEVELOPMENTS IN INTERNATIONAL AND LOCAL CONTEXTS

This section overviews the major findings of and methods employed by contemporary research on GDs conducted in the United States of America (USA), Canada, United Kingdom (UK), Indonesia, China, Taiwan, Argentina, Brazil, Turkey, New Zealand, Mexico and South Africa. These studies are examined in three subsections. The first deals with studies undertaken in cities of the Developed World; the second looks at studies done in Indonesia, China, Taiwan, Argentina, Brazil, Turkey, New Zealand and Mexico; and the final section focuses on studies conducted in South Africa.

2.4.1 Gated developments in North American and British cities

Lemanski, Landman & Durlington (2008) report that the bulk of research on the gating phenomenon over the past 20 years has been conducted in the United States. With this in mind Table 2.1 summarizes a number of studies which have investigated various features of the gating phenomenon as it manifests in cities in the USA.

Table 2.1 Summary of studies investigating the gating phenomenon in the United States of America

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
1995	Kennedy	California	Impact of GDs on non-residents in surrounding neighbourhoods.	Examined court cases filed by GD residents and other related court cases.	Residential associations (RAs) managing GDs could have strong negative impacts on non-residents including exclusion, discrimination and disintegration of the tax-base.
1997	Blakely & Snyder	USA	Classified GDs into three types, namely lifestyle, prestige and security zone communities.	Undertook a nationwide survey of GDs and their residents in USA cities.	GDs contribute to urban, social and economic segregation and fragmentation and the increased privatization of public land and services. Authors found no evidence that GDs foster greater community spirit among residents.
1997	Lang & Danielsen	USA	Report on findings of a conference on GDs in American cities.		GDs, on a neighbourhood scale, led to hyper-segregation by reducing access and excluding individuals on the basis of social class.
2001	Cashin	USA	Considered the effect of common interest developments (CIDs) on cities in USA and on wider society.		CIDs have become the dominant form of private home ownership in America.
2001	Douglass & Hsieh	USA	Analysed the sales prices of single-family homes located in six different neighbourhoods in a metropolitan area.	Employed a traditional hedonic pricing model to study 284 sales that occurred between 1996 and 1998 including an additional variable of whether or not the home was located in a GD.	Found that gating does add value to a given property.

Table 2.1 continues overleaf

Table 2.1 continued

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2001	Low	New York & San Antonio	Studied the effect of fear of crime and the search for a secure community on GD residents as well as residential segregation in the study area.	Used open-ended unstructured interviews with residents and key informants as well as participant observation in and around the GDs.	Found that contradictory to their purpose, the gates and walls of the studied GDs increased the fear of crime among residents instead of making these residents feel safer.
2003	Low	USA	General investigation of GDs and their residents.		Found a definite link between GDs and residential segregation.
2004	Bislev	San Diego	General investigation of GDs and their residents.		Concluded that pensioners were the main buyers of homes in GDs and that GDs increased social segregation as well as the fact that the main driving force behind the proliferation of GDs was not actual crime but the fear of crime.
2005	McKenzie	Las Vegas	Undertook case studies of specific GDs.	Gathered data through interviews with GD residents.	Found that the studied GDs as well as other GDs in the study area were developed to increase property values and not as a direct result of increased levels of crime.
2005	Le Goix	Southern California	Investigated the effect of GDs on urban sprawl and social segregation.	The 2001 American Housing Survey as well as the 2000 American Census data were integrated into a GIS and combined with data gathered from field surveys, interviews and real-estate guides to create a spatial database of the phenomenon.	Concluded that GDs contributed to urban sprawl as well as social segregation in the study area.
2006	Kirby et al	Phoenix	Examined GD residents' feelings toward the issue of security and the functioning of Home Owners' Associations (HOAs).	Study drew on the American Housing Survey and the Phoenix Area Social Survey.	Noted that GD residents were only slightly more concerned with security than non-gated citizens in the same area and that the rules enforced by HOAs decreased levels of anxiety felt by residents when dealing with other residents of the same community.
2007	Vesselinov, Cazessus & Falk	USA	Studied GDs' impacts on urban equality.	Employed a sociological framework for incorporating space in the study of inequality.	Conclude that GDs seem likely to continually contribute to the persistent fragmentation of American cities as well as to urban inequality.
2008	Low	Los Angeles & New York	Investigated the impact of GDs on the privatization of public space in the study areas.		Established that increased numbers of GDs led to social, spatial and economic segregation. The researcher also identified a new trend in gating, the development of GDs with all the features of traditional GDs but without any restrictions on access.

The cited studies focused not on the causes of gating in American cities, but rather on the effects and impacts that GDs have on these cities. Methods such as case studies and interviews were popular among these studies. Two studies (Kirby et al 2006; Vesselinov, Cazessus & Falk 2007) statistically analysed demographic data in their investigation of GDs and two other studies made use of GIS (Douglass & Hsieh 2001; Le Goix 2005) to create spatial databases used in the study of the gating phenomenon. A preponderance of the studies noted in Table 2.1 emphasized the negative impacts of GDs on cities, neighbourhoods and citizens in American cities, regularly noting that GDs increase levels of both social and physical segregation and fragmentation. Next, studies conducted in Canadian cities are summarized in Table 2.2.

Table 2.2 Summary of studies investigating the gating phenomenon in Canadian cities

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2004	Grant, Greene & Maxwell	Canadian cities	Created an inventory of GDs in Canada.	Inventory created from email surveys, web searches, field surveys and semi-structured interviews.	Found that most planners in Canadian cities did not want GDs in their cities, but that few cities had adopted any policies to regulate or minimize gating.
2005a	Grant	Canadian cities	Examined planning responses to increased numbers of GDs in Canadian cities.	Conducted a survey of planners dealing with GDs.	Concluded that no suburbs had policies banning the development of GDs completely and that most policies only regulated GDs by controlling the design features of road networks, gates and perimeter walls.
2005b	Grant	British Columbia, Ontario & Nova Scotia	Conducted case studies of ten GDs in the study areas.	Made use of interviews with GD residents, developers and regulators of the specific GDs.	Noted that GDs were more popular among pensioners and that there was a definite class dimension to GDs in the study areas with most GDs catering to either middle-to-high income residents.

The studies of GDs in Canadian cities (Grant, Greene & Maxwell 2004; Grant 2005a; 2005b) mainly focused on the planning policies and responses of suburbs dealing with increased numbers of GDs. These studies relied largely on interviews with relevant parties to gather the required data. Field surveys and email surveys were also used in these studies. Two significant findings were that GDs were more popular among pensioners and that a class dimension exists in Canadian GDs (Grant 2005b).

GD studies undertaken in British cities are summarized in Table 2.3. The GD studies conducted in the UK focused on determining the growth and spread of the gating phenomenon as well as the impact, on a smaller scale, of these communities on their surrounding neighbourhoods. These studies gathered data through telephonic and postal questionnaire surveys as well as field surveys, observations and interviews. Three of the four studies tabulated here (Gooblar 2002;

Atkinson & Flint 2004; Blandy & Lister 2005) noted the negative impacts of GDs in British cities, ranging from increased segregation to the conclusion that GDs are not conducive to creating sustainable cities.

Table 2.3 Summary of studies investigating the gating phenomenon in British cities

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2002	Gooblar	London	Compared the development controls enforced on two GDs in London. One catering to richer residents and one catering to relatively poorer residents.	Data gathered by reviewing planning files and archives as well as interviewing planners dealing with GDs in the study area.	Found that GDs reinforce existing social inequality and spatial segregation, and that there is a need for central guidance to regulate GDs in England.
2004	Atkinson & Flint	British cities	Created a profile of GDs and their characteristics in British cities.	Undertook a postal and telephonic survey of 383 GDs. Data was also gathered through interviews with key actors involved in the gating phenomenon. Case studies of ten GDs were also undertaken.	Concluded that GDs represent highly segregated forms of urban development and that these communities form part of a typology of segregated spaces in British cities. The authors construe that GDs are not conducive to sustainable cities in England.
2005	Blandy & Lister	British cities, Sheffield	Reported on a telephonic survey related to GDs throughout the England. Also examined the social interactions of residents in a specific GD, their participation with the management of the GD and the relationship of these residents with the larger surrounding neighbourhood.	Undertook a telephonic survey among 1001 random respondents throughout the England, as well as a case study of a specific GD.	The telephonic survey indicated that GDs in British cities attract younger residents. Results from the case study point out that first-time buyers in GDs are not aware of the implications of shared management and that generally the passive majority of the residents allow an active minority to manage the GD. They also found that the physical form of GDs adversely affects relationships between residents and inhabitants of the wider neighbourhood.
2005	Manzi & Smith-Bowers	London	Studied the social effects of GDs on the communities in surrounding neighbourhoods.	Applied the club-goods theory in the study. Data gathered through interviews with residents, representatives of HOAs and other interested parties.	Found that GDs are good examples of clubbing together for increased individual benefit and that the shared nature of the management framework of GDs could increase social cohesion among residents of these communities.
2006	Blandy, Dixon & Dupuis	England (New Zealand)	Investigated the relationship between property and law in multi-owned residential developments.	Gathered data through interviews and by examining legal documentation related to GDs.	Found that residents of GDs do not understand the legal implications of shared management.

Manzi & Smith-Bowers (2005) were the only authors to identify any positive impact of GDs, by concluding that GDs could increase social cohesion among their residents. Blandy & Listers (2005) contradicted the findings made by Grant (2005b), noting that younger Britons prefer to reside in GDs as opposed to Canadian pensioners' preference to reside in GDs. The next section

overviews studies conducted in a number of countries throughout the world, including some done in cities in developing countries.

2.4.2 Gated developments in Asian and Latin American cities

This section begins by looking at GD studies done in Indonesia, China and Taiwan. This is followed by a summary of GD studies undertaken in Mexico, Argentina and Brazil. Table 2.4 summarizes six studies which examined the gating phenomenon in Asian cities.

Table 2.4 Summary of studies investigating the gating phenomenon in Asian cities

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2002	Leisch	Jakarta / Tangerang district	Studied the residents of two GDs in the study area.	Data was gathered using a questionnaire survey of 754 residents in both GDs.	Found that the need for security was the main motivation to reside in GDs for the surveyed residents and that the investigated GDs contribute to urban sprawl.
2003	Miao	Chinese cities	Compared Chinese GDs with other international examples especially American GDs.		Found that security was the main motivation for residing in these communities. Author also noted that GDs in China are generally larger than American GDs, regarding the number of units.
2004	Wu & Webber	Beijing	Studied GDs in Beijing which form part of foreign enclaves.	Conducted field surveys of 12 GDs catering to foreigners.	Found that the clustering of these GDs led to further social and spatial segregation, and that the need to overcome institutional barriers experienced in Beijing and the desire for social homogeneity were the main reasons for residents choosing to live in these GDs.
2005	Chen & Webster	Taiwanese cities	Examined HOAs of GDs in Taiwanese cities.		Authors found that HOAs in Taiwanese cities suffer from the same management problems as suburbs, but that they are still more efficient in delivering services than the suburbs.
2005	Glasze	Global	Analysed GDs as club economics and considered GDs as a new form of political organization comparing them with suburbs.	Applied club-goods theory to the gating phenomenon.	Found that club-goods theory cannot explain the uneven spread of GDs and also cannot evaluate the economic, political and social consequences of GDs.
2005	Wu	Chinese cities	Studied the function of GDs in Chinese cities.		Found that the function of gating is closely related to the social and economic context in which GDs are located, and that fear of crime is less important to residents in Chinese GDs. Also found that Chinese GDs increase urban segregation.

The studies cited in Table 2.4 focused on the reasons why individuals decide to reside in GDs in Asian cities as well as the effects of these communities on the surrounding urban areas. Leisch (2002) and Miao (2003) both found that the need for security was the main motivation for individuals to reside in GDs. Wu & Webber (2004) and Wu (2005), on the other hand, concluded that the desire to experience social homogeneity was a stronger motivation for residents of GDs. Leisch's (2002) findings relating to the link between Asian GDs and increased urban sprawl are similar to those of Le Goix (2005) regarding GDs in Southern California. Significantly, these studies highlight negative aspects of the gating phenomenon in Asian cities. Some studies undertaken in Latin American countries, as well as in Turkey are summarized in Table 2.5.

Table 2.5 Summary of studies investigating the gating phenomenon in Latin American cities and in Turkey

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2005	Thuillier	Pilar Suburb / Buenos Aires, Argentina	Focused on the problems that increased gating causes for local suburbs.		Found that although GDs could be beneficial to local suburbs, by attracting high-income individuals to the area and by facilitating economic growth in the area, very little of this benefit actually filters down to the inhabitants of the surrounding areas.
2005	Roitman	Mendoza / Argentina	Investigated the link between urban segregation and GDs.	Researcher employed a qualitative methodology, conducting 94 semi-structured interviews with residents and other interested parties.	Noted that the need for security was the main motivation to reside in the studied GDs and that GDs do contribute to urban social segregation.
2006	Irazábal	Curitiba / Brazil		Three case studies of GDs in Curitiba.	Noted that GDs do cause urban fragmentation and that the GDs occur primarily on the periphery of cities. Also found that the desire for increased social status was the main motivation for residing in the GDs.
2007	Genis	Istanbul / Turkey	Examined the rise of GDs in Istanbul using a case study of the Kemer County GD.	Used qualitative methods ranging from the review of documents to semi-structured in-depth interviews and participant observation.	Found that GDs do not only develop as local enterprises but also develop in a global context linked to transnational ideologies, discourses and networks and also that GDs encourage socio-spatial segregation and cultural fragmentation on a large scale.
s.a.	Giglia	Mexico City / Mexico	Study comprised an ethnographic comparison between three different types of GDs, throughout Mexico City, carried out over a three-year period.	Data gathered through interviews with residents in the selected GDs.	Concluded that the desire for status was the main motivation for residents choosing to reside in the selected GDs and that on a city-wide scale GDs cause fragmentation and social-spatial division.

The studies shown in Table 3.6 concentrate on the effects that GDs have on society and the surrounding urban environment. Giglia (s.a.), Irazábal (2006), Roitman (2005) and Thuillier (2005) all noted that GDs increased levels of spatial and social fragmentation. All the studies employed qualitative methods with an emphasis on the use of interviews to obtain data about the GDs and their residents. Most of these studies noted the negative impacts of the GDs on their surrounding urban areas. Three of the studies found that the desire for increased status was the main driving force for residents choosing to reside in GDs (Roitman 2005; Giglia s.a.; Irazábal 2006). This conclusion contradicts the findings of studies in Asian cities (Leisch 2002; Miao 2003). The following section overviews GD studies conducted in cities in South Africa.

2.4.3 Gated developments in South African cities

Table 2.6 summarizes studies which examined the gating phenomenon in South African cities. The cited studies focused on the impacts and effects of GDs on post-apartheid South African cities emphasizing the impact of GDs on the goals of post-apartheid planning policies aimed at integration.

Table 2.6 Summary of studies investigating the gating phenomenon in South African cities

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2000b	Landman	SA cities	Provides an overview of GDs in South Africa.	The study is a result of earlier research on the concept of crime prevention through environmental design (CPTED).	Identified two types of GDs in South African cities, namely enclosed neighbourhoods, or existing neighbourhoods enclosed through road closures, and security villages, or new developments designed with access control.
2000	Van de Wetering	Pretoria	Examined the issues surrounding the enclosure of existing neighbourhoods.	Used a combination of quantitative and qualitative data, with questionnaires, title deed slips, interviews and property valuation rolls serving as data sources.	Found that the need for security was an important motivation for the enclosure of the neighbourhood, but so was the fear that property values would decrease.
2002c	Landman	SA cities	Compared GDs in Brazil and South Africa.		Noted that, although gating in Brazil was more advanced than in South Africa, there were many signs pointing toward possible similar scenarios of spatial and social fragmentation experienced in Brazil occurring in South African cities.
2004	Landman	Johannesburg / Pretoria	Contrasted two types of GDs, namely enclosed neighbourhoods and security villages	Employed a qualitative approach using data sources such as semi-structured interviews, spatial information (maps), direct observation and documentation review.	Concluded that these two types of GDs pose a threat to integrated development in South African cities as they increase spatial fragmentation and social exclusion and they also reduce citizen participation in our cities.

Table 2.6 continues overleaf

Table 2.6 continued

Year	Authors	Study Area	Features Investigated	Research Methods/ Data	Conclusions
2005	Ballard	SA cities	Investigated GDs as part of a family of spatial strategies used by white South Africans to manage a core contradiction between the identities to which they aspire and the place where they live.		Concluded that GDs are simply suburbs that no longer trust the state to perform a series of functions on their behalf to ensure their existence, such as the provision of safety and security.
2006	Lemanski	Cape Town	Considered the relationship between the residents of a GD and their non-gated neighbours in Cape Town.	Carried out case studies of the non-gated Westlake village as well as the Silvertree Estate GD. Data for the study were gathered through interviews.	Found that the research confirmed the dominant academic perspective on GDs as rejecting those outside and that GDs could lead to increased levels of spatial, social and political segregation.
2007	Landman	SA cities	Examined the impact of GDs on urban sustainability.	Employed the driver-pressure-state-impact-response (DPSIR) model to the gating phenomenon.	Noted that GDs are not conducive to greater sustainability in post-apartheid South African cities.
2008	Lemanski, Landman & Durlington	Johannesburg / Durban / Cape Town	Studied the gating phenomenon in Johannesburg, Cape Town and Durban.	Evaluated existing GD research undertaken in Johannesburg, Cape Town and Durban.	Found that GDs should be studied in their own unique context. Also noted that GDs may be an individually rational response to the high crime rate in South Africa, but collectively these communities are at odds with the ideals of post-apartheid planning.

Almost all the studies noted the negative effects of GDs on cities in South Africa, such as spatial, social and political fragmentation and segregation (Landman 2002c; 2004; Lemanski 2006; Lemanski, Landman & Durlington 2008). These studies used a combination of quantitative and qualitative methods in their investigations of the gating phenomenon. The GDs were most often investigated using interviews and questionnaire surveys of the residents, developers, property agents, planners and residential associations. Other techniques such as field observations and comparisons of case studies were also used. The next section summarizes the literature in this chapter.

2.5 SUMMARY

More than 60% of the works mentioned in the literature review drew attention to the negative impacts of GDs on the surrounding urban areas. These negative impacts were frequently identified as the social, spatial and political fragmentation and segregation of the surrounding urban areas, as well as increased urban sprawl (Blakely & Snyder 1997; Low 2003; Bislev 2004; Le Goix 2005; Lemanski 2006; Landman 2007; Vesselinov, Cazessus & Falk 2007; Lemanski,

Landman & Durlington 2008). South African studies specify additional negative impacts, namely the effects that the rapid spread of GDs could have on the sustainability of our cities as well as the repercussions for the ideals of post-apartheid planning (Landman 2007). Only five of all the reviewed studies noted any positive implications related to the gating phenomenon, namely increased property values in GDs, better social cohesion among residents of GDs, and more efficient service delivery to residents in GDs (Douglass & Hsieh 2001; Chen & Webster 2005; McKenzie 2005; Manzi & Smith-Bowers 2005; Kirby et al 2006). A noteworthy conclusion is that all the positive aspects impacted on the GDs themselves or their residents, whereas the negative effects focused on the surrounding urban areas.

An notable aspect highlighted by the reviewed literature was the various reasons given for residing in GDs. Asian GD residents noted that both the need for security and the desire to form part of a socially homogenous group were their main motivations, whereas GD residents in Latin American cities were motivated primarily by a desire for status, and secondarily by the need for security (Leisch 2002; Miao 2003; Wu & Webber 2004; Roitman 2005; Irazábal 2006; Giglia s.a.).

The South African literature calls attention to the concerns that GDs effectively recreate the apartheid city and that they thwart progress toward the post-apartheid goals of urban integration, sustainability and inclusion (Ballard 2005; Landman 2007; Lemanski, Landman & Durlington 2008). This literature also revealed that the need for security is not the sole reason for residing in GDs, but that there is a desire among GD residents to detach from civic engagement and abstain from the responsibilities of civil society (Ballard 2005; Mabin 2005; Lemanski, Landman & Durlington 2008).

Qualitative methods such as interviews, participatory observation and questionnaire surveys were the most popular devices for collecting information and data about GDs. Case studies were also popular modes of investigation. Relatively few studies employed numerical data and statistical analyses, the exceptions being Kirby et al (2006) and Vesselinov, Cazessus & Falk (2007). The need for more detailed research on the different types of GDs and their impacts on South African cities was called for in a number of studies (Landman 2000c; 2004; Rehder 2002; Raputsoa 2003; Van der Walt 2003).

This chapter's review of current international scholarship allowed the conceptualization of the gating phenomenon in South Africa as well as internationally. The chapter also highlighted key concepts related to GDs and noted three theories and one model relevant in the study of GDs thereby achieving the objective of creating an appropriate contextual base for the study of GDs.

The following chapter describes the research methods used during the research process, starting with the aerial photo survey, then the field survey and finally the questionnaire survey. The chapter closes with an investigation of the data capturing and analysis procedures employed during each research method.

CHAPTER 3: BREACHING THE WALLS: METHODS AND RESEARCH DESIGN

This chapter describes the research methodology followed in the investigation of GDs and their residents in the north-eastern suburbs of Cape Town. The chapter begins with a restatement of the research aim and objectives and then proceeds to discuss the methods employed to achieve these objectives. The chapter then describes each research method used during the research process, beginning with the aerial photo survey, then the field survey and finally the questionnaire survey. The data capturing and analysis procedures are discussed following the description of each of the surveys. The chapter concludes with an examination of the shortcomings identified during the research process.

3.1 RESEARCH AIM, OBJECTIVES AND METHODS

The overarching aim of this study is to gain better insight into the social and spatial manifestation of GDs as a current international phenomenon and more specifically in the north-eastern suburbs of Cape Town. In order to achieve this aim the study attempts to answer the following questions related to GDs in the study area: Where are the developments located? How have these developments grown in number over time? What are the characteristics of these developments and their residents? What are the daily activity spaces of the residents of the developments in the surrounding urban areas? To answer these questions six objectives have been identified. Table 3.1 summarizes these objectives as well as the methods used to realize these objectives.

Table 3.1 Summary of objectives and methods employed to achieve these objectives

Number	Objective	Method employed
1	To map the spatial pattern of GDs in the study area up to and including 2005;	GIS (Geographical Information Systems) analysis of aerial photographs
2	To record and analyse the growth of the GDs, between 1998 and 2005, in the study area;	GIS analysis of aerial photographs for 1998, 2001 and 2005
3	To determine the spread, in 2005, of the GDs in the study area;	GIS analysis of GD locations and clusters
4	To ascertain the physical characteristics that the developments have in common;	Field survey of GDs in the study area
5	To establish the demographic and socio-economic profiles of the residents of these developments; and	Questionnaire survey of GD residents in the study area
6	To uncover and map the daily activity spaces of the residents as indicated by the resident's travel patterns.	Questionnaire survey as well as GIS analysis of the results of this survey

The wide range of aspects concerning GDs covered in this study necessitated the use of both quantitative and qualitative research methods. A quantitative approach was used to investigate the spatial aspects of the GDs, their physical characteristics and the demographic and socio-economic characteristics of their residents. The quantitative approach was complemented with a qualitative element by asking open-ended questions in the resident survey. A number of studies identified in the literature review noted the use of a combination of both quantitative and qualitative approaches when studying GDs (Van de Wetering 2000; Atkinson & Flint 2004; Grant, Greene & Maxwell 2004; 2005a; Le Goix 2005; Kirby et al 2006; Vesselinov, Cazessus & Falk 2007). Consequently, this study employs a similar combined approach. The use of GIS (Geographical Information Systems) to combine and store the spatial data concerning the GDs was informed by Le Goix's (2005) and Douglass & Hsieh's (2001) work which used GIS to study of the gating phenomenon in American cities.

The following sections describe and discuss the different methods employed to achieve the objectives listed above. The first method discussed is the aerial photo survey; followed by the description of the physical features survey of the GDs, and finally the resident survey is explained. Each discussion describes the data capturing and analysis involved in the different methods, as well as the sample selection where appropriate.

3.2 AERIAL PHOTO SURVEY

To understand the spatial manifestations and daily activity space of the residents living in the GDs it was first necessary to identify the locations of these communities in the study area. Time and financial constraints prohibited a physical survey of the whole study area. Therefore a survey of aerial photos was undertaken. The survey was done by using a GIS to analyse digital aerial photographs to identify and locate the GDs in the study area. The decision to use an existing GIS was informed by Le Goix's (2005) study of the effects of GDs on urban sprawl and social segregation in Southern California and by the researcher's familiarity with GIS as well as the availability of relevant spatial data in the form of digital aerial photographs for the study area.

It was important from the outset to have an operational definition of a GD⁷ so as to be able to identify these developments from digital aerial photographs. Two properties of GDs were used in the visual identification of these developments, namely restriction of access and a perimeter boundary of some type. GDs were visually identified on the aerial photographs by looking for gates or booms across access roads, walls and fences along their perimeters and closed road networks in the developments. The focus on visible gated entrances or booms, perimeter walls or

⁷ A gated development is defined as a group of housing units enclosed by a perimeter structure (e.g. fence, wall) and with restricted access (e.g. security guardhouse, remote-controlled gate).

fences and a closed road system distinguishes GDs Landman (2000c) calls security villages. Landman (2000c) notes that GDs can be separated into two groups namely gated developments and enclosed neighbourhoods. It was decided to exclude so-called enclosed neighbourhoods⁸ from the aerial photo analysis because, as Lemanski, Landman & Durlington (2008) have noted, such enclosed neighbourhoods are extremely rare in Cape Town. Figure 3.1 illustrates the features used to identify GDs in the study area. Flats without perimeter walls or fences, with controlled access to lobbies and hallways, were also excluded from the survey. Similarly, walled complexes having no discernable means of restricting access were excluded.

GDs were identified on aerial photographs for the years 1998, 2001 and 2005. The availability of aerial photographs for only 1998, 2001 and 2005 constrained the analysis and especially the growth aspect of the GD phenomenon. Aerial photos for 2007 were obtained but because they unfortunately did not cover the whole study area, they were excluded from the aerial photo analysis. The 1998 aerial photographs provided a record of all GDs existing up to that time. For the subsequent years, only the additional GDs constructed in the intervening periods were identified. This allowed the spatial data to be dated to a specific year. Each of the individual pixels composing an aerial photo represents a 0.25m by 0.25m block in reality. This fine scale allowed a very precise examination of the features used to identify the GDs in the study area. The aerial photographs were obtained in digital format from the City of Cape Town's Strategic Development Information and Geographical Information System Department (City of Cape Town 2008d).

The first step in the aerial photo analysis was to overlay the cadastral boundaries of all of the plots in the study area onto the aerial photographs using *ArcMap* 9.2 software. The cadastral boundaries were obtained, in digital format, from the Geology, Geography and Environmental Studies department at Stellenbosch University. The individual GDs were then visually identified using the distinguishing features described earlier. As each GD was identified, the cadastral boundary was used to digitize the outline of the community which was stored as a polygon in an *ArcMap* 9.2 shapefile and given a unique identifying code. For each aerial photograph set a new shapefile was created to store the newly identified GDs, thereby allowing for the temporal analysis of the GDs. The aerial photo analysis identified 246 GDs existing in the study area up to the date the aerial photos were taken in 2005.

⁸ Landman (2000c) defines enclosed neighbourhoods as existing neighbourhoods which have controlled access through gates or booms across existing roads. The roads in these neighbourhoods were previously, or still are, public property.



Figure 3.1 A typical gated development showing its three distinguishing features

The recording of the spatial location of each GD facilitated an examination of the growth and spread of these communities as well as their density in the study area. The next section discusses the field survey used to examine the physical features of a sample of GD developments in the study area.

3.3 FIELD SURVEY

In order to examine and record the unique and typical physical characteristics of the GDs in the study area, it was necessary to visit some of these developments. Financial and time constraints ruled out a survey of all 246 developments. Only a sample of the 246 GDs was therefore surveyed. The sample was selected from the 80 GDs identified on the 2005 aerial photographs. A minimum sample size of 46 GDs was identified using Sheskin's (1985) 95&5 rule⁹. The aerial photo analysis revealed four large (clusters containing between 17 and 51 GDs) and five small (clusters containing between 3 and 16 GDs) concentrations of GDs. A sample of GDs from these spatial concentrations was used in the field survey. Because these concentrations represent the majority of GDs in the study area they would best embody the typical physical characteristics of GDs throughout the study area.

The 80 GDs identified from the 2005 aerial photo set were selected for the field survey because these communities' were located in all nine concentrations of GDs in the study area. Twenty-one GDs under construction, at the time the 2005 aerial photos were taken, were excluded from the list of developments to be surveyed; leaving 59 candidates which represent 24% of the 246 GDs identified in the study area. The sample is deemed statistically significant because the 59 selected GDs exceed the minimum sample of 46 and because they are well distributed among the spatial concentrations of the GDs in the study area. The sampled GDs complexes were classified according to their layout density into three categories (the categorization is further explained in subsection 3.5.1), namely low-, medium- and high-density communities. The same 59 GDs were subsequently surveyed in the resident survey.

Fifty-nine communities were visited between February and April 2008 and photographs were taken of the following components in each community:

- Name of complex;

⁹ A accuracy level where one is 95% certain that no estimated percentage is off by more than +/- 5%. Ninety-five per cent is the confidence level; 5% is the confidence interval. The sample size **n** necessary to achieve such a result

is computed as follows: $n = \left(\frac{Z\sqrt{PQ}}{C} \right)^2$ where: Z = 1.96, for 95% confidence that a result lies in a given

confidence interval; P = the percentage about which a confidence interval is computed, expressed as a proportion; Q = 1 - P; C = the desired size of the confidence interval, expressed as a decimal number (Sheskin 1985).

- Entrance garden (if any);
- Entrance gate or boom;
- Guardhouse (if any);
- Perimeter wall or fence;
- Intercom system (if any); and
- Homes inside the complex (if allowed).

Figure 3.2 depicts typical features photographed at each of the GDs visited, i.e. the name of the community, the gate or boom, the guardhouse and some of the homes in the community.



Figure 3.2 Typical physical features of four different gated developments

At each of the complexes visited a field-survey template was filled in to record/describe the following features:

- Name of the community;
- Internal road network;
- Security measures;
- Architectural style(s) and housing type(s);
- General atmosphere or sense of place (if any);
- Location; and

- Contact details (if any).

Appendix B is a copy of the field-survey document used during the field visits. The contact details were subsequently used to get in touch with representatives of the gated developments to obtain their consent for and help with the later questionnaire survey. The results of the completed survey documents were electronically stored and analysed using the *MS Excel* software program. The next section describes the survey undertaken among the GD residents.

3.4 SURVEY OF RESIDENTS

A questionnaire survey enabled the researcher to profile residents in the gated developments in the study area in demographic and social-economic terms, as well as getting insight into their daily activity spaces. The latter reveals their links with the “outside world”. The survey was done in the 59 GDs identified for the field survey. The field survey and the survey of the residents was combined to reduce travel expenses and because the 59 communities represent four of the major concentrations of GDs providing a good spatial coverage of the phenomenon in the study area.

A covering letter (Appendix C) aimed at the residents and requesting the contact details of the chairperson of the HOA was placed at the entrance of each of the 59 GDs prior to the survey of the residents. One pamphlet was also randomly placed in six different postboxes at the 59 communities. The questionnaire survey began in April 2008 and was completed in August 2008.

The contact details for the HOA chairpersons were obtained through a combination of a search of the records at the Cape Town Municipality and a “snowball process” involving a second visit to the developments to obtain contact details directly from the residents. The contact details of the representatives of the HOA’s for 32 of the 59 communities were obtained using these two methods. The required information for the remaining 27 communities was unobtainable due to lack of time and funds. The chairperson of each HOA or a representative of the 32 GDs was subsequently contacted and asked if they would be willing to distribute six questionnaires among residents of their community and to collect the completed questionnaires at a later date. Only six questionnaire forms were distributed among residents of each selected developments to reduce the costs of the survey and to avoid discouraging the contacts from participating in the survey.

Table 3.2 provides a summary of the number of GDs surveyed, the estimated number of housing units in these GDs (estimates are based on unit counts from aerial photographs) and the coverage and response rate of the questionnaire survey. The questionnaire survey managed to cover 4.8% of the 2637 estimated number of GD housing units in the selected sample of GDs.

Table 3.2 Summary of the coverage and response rates of the questionnaire survey, 2008

Suburb	Number of GDs surveyed	Number of units in GDs (Estimated)	Number of distributed questionnaires	Number of returned questionnaires	GD unit coverage rate (%)
Bellville	5	154	11	10	6.5
Brackenfell	7	383	24	23	6
Durbanville	34	1284	90	74	5.8
Kraaifontein	4	187	0	0	0
Kuilsriver	4	163	24	16	9.8
Parow	0	0	0	0	0
Section 8 Areas	5	466	6	3	0.6
Totals	59	2637	155	126	4.8

GDs were not surveyed in either the Parow nor Kraaifontein suburbs and only 0.6% of the GD units outside of the old municipal boundaries of the study area (Section 8) were surveyed. The high average response rate (81%) can be credited to the cooperation of chairpersons or members of the communities' respective HOAs. The goal of the survey was to gather six completed forms from each of the 59 sample GDs. This would have provided a 13.8% coverage of the estimated number of units in the sample of GDs. This was not achieved due to a lack of time and funds needed to pursue the 33 developments which did not respond to the first invitation to participate in the survey. Although the 4.8% coverage is less than was initially planned, the researcher is confident that the sample gives a good indication of the phenomenon under investigation because the surveyed communities are located in the four largest spatial concentrations of GDs in the study area. Figure 3.3 shows the spatial concentrations of GDs in the study area and also the location of the GDs included in the questionnaire survey. Clearly, GDs were surveyed in the larger spatial clusters in the Durbanville, Bellville and Kuilsriver suburbs. While the smaller clusters in the Parow, Bellville and Brackenfell suburbs were surveyed to a lesser extent. The following section explains the methods used to capture and analyse the survey data.

3.5 DATA CAPTURE AND ANALYSIS

Data capture and analysis for the study took place on four distinct levels. The first two levels gathered and examined data relating to the spatial distribution of the gating phenomenon in the study area. The third level acquired information about the physical characteristics of individual GDs, and the fourth level of data capture gained demographic and socio-economic data

concerning the residents in specific GDs. These four levels of data capture can be summarized in the following four steps:

- Capturing the GD localities from aerial photography;
- Determining the concentrations of GDs in the study area;
- Obtaining data pertaining to the physical characteristics of specific GDs; and
- Acquiring the demographic, socio-economic and daily activity space details of specific GD inhabitants.

The processes followed in each of these steps are described and discussed in the following subsections.

3.5.1 Identifying the location of the gated developments

Shapefiles storing the outlines of each identified GD were generated. The generated shapefiles stored the locations of the identified GDs as polygons depicting the cadastral outline of each community. The shapefiles also contained related data for each of the identified GDs. This data consisted of a unique identifier, the dwelling type, the aerial photograph from which the GD was identified, the suburb in which the GD is located, the zoning of the property, and the total area of the development. The three shapefiles were later used to create location maps as well as maps depicting the growth of the GDs. The following subsection examines the process followed to ascertain the concentrations of the GDs in the study area.

3.5.2 Determining the concentrations of gated developments

The concentrations of GDs in the study area were established by analysing a generated point shapefile, created from the three existing polygon shapefiles, using *ArcMap 9.2*'s Kernel Density tool which calculates the density of point features around a central “neighbourhood” and then generates an image in which each cell contains an estimate of the spatial density of the point features (ArcMap 2008; Fotheringham, Brunsdon & Charlton 2000). This spatial analysis made it possible to map concentrations of GDs in the study area. The resulting concentration map is presented in Chapter four. The next section looks at the data-capturing process used for the physical characteristics of the GDs.

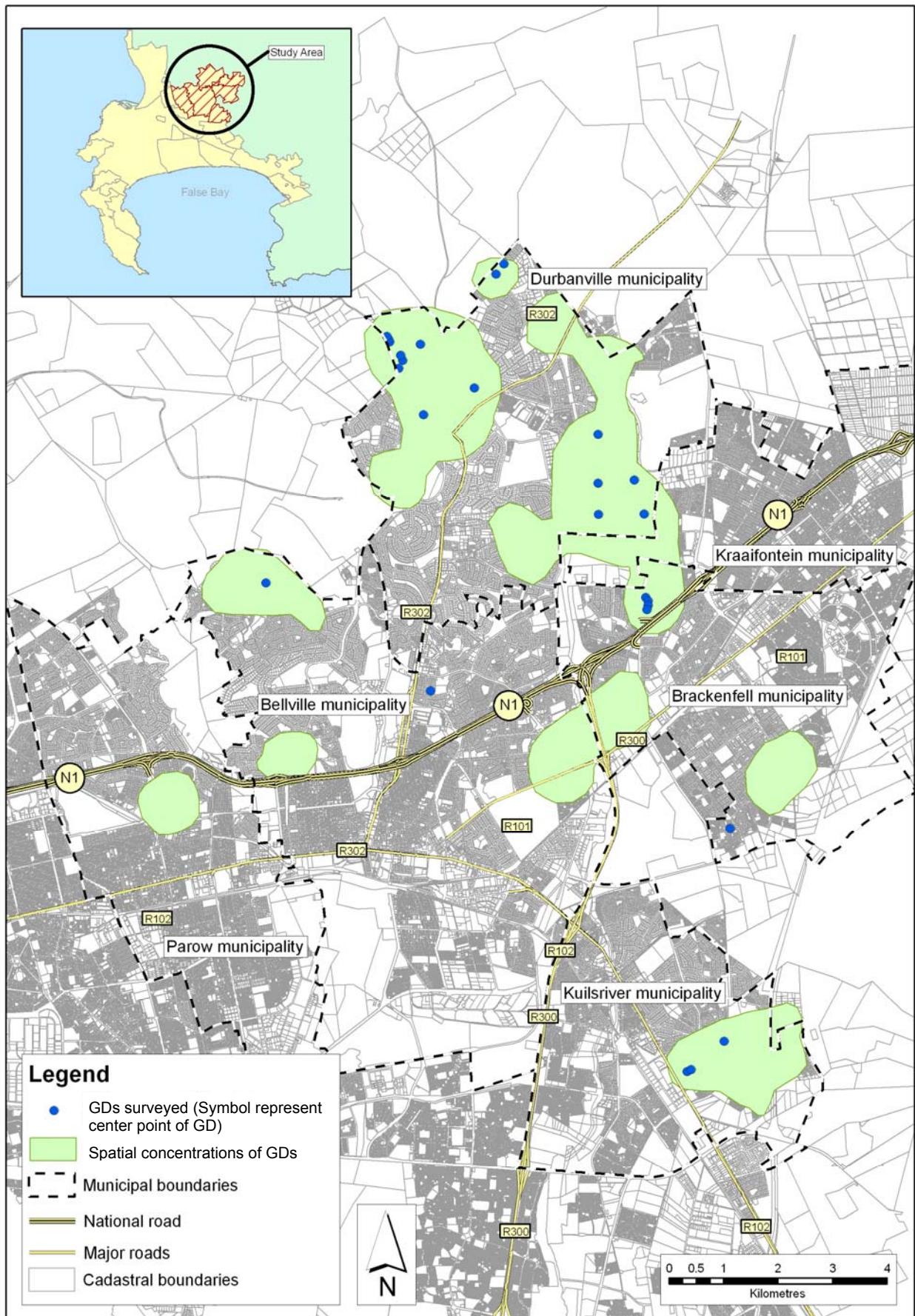


Figure 3.3 Location of the surveyed GDs and the spatial clusters in which they are located

3.5.3 Obtaining data about the physical characteristics of the gated developments

Data obtained from the field survey consisted of the completed survey templates and the digital photographs taken at each of the surveyed GDs. The template data were captured and statistically analysed using the *MS Excel* software package. The digital photographs were stored and examined in order to identify common architectural characteristics of the surveyed GDs. The *ArcMap 9.2* software package was used to calculate the housing density of the surveyed GDs. This was done by digitizing the outlines of the buildings located in each GD from the aerial photographs. The area of each building was calculated using the boundary shape, all the areas were added and then divided by the total area in the specific GD. The result is the housing density of each GD. Figure 3.4 illustrates the onscreen digitizing of the shape of buildings in a selected GD. The paved areas and road surfaces were not included as parts of the built area in calculating the densities. The housing densities were used to classify the surveyed GDs into three categories. Next, the capturing of the data dealing with the residents' demographic and socio-economic characteristics is briefly explained.

3.5.4 Processing the data about gated development residents' demographic and socio-economic characteristics

The completed questionnaires, obtained from the resident survey, were coded and the data captured using the *MS Excel* software package. The questionnaire data were geo-referenced to specific GDs and not to individual units in the developments. This coded data, as well as data obtained from the field visits, were statistically processed and manipulated using the *MS Excel* software package. Finally, interpretation entailed the synthesis of the results obtained from the data analysis to form a coherent picture of the GDs and the residents' responses. The findings are presented and discussed in Chapter four and five.

This Chapter explained the methods used to locate and map the GDs in the study area, analyze their growth, determine and map their geographical spread and capture physical characteristics as well as establishing the demographic and socio-economic profiles and daily activity spaces of their residents. The following chapter describes the results of the mapping of GDs in the study area, the analysis of the investigation of the growth, concentration and clustering of the GDs as well as the demographic and socio-economic profiles of the GD residents. The next chapter also reports on the physical characteristics of the GDs and on the daily activity spaces of the residents of these developments.



Figure 3.4 Digitizing process of the outline shapes of selected GDs used to calculate housing density

CHAPTER 4: INSIDE THE WALLS: CHARACTERISTICS OF THE STUDY AREA'S GATED DEVELOPMENTS

This chapter reports the findings of the data analyses. The chapter begins by presenting and discussing the spatial patterns of individual complexes, namely the location, clustering and density of the GDs. Second, the results of the investigation of the features, housing types, security measures and facilities of the GD complexes are examined. Third, the demographic and socio-economic characteristics of the GD residents are reported and an account is given of the interactions of the complexes' residents with their surrounding urban environment.

4.1 SPATIAL MANIFESTATION AND GROWTH OF THE GATED DEVELOPMENTS

Many authors agree that GDs have direct negative impacts on their surrounding urban areas (Lang & Danielsen 1997; Manzi & Smith-Bowers 2005; Landman 2007). Landman (2008) indicates that GDs contribute to the fragmentation of their surrounding urban areas. Although some of the analyses focus on the internal working of the GDs, it is also important to examine the spatial aspects, such as the location, concentrations and growth of GDs in the study area, to better understand the impacts of this phenomenon on the surrounding urban areas as well as those "outsiders" living around these complexes. The results discussed in the following section are based on spatial analysis of the data gathered in the aerial photo survey. The section begins by describing the 'where' of the GD phenomenon.

4.1.1 Spatial patterns (location and concentration) of the complexes

Figure 4.1 shows the location of 246 GDs in the study area, the metropolitan (or urban) edge, the suburban boundaries and a 1km buffer around the urban edge. The communities are unevenly spread throughout the study area, with three distinct concentrations of GDs being evident in Figure 4.1. Two of the clusters lie close to the northern urban edge indicated by the metropolitan boundary. The largest cluster is located close to the Durbanville-Kraifontein boundary on the formers' side. A smaller fourth group of GDs, in the Kuilsriver suburb, is located close to the south-eastern urban edge.

According to Figure 4.1 and Table 4.1 Durbanville suburb contains the greatest number (or more than one half) of GDs in the study area. The Bellville suburb has almost one quarter of the GDs. Both these suburbs have large proportions of residents in the middle- and high-income categories (City of Cape Town 2008b). Recall that Grant (2005b) noted that GDs in Canadian cities catered to middle- and high-income residents while Thuillier (2005) found that individuals with high

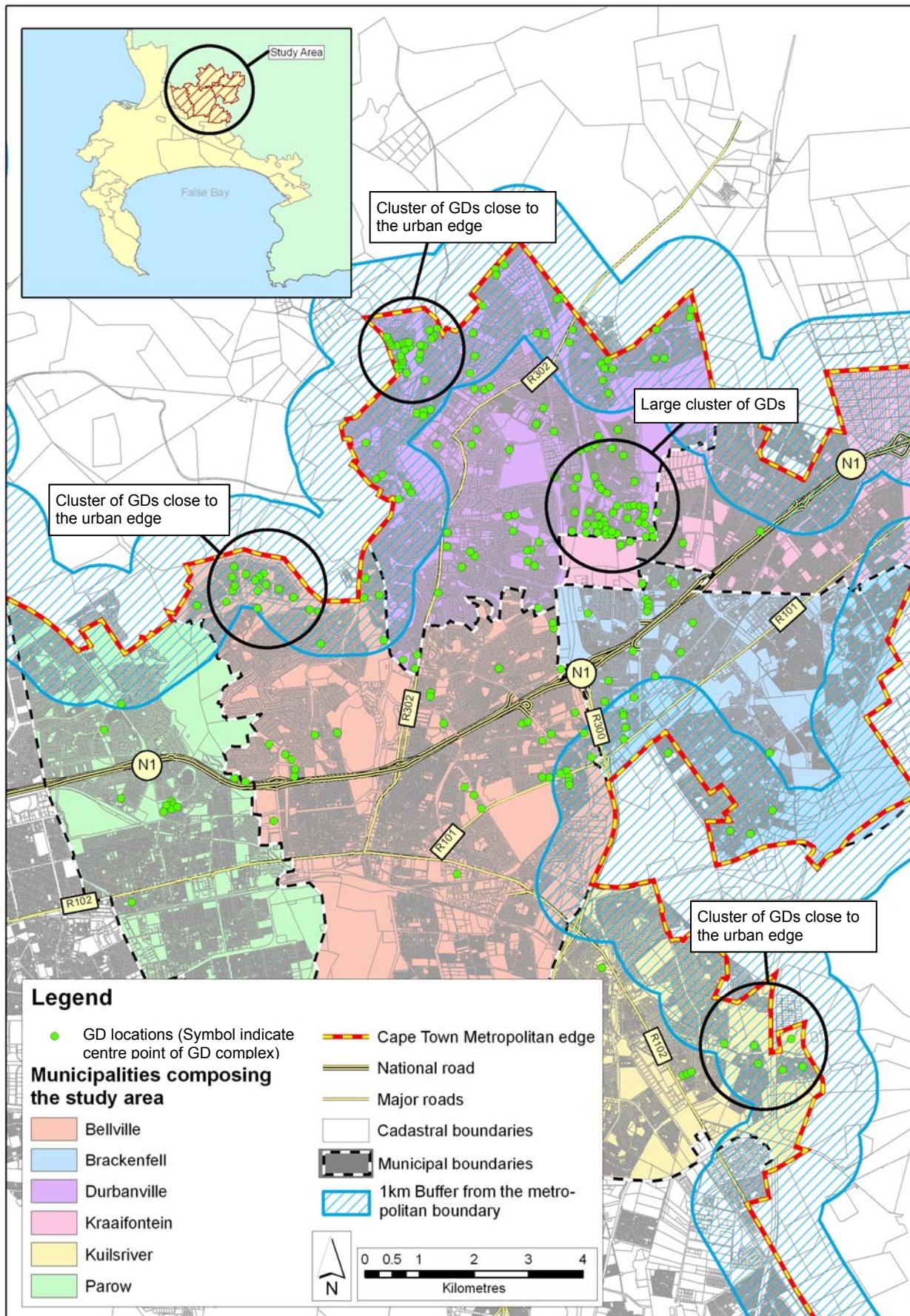


Figure 4.1 Spatial location and cluster of gated developments in the study area, 2005

incomes were attracted to GDs in Buenos Aires. Smaller proportions of residents in Kraaifontein, Kuilsriver and Parow fall in to the middle- to high-income brackets so that the smaller number of GDs in these suburbs reinforces the notion that GDs in the study area cater to individuals with middle- to high-incomes (City of Cape Town 2008b).

Table 4.1 Distribution of Gated Developments among the suburbs comprising the study area, 2005

Suburb	Number of GDs	Percentage of GDs (%)
Bellville	59	24
Brackenfell	22	9
Durbanville	128	52
Kraaifontein	7	2.8
Kuilsriver	6	2.4
Parow	13	5.3
Section 8	11	4.5
Totals	246	100

Figure 4.1 reveals a large number of GDs close to the urban edge. Forty-four per cent or 108 of the GDs are located in 1km from the urban edge and 30% (73 GDs) lie in 500m of this edge. Le Goix (2005) found that GDs in Southern California also tended to be located close to the urban edge. He concluded that this tendency to concentrate close to the urban edge contributed toward urban sprawl and social segregation in his study area. Leisch (2002) also concluded that GDs in Jakarta contributed toward urban sprawl by locating close to the urban edge. Similar near urban-edge spatial patterns of GDs in the study area could indicate that the GDs are contributing to urban sprawl. A possible reason why such a large percentage of GDs are located close to the urban edge is the availability of large tracts of vacant and affordable land which can be developed into GD complexes. No GDs were located beyond the metropolitan edge, indicating that the local authorities effectively control residential development outside this boundary. The next section deals with the concentrations and sizes of GDs in more detail.

4.1.2 Concentrations and sizes of the gated developments

Figure 4.2 demonstrates the sizes and concentrations of GDs in the study area in 2005. The concentrations were determined using the Kernel Density tool in *ArcMap 9.2*. The outlines of the individual clusters of GDs were digitized, stored and displayed as a shapefile.

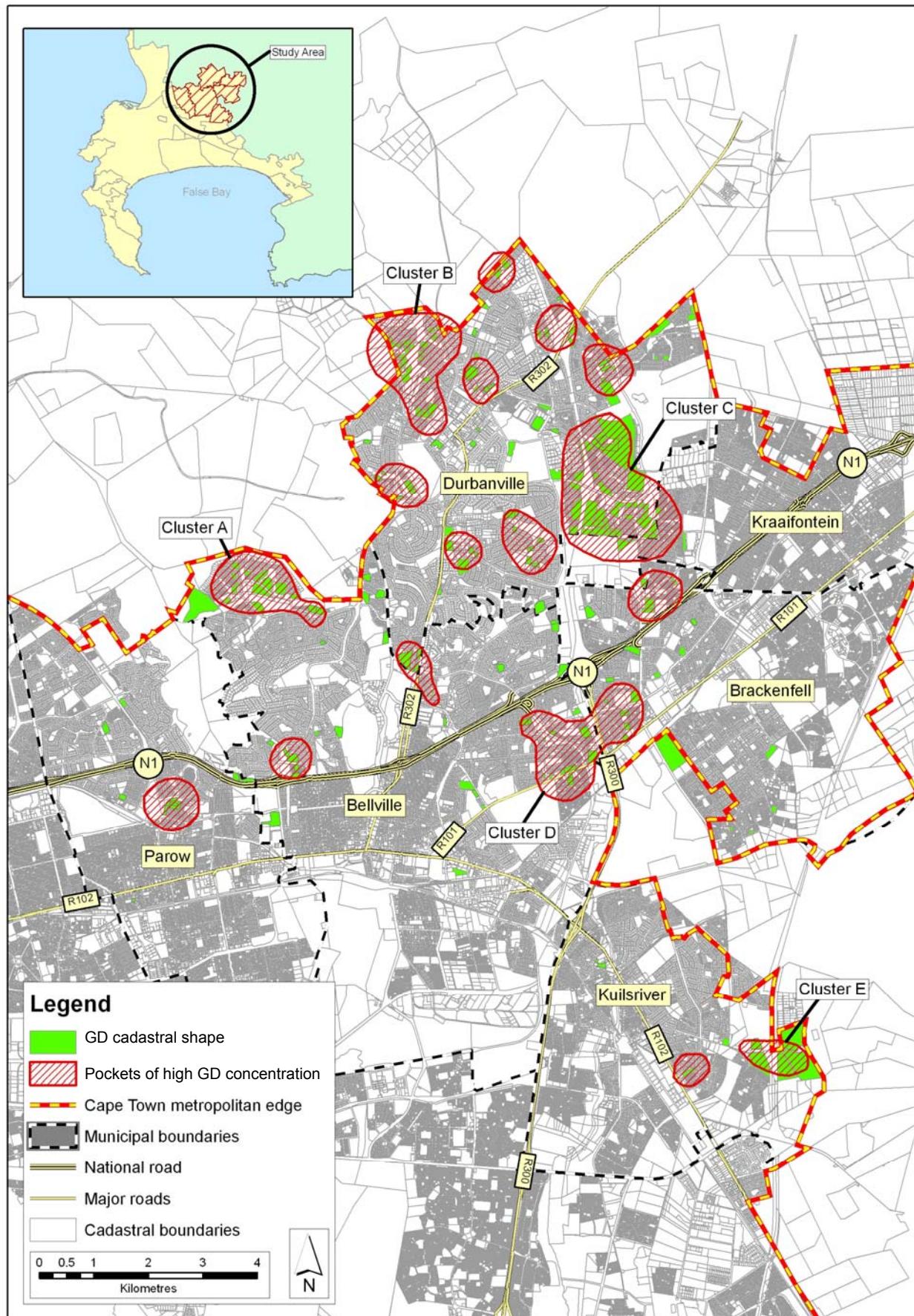


Figure 4.2 Concentrations and sizes of gated developments in the study area, 2005

Clusters of GDs can be observed in the Bellville (cluster A), Durbanville (clusters B and C), Brackenfell/Bellville (cluster D) and Kuilsriver (cluster E) suburbs. The largest concentration of GDs (cluster C) is located close to the border of the Durbanville and Kraaifontein suburbs. This cluster contains 51 GDs in a 1.5km radius. Cluster C also contains three of the largest GDs in the study area, averaging approximately 18ha each and covering a total area of 54ha. The GDs in this cluster cover a total area of 135ha and each GD covers, on average, 2.6ha. The large concentration of GDs as well as the considerable sizes of these developments is a function of a number of different factors such as the availability of land, the proximity of shopping facilities and good schools, and the nearness of highway connections to and from Cape Town. Le Goix (2005) attested that availability of land is an important factor in the location and concentration of GDs in Southern California. He also found that GDs tend to cluster around areas experiencing rapid economic growth which provide a flow of potential buyers for these developments (Le Goix 2005). The availability of land and the rapid growth of commercial and office parks in the Durbanville area is a possible factor contributing to the concentration of GDs in cluster C. If the growth of commercial and office parks in the Durbanville area continues, it can be expected that GDs will continue to develop to the south and north-east of cluster C. The relatively larger extents of the GDs in cluster C have a detrimental impact on city form and connectivity (City of Cape Town 2007b). This large cluster of GDs already leads to traffic congestion in the area, although town planners at the Durbanville suburb dismiss this because the GDs in cluster C have similar densities to the surrounding residential neighbourhoods and therefore do not contribute to increased traffic volumes in the area (Rost 2008, pers com). Even so the high-volume flow of traffic at the entrances of these gated developments at specific times, especially departure and arrival times of residents working between 08:00 and 17:00 daily, could affect the traffic patterns of individuals residing outside these GD complexes.

Clusters A and B contain 17 and 30 GDs respectively, cluster B being the second largest cluster in the study area. The GDs in these clusters are relatively small and cover, on average, only 1.56ha each. These small sizes can be ascribed to smaller amounts of land available in and around these clusters. The proximity of these clusters to the metropolitan edge can contribute towards urban sprawl, but no GD developments were observed beyond the metropolitan edge on the 2005 aerial photos. Cluster D lies astride the border between Bellville and Brackenfell suburbs and represents an older cluster of GDs than clusters A, B and C. Cluster D consists of 20 GDs averaging 1.16ha each. Fifteen of the GDs in this cluster were constructed before 1998 and only five new GDs were built between 1998 and 2005. Cluster E, located in the Kuilsriver suburb, comprises only six GDs, but at 11.6ha each these developments are far larger than GDs located in the other clusters. The three largest developments in this cluster all have low

residential densities and large amounts of open space. Once again the concentration of GDs in this cluster can be credited to the availability of land, but unlike cluster C, where higher-density GDs were developed, low-density estates are more popular in this cluster. Although the Kuilsriver suburb does not house as large a proportion of middle- to high-income residents as the Durbanville suburb, the former suburb still boasts high-income clusters, such as Zevenwacht Estates, which attract the development of low-density GD complexes. The landscape in and around cluster E is the likely reason for the area's appeal, because unlike cluster C this area features many aesthetically pleasing attributes such as vineyards and natural vegetation. Le Goix (2005) noted that GDs in Southern California concentrated in areas of natural beauty.

Table 4.2 details the average size of GDs and the total area they cover in each suburb. The average size of GDs in Kuilsriver, Durbanville and Parow suburbs are similarly small and those in Bellville and Brackenfell are somewhat larger. The GDs in Parow are on average the smallest, possibly because Parow suburb generally consists of older more established neighbourhoods which lack available developable land for large GD complexes. Contrarily, GDs located outside the suburban areas generally occupy large amounts of available land clarifying why the GDs in Section 8 areas are far larger than those in the other suburbs.

Table 4.2 Average size of gated developments and total area they cover by suburban area, 2005

Suburb	Number of GDs	Average size of GD (ha)	Total area covered by GDs (ha)
Bellville	59	2.0	116.4
Brackenfell	22	2.2	47.4
Durbanville	128	1.4	183.9
Kraaifontein	7	1.8	12.8
Kuilsriver	6	1.3	7.9
Parow	13	1.0	12.6
Section 8	11	10.4	114.3
Totals	246	2.9	495.3

The large area covered by GDs in the Durbanville suburb attest to the popularity of these communities in this suburb which can be ascribed to a function of the demand for security and the availability of developable land for these types of developments. The following section discusses the growth in numbers of GDs in the study area over time.

4.1.3 Development (1998-2005) of the gated developments

Figure 4.3 illustrates the location of existing and new GDs in the study area at three time slices – 1998, 2001 and 2005. This figure reveals that prior to 1998 most GDs were spread relatively evenly throughout the study area, but that between 1998 and 2005 most new GDs were established in one of the five clusters identified in Figure 4.2. Cluster C experienced the greatest increase in the number of GDs between 2001 and 2005, with 24 new complexes being developed in this period.

Table 4.3 lists the numbers of GDs for each time slice and the percentage growth of GD numbers in each suburb. The figures indicate the growth in terms of the number of GD complexes and not the number of units in these complexes. The total number of GD complexes grew from 97 in 1998 to 166 in 2001 and to 246 in 2005, an overall growth of more than 150%.

Table 4.3 Distribution and growth of gated developments by suburban area in 1998, 2001 and 2005

Suburb	Number of existing GDs in 1998	Number of new GDs 2001	1998-2001 Percentage growth	Number of new GDs in 2005	2001-2005 Percentage growth	1998-2005 Growth rate (%)
Bellville	34	18	52.9	7	13.5	73.5
Brackenfell	9	4	44.4	9	69.2	144.4
Durbanville	39	45	115.4	44	52.3	228.2
Kraaifontein	0	1	100	6	600	600
Kuilsriver	2	0	0	4	200	200
Parow	12	0	0	1	8.3	8.3
Section 8	1	1	100	9	450	1000
Totals	97	69	71.1	80	48.2	153.6

Bellville and Durbanville suburbs experienced the greatest growth of GD complexes between 1998 and 2001 but this growth slowed in both municipalities between 2001 and 2005. GD growth in Kraaifontein, Kuilsriver, Parow and the Section 8 areas grew slowly if at all between 1998 and 2001 followed by slight increases between 2001 and 2005, illustrating the tendency of this type of development to concentrate in the suburbs with more affluent inhabitants. Over the 1998-2005 period the numbers of GDs grew steadily throughout the study area. Landman (2002c) also noted a trend towards increased numbers of GDs in our cities and warned that this could lead to increased urban fragmentation and sprawl.

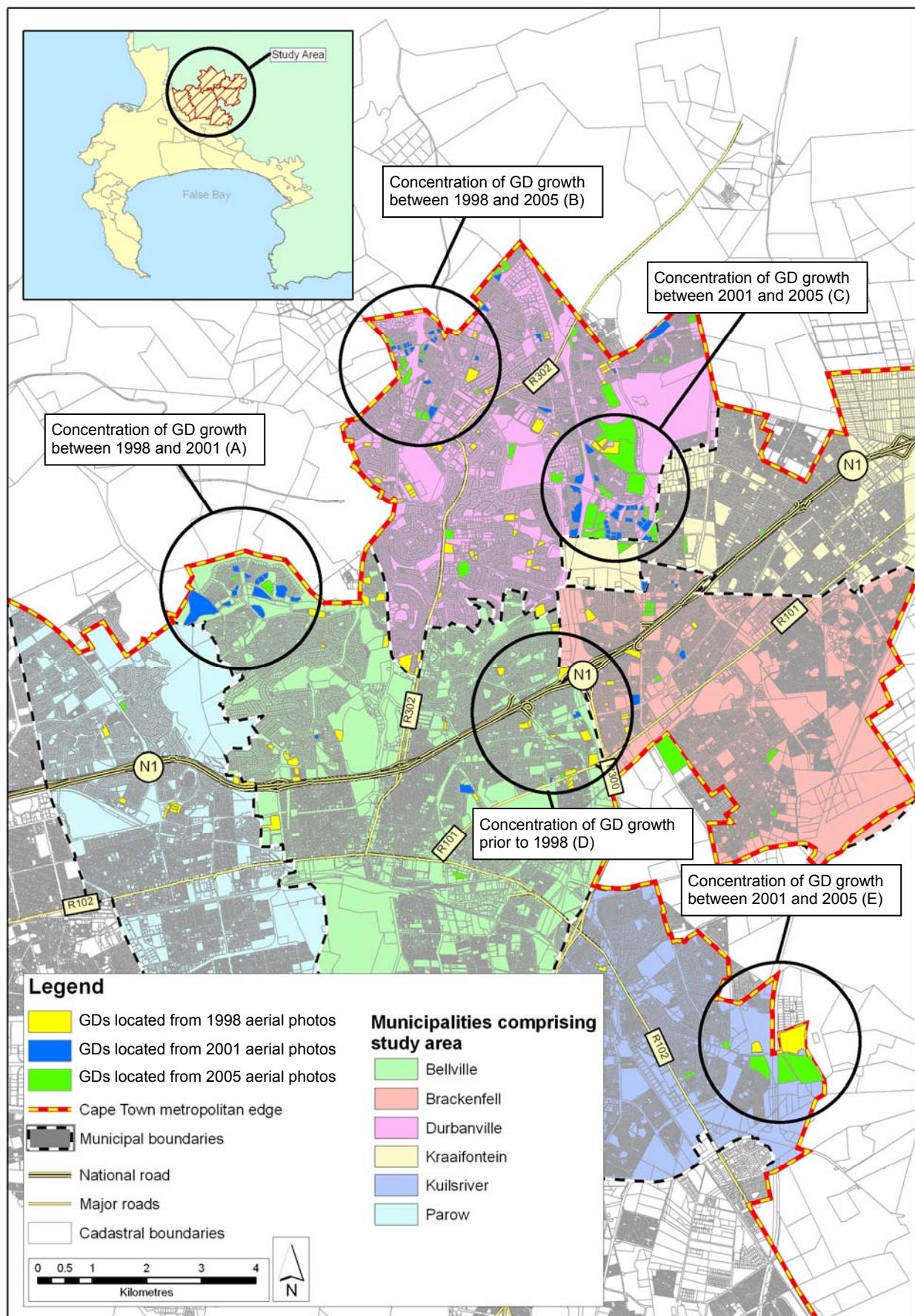


Figure 4.3 Location and growth of gated developments, 1998 to 2005

The findings of the investigation of the spatial growth of GDs between 1998 and 2005 have confirmed the notion that GD complexes are increasingly being developed in more affluent suburbs, and that these developments tend to cluster in specific locations. The next section examines the common physical characteristics and security measures of the GDs surveyed in the study area.

4.2 PHYSICAL CHARACTERISTICS OF THE GATED-DEVELOPMENTS

To ascertain the common physical characteristics of the GDs in the north-eastern suburbs of Cape Town 59 of the 80 new GDs identified on the 2005 aerial photographs were visited to record selected physical characteristics in situ. Parow suburb is excluded from the survey because residents from the GDs in the suburb could not be reached for the survey. The types of housing in the gated enclaves, the layout densities and the security measures employed in these communities were checklisted during the field surveys. The section begins by examining the housing types and densities (the ratio of built-up area to open space expressed as a percentage) in the GDs.

4.2.1 Housing types and densities

The residences observed in the GD complexes are small to medium in size and building densities are relatively high. Most houses appear to be purpose-built by property developers or building contractors. The houses lack individuality in their architectural design and styling, so creating an impression of compactness and uniformity. Four different housing types were identified, namely blocks of flats, townhouses, semi-detached houses and normal free-standing houses. Figure 4.4 illustrates three of these housing types. Only one surveyed GD, in Durbanville, contained free-standing houses. Densities ranged from 15% (low) to 55% (high) and are grouped into three classes (see Table 4.4).



Figure 4.4 Types of houses in the GDs, 2008

Table 4.4 gives the percentage distribution of the different housing types and housing densities in the GDs in each suburb and the Section 8 areas. The GDs in the Durbanville suburb stands out

with their high incidences of townhouses (66.7%) and semi-detached houses (21.2%). This reflects the tendency of the GDs in this affluent suburb to have GDs with housing types of lower density possibly catering to middle-to high-income individuals. The large percentage (85.7%) of GDs with blocks of flats in the Brackenfell suburb, coupled with the 40% and 50% respectively of GDs with blocks of flats located in the Kraaifontein and Kuilsriver suburbs indicate that GDs with higher-density housing tend to concentrate in less affluent suburbs.

Table 4.4 Percentage distribution of housing types and densities of GDs by suburban area, 2008

Suburb	Housing type: Block of flats (%)	Housing type: Townhouses (%)	Housing type: Semi-detached houses (%)	Housing type: Free-standing houses (%)	Density: High (35-55% built-up) (%)	Density: Medium (20-34% built-up) (%)	Density: Low (15-19% built-up) (%)
Bellville	40	60	0	0	60	40	0
Brackenfell	85.7	14.3	0	0	14.3	71.4	14.3
Durbanville	9.1	66.7	21.2	3	36.4	57.5	6.1
Kraaifontein	40	40	20	0	40	60	0
Kuilsriver	50	25	25	0	25	75	0
Section 8	20	80	0	0	0	80	20

Note: See Table 4.5 for the number of GDs surveyed in each suburb.

Number of cases = 59

Only the Durbanville and Brackenfell suburbs housed GDs with low densities, this strengthens the belief that GDs in affluent suburbs generally have lower densities than those in less well off suburbs. This concept is also born out by the lack of any low density GDs in either of the less affluent suburbs of Kraaifontein or Kuilsriver. The large percentage (20%) of low-density GDs in the Section 8 areas contributes to the idea that low-density luxury GDs locate close to areas of scenic beauty.

According to Figure 4.5, townhouses are the predominant housing type in the GDs, followed by blocks of flats and semi-detached houses. Figure 4.6 shows the percentage distribution of housing densities in the surveyed GDs. It is clear that most (93%) of the surveyed GDs had medium or high densities with only a small percentage being low density, the latter being the luxury GDs. An overall impression of compactness and uniformity is engendered by the many medium-to high-density GDs and the occurrence of townhouses and blocks of flats in the surveyed GDs. A similar picture emerged in Paarl's GDs (Van der Walt 2003).

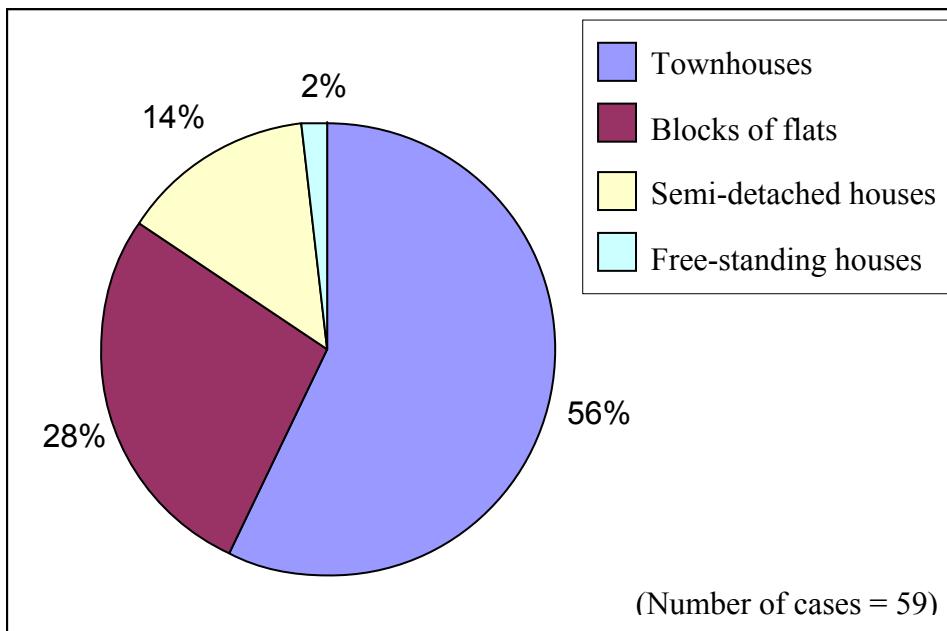


Figure 4.5 Percentage distribution of housing types in the GDs, 2008

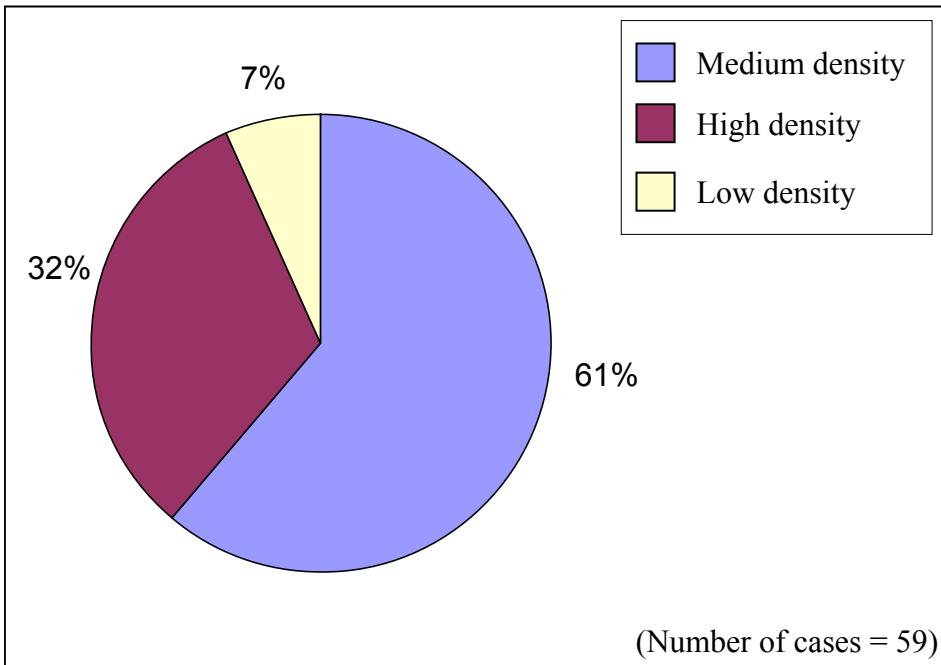


Figure 4.6 Percentage distribution of housing densities in the GDs, 2008

The lack of architectural individualism of these GDs is undesirable according to town planners in the Kraaifontein suburb (Stander 2008, pers com). This architectural uniformity contradicts Landman's (2004) findings in a study of security estates in Gauteng, South Africa where she observed housing units in Security estates with diverse architectural styles. These differences can be related to the different functions of these communities where the security estates in Gauteng act as lifestyle communities, while the main function for most of the surveyed GDs is to provide a feeling of safety and security. The nature of the security measures observed at the surveyed GDs is discussed next.

4.2.2 Security measures

The desire for security is one of the main reasons for residing in GDs (Genis 2007; Landman 2007). This demand for communities to be secure creates some of the most visible characteristics of GDs, namely their gated entrances and fortified perimeters. Given this basic element of GDs, it is appropriate to examine the variety of security measures employed.

A basic security consideration is access control. Two types were identified, namely simple unguarded electronically operated gates or booms and the very security-conscious 24-hour guarded electronically operated gates or booms with guardhouses and guards. Figure 4.7 shows an example of each of these types of access control.



Figure 4.7 Examples of access control to GDs

Table 4.5 specifies the percentage distribution of GDs with different access controls among the surveyed GDs. The percentages indicate that all the surveyed GDs with 24-hour guarded gates or

Table 4.5 Percentage distribution of access control types installed at GDs, 2008

Suburb	GDs with unguarded gate or boom with electronic operation (%)	GDs with 24-hour guarded gate or boom and guardhouse (%)	Number of GDs surveyed	Percentage distribution (%)
Bellville	80	20	5	8.5
Brackenfell	85.7	14.3	7	11.8
Durbanville	93.9	6.1	33	55.9
Kraaifontein	100	0	5	8.5
Kuilsriver	100	0	4	6.8
Section 8	60	40	5	8.5
Totals			59	100

booms and guardhouses were exclusively located in the suburbs with large proportions of high income residents, namely Section 8 areas (40%), Bellville (20%), Brackenfell (14.3%) and Durbanville (6.1%), reflecting the ability of the wealthier inhabitants of these GDs to afford employing guards to provide 24-hour security.

The second security measure is the nature of securing the GD's perimeter. Two features are distinguishable, namely the type of boundary and the permeability of the boundary. Van der Walt's (2003) five-class categorization of types of perimeter defences was used to classify the perimeter, namely (A) low walls, less than 2m high, without spikes or barbed wire; (B) low walls, less than 2m, with spikes or barbed wire; (C) high walls, more than 2m, without spikes or barbed wire; (D) high walls, more than 2m, with spikes or barbed wire; and (E) high walls, more than 2m, with electrified top sections. Figure 4.8 illustrates each of these types of protection.



Figure 4.8 Examples of five types of perimeter walls around GDs, 2008

The perimeter defences observed included walls, fences and hedges, although only two GDs were observed with fenced or hedged boundaries. An essential property of a defended perimeter boundary is its visual permeability. The GD policy developed by the City of Cape Town rates permeability as an important feature and requires that at least 50% of the perimeter structure must be visually permeable (City of Cape Town 2007b). The visual permeability of the GDs' perimeters was classified as 0%, 50% and 80% permeable. Figure 4.9 shows examples of the three levels of visual permeability.



Figure 4.9 Examples of boundary visual permeability, 2008

Table 4.6 gives the percentage distribution of each perimeter type and the permeability level among the GDs in the suburban areas. One can expect that the GDs located in the suburbs with the highest property crime levels will take the most extreme security precautions. Consequently, the suburbs of Bellville, Kuilsriver, Kraaifontein and Durbanville should have the highest percentages of GDs having type E perimeters and zero visual permeability, when Table 1.1 is recalled which indicates the property crime levels in the study area.

Table 4.6 Percentage distributions of perimeter-wall types and their visual permeability, 2008

Suburb	Perimeter type A (%)	Perimeter type B (%)	Perimeter type C (%)	Perimeter type D (%)	Perimeter type E (%)	Permeability level A (%)	Permeability level B (%)	Permeability level C (%)
Bellville	20	0	20	0	60	80	20	0
Brackenfell	0	0	16.7	33.3	50	42.9	42.9	14.2
Durbanville	3	39.4	6.1	0	51.5	48.5	51.5	0
Kraaifontein	20	0	0	0	80	100	0	0
Kuilsriver	0	0	0	0	100	100	0	0
Section 8	20	0	20	0	60	80	0	20

Note: See Figures 4.8 and 4.9 for perimeter types and permeability levels respectively

Number of cases = 59

Table 4.6 clearly shows that the GDs with type E perimeter walls are represented in all the surveyed suburbs. The Kuilsriver (100%) and Kraaifontein (80%) suburbs have the largest percentages of GDs with type E perimeters reflecting the higher property crime levels in these suburbs. The Bellville suburb has the highest property crime levels but a relatively lower percentage of GDs with type E perimeter walls possibly indicating that the residents of these GDs rely on target hardening at the housing units to deter criminals. All of the GDs surveyed had reasonably high percentages of zero visual permeability (level A). GDs in the Durbanville

(51.5%), Brackenfell (42.9%) and Bellville (20%) suburbs, had relatively high percentages of perimeter walls with level B (50%) visual permeability. This is understandable for Durbanville and Brackenfell with the second and third lowest property crime levels (noted in Table 1.1) in the study area but this finding is interesting because Bellville has the highest property crime levels and as such one would expect no GDs with level B (50%) visual permeability in this suburb. None of the surveyed GDs in the suburbs of Bellville, Durbanville, Kraaifontein and Kuilsriver had perimeter walls with level C (80%) visual permeability, probably implying that the need for security is of overriding concern to the residents of the GDs in these suburbs.

Figure 4.10 illustrates the percentages of perimeter defence types used by the 59 GDs. Most of the GDs rely on high perimeter walls with electrified top sections for security. This high incidence of GDs using this type of perimeter defence correlates with the relatively high level of property crime in the whole study area.

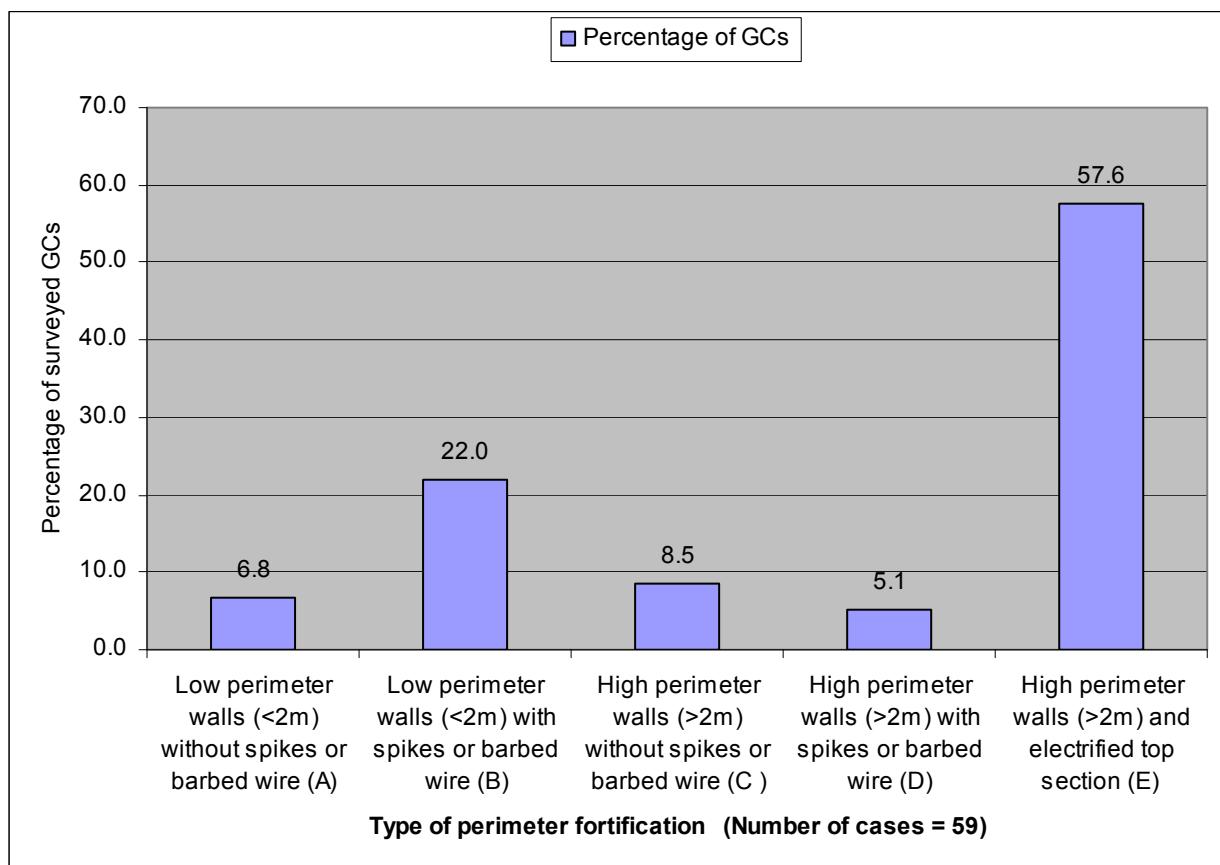


Figure 4.10 Percentage of gated developments using the various types of perimeter defence, 2008

A high percentage (22%) of GDs made use of low perimeter walls with spikes or barbed wire. All of the GDs using this type of perimeter boundary were located in the Durbanville suburb. Another indication that the inhabitants of GDs in this suburb value aesthetic concerns over security needs.

Figure 4.11 depicts the percentage distribution of the visual permeability levels of the perimeter structures of the surveyed GDs. By far the most (61%) GDs have visually impermeable perimeters and less than 4% of the GDs have perimeter structures which are visually highly permeable. This is probably related to the relatively high level of property crime experienced throughout the study area (see Table 1.1). This aspect of the GDs could also be a function of the residents' desire for privacy. The high occurrence of visual impermeability tends to separate these communities from their surrounding neighbourhoods. This separation increases the levels of segregation with the surrounding urban area, negatively impacting city form and function (Landman 2000b).

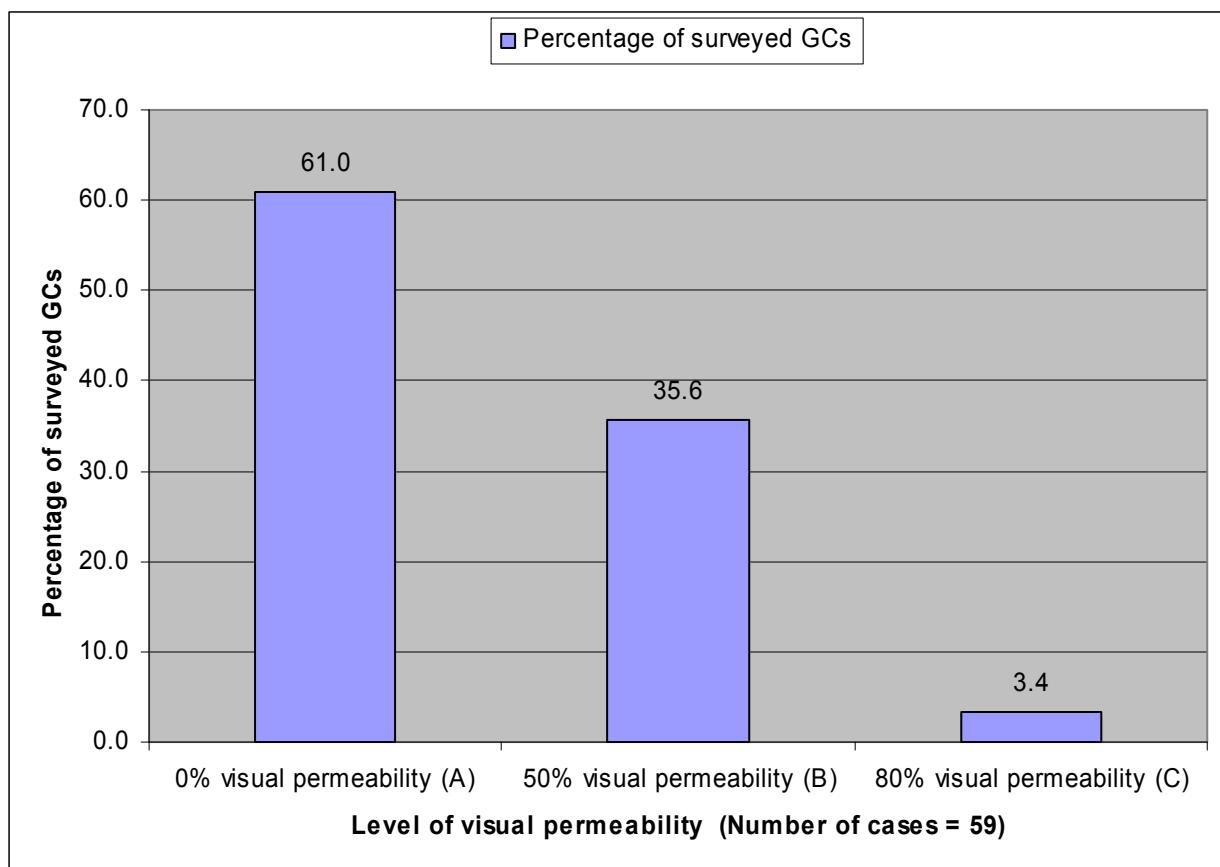


Figure 4.11 Permeability of perimeters of the surveyed gated developments, 2008

The high percentage (61%) of GDs with visually impermeable boundaries implies a tendency among the GD complexes in the study area to make use of perimeter structures with very little visual permeability. This lack of visual permeability is addressed in the GD policy document implemented by the City of Cape Town in 2008 (City of Cape Town 2007b). The policy notes that visually impermeable boundaries contribute to decreased passive surveillance and this could increase the risk of crime in and around these communities (City of Cape Town 2007b). A number of studies have identified a link between GDs and the displacement of crime (Blakely & Snyder 1997; Landman 2000b; Gooblar 2002; Atkinson et al 2005). The reduction of visual

permeability of the GDs' boundaries could contribute to the displacement of crime to surrounding neighbourhoods by diverting criminals looking for an opportunity to commit a crime away from the secure "gated" community to a surrounding less secure "non-gated" neighbourhood.

A further facet of GD safeguarding is the security measures employed at the individual homes in the GDs. Three kinds of security measures used at the individual units in the GDs were recorded, namely burglar bars on windows, surrounding walls, and alarm systems. Figure 4.12 shows the incidence of security measures used singly or in combination by the unit owners in the GD complexes.

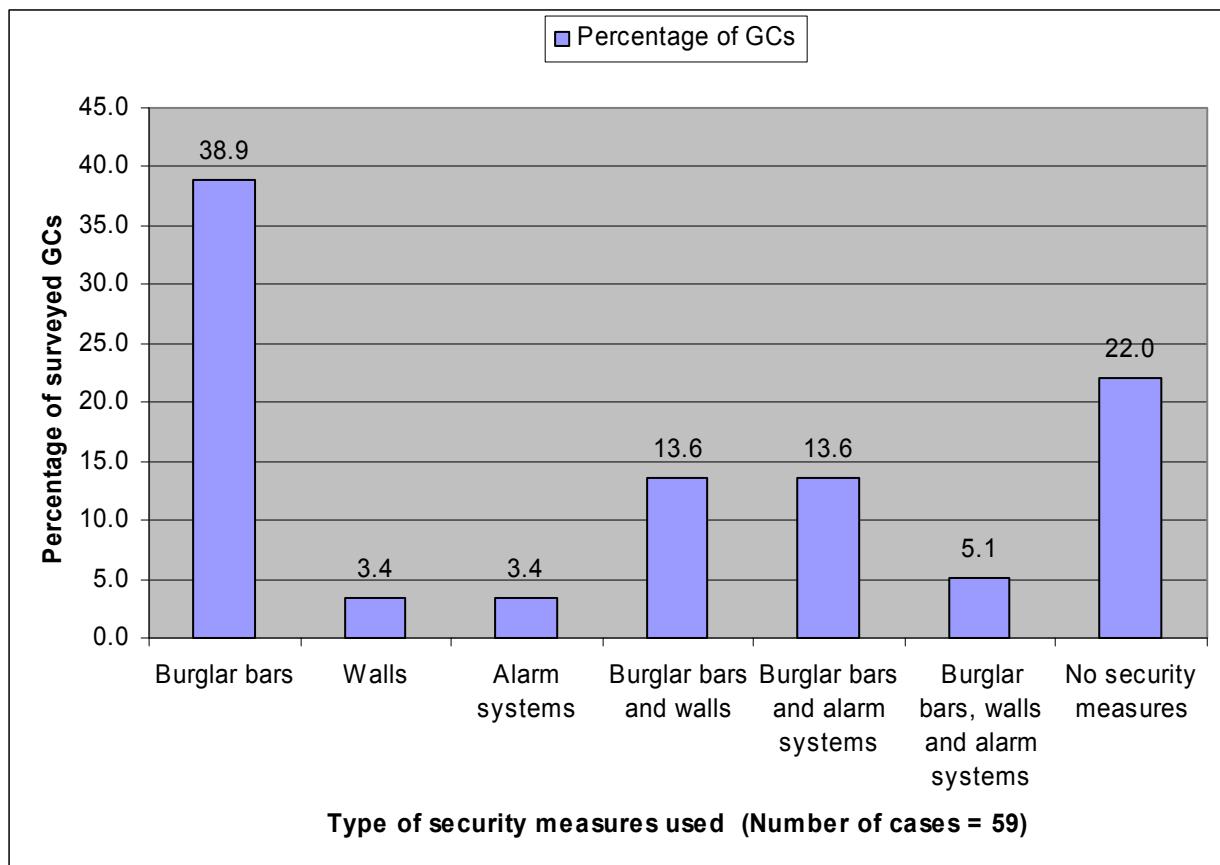


Figure 4.12 Percentage of security measures employed at homes in the surveyed gated developments, 2008

Seventy-eight per cent of the units in the GD complexes had some form of target hardening and/or security measure(s) to further secure their properties. Low's (2001) study of GD complexes in New York and San Antonio found that the gates and perimeter fortifications of GDs increased the residents' fear of crime and led to an increased desire for additional safety measures at individuals' homes in the communities. At nearly 40% of the cases, the use of burglar bars alone exceed the use of any other single or combined security measures. Burglar bars are the least expensive of the safeguards and this is probably why they are the most commonly used security measure. Landman (2004) also noted that the houses in GDs in Gauteng

typically used burglar bars as a security measure. The use of walls and alarm systems on their own at houses were rare (3.4% respectively). One of these two security measures was often combined with burglar bars. The use of all three security measures together was uncommon, quite likely because of the expense of installing them.

Table 4.7 shows the proportional incidence of security measures used singly or in combination in the individual GD units in the different suburbs constituting the study area.

Table 4.7 Percentage distribution of security measures used at individual houses in the GDs, 2008

Suburb	Security Measures						
	Burglar bars (%)	Walls (%)	Alarm system (%)	Burglar bars & walls (%)	Burglar bars & alarm system (%)	Burglar bars, walls & alarm system (%)	None (%)
Bellville	40	0	0	0	40	0	20
Brackenfell	71.4	0	0	0	14.3	0	14.3
Durbanville	30.3	6.1	3	15.1	12.1	6.1	27.3
Kraaifontein	20	0	20	0	20	0	40
Kuilsriver	75	0	0	25	0	0	0
Section 8	40	0	0	40	0	20	0

Number of cases = 59

The use of burglar bars to secure individual houses in the GDs was common in the study area. The Durbanville suburb and the Section 8 areas were the only ones with GDs having homes surrounded by walls. This is probably attributable to the fact that GDs in these areas generally had lower densities than the others so that the individual housing units in these GDs had enough unoccupied space to be surrounded with walls. The relatively high incidence (6.1%) of GDs with houses using all three security measures in the Durbanville suburb is related to the residents of this suburb being generally more prosperous and able to afford all three security measures.

This section discussed the security measures employed by the GDs. It has shown that these developments place considerable emphasis on security and privacy. Blakely & Snyder (1997) classified such GDs, in American cities, as security zone communities. The section also identified a link between income levels and security measures with residents from wealthier suburbs being able to employ more security measures. Paradoxically these same residents seem, in certain instances, to place more importance on aesthetics than on security. This chapter has already examined the spatial and physical aspects of these GDs. Next the social characteristics of the residents of these developments will be examined and discussed in more detail.

4.3 CHARACTERISTICS OF RESIDENTS AND THEIR DAILY ACTIVITY SPACES OUTSIDE THE GATED DEVELOPMENTS

Data pertaining to the characteristics of 132 residents in 26 GDs in the study area were elicited by a questionnaire survey. The questionnaire focused on the residential background of the respondents, their daily activity spaces outside the GDs, and their demographic and socio-economic profiles. Table 4.8 shows the suburban coverage of the questionnaire survey. The table indicates that only four suburbs were surveyed and that the Durbanville suburb is possibly overrepresented. Although the coverage of the survey is limited because no GDs in the Kraaifontein and Parow suburbs were surveyed the largest clusters of GDs in the study area are well represented in the survey. The Kraaifontein and Parow suburbs were not included in the tables or graphs in this section. The survey is therefore limited in the sense that only four of the six suburbs were surveyed and biased towards the Durbanville suburb in that it is possibly overrepresented.

4.3.1 Residential background of the respondents

This seven-part section begins by examining the residential mobility of the respondents and is followed by discussions of the types of housing, house-ownership status, residents' experience of crime, reasons for residing in the GD, perceived social status, and level of community feeling.

4.3.1.1 Length of stay

Table 4.8 indicates the average length of stay by the residents of the surveyed GDs, the maximum and minimum lengths of stay, the average number of residences respondents have lived at in the last ten years, and their desire to move or not to move away from the GD in the foreseeable future.

Table 4.8 Length of stay, number of residences and desire to move from GD reported by respondents, 2008

Suburb	Average length of stay (years)	Average number of residences (Past 10 years)	Respondents indicating a desire to move (%)	Respondents indicating no desire to move (%)	Number and per centage of respondents
Bellville	3.4	2	0	100	10 (7.6)
Brackenfell	4.2	3	22.7	77.3	22 (16.6)
Durbanville	3.6	3	26.6	73.4	81 (61.4)
Kuilsriver	4.4	3	37.5	62.5	16 (12.1)
Section 8	3.5	3	33.3	66.7	3 (2.3)
Totals	3.8	2.8	25	75	132 (100)

On average, the respondents have stayed at their current address for 3.6 years. The relatively short average length of stay recorded reflects the short history of the GD phenomenon in Cape Town. Lemanski, Landman & Durlington (2008) found that GDs have only become popular in the last 5 to 7 years in Cape Town. The respondents indicated that, on average, they have resided in nearly three residences in the past ten years. This could show that the average residents of these GDs are older individuals not entering the house market for the first time. Three out of four respondents had no desire to move from their current residence in the foreseeable future. This implies that the majority of respondents are content with their homes in the surveyed GDs. The highest percentages of respondents with no desire to relocate were observed in the GDs in Bellville (100%), Brackenfell (77%) and Durbanville (73%). Suggesting that the more affluent respondents are more satisfied with their GDs than those in GDs where incomes are lower such as the Kuilsriver suburb.

4.3.1.2 Types of housing

Figure 4.13 gives the proportional distribution of the types of housing in the surveyed GDs as indicated by the respondents. Single detached homes and attached dwellings account for nearly 40% each. These two housing types are comparable to the townhouse and semi-detached housing units distinguished in section 4.2.1 where 56% were townhouses and semi-detached houses accounted for only 14%.

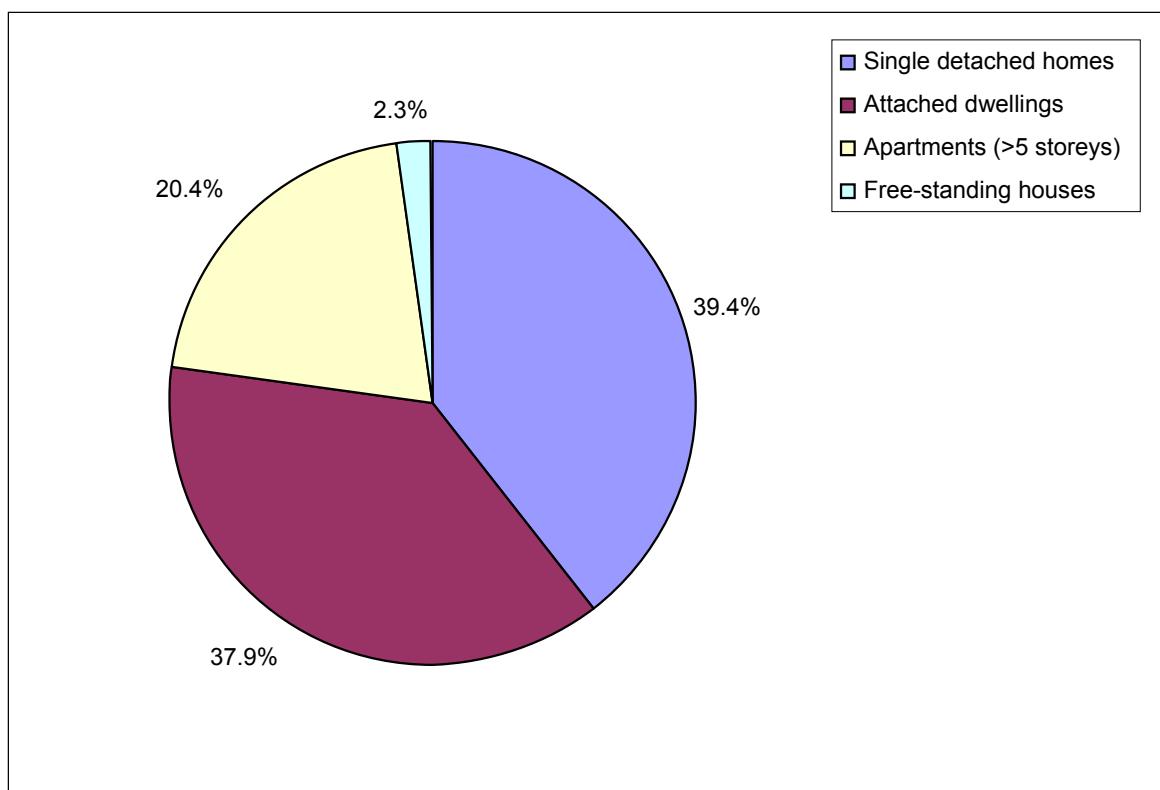


Figure 4.13 Percentage distribution of housing types in surveyed GDs as reported by respondents, 2008

The physical features survey and the questionnaire survey both indicate that the commonest housing types are small suburban single-storey houses on a single plot (townhouses and single-detached houses) seeming to indicated that these units are aimed at the middle-income market and not the high-income market. Landman (2004) also found a large number of such housing units in her investigation of enclosed neighbourhoods and security estates in Gauteng.

4.3.1.3 Ownership status

Table 4.9 presents the percentage distribution of the ownership status of homes in the surveyed GDs. Three types of tenure occur, namely the renting of the residence; ownership with a clear title (no outstanding mortgage); and ownership with an outstanding mortgage. The table indicates that more than half of the respondents from Bellville owned their residences while almost 40% of the respondents from Brackenfell rented their residences. Almost half of the respondents from Durbanville and more than half from Bellville owned their residences with a clear title, possibly indicating that these respondents are older individuals who have had enough time to pay outstanding debts on their residences. The Kuilsriver and Brackenfell suburb had similar small percentages of respondents who own their residences with clear title deeds. This is surprising because Kuilsriver has more households earning less than the average household in Brackenfell so that one would expect more respondents in Brackenfell to own their own residence with a clear title. This suggests that the GDs in Kuilsriver cater to individuals who can afford to purchase these units and are wealthier than the average residents.

Table 4.9¹⁰ Percentage distribution of ownership status of homes in surveyed GDs, 2008

Suburb	Ownership: rented residence (%)	Ownership: own residence with a clear title (%)	Ownership: own residence with an outstanding mortgage (%)
Bellville	0	55.6	44.4
Brackenfell	36.4	13.6	50
Durbanville	25.9	46.9	27.2
Kuilsriver	25	18.7	56.3
Section 8	0	66.7	33.3

Number of cases = 131

Figure 4.14 shows that by far most (about 75%) of the respondents are home owners and only one quarter are renters. This finding is diametrically opposed to that found in gated enclaves in

¹⁰ Although the questionnaire was completed by 132 respondents some questions were not answered and therefore the number of respondents or cases differs.

American cities where the majority of residents rented their homes rather than owning them (Kirby et al 2006).

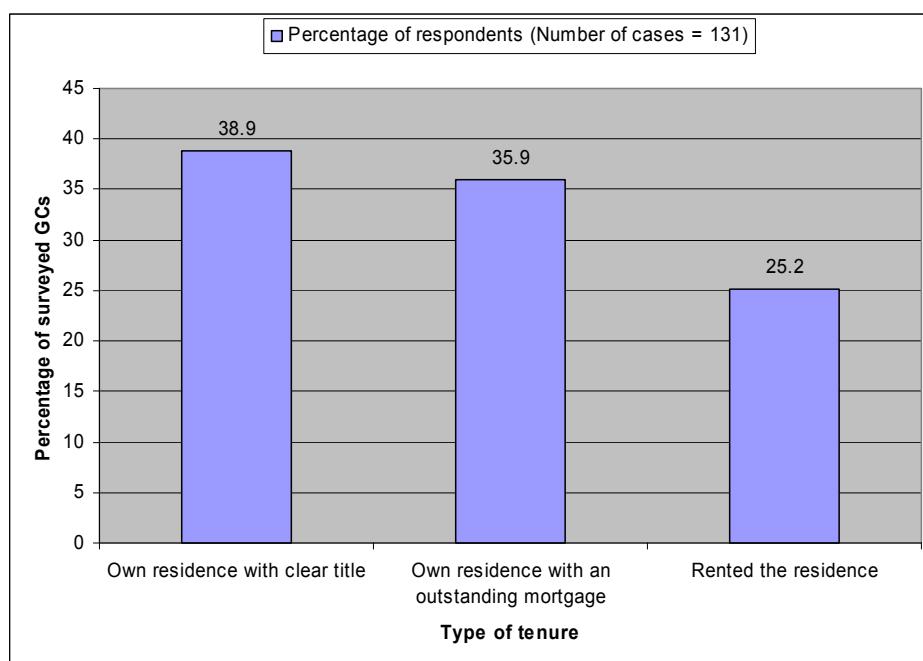


Figure 4.14 Ownership status of homes in surveyed GDs, 2008

4.3.1.4 Experiences of crime

Table 4.10 sets out the proportional distribution of 33 respondents together with the types of crime they suffered. Burglary occurred within the GDs while car theft, hijacking, robbery and assault took place outside of the GDs but still within the suburb. Although GDs in Durbanville are over represented in the survey the percentages for GDs in Durbanville are far higher than for those in other suburbs. The high percentages for Durbanville reflect the high levels of property crime in this suburb. Similarly the high proportions of robberies in Kuilsriver also reflect the high levels of property crime in this suburb. Respondents in Durbanville's GDs were the only ones indicating being victims of hijackings and assaults together with their high percentages of burglary, car theft and robbery. These figures all underscore these two suburbs' high property crime levels (see Table 1.1) in terms of the larger city's. This could possibly be a contributing factor to the rapid growth of the GD phenomenon in the Kuilsriver, Kraaifontein and Durbanville suburbs, but this does not explain the lack of GD growth in the Bellville suburb, which has the highest property crime levels in the study area. A possible reason for the lack of such growth could be the scarcity of available vacant land upon which to develop new GDs.

Figure 4.15 presents the percentages of the types of crime that was given by the 33 respondents. The high percentage (nearly 50%) of burglaries is significant because burglary (illegal entry of a building with the intent to commit a crime) occurs per definition in the housing units in the GDs.

Indicating that residents of these GDs are not totally safe from crime even within the developments themselves. Low (2001) and Grant (2005a) also noted that inhabitants of GDs were not totally safe from crime in these developments. The high levels of car thefts, hijackings and robberies in the suburbs could all be motivations to choose to reside in GDs

Table 4.10 Percentage distribution of the types of crime reported by respondents, 2008

Suburb	Burglary (%)	Car theft (%)	Hijacking (%)	Robbery (%)	Assault (%)
Bellville	13.3	0	0	0	0
Brackenfell	6.7	11.1	0	0	0
Durbanville	66.7	77.8	100	66.7	100
Kuilsriver	13.3	11.1	0	33.3	0
Section 8	0	0	0	0	0
Totals	100	100	100	100	100

Number of cases = 33

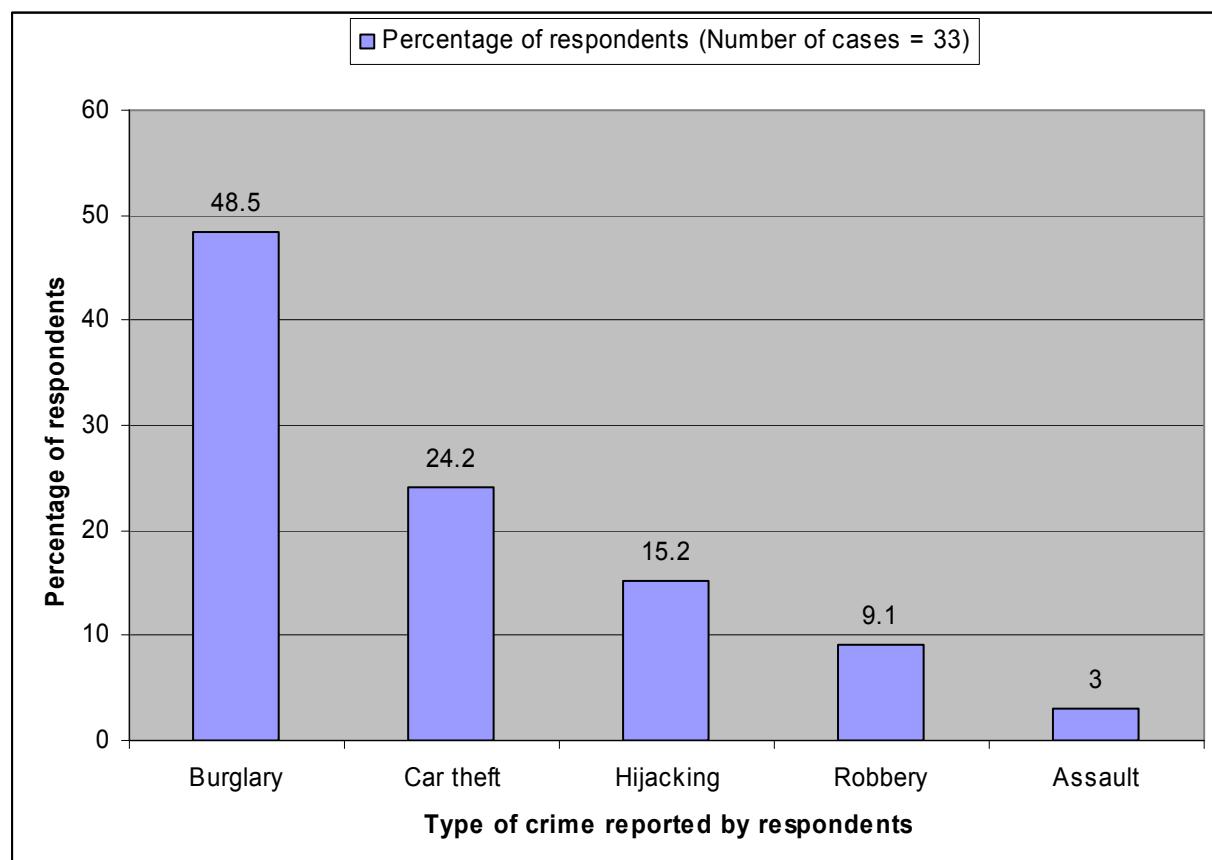


Figure 4.15 Percentages of the types of crimes as reported by respondents, 2008

To further understand the impact of crime on the inhabitants of the surveyed GDs respondents were asked to compare crime in their GDs with the surrounding area by rating the crime levels as less, about the same or more in their GDs. The results are given in Table 4.11.

Table 4.11 Percentage distribution of crime levels in surveyed GDs compared to the surrounding neighbourhoods, 2008

Suburb	Level of crime: Less (%)	Level of crime: Same (%)	Level of crime: More (%)	Level of crime: Don't know (%)
Bellville	70	10	0	20
Brackenfell	31.8	13.7	0	54.5
Durbanville	66.7	8.6	0	24.7
Kuilsriver	68.7	12.5	0	18.8
Section 8	66.7	0	0	33.3

Number of cases = 132

Significantly, none of the respondents in any of the surveyed GDs stated that crime levels in their GD exceeded those in the surrounding area. Large proportions of the respondents from all the suburbs except Brackenfell indicated that crime levels in their GDs were less than the surrounding area. The large percentage of respondents from Brackenfell who noted that they did not know whether crime levels were more, less or the same could be due to the relatively low property crime levels in this suburb. Notably almost 70% of the respondents from Kuilsriver and Durbanville suburbs stated that crime levels were less in their GDs than the surrounding area. These two suburbs had the second highest and fourth highest property crime levels in the study area respectively. This perception of safety experienced by these respondents could be a contributing factor to the rapid growth of GDs in these suburbs. The high percentages of respondents who did not know what the difference between the crime levels in and around their GDs were, attest to the degree to which these communities are separated from and thus less aware of conditions in their neighbourhoods.

Respondents' general feelings about safety and security in the neighbourhoods outside the GDs in which they live were investigated by asking them if they agree, have no opinion or disagree with three statements, namely: statement A "I feel safe walking alone in my neighbourhood after dark"; statement B "My neighbourhood is generally a very safe and secure place in which to live"; and statement C "I often fear for my personal safety if I am alone in my neighbourhood". Figure 4.16 specifies the percentage distribution of the responses to the three statements and

shows that the majority of the respondents felt that the neighbourhood surrounding their GD was safe and that there was no need to be fearful when alone in these neighbourhoods.

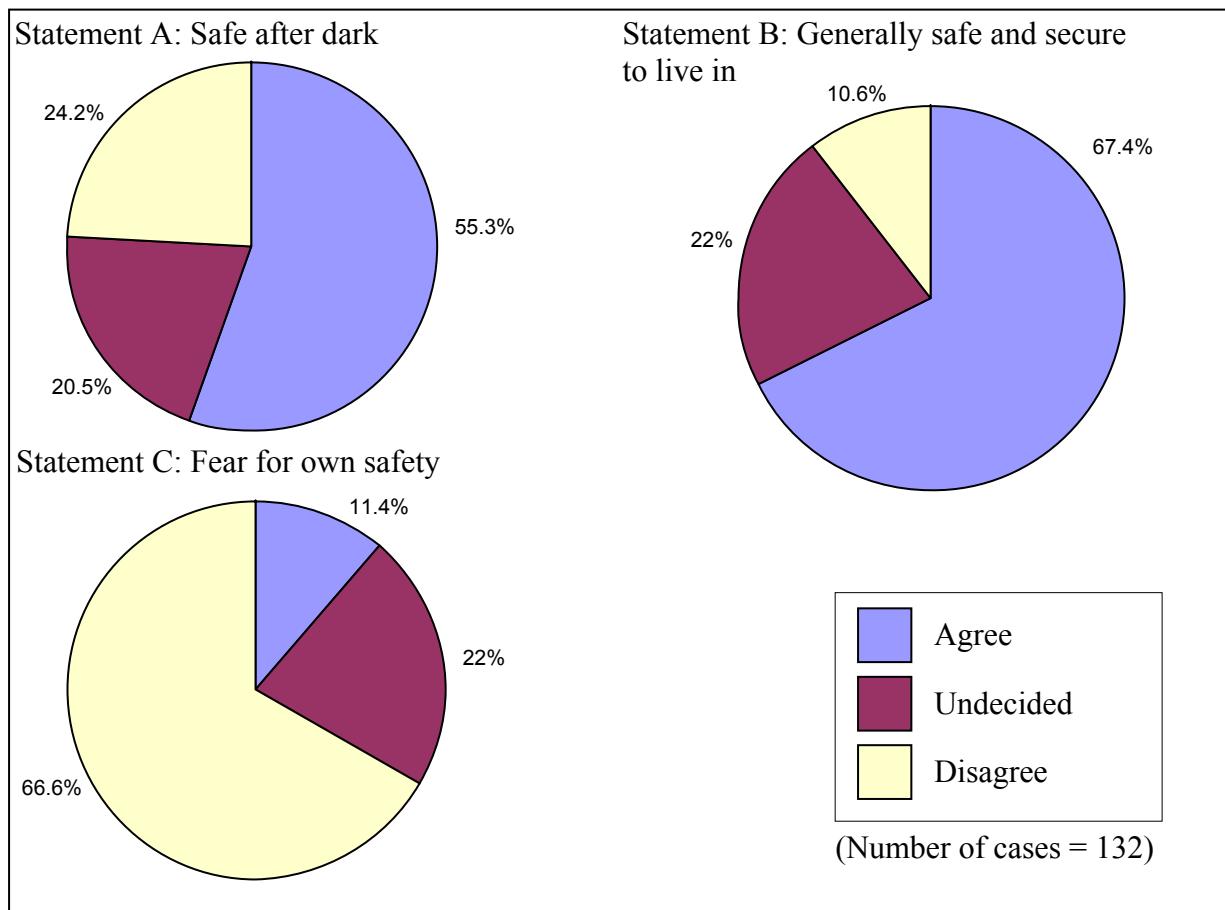


Figure 4.16 Respondents' perception of safety in neighbourhoods surrounding their GDs, 2008

These findings indicate that the respondents perceive crime levels to be relatively low in their neighbourhoods compared to areas such as Khayelitsha and Nyanga (Gie & Haskins 2007) implying that the respondents were more motivated to move to the GDs by their perceived fear of crime than by actual documented increases in the levels of crime.

4.3.1.5 Motivations for deciding to reside in a GD complex

To better understand what led people to choose to reside in GDs in the study area respondents were asked to give their three most important reasons for residing in their respective GD complex. The three factors that stood out were safety and security, life-style choice, and affordability which accounted for 83% of the responses. The following question (A8) in the questionnaire gave the respondents the opportunity to indicate any other reasons for choosing to settle in their specific GD. From these additional reasons four motivational themes became apparent. These were the location of the GDs in the study area, the compact nature of these developments, the availability of units and the investment potential of the units in the GDs.

Figure 4.17 present the three reasons asked in question A7, weighted (reason 1 multiplied by 3, reason 2 multiplied by 2 and reason 3 multiplied by 1) according to the respondents' rankings. This figure also includes the additional four motivational themes (obtained from A8) weighted according to the respondents ranking.

Safety and security is, according to the literature, the paramount reason for moving to GDs (Low 2003; Blandy & Lister 2005; Roitman 2005; Lemanski 2006; Genis 2007; Landman 2007). The responses to the survey question confirmed this to the extent that it weighed most heavily in the respondents' decision to reside in the surveyed GDs. The affordability of units in the GDs was rated as the second-most important cause for residing in the GDs. Lemanski, Landman & Durlington (2008) found that GD residents in Cape Town reported that safety and security, although important, was only a contributory factor ranking second to having an idyllic village life style when choosing to move to a GD. This survey's results don't agree with this finding by showing that the desire for an idyllic life style ranked third as a reason for choosing to move to a GD. The high property crime rate in the study area compared to the surrounding city is probably the reason why safety and security was so highly ranked by the respondents in the study area and why the survey results differ from the findings of Lemanski, Landman & Durlington (2008).

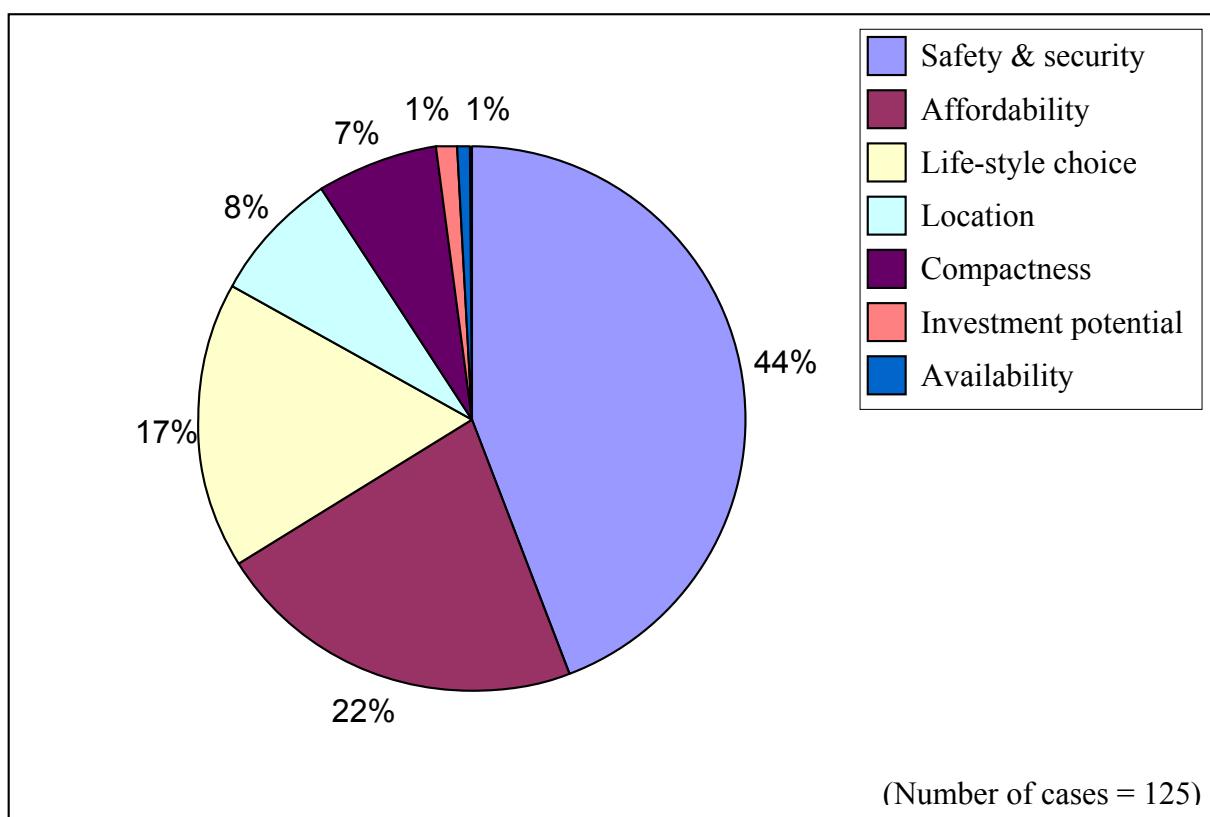


Figure 4.17 Respondents' reasons for choosing to reside in the surveyed GDs, 2008

The location of the surveyed GDs and their compact nature were ranked fourth and fifth respectively. The investment potential of the GD units and the availability of these units were given almost negligible mentions.

The questionnaire also requested respondents to rate a list of 14 factors which may have influenced their decision to settle in their respective GD. Figure 4.18 presents the results for 12 factors. Again security is most highly rated by the respondents, confirming the notion that the perceived need for safety and security is paramount in the decision to reside in a GD. The attractive environment of these communities and their unit prices were ranked closely as the second and third most important factors. This result is similar to that presented in Figure 4.17 but the attractive environment of the surveyed communities was ranked higher by the respondents than the price or affordability of the units in the GDs. Respondents ranked the development's residential address and the size of the units in the GDs as the close fourth and fifth most important factors. The importance placed on the size of the units and stands indicate that some respondents don't need large units and even and/or that they want smaller units and plots which are easier and less time consuming to maintain. The ranking of affordable levies in sixth place shows that the respondents perceive the qualitative need for safety and security and their desire for an idyllic lifestyle as being more important than the quantitative factor of an affordable levy. The resale value or investment potential was ranked higher than the importance placed on location as expressed by accessibility to work, schools and shops. The amenities provided in the complexes were ranked the second lowest, indicating that the respondents do not rate the provision of amenities in the complex as a high priority, possibly relying on amenities outside the developments.

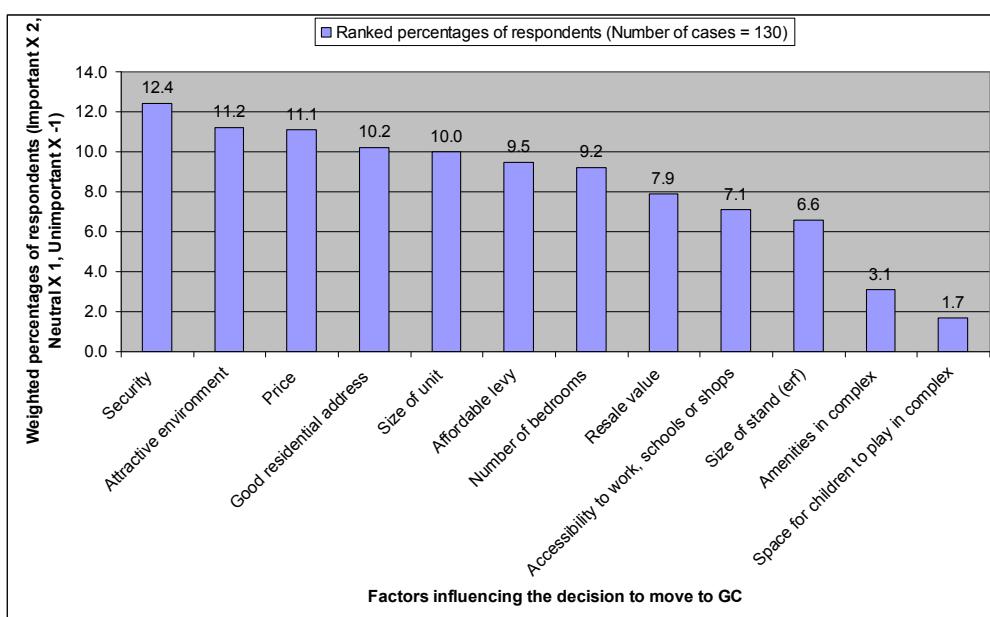


Figure 4.18 Reasons for choosing to settle in the surveyed GDs, 2008

Finally, the inclusion of space for children to play in the complex was noted as the least important factor. This could indicate that very few of the respondents had children of an age where they required space to play. This result strengthens the idea that the residents of GDs are either older and their children have left home or the residents are younger and do not yet have children.

4.3.1.6 Perceived social status

Gated entrances denote a certain level of exclusivity and status to passers-by, for if there are gates then there must be something worth protecting. It is this apparent desire for exclusivity and increased status that, some authors argue, draw people to this type of development (Grant 2005b). Irazábal (2006) discovered that the desire for increased social status was the main motivation for residing in GDs in Latin American cities. Giglia (s.a) also noted that the desire for increased status was the main impetus for residing in GDs in Mexico City. To examine the importance of status for the residents of the GDs in the study area respondents were asked if they agree, disagree, are neutral or have no opinion on three statements relating to their ostensible level of status. Figure 4.19 shows the results of the responses to the statements. Surprisingly, many respondents had no opinion about statements A or B indicating that they were unwilling to disclose information concerning the relationship between their residence in a GD and a perceived increase in either financial success or social status. Grant (2005b) also found certain ambivalence among residents of GDs in Canadian cities when discussing the idea that gates function to mark status. The respondents who did give an opinion on statement A were almost equally split between agreeing and disagreeing that living in a GD shows that they had achieved a level of financial success. This was not the case with statement B where responses clearly indicated that they disagreed with the statement, showing that they felt strongly that residing in a GD did not increase their level of status. But here too there is a large contingent who had no opinion. The overwhelmingly large percentage (75%) of respondents disagreeing with statement C highlights the fact that there persons of different age groups living in the surveyed GDs and that the residents of these communities are not homogeneous regarding their age.

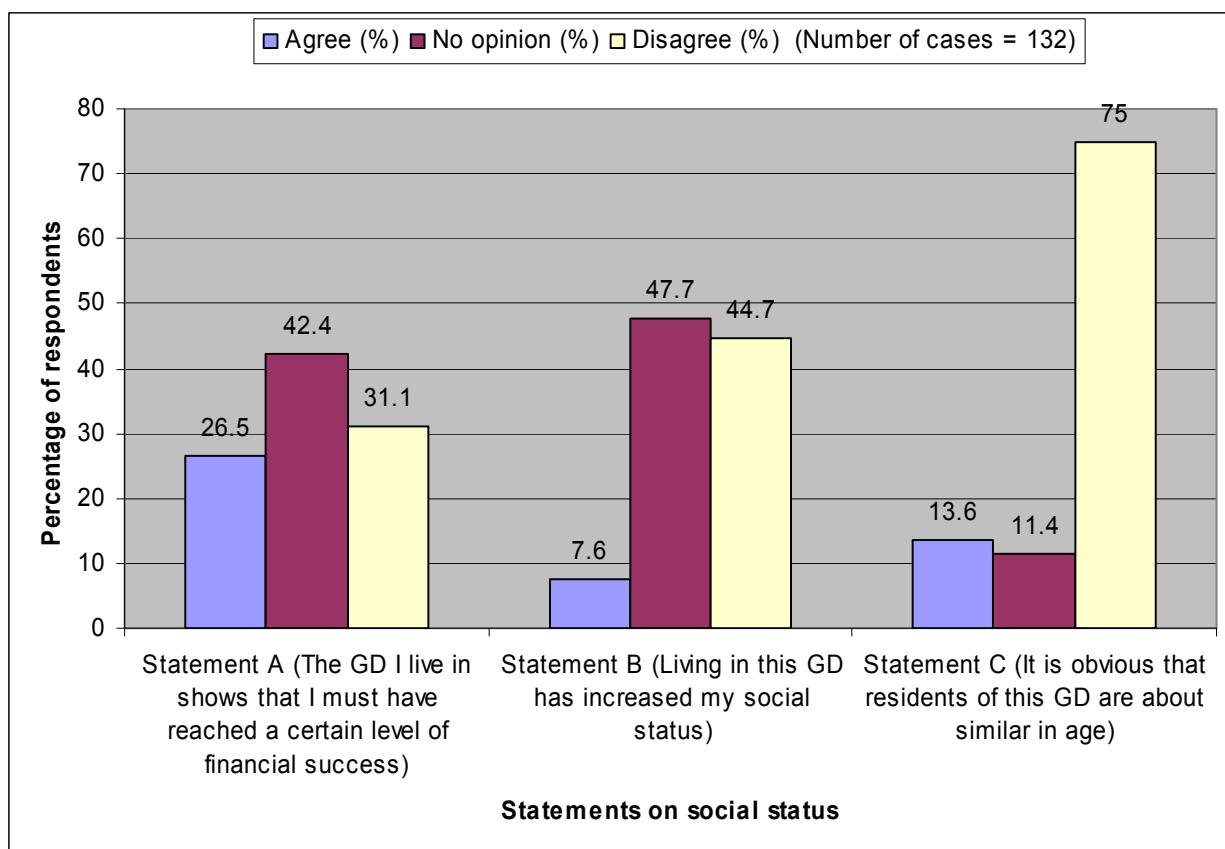


Figure 4.19 Respondents' responses to statements about their social status, 2008

4.3.1.7 Level of community cohesion

Supporters of GDs argue that the residents of GDs cultivate an impression of shared identity and security which in turn leads to a strong sense of community (Blakely & Snyder 1997; Landman 2000b). The questionnaire survey investigated this argument by asking the respondents to agree, disagree, remain neutral or indicate no opinion on five statements aimed at gauging the respondents' levels of community feeling. Figure 4.20 shows the percentages of respondents who agreed, disagreed, remained neutral or had no opinion concerning the five statements. The majority (four out of five) of the respondents agreed that they felt at home in their community, the rest having no opinion or disagreeing with the statement. The response to statement B was less clear with about equal proportions having no opinion or noting agreement, while most (43%) of the respondents specified that they did not feel a sense of community in their GDs. This contradicts the findings of Manzi & Smith-Bowers (2005) who noted that GDs in London increased social cohesion among the residents. Although no signs of internal conflict were found at the surveyed GDs the high percentage of respondents who indicated that they disagreed with statement B seems to indicate a reduced sense of community. Landman (2000a) noted that such reduced sense of community could have significant negative impacts in a GD and its neighbourhood.

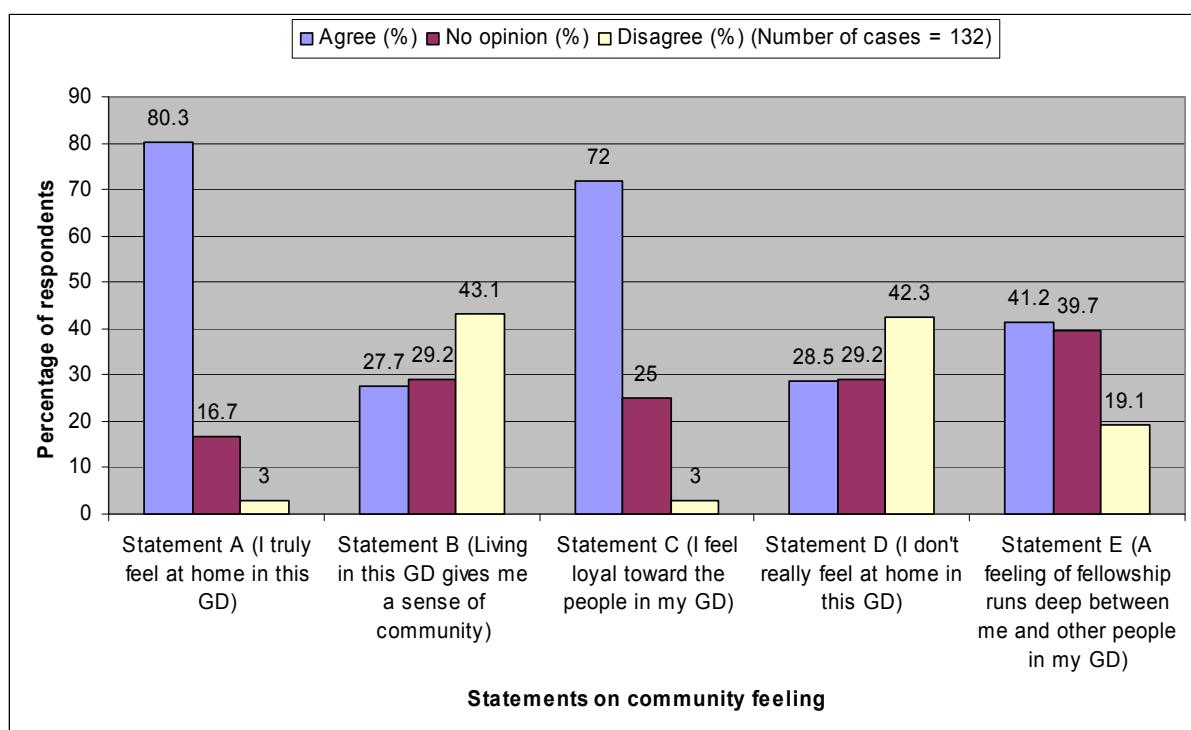


Figure 4.20 Respondents' answers to statements about their community spirit, 2008

Statement C tested the personal relationships between the respondents and other residents in the surveyed GDs. The bulk (over 70%) of the respondents agreed with the statement of loyalty to other GD inhabitants. This indicates that although the respondents do not have a strong sense of community they do have a sense of camaraderie with their fellow GD residents. The hesitant response to statement D seems to contradict the response to statement A. Only 42% of the respondents disagreed with the statement of not feeling at home in the GD, but 80% agreed with statement A which expresses a true feeling of home. The high percentage of respondents with no opinion about statement D coupled with the forenamed discrepancy between the responses to statements A and D possibly shows that respondents did not understand the latter statement. Statement E further examines the personal relationship between the residents in the community. A slight majority of respondents stated that they agree with the statement about intra-GD fellowship, but the responses show only a very small margin between respondents who agree and those with no opinion. The high percentage of respondents who indicated no opinion combined with the inconsistency between the responses to statements C and E could indicate that the respondents did not fully understand this statement. The responses noted in Figure 4.20 demonstrate that respondents do not have a strong sense of community, but they do feel a loyalty towards their neighbours in the GDs.

This section has taken an inward-looking view of the respondents as residents of their GDs and their perceptions of these communities. The next section takes a close look at the external links of the GD residents.

4.3.2 Residents' daily activities outside the communities

GDs can be seen as an attempt by residents to separate themselves and their communities from the surrounding urban areas and the larger city (Atkinson & Flint 2004). But these communities are still firmly connected to their surrounding cities by the daily activities of the residents that take place outside of these communities. To better comprehend the relationship between the respondents of the surveyed GDs and the surrounding city, respondents were asked about their external daily activities such as work, recreation and commerce destinations. The links the residents have with the areas outside their GDs were examined by analysing their travel patterns to work, shops and places of entertainment. Each travel pattern is investigated according to the destinations and distances travelled, beginning with the respondents' linkages to their places of work in the suburban areas of Cape Town and beyond.

4.3.2.1 Travel to work

This section examines the respondents' daily activity space in terms of their travel to their individual places of work. Figure 4.21 displays the percentage of respondents who travel various distances to their workplaces and Figure 4.22 illustrates the respondents' workplace destinations.

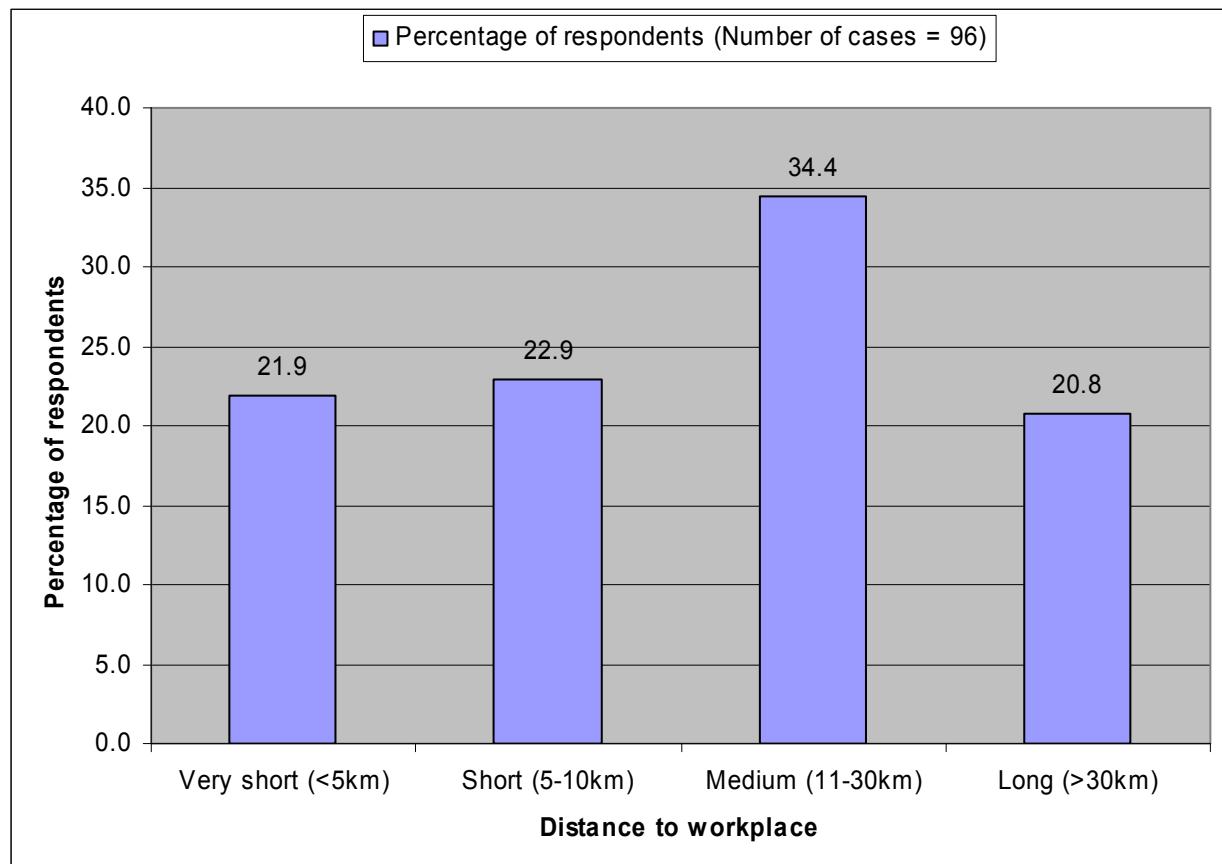


Figure 4.21 Distance travelled to work by respondents, 2008

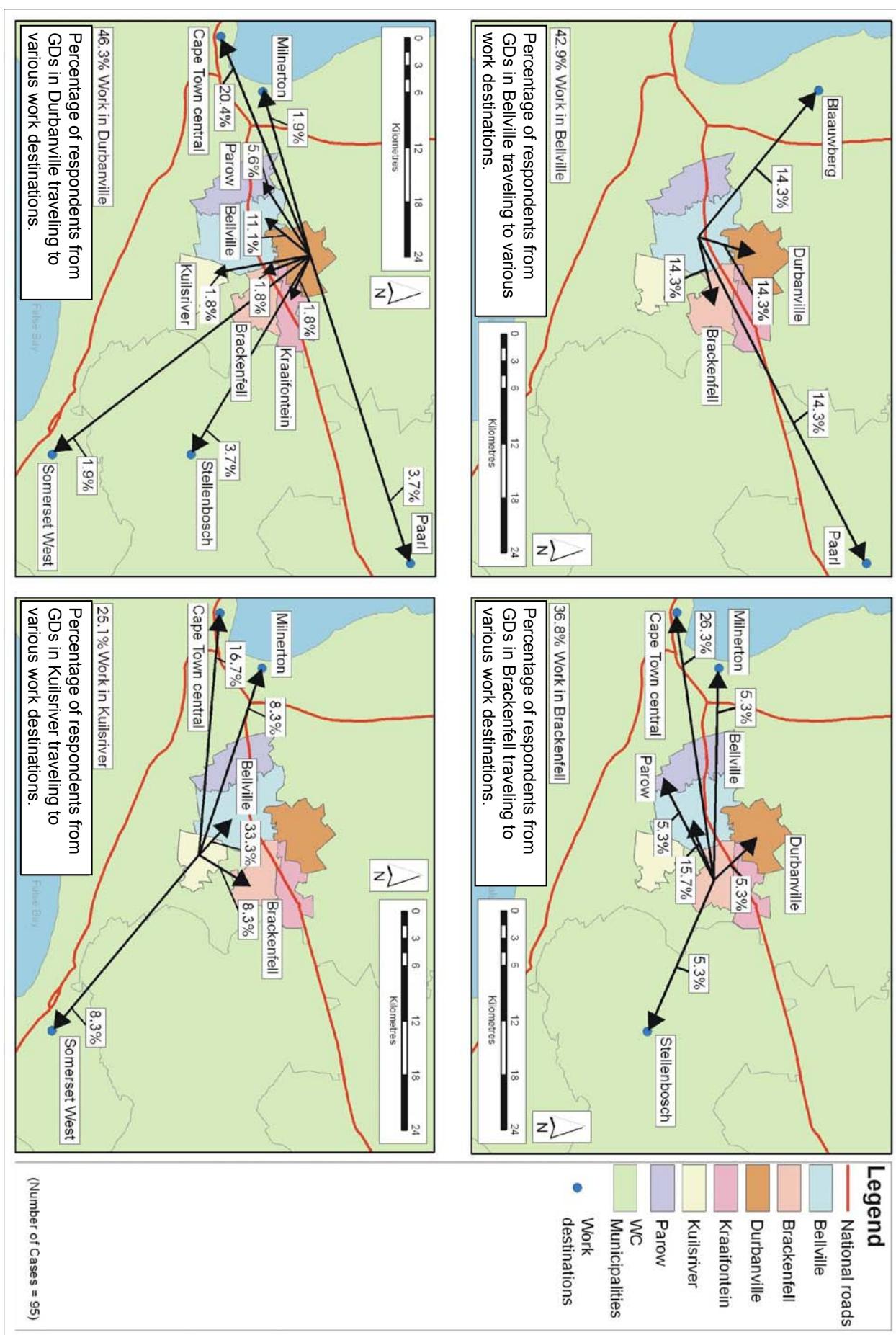


Figure 4.22 Work destinations of GD respondents, 2008

Figure 4.21 shows that more than half (55.2%) of the respondents indicated that they travel more than 10km to reach their workplaces. The large percentage of respondents travelling medium to long distances to their workplaces can be ascribed to the City of Cape Town's central area providing many respondents with employment. The surprisingly large percentage of respondents who travel short to very short distances to their workplaces could reflect the rapid commercial and office-park development in the Durbanville and Bellville suburbs, offering more proximate employment opportunities to the respondents. Table 4.12 illustrates the distances the respondents or their family members travel daily to their workplaces.

Table 4.12 Percentage distribution of distances respondents travel daily to their workplaces, 2008

Suburb	Distance travelled			
	Very short (<5km) (%)	Short (5–10km) (%)	Medium (11–30km) (%)	Long (> 30km) (%)
Bellville	9.5	4.6	5.9	10
Brackenfell	28.6	22.7	17.6	15
Durbanville	61.9	50	58.8	55
Kuilsriver	0	22.7	14.8	20
Section 8	0	0	2.9	0
Totals	100	100	100	100

No respondents in Kuilsriver GDs travel less than 5km to their workplaces. This could be linked to the less developed nature of this suburb's commercial and service sector implying that there are fewer job opportunities in this suburb than in the more developed suburbs such as Durbanville, Bellville and Brackenfell, where decentralisation of office parks and shopping centres occur and which boasts neighbourhoods that are connected to highways and that houses highly skilled labour. The Kuilsriver GDs also accounted for a relatively large percentage of respondents who travel more than 30km to their workplaces, further underlying this suburban area's limited job opportunities. The large percentage of respondents in Durbanville GDs who recorded that they travel less than 5km to their workplaces indicates that this more "prosperous" suburban area has more job opportunities than the surrounding suburbs or even Cape Towns' central areas.

The percentages of respondents in the various surveyed GDs in Bellville, Brackenfell, Durbanville and Kuilsriver who travel to the different work destinations are depicted in Figure

4.22. The maps show that the largest percentage of the respondents in GDs in Bellville (about 43%), Durbanville (about 46%) and Brackenfell (about 37%) suburbs travelled in their respective suburban areas to get to their workplaces. Kuilsriver was the only suburban area where the largest percentage of respondents was not employed in the same suburb as their GDs were located. Most (33%) travelled to workplaces in the Bellville area, implying that the Kuilsriver suburban area provides fewer job opportunities for GD residents in this suburb. Large percentages of respondents in all of the suburbs answered that their workplaces are located in the Cape Town central area. This stresses the importance of this destination as a location that offers employment to a large percentage of the respondents. Figure 4.22 shows that most of the respondents were employed in the “affluent” suburbs of Bellville, Brackenfell and Durbanville and that a large percentage of the respondents travelled to Cape Town central to get to their places of work. Figure 4.22 confirms that most of the respondents live close to their places of work.

Figure 4.23 specifies the percentage of respondents who travel to various work destinations throughout the City of Cape Town and outside the city’s metropolitan area. The diagram confirms the link between work destinations and the income status of the respondents, with more than half (55.7%) of the respondents working in the three more developed suburbs in the study area (Durbanville, Bellville and Brackenfell). Almost 10% more respondents work in the Durbanville suburban area than in the central area of Cape Town. This is surprising as the Durbanville suburb is still seen primarily as a dormitory suburb or a suburb with little work related activities (Rost 2008, pers com). The large percentage of respondents travelling to Cape Town central demonstrates the importance of this location regarding job opportunities.

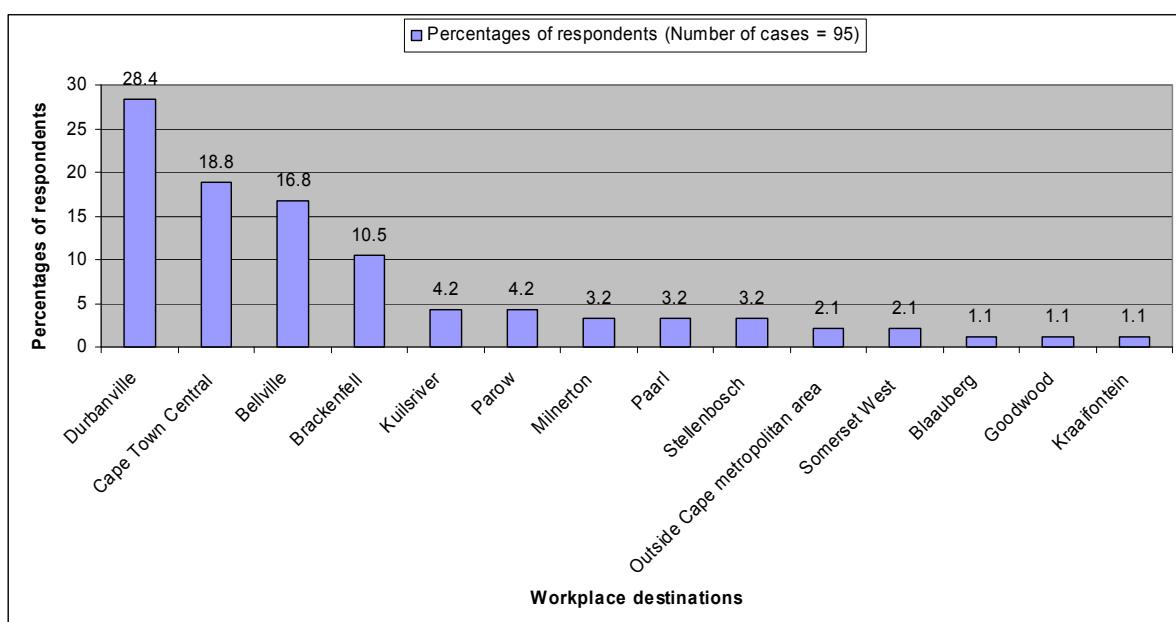


Figure 4.23 Work destinations of GD respondents, 2008

4.3.2.2 Modes of transport to workplaces

Table 4.13 demonstrates the percentages of respondents using different modes of transport to reach their workplaces. The private vehicle category includes motor cars and motorcycles without distinguishing between them.

Table 4.13 Percentage distribution of modes of travel used to reach workplaces, 2008

Suburb	Walk (%)	Public transport (%)	Private vehicle (%)	Lift club (%)
Bellville	0	0	7.7	0
Brackenfell	33.3	66.7	18.7	12.5
Durbanville	66.7	0	58.2	62.5
Kuilsriver	0	33.3	14.3	12.5
Section 8	0	0	1.1	12.5
Totals	100 (3.1)	100 (3.1)	100 (93.8)	100

Percentage of Private vehicles include Lift-clubs

Number of cases: 97

More than 90% of the respondents used private vehicles to travel to their places of work. This reliance on private vehicles is an indication that the residents of the surveyed GDs are prosperous enough to have access to a private vehicle implying that these residents generally have medium to high incomes. Grant (2005b) found that GDs were popular among people with medium-to-high incomes in Canadian cities. The small percentage of respondents using public transport further highlights this. The high percentage of private vehicle use could also be ascribed to the relatively small number of middle-to low-income GDs surveyed. Six per cent of the respondents joined lift clubs to travel to their workplaces, this is double the percentage of respondents who walked or used public transport. The large percentage of respondents using private vehicles to travel to their workplaces combined with the percentage of respondents who make use of lift clubs point to GD residents generating large volumes of traffic and that they contribute to traffic congestion and airpollution, especially if there are large concentrations of GDs in specific suburban areas.

Giglia (s.a.) noted that places routinely visited by GD residents in Mexico City tended to be located within a small radius of these GDs. Routinely-visited places include workplaces, shopping and household service centres. To investigate such routines among the surveyed GD residents, they were asked about their shopping behaviour and to determine the spatial nature of their routine grocery shopping habits. The results are reported in the next section.

4.3.2.3 Shopping for groceries

Figure 4.24 shows the distances travelled to buy groceries. Sixty-nine per cent of the respondents usually travel less than 4km to do grocery shopping, while just under 12% usually travel less than 1km for their grocery shopping. The latter finding is similar to that of Giglia (s.a.). It appears that some of the surveyed GDs are located near to shopping facilities.

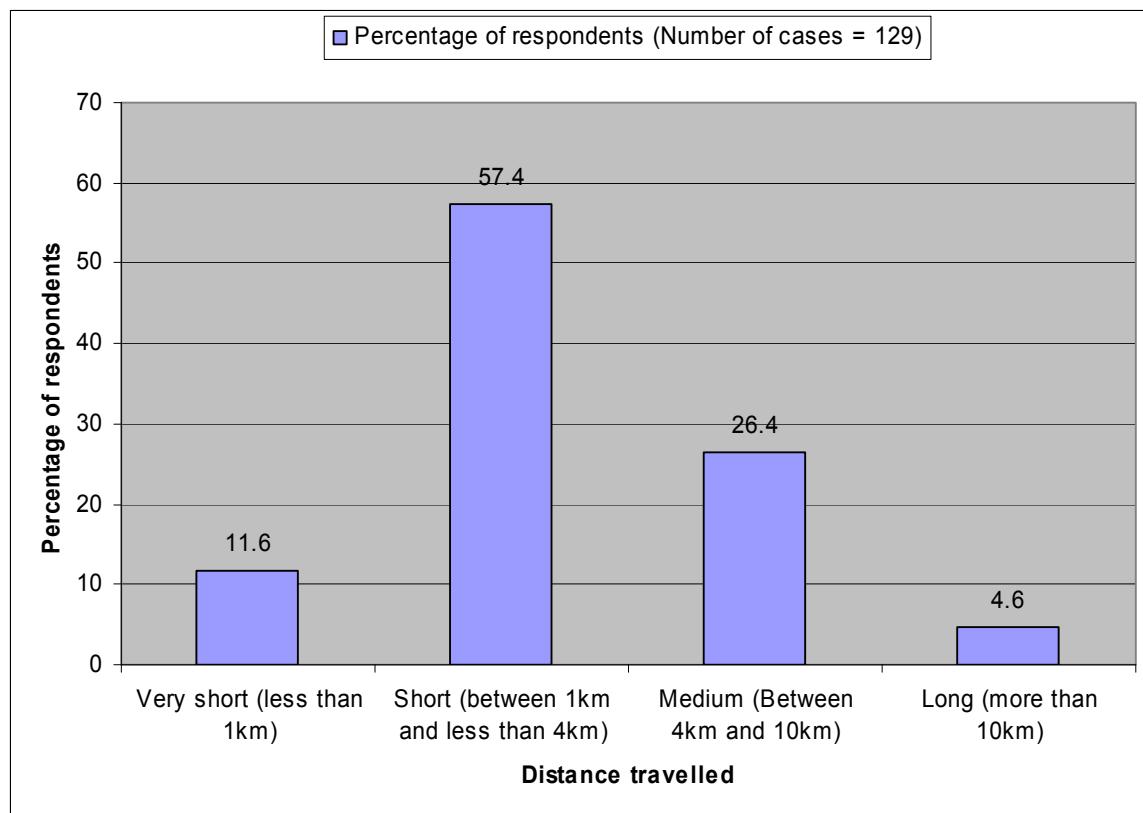


Figure 4.24 Distances usually travelled by respondents for grocery shopping, 2008

Table 4.14 specifies the percentage distribution of distances that the respondents in GDs in the various suburbs usually travel to do their grocery shopping. Respondents who noted that they travel less than 1km originated from all five suburban areas implying that a significant proportion of the GDs are located close to shopping facilities. Large percentages of respondents in Durbanville usually travel medium and even long distances for their grocery shopping. This was unexpected because the recent rapid development of retail and office parks in Durbanville would imply that grocery shopping facilities are readily available within the suburban areas. This result could indicate that Durbanville's GD respondents prefer to do their grocery shopping at specific locations, and they are willing to travel further to reach these shops, or are doing their shopping close to where they work. Respondents from the Section 8 areas accounted for 6.7% of the GD residents who travel less than 1km for their grocery shopping, implying that GDs in these areas are located close to shopping facilities, which is surprising because these areas are located on the outskirts of Kuilsriver.

Table 4.14 Percentage distribution of distances travelled for grocery shopping, 2008

Suburb	Very short (less than 1km) (%)	Short (between 1km and less than 4km) (%)	Medium (Between 4km and 10km) (%)	Long (more than 10km) (%)
Bellville	13.3	8.1	2.9	0
Brackenfell	20	17.5	14.7	0
Durbanville	46.7	63.5	64.8	50
Kuilsriver	13.3	9.5	14.7	50
Section 8	6.7	1.4	2.9	0
Totals	100	100	100	100

Figure 4.25 shows the distances respondents in three age groups usually travel to do their grocery shopping. The elderly shoppers show slight decreasing percentages as the distance increases i.e. an indirect relationship. This is unexpected as elderly individuals would have more time to travel further for their grocery shopping. In contrast the young adults show a direct relationship between age and distance. This indicates that individuals from this group are more willing to travel long distances on a regular basis for grocery shopping. Curiously, the middle-aged respondents are clearly less willing to travel increasing distances implying that they are able to travel long distances but are not inclined to do so. The specific shopping centres respondents travel to regularly may shed more light on travel patterns. These are looked at next.

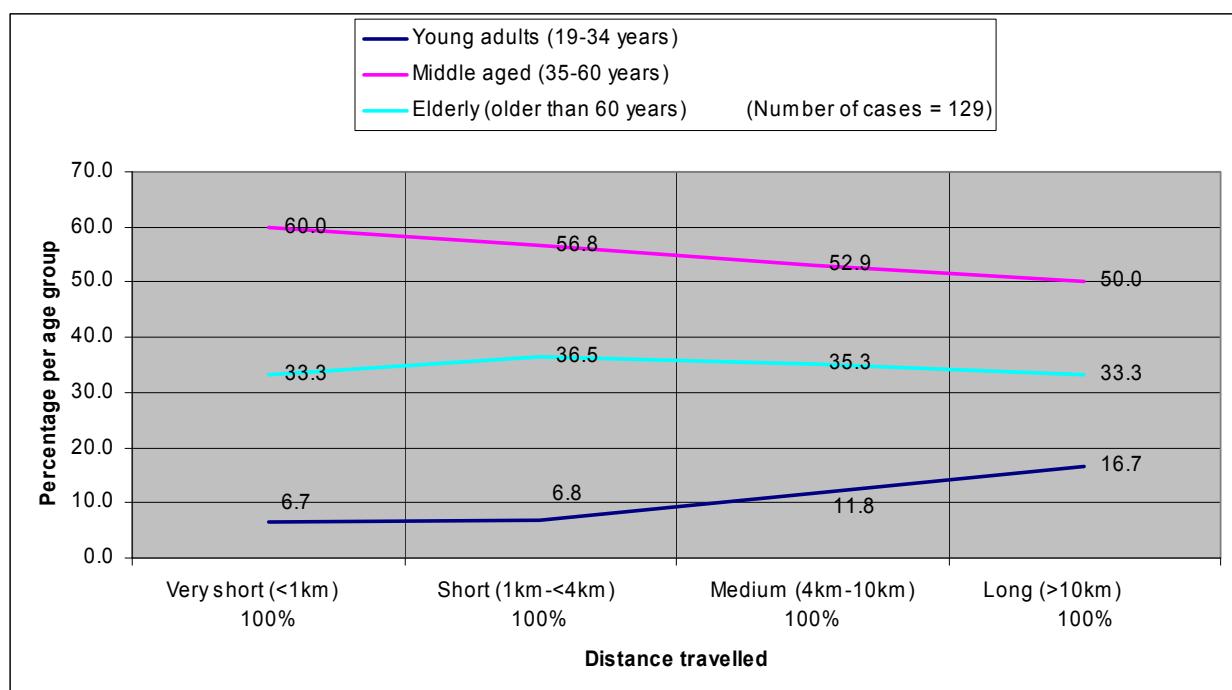
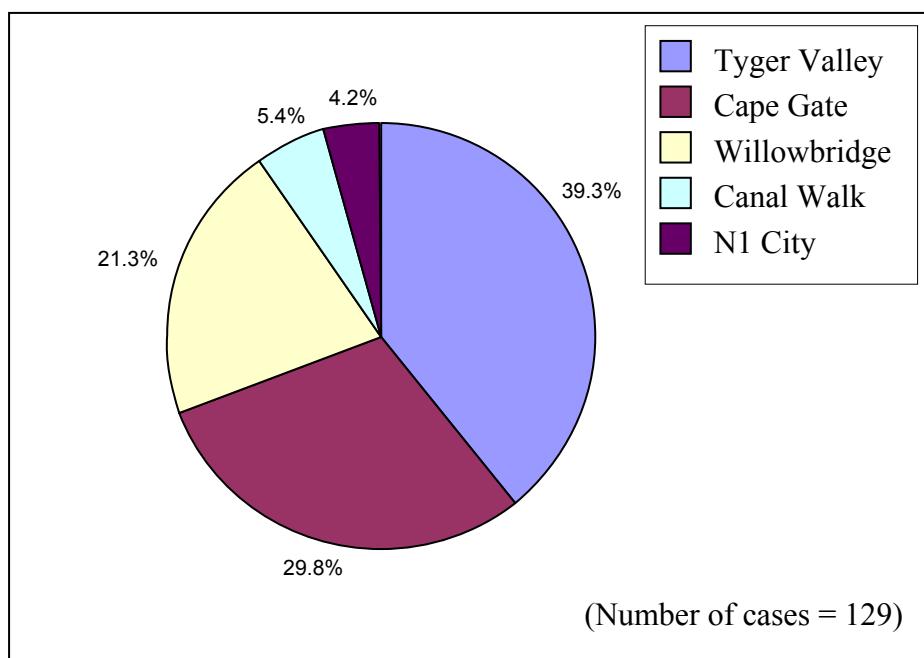


Figure 4.25 Distances usually travelled by respondent age groups for grocery shopping, 2008

4.3.2.4 Shopping nodes most often visited

Respondents were asked which of five well-known (or other) shopping centres, in or close to the study area, they most often visit for their grocery shopping. Figure 4.26 illustrates the results. Tyger Valley, Cape Gate and Willow Bridge are all located in the study area and they account for just more than 90% of the responses. This finding puts weight on the notion that GD residents tend to contain their regular visits to locations which are within a small radius around their communities and resonates with Giglia's (s.a.) findings of the travel patterns of GD residents in Mexico City.



Note: Other shopping centres visited are set out in Figure 4.27

Figure 4.26 Shopping centres visited for grocery shopping, 2008

Table 4.15 presents the percentage of respondents who visit the five shopping centres according to the suburban area in which they live. Respondents from Bellville most often visited Tyger Valley centre as expected because this centre is located in the suburb. The Brackenfell GD respondents accounted for a substantial share of those who most often visited Cape Gate. This is expected seeing that this centre is located in the Brackenfell suburban area. Respondents in Durbanville visit the Tyger Valley centre to do grocery purchases in a proximate shopping centre. Respondents residing in GDS in Kuilsriver represent the largest percentage of respondents who visited N1 City a centre located more than 10km outside the Kuilsriver suburb. This contradicts the notion that GD residents prefer to contain regular activities to a small radius around their communities. But the small percentage is probably negligible. Tyger Valley, Cape Gate and Willowbridge stand out among the shopping centres reported by the respondents.

Although Canal Walk compete with Tyger Valley and Cape Gate in terms of size and shopping facilities only five per cent of the respondents reported that they visit the centre for grocery shopping, illustrating the notion that GD residents tend to contain their regular visits to locations which are within close proximity of their gated developments.

Table 4.15 Percentage distribution of shopping centres most often visited for grocery shopping by respondents, 2008

Suburb	Tyger Valley (%)	Cape Gate (%)	Canal Walk (%)	Willowbridge (%)	N1 City (%)
Bellville	13.6	0	0	13.9	0
Brackenfell	10.6	30.3	11.1	8.3	0
Durbanville	63.6	55.4	77.8	66.7	37.5
Kuilsriver	12.2	12.5	11.1	11.1	50
Section 8	0	1.8	0	0	12.5
Totals	100	100	100	100	100

Number of cases = 129

Respondents were also given the opportunity to specify any shopping centres (not listed in the questionnaire) which they often visit for their grocery shopping. Figure 4.27 depicts the percentage of respondents who visit these other shopping centres for their regular grocery shopping.

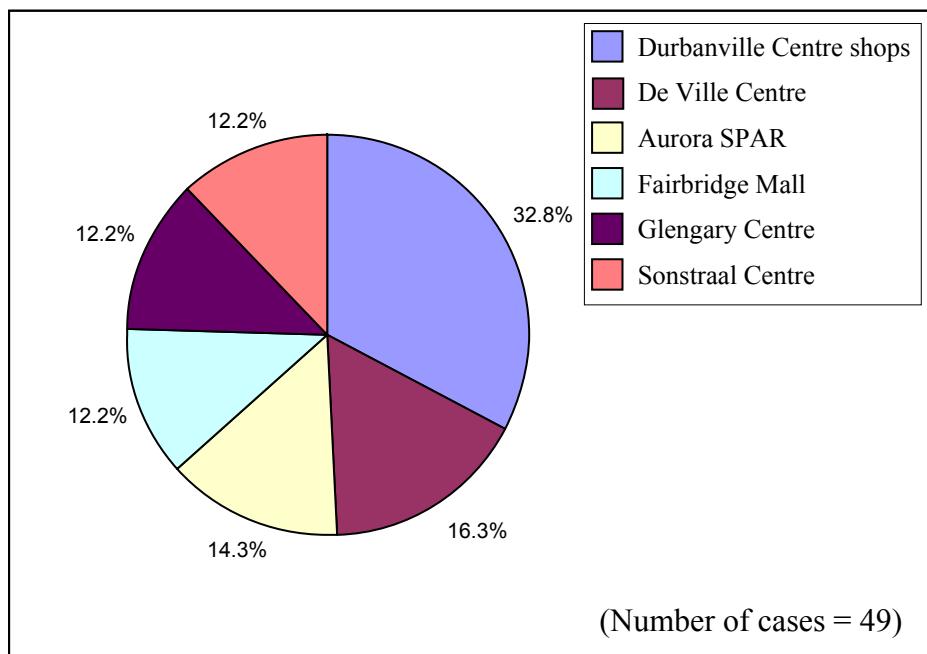


Figure 4.27 Percentages of respondents visiting alternative shopping centres for grocery shopping, 2008

Only those shopping facilities that two or more respondents indicated were included in Figure 4.27. All these additional shopping centres are located in the study area, once again implying that respondents concentrate their regular shopping activities close to their GD complexes. Respondents were also asked how they usually travel to the shopping centres where they shop for groceries. Ninety-nine point two per cent of the respondents stated that they make use of private vehicles, the small remainder use public transport for their regular grocery shopping trips. The private vehicle category includes motor cars and motorcycles, but does not distinguish between them. This finding highlights the almost total dependence on private vehicles as the mode of transport used by the GD residents.

4.3.2.5 Leisure nodes regularly visited

The distances and destinations GD residents travel for recreational purposes were examined. Respondents were asked how far they travel for most of their recreational needs, the results of which are given in Figure 4.28.

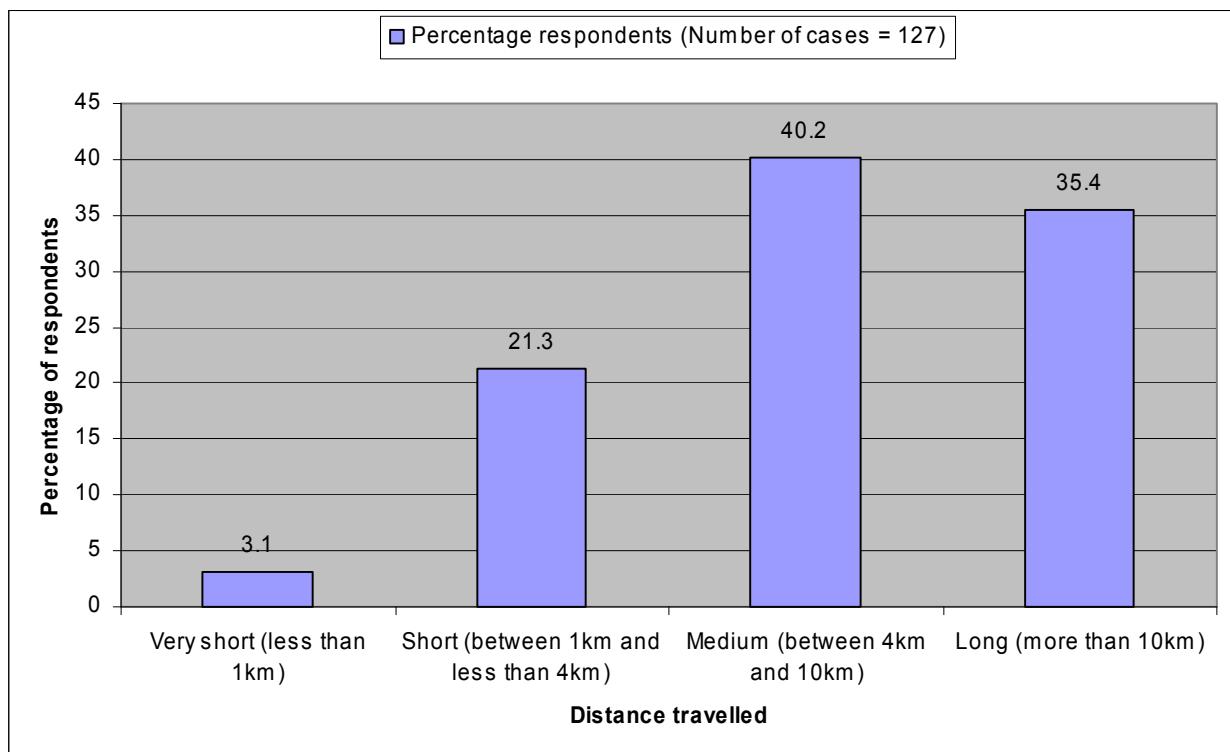


Figure 4.28 Percentages of respondents travelling various distances for their entertainment needs, 2008

Unlike their regular grocery trips (31%), more respondents (>75%) travel medium and long distances for most of their entertainment needs. Only about 3% of the respondents travel less than 1km for their entertainment needs in contrast to the 12% who travel this distance for their regular grocery shopping. Fewer than one quarter of the respondents travelled less than 4km for their entertainment needs in comparison to nearly 70% who did so for their regular grocery

shopping. Giglia (s.a.) established that GD residents in Mexico City travelled further for their social and recreational needs than for their daily activities – a finding similar to that for recreational travel in this study. Table 4.16 distinguished travelling distances for entertainment needs by suburb in which the GDs are located.

Table 4.16 Percentage distribution of distances travelled for entertainment purpose, 2008

Suburb	Very short (less than 1km) (%)	Short (between 1km and less than 4km) (%)	Medium (Between 4km and 10km) (%)	Long (more than 10km) (%)
Bellville	0.00	44.44	44.44	11.11
Brackenfell	0.00	40.91	40.91	18.18
Durbanville	5.06	16.46	40.51	37.97
Kuilsriver	0.00	6.67	26.67	66.67
Section 8	0.00	0.00	100.00	0.00

Number of cases = 127

All of the respondents who travel less than 1km for entertainment purposes resided in GDs in Durbanville. This is to be expected as two large shopping centres are located in or close to Durbanville, namely Tyger Valley and Glen Garry Mall. The small percentage (6.7%) of respondents in Kuilsriver who travel short distances for entertainment purposes quite likely implies that there are few entertainment facilities for the residents of this suburb to select from. This is to be expected as Kuilsriver has not experienced similar levels of commercial and office block expansion as in Durbanville. The considerable percentage (66.7%) of respondents in Kuilsriver who travel more than 10km for their entertainment needs underscores the fact that this area does not offer as many recreation destinations as Durbanville, Bellville or Brackenfell. The large percentage of respondents from the Brackenfell suburb who indicated that they travel between 1km and less than 4km for their recreational needs can be ascribed to the clustering of the surveyed communities close to the Cape Gate centre.

Figure 4.29 shows the distances respondents of various ages are willing to travel for their entertainment needs. Some (about one quarter) elderly respondents travelled less than 1km while the others decreased in number as distance increased. The middle-aged group accounted for three quarters of the respondents who travel less than 1km for their entertainment needs. This group showed a sharp decrease in numbers for short-distance entertainment trips but displayed a slight increase as the distances increased. This suggests that the individuals in this group are able, both physically and financially, to travel further for entertainment needs. Young adults' trips for

entertainment purposes don't appear to be affected much by distance, suggesting that this group is also physically and financially able to travel further for entertainment needs.



Figure 4.29 Percentages of distances usually travelled by respondent age groups for recreational needs, 2008

The decreasing proportion of elderly respondents as distance increased to reach recreational facilities is similar to the situation noted with the grocery shopping trips of the elderly and middle-aged groups. These results are contrary to the findings made by Giglia (s.a.) who noted that GD residents in Mexico City travel longer distances for their recreational needs.

To further examine the role that GD residents' regular visits to recreational and entertainment destinations play in their daily activity spaces around the GD complexes, respondents were asked to indicate which shopping centres they most often visit to satisfy these needs. Figure 4.30 depicts the responses. Figure 4.30 reveals that the percentage of respondents who visit the five named shopping centres decreases as the distance to these shopping centres increases. With 82% of the respondents who contain their visits to a 2km radius. This finding seems to contradict the picture noted in Figure 4.28 and could be related to the entertainment facilities and services provided at specific centres.

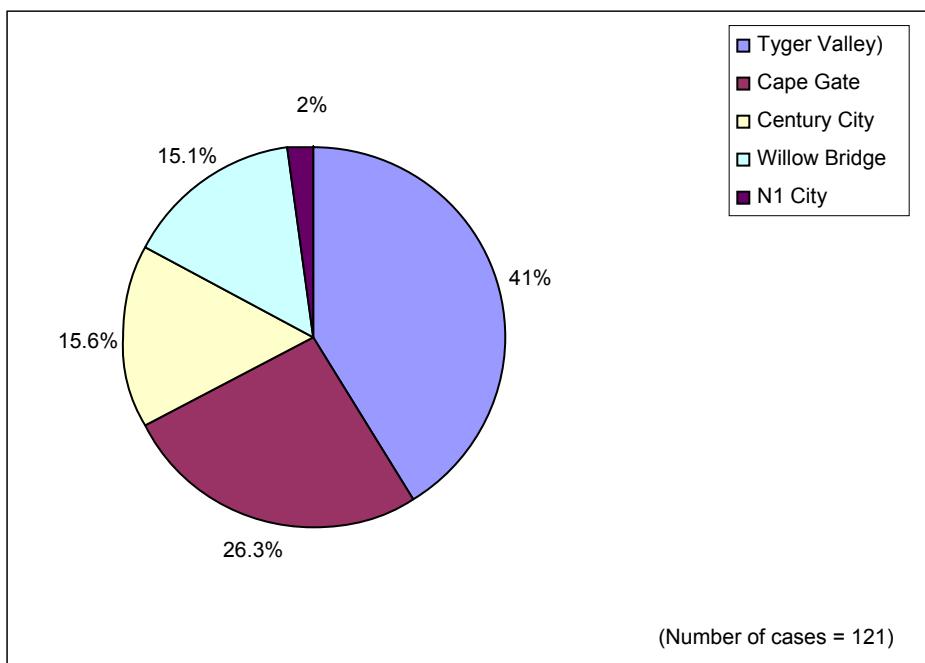


Figure 4.30 Shopping centres visited for entertainment and recreation needs, 2008

Table 4.17 records the entertainment facilities and services that the five specified shopping centres offer. Tyger Valley stands out as the centre with the most restaurants, coffee shops and other entertainment facilities. This cluster of facilities quite likely explains the centre's popularity among the respondents. Almost 11% more respondents visit Cape Gate than Canal Walk. The close proximity of Cape Gate seems to compensate for the fewer recreational facilities that the centre offers compared to Canal Walk. The picture given by Figure 4.30 along with the information provided in Table 4.17, suggest that the respondents, although indicating that they travel longer distances for their entertainment needs, will in most cases select shopping centres not based on the number of recreational facilities offered but on the proximity of these centres.

Respondents were given the opportunity to note entertainment destinations other than the five shopping centres listed in Table 4.17. Thirteen per cent of the respondents named additional entertainment destinations and those mentioned by more than one respondent are Cape Town inner city (20%), Victoria & Alfred Waterfront (60%), and wine farms in the Durbanville and Franschhoek areas (20%). These destinations are all located more than 10km from the study area and could be the reason for the high percentage of the middle-aged group travelling long distances shown in Figure 4.30.

Less than 1% of the respondents use public transport to travel to their entertainment destinations, the remaining respondents (99.2%) all make use of private vehicles to reach these destinations, again highlighting the almost total reliance of the surveyed GD residents on private transport.

Table 4.17 Entertainment facilities and services offered at specific shopping centres, 2008

Shopping centre	Number of restaurants & coffee shops	Number of cinemas	Other entertainment services / facilities
Canal Walk	29	17	Science centre for children
Cape Gate	31	8	None
N1 City	26	Unknown	Wonderland: Electronic games facilities Let's Go bowling: Tenpin bowling
Tyger Valley	37	10	Jimmy Jungle: Children's play facilities Wonderland: Electronic games facilities Let's Go bowling: Tenpin bowling
Willowbridge	14	None	Barnyard Theatre: Dinner theatre

Source: Canal Walk (2008); Cape Gate (2008); N1 City (2008); Tyger Valley (2008); Willowbridge (2008)

4.3.2.6 Visits to public parks

The respondents' use of public parks in the neighbourhoods of the surveyed GDs was also investigated in order to determine the degree to which the GD residents interact with their outside surroundings. Figure 4.31 illustrates how often respondents or members of their households visit the public parks in their neighbourhoods. A clear lack of interest is evident as three out of four respondents reported that they rarely or never visit the public parks in their neighbourhoods. Walters (2005) noted a similar lack of interest with middle-to-high income neighbourhood residents tending to visit iconic locations such as Table Mountain National Park and not neighbourhood parks.

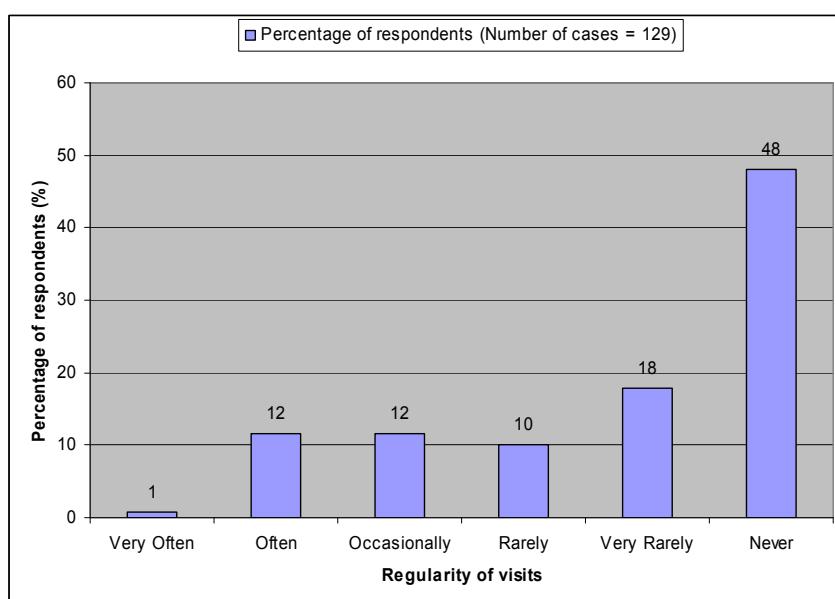


Figure 4.31 Regularity of visits to public parks, 2008

Table 4.18 details the frequency distribution of respondents' visits to the public parks in their neighbourhoods according to the suburb within which the GDs are located. Durbanville's respondents stand out as those who often visited the public parks in their neighbourhood. This could be due to the relatively prosperous nature of the residents of this suburb having more funds to properly maintain the public parks. Respondents in all the suburban areas, except Durbanville, show a decreasing regularity of park visits.

Figure 4.32 shows the trends in the regularity of public park visits according to age of respondents. Three quarters of the respondents who often visit the public parks in their neighbourhoods are middle-aged and only 31% of this age group never visit their neighbourhood parks. A quarter of respondents who often visit public parks in their neighbourhoods were elderly and this age group also accounted for more than half of the respondents who reported occasional visits. Interestingly, none of the young adults often visited their public parks.

Table 4.18 Regularity of park visits according to suburbs, 2008

Suburb	Visits: Often (%)	Visits: Occasionally (%)	Visits: Rarely (%)	Visits: Never (%)
Bellville	6.3	13.3	8.3	4.8
Brackenfell	6.3	6.7	16.7	33.6
Durbanville	81.1	66.6	58.3	58.2
Kuilsriver	6.3	6.7	11.1	24.5
Section 8	0	6.7	5.6	0
Totals	100 (12.4)	100 (11.6)	100 (10.1)	100 (65.9)

Number of cases = 129

Elderly respondents were the main occasional visitors to public parks in their neighbourhoods followed by the middle-aged respondents. A possible reason for the large percentage of middle-aged respondents who often visit these public parks is that they are inclined and physically able to visit these parks whereas elderly respondents could be less physically able as reflected in the latter group's large percentage of no visits to the public parks.

The results reported and discussed in the sections on GD residents' daily activities outside their complexes support the findings of Gigilia (s.a.) in that the surveyed GD residents tend to concentrate their regular work and shopping-related travel to within a small radius around their respective developments. Travel to workplaces and grocery shopping destinations revealed that as the distances travelled increased the percentages of respondents decreased as was the case with GD residents in Mexico City (Giglia s.a.).

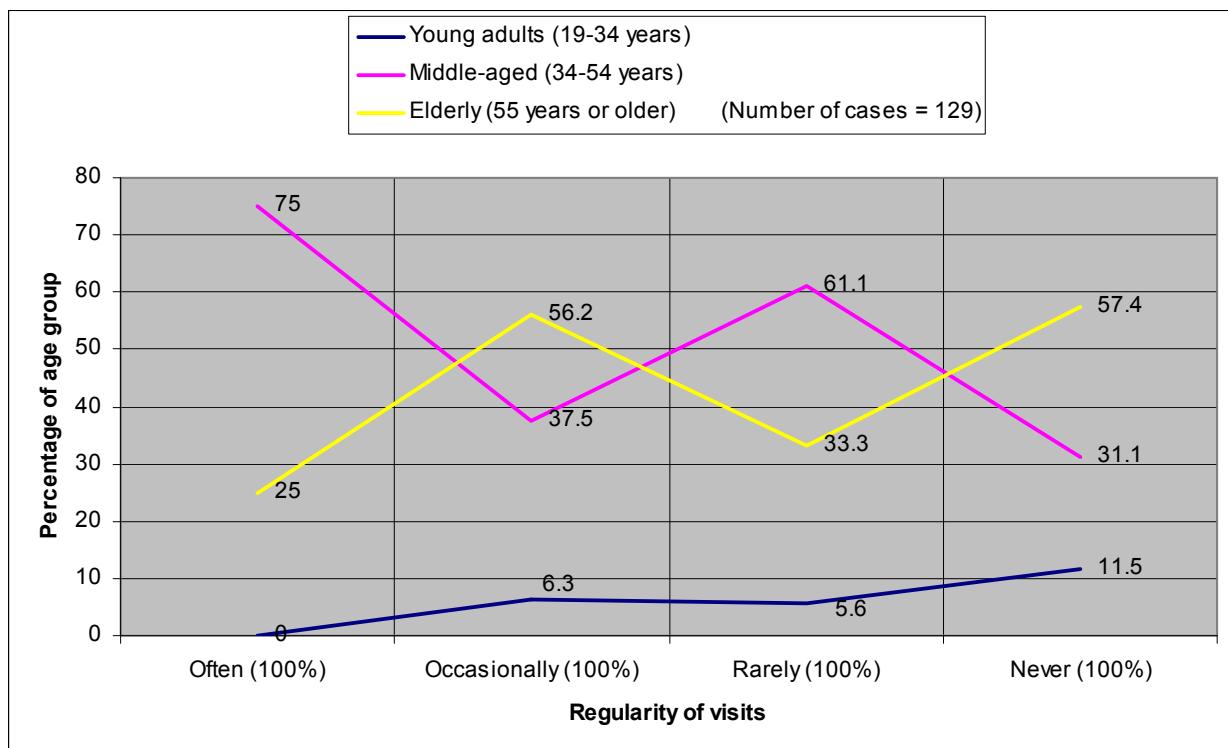


Figure 4.32 Regularity of visits to public parks according to age of respondents, 2008

A willingness to travel greater distances for entertainment needs was noted but when asked which entertainment centres they regularly visit a tendency emerged toward those close to their gated developments. A possible reason for this contradiction could be bias caused by the specification of shopping centres in the questionnaire. Gigilia (s.a.) found that GD residents in Mexico City travelled further for social and recreational needs than for work or shopping requirements.

The large proportion of respondents who seldom or never visit the public parks in their neighbourhoods is indicative of the low level of interaction between the GD residents and their neighbourhoods. This supports the ‘territories, objectives and corridors’ concept put forward by Atkinson & Flint (2004) that residents use their GDs as bases, or territories, from which to travel along corridors to their work, commercial or entertainment objectives.

Sections 4.3.1 and 4.3.2 focused on the GD residents’ interactions with their neighbourhoods and the larger urban area. This section has created a picture of the daily activity spaces of the residents of GDs in the study area. The following section is more inward looking examining the governing bodies of the GDs and the views of the residents related to these bodies.

4.3.3 Gated-development residents and their governing bodies

Home Owner Associations (HOA’s) are, according to Kirby et al (2006), legal entities set up by the housing developer to regulate aspects of the daily lives of the residents of GDs. These entities

are run by elected boards of residents and are empowered to impose aesthetic standards, landscaping design and even govern residents' actions, such as the duration that vehicles can be visible on the street, or pet behaviour (Kirby et al 2006). HOA's are pervasive throughout GDs in the study area because, as indicated by planners at Durbanville municipality, such governing bodies are required before planning approval is granted (Rost 2008, pers com). Because these governing bodies are so common among the GDs and because of their influence on the GD residents, this section takes a closer look at these entities and the residents' perceptions of them.

The questionnaire elicited information about the relationship and interactions between GD residents and the governing bodies of their complexes, namely the residents' level of participation with these bodies; their views about the primary function of these bodies; and the level of influence the governing bodies have on residents. This section present the results and discusses their relevance.

Figure 4.33 illustrate the percentage distribution of respondents who are affiliated with various governing bodies and residential associations in their neighbourhoods. More than half of the respondents are involved with their HOAs, condominium associations or clubs. Only 14.7% of the respondents have a connection with a neighbourhood or community organization, and 6% are involved with other societies or groups. Twenty-three per cent had no affiliation with any governing organization. This percentage could be related to the large proportion of residents who rent their property. These results indicate that the respondents are more involved with their GDs' affairs than with those of associations or organizations in their neighbourhoods (outside the walls). The high incidence of involvement with their HOAs, condominium associations or clubs is not surprising because these organizations directly affect the respondents.

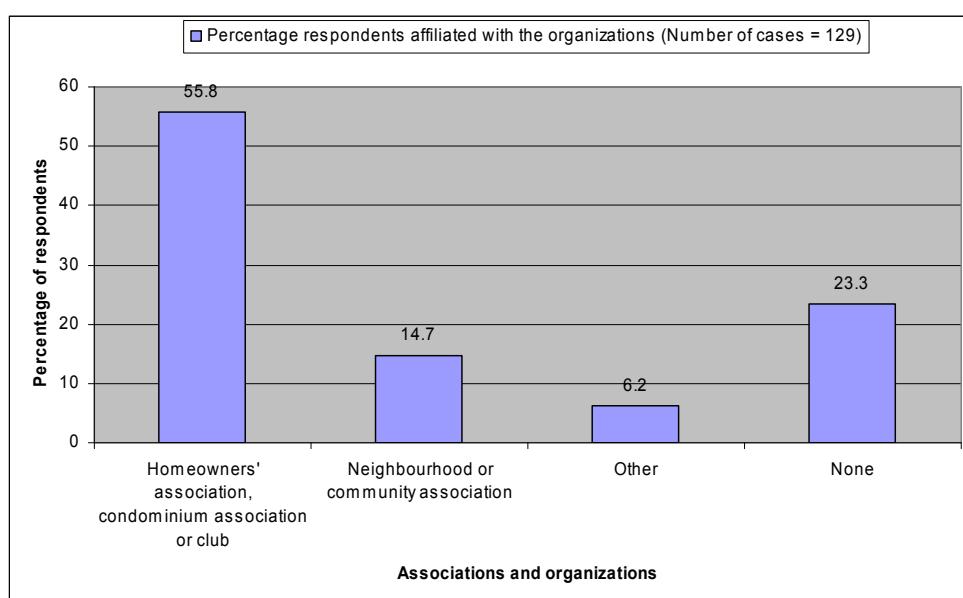


Figure 4.33 GD residents' affiliation with GD and neighbourhood associations, 2008

Table 4.19 sheds light on the residents' levels of involvement with their HOAs, condominium associations or clubs, neighbourhood or community associations and other organizations. The strong level of involvement in GD associations is evident. In contrast, Kirby et al (2006) found that few GD residents in Phoenix, USA, participated in the governing structures of their HOAs. That study found that the majority (78%) of GD residents claimed that the HOAs were run smoothly, hence they were contented to minimize their involvement in the associations' business. A reason for these different levels of participation is the different tenure status of units in the two studies. Kirby et al (2006) found that the majority of GD residents surveyed in Phoenix rented their units whereas three quarters of respondents surveyed in this study own their homes. It is possible that residents who own property in a GD are more likely to be interested in and involved with the governance of their community than residents who rent. Other organisations that respondents had associations with are sport clubs, school and ward forums, church bodies and seniors clubs.

Table 4.19 Nature of involvement with GD associations and neighbourhood organizations, 2008

Associations	No association (%)	Attend some meetings (%)	Volunteer my time (%)	Have been an elected officer (%)
Homeowners' association, condominium association or club	19.8	68	82.1	83.3
Neighbourhood or community association	38.2	26	10.7	11.7
Other	42	6	7.2	5
Totals	100	100	100	100

Respondents were asked to identify the most important function or role of their governing body. Six recurrent themes emerged as illustrated in Figure 4.34. More than half of the respondents contend that the maintenance of a complex's grounds, general administration of the complex and resolution of conflicts between residents are the most important functions of a governing body. The financial administration of a complex's funds and the protection of owners' housing investment are claimed to be the third most important roles of a governing body. Kirby et al (2006) established that the majority of surveyed GD residents in Phoenix agreed that the HOAs functioned both to safeguard their housing investments and to keep the complexes attractive. In this study more respondents felt that general administration and conflict resolution were of

primary importance than those who believed that the financial administration and the protection of the owners housing investment were the main functions.

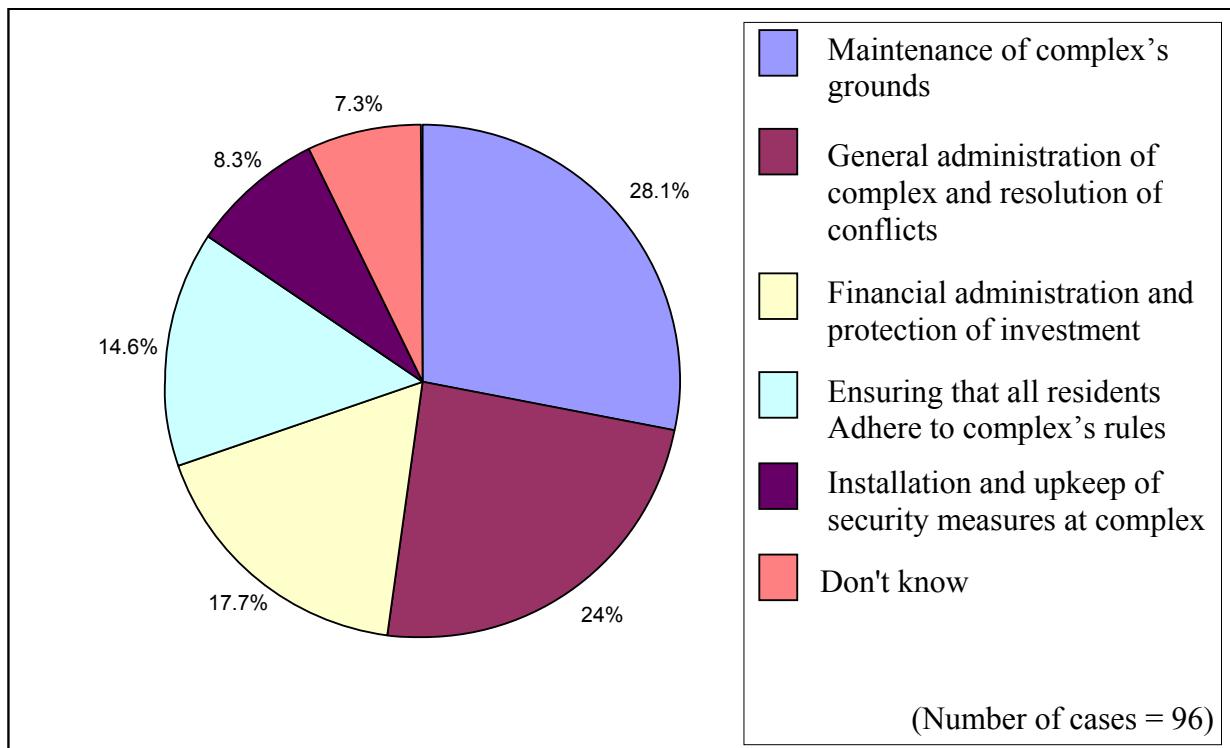


Figure 4.34 The most important functions or roles of governing bodies, 2008

The high percentage of respondents who mentioned that the resolution of conflict and the guaranteeing that all residents adhere to the rules are the most important functions of the governing body and could be an indication that there are some conflicts among the residents of the surveyed GDs. Only 8.3% of the respondents revealed that they believed the main function of HOA's are the installation and upkeep of security measures. This is surprising as security was the main motivation for the majority of respondents choosing to reside in GDs. Seven point three percent of the respondents did not know what the main function of the HOA's are another indication of their lack of involvement within their own community.

The levels of influence or control governing bodies have on the lives of the residents of the GDs were assessed by asking respondents to rate the perceived level of control or influence as very strong, strong, neutral, weak, very weak or none. Figure 4.35 displays the results. Nearly half of the respondents indicated a neutral attitude about their governing bodies influence. The reason for this widely-held seemingly indifferent opinion could be that respondents did not wish to answer the question; that they did not understand it due to its ambivalence ('influence' or "control"); or that they have an ambivalent feeling that the influence is neither strong nor weak. Forty per cent asserted that the governing bodies of their respective communities have a strong influence/control on their lives. Kirby et al (2006) also found that HOAs in Phoenix have the

power to influence residents' actions or behaviour. It seems that HOAs play a significant role in the lives of a large portion of the respondents.

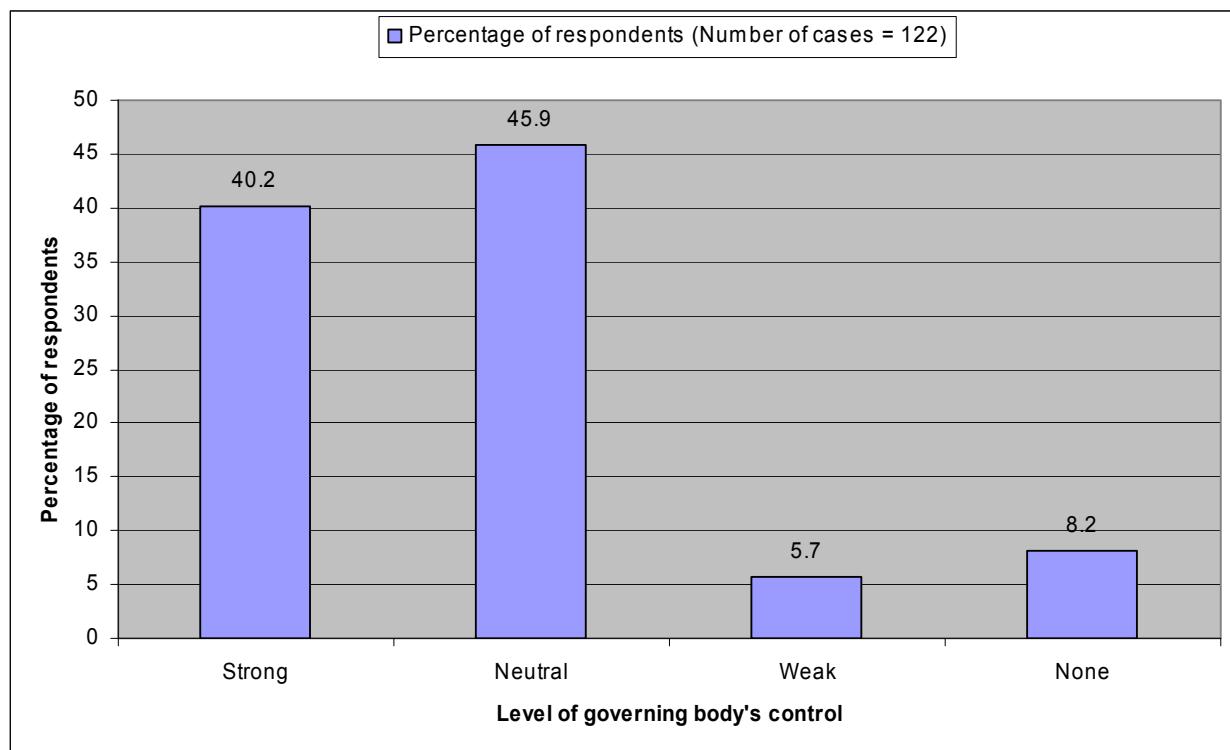


Figure 4.35 Degree of influence or control by governing bodies on GD residents, 2008

Eight per cent of the respondents felt that the governing bodies had no influence/control over their lives. This could be attributed to the ambivalence of question C3. A possible scenario could be that the HOAs have influence but no control. Less than 6% stated that the governing bodies had weak influence/control over their lives.

Summarized, the findings are: respondents maintain a high level of involvement with their community's governance, possibly due to the large percentage of owners among the respondents, but they have less interest in neighbourhood level associations; more respondents feel that the most important function of their governing bodies is not the administration of funds and protection of their housing investment but the general administration of the communities and the resolution of conflicts between the residents; and a significant percentage of respondents feel that the governing bodies have a strong influence/control on their lives. Sections 4.3.1 to 4.3.3 have all looked at the interaction of the residents of GDs with their communities and their neighbourhoods. The next section takes a closer look at the residents themselves by investigating their demographic and socio-economic profile in order to create a picture of a typical GD resident.

4.3.4 Demographic and socio-economic profiles of the respondents

Early ethnographic research of the gating phenomenon in American cities indicated that, for the most part, GDs were viewed as select retreats of affluence and privilege (Blakely & Snyder 1997; Low 2003). This picture of GDs as wealthy enclaves exclusive to the rich is being questioned by recent studies in the United States which indicate that GDs are spreading as a residential choice across the middle class and across different ethnic and racial groups (Vesselinov, Cazessus & Falk 2007). Nevertheless, indicated the authors that despite the popularity of GDs, these developments remain largely homogenous enclaves (Vesselinov, Cazessus & Falk 2007). To investigate the demographic and socio-economic aspects of the residents of GDs in the study area the questionnaire asked a number of questions aimed at gathering this data from the respondents. This was done to create a profile of these residents; to investigate the differences and similarities between residents of GDs in the suburbs comprising the study area; and to compare this profile with the average resident in the study area. This section is the description of the residents' characteristics based on seven variables (gender, age, marital status, education level, employment status, income and vehicle ownership) are employed to characterise the respondents.

4.3.4.1 Gender of respondents and household size

The majority of the respondents were male (56.5%) while woman comprised 43.5% of the total number of respondents. Figure 4.36 illustrates the percentage distribution of respondents' household sizes.

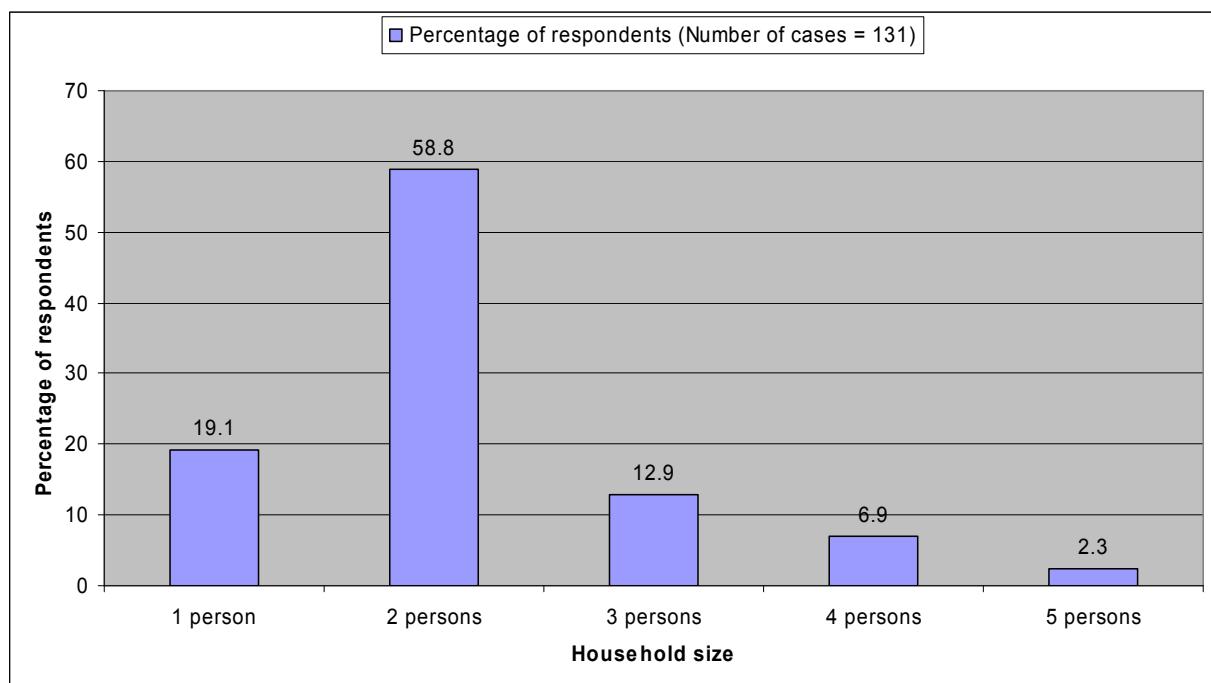


Figure 4.36 Size of respondents' households, 2008

Respondents indicated household sizes ranging from one to five people per household. An average size of two people per household was established and nearly 60% of the households consisted of two persons. Families, two parents with their children living together as a unit, appeared to be in the minority with only 22% of the households comprising three or more persons. Reasons for the predominance of two-person households in this study are the rapid commercial and office park developments in Durbanville which attract younger couples to this area and the dormitory nature of Durbanville which attracts older retired couples. Table 4.20 gives the distribution of household size according to suburban areas. The large percentage of GD households with two people in the Durbanville GDs supports the aforesaid contention.

Table 4.20 GD household sizes according to suburban area, 2008

Suburb	Household size				
	1 person (%)	2 persons (%)	3 persons (%)	4 persons (%)	5 persons (%)
Bellville	20	60	20	0	0
Brackenfell	33.3	52.4	14.3	0	0
Durbanville	14.8	61.7	9.9	9.9	3.7
Kuilsriver	18.7	56.3	18.7	6.3	0
Section 8	33.4	33.3	33.3	0	0

Number of cases = 131

Fifteen per cent of the respondents from Durbanville lived alone. The respondents in the Section 8 areas and Brackenfell each reported more than double this percentage of single person households. When read together with the large percentage of Durbanville respondents living in households with two persons weight is given to the above argument. Interestingly more than 20% of the respondents from Durbanville reported living in households of three or more persons. This large percentage is only exceeded by respondents from Section 8 and Kuilsriver suburbs. This indicates that although Durbanville GDs predominantly cater to 2-person households there is still a significant (23%) per cent that live with families. This finding conflicts with the small percentage (1.7%) of respondents who felt that space for children to play was important factor in their choice to reside in a GD (See figure 4.18), possibly indicating that these households of three or more persons do not necessarily include small children. Respondent as well as household members' ages are discussed in the next sub-section.

4.3.4.2 Age

Figure 4.37 illustrates the distribution of respondents by age cohort. Respondents aged between 29 years or younger and 39 years –the young adults and early middle-aged group– accounted for a little more than one quarter of the respondents, middle-aged respondents about one quarter and those older than 55 years about one half of the respondents. About 15% of the population of the study area are individuals aged 55 or older (City of Cape Town 2008b). This age cohort represents almost half of the respondents in the survey indicating that the surveyed GDs in the study area are popular among older individuals. Grant (2005b) found that GDs in Canadian cities were more popular among pensioners. The small percentage (7.6%) of respondents 29 or younger contradicts the argument that GDs attract younger individuals.

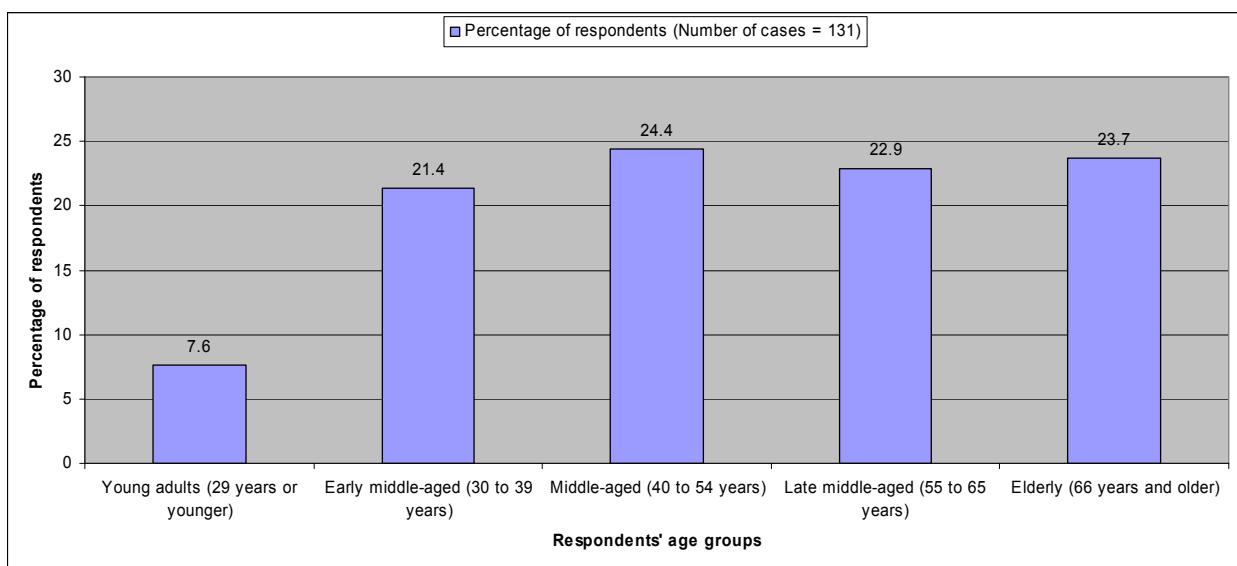


Figure 4.37 Percentage distribution of respondents by age groups, 2008

Figure 4.38 illustrates the age distribution of the respondents' household members and the nearly 40% of the household members being aged 55 and older further affirms that the surveyed GDs cater to older couples and individuals. The relatively low percentage (3.6%) of household members aged between 19 and 24 and the 14.4% aged younger than 18 imply that the surveyed residents' households with more than two people generally consist of families with young children which again conflicts with the small percentage of respondents who indicated that space for children to play was an important factor influencing their decision to reside in a GD (See figure 4.18). The large percentages of household members who are aged 55 and older indicate that the surveyed GDs house many older couples.

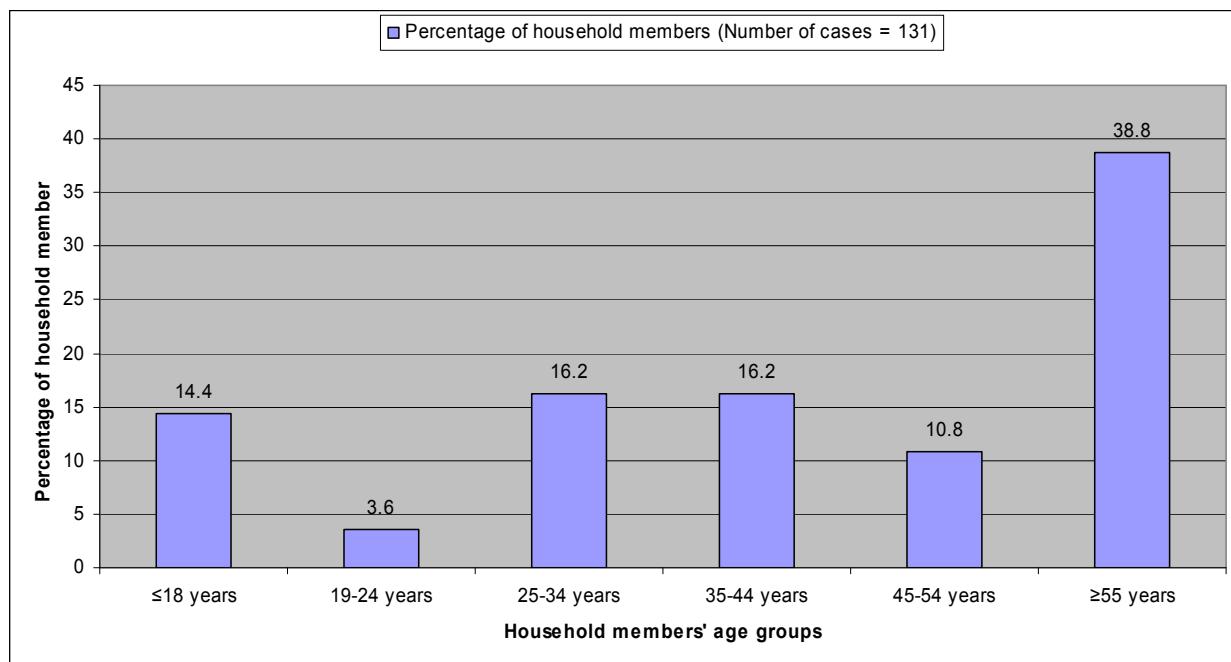


Figure 4.38 Percentage distribution of household members' age groups, 2008

The relatively low percentage of household members aged younger than 18 years means that the surveyed residents do not generally have young children and that these respondents are usually couples without children or whose children have already left home. Table 4.21 sets out the distribution of the age of the household members by respondent age.

Table 4.21 Percentage distribution of household sizes and ages of household members, 2008

Respondent age groups	Average sizes of household	Percentage of Household members falling in the various age groups:					
		≤18 years (%)	19-24 years (%)	25-34 years (%)	35-44 years (%)	45-54 years (%)	≥55 years (%)
Young adult (25-29 years)	2	5.1	20	33.3	2.2	0	0
Early middle-aged (30-39 years)	3	53.9	20	55.6	48.9	0	1.9
Middle-aged (40-54 years)	2	41	60	8.9	44.5	90	1.9
Late middle-aged (55-65 years)	2	0	0	2.2	2.2	6.7	44.4
Elderly (66 years or older)	2	0	0	0	2.2	3.3	51.8
Totals		100	100	100	100	100	100

Number of cases = 131

The table indicates that the early middle-aged and middle-aged respondents accounted for more than 90% of households with some members aged younger than 18 years. The late middle-aged and elderly respondents did not have any household members younger than 24 years residing with them. The early middle-aged respondents were the only group with an average household size exceeding two individuals. The table confirms the impression that GDs cater to two groups namely older households in the later stages of their lives and early middle-aged and middle-aged households in the process of raising their children.

The findings of the investigation of the age of the respondents and their household members contradicts the idea that GDs in the study area attract young adult households and confirms the notion that these developments attract older households. Next the marital status of the respondents is examined to complete the picture of these households.

4.3.4.3 Marital status

Figure 4.39 shows the respondents' marital status. Sixty per cent of the respondents are married confirming the earlier findings that the majority of the residents of the surveyed GDs are couples. The relatively high percentage of respondents who are either a widow or widower (8.3%) can be ascribed to the high percentage (23.7%) of elderly residents in the surveyed GDs. Almost 20% of the respondents were divorced.

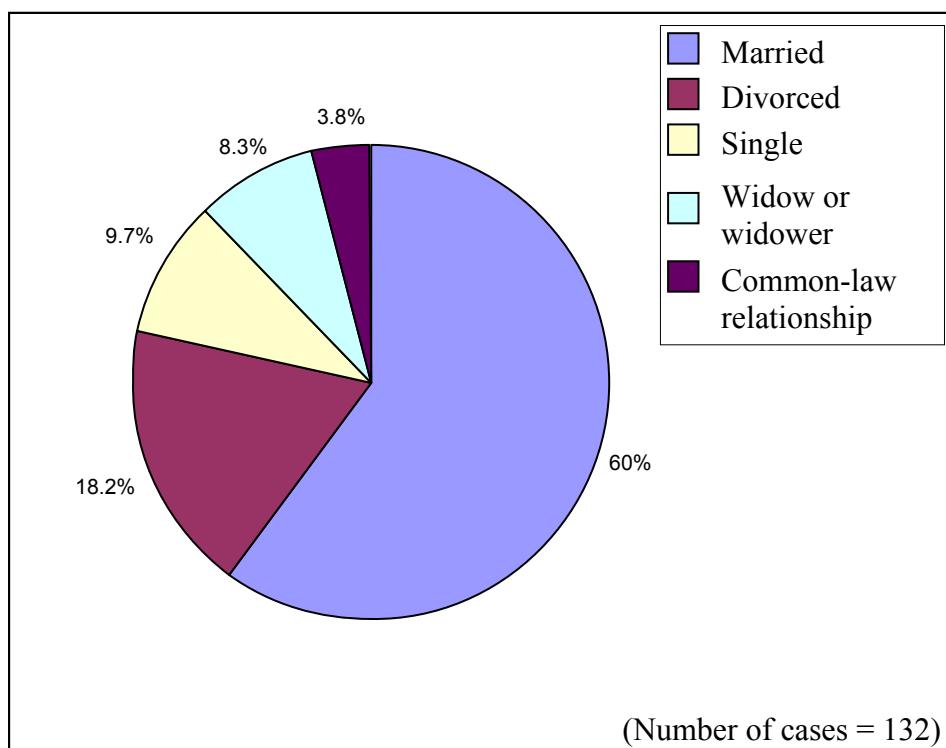


Figure 4.39 Percentage distribution of respondents' marital status, 2008

The large proportion of single and widowed respondents implies that almost 20% of the respondents live alone. The compact and secure nature of the GD units could be contributing factors motivating these single respondents to reside in a GD. Four per cent of the respondents were in a common-law relationship clearly indicating that GDs cater either to married couples or to individuals but generally not to couples in a common-law relationship.

Table 4.22 shows the respondents' marital status by age group. The young adult and early middle-aged respondents make up 85% of the single respondents. Surprisingly the middle-aged group accounted for less than 20% of the married respondents and nearly 60% of the divorced respondents. Late middle-aged and elderly respondents made up 82% of the respondents who are either a widow or widower. Married respondents are well represented among all the respondent age groups except the young adults. These findings seem to indicate that GD complexes in this area are popular among divorced individuals as well as older retired couples and individuals.

Table 4.22 Percentage distribution of respondents' age groups' marital status, 2008

Respondent age groups	Marital status:				
	Single (%)	Married (%)	Common-law relationship (%)	Divorced (%)	Widow or widower (%)
Young adult (25-29 years)	30.8	6.4	0	4.2	0
Early middle-aged (30-39 years)	53.8	23.1	20	8.3	0
Middle-aged (40-54 years)	7.7	19.2	0	58.3	18.1
Late middle-aged (55-65 years)	7.7	23.1	40	16.	45.5
Elderly (66 years or older)	0	28.2	40	12.5	36.4
Totals	100	100	100	100	100

Number of cases = 132

This and the previous sub-sections have looked at the respondents' households, next the respondents themselves are examined starting with a look at their education levels.

4.3.4.4 Education level

More than half of the respondents had received tertiary education and 96% had a grade 12 or higher level of education as illustrated in Figure 4.40.

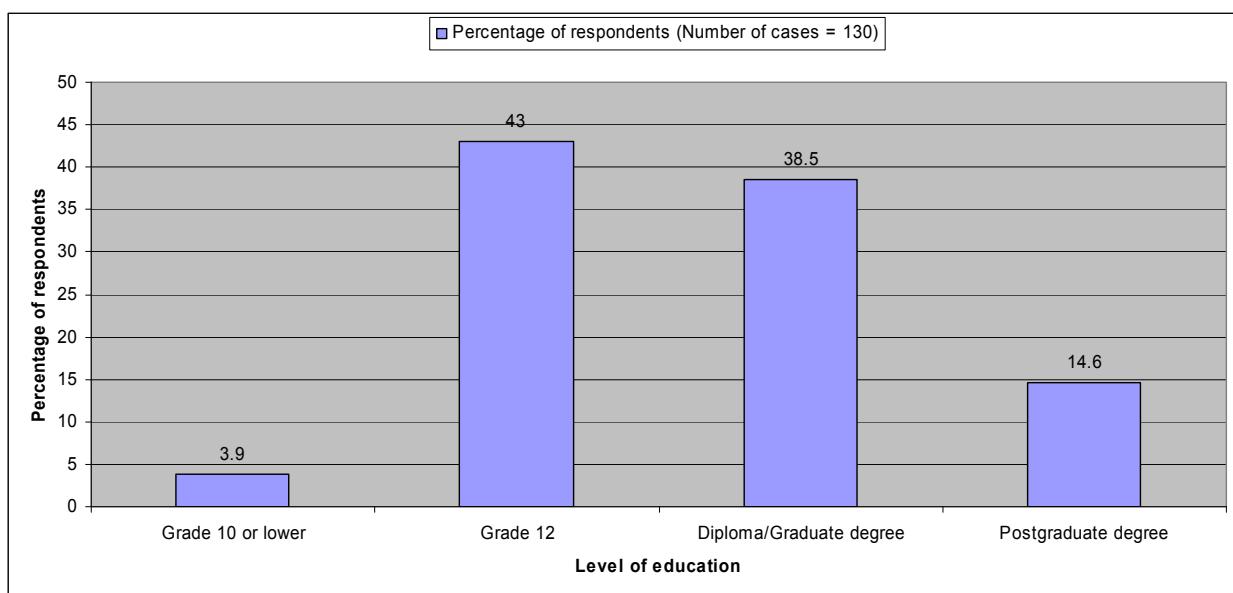


Figure 4.40 Respondents' highest level of education, 2008

Durbanville had the highest percentage of residents with tertiary qualifications in the study area, (See Table 1.4), but there are 7% more respondents having tertiary education among the surveyed GDs than the average for the Durbanville suburb (City of Cape Town 2008b). This implies that the surveyed GDs attracted more educated individuals. Van der Walt (2003) also found that most (48%) of the residents in security complexes in Paarl had tertiary qualifications thereby underlining the point that these developments attract individuals with higher levels of education. Table 4.23 shows the percentage distribution of the levels of education for the respondents from the different surveyed suburbs.

Table 4.23 Distribution of education levels of respondents by suburban area, 2008

Suburb	Grade 10 or lower (%)	Grade 12 (%)	Diploma / Graduate degree (%)	Postgraduate degree (%)
Bellville	0	0.8	3.1	3.8
Brackenfell	0.8	7.7	8.5	0
Durbanville	3.1	28.5	20	10
Kuilsriver	0	5.4	5.4	0.8
Section 8	0	0.8	1.5	0
Totals	3.9	43	38.5	14.6

Number of cases = 132

Percentages for the Durbanville suburb are high for all levels of education. Bellville and Brackenfell have quite large proportions of respondents with tertiary qualifications. These higher levels of education gained by respondents reflect the average level of education of the residents

of these areas although the respondents' proportions are higher than those of the general public in these areas (See Table 1.4). These findings highlight that GD residents have higher education levels than the average residents in the same suburbs where these developments are located. The following sub-section focus on the employment status of the respondents.

4.3.4.5 Employment status

Figure 4.41 presents the distribution of the respondents' employment status. Most of the respondents (43%) were employed outside the home on a full-time basis and a significant proportion (29%) was pensioners. These two results confirm the case that the residents of the surveyed GDs are generally either early to late middle-aged working couples or retired couples whose children have already left home.

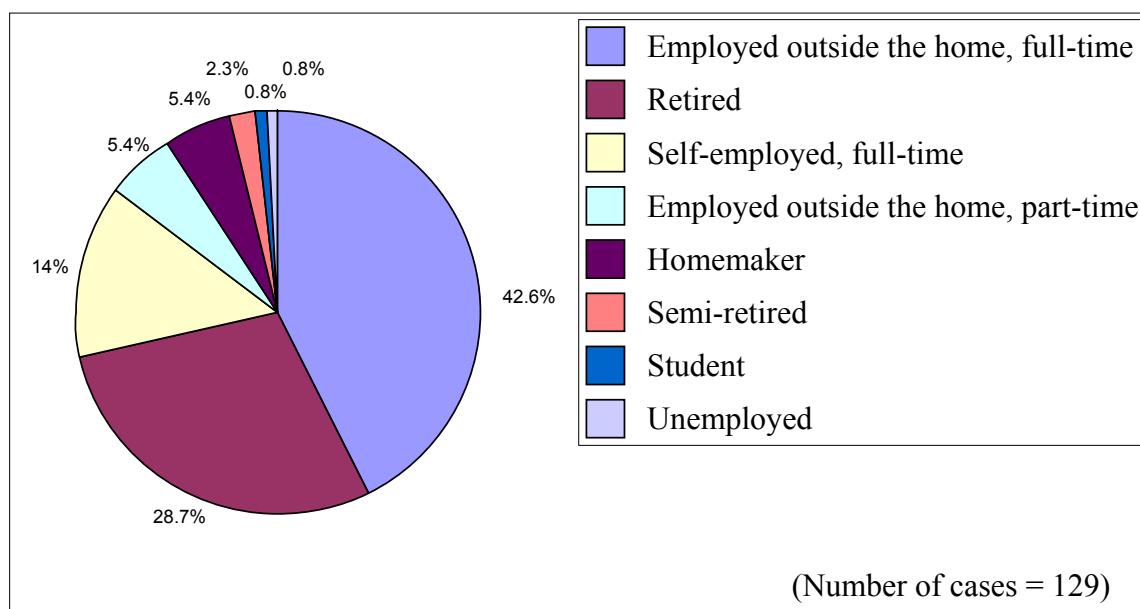


Figure 4.41 Percentage distribution of respondents' employment status, 2008

Fourteen per cent of the respondents were self-employed on a full-time basis. Only one student and one unemployed respondent were reported. The unemployment level for the study area in 2001 was about 10% and for the Durbanville suburban area it was about 4% (City of Cape Town 2008b). The very small percentages of students and unemployed respondents underline the necessity of a good and steady income to live in the GDs. Van der Walt (2003) found that none of the surveyed residents of Paarl's security complexes were unemployed, about 11% were students and 20% were retired, the latter being almost 9% less than the proportion of retired respondents in this study. This confirms the idea that the dormitory nature of the Durbanville attracts older retired couples and individuals to its GDs. Van der Walt (2003) also found that 32% of the surveyed residents in Paarl's security complexes are employed as professionals which is 11% less than the proportion of respondents employed outside the home on a full-time

basis in the study area. This comparison demonstrates that the GDs in Durbanville are also attractive to working couples and individuals. It must also be noted that Van der Walt's (2003) study included retirement villages so one can expect that there will not be many working couples. The specific occupations in which the respondents are employed are looked at in the next sub-section.

4.3.4.6 Occupations of respondents

Figure 4.42 depicts the percentages of respondents according the occupations in which they are employed. More than one third are in the managerial or administrative services and together with those employed in clerical or sales services make up just about half of the employed respondents. Manufacturing, transport and construction account for about 30% and the professional fields of teaching, information technology and health and medical care account for about 20%.

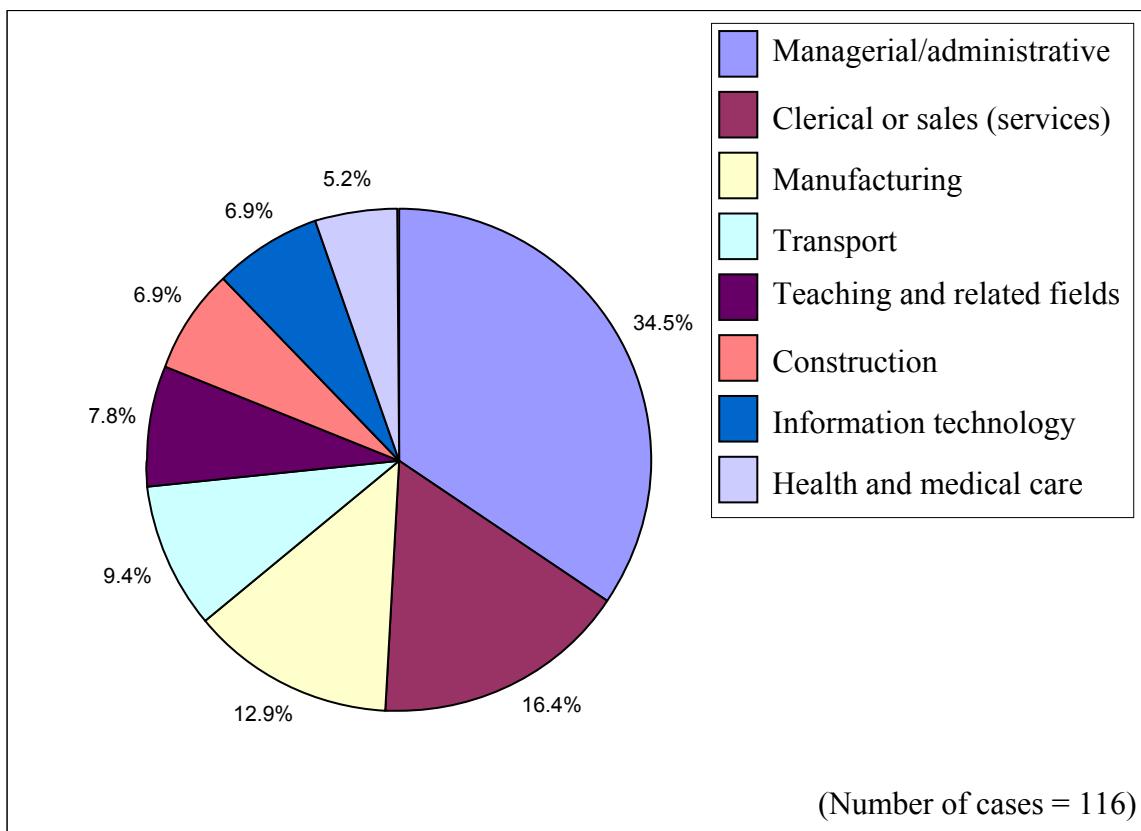


Figure 4.42 Distribution of respondents according to occupations, 2008

The large proportions of respondents employed in the managerial, administrative, clerical and sales services could be associated with the rapid commercial and office park growth in Durbanville. In the next section the monthly income levels of the respondents are examined.

4.3.4.7 Monthly income levels

Figure 4.43 shows the distribution of monthly income. A preponderance of the respondents earn gross monthly incomes per household of between R5001 and R20 000 only a small percentage of respondents noted a gross monthly income of less than R5000. More than one third have gross monthly incomes of more than R20 000. Monthly income according to the 2001 census for the north-eastern suburbs (the study area) showed that the majority of residents (78%) earned a medium-sized income of between R1601 and R25 600 and 2.5% had income higher than R25 600. Although these income figures are not really comparable, the large proportion of respondents in the high-income bracket is meaningful as it implies that these GD residents earn more than the average high-income resident of the north-eastern suburbs (the study area).

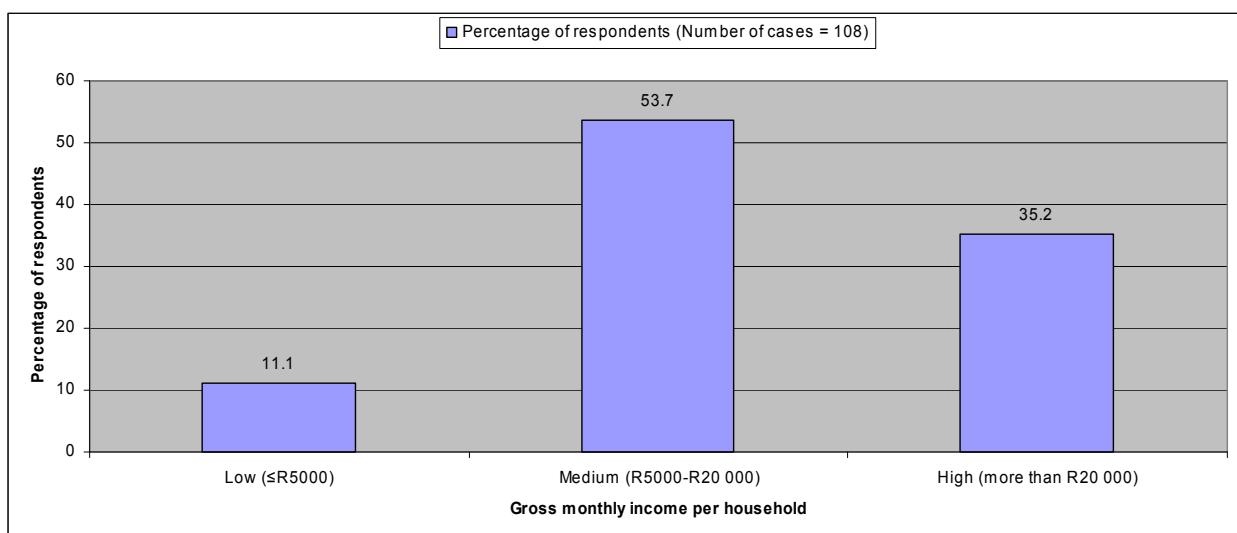


Figure 4.43 Distribution of gross monthly income¹¹, 2008

It is clear that this study's respondents earn more than the average non-gated residents and, similar to GDs in Canadian cities, these GDs cater more to middle- and high-income residents (Grant 2005b). The following sub-section focuses on motor vehicle ownership of the respondents as part of the analysis of their financial status.

4.3.4.8 Motor vehicle ownership

The number of motor vehicles owned by a household is a reliable indicator for financial status of a household. Figure 4.44 illustrates the distribution of the number of motor vehicles owned and made regular use of by the respondents. More than half of the respondents indicated that their household owned and had regular use of one private motor vehicle. This is somewhat surprising because the average size of the respondents' households was two persons and, as Figure 4.41

¹¹ The specific income categories were selected because it is believed that these categories best represent the different income groups located in the study area.

shows, more than 40% of the respondents are employed outside the home on a full-time basis. One would expect more households owning or using two private vehicles.

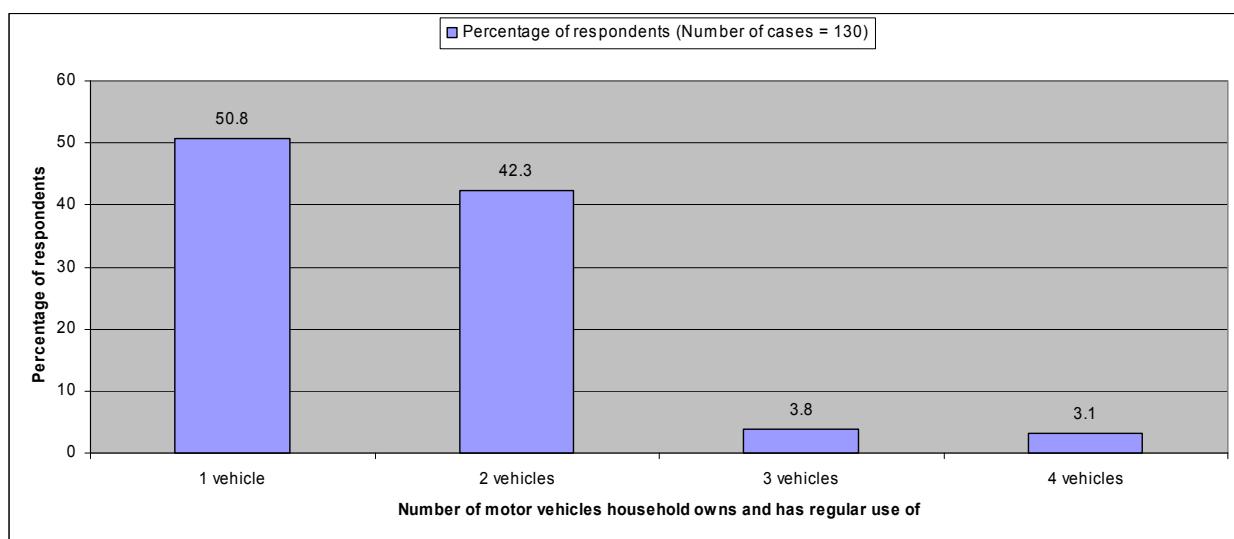


Figure 4.44 Distribution of respondents' motor vehicles owned and regularly used by their households, 2008

A reason for this unexpected result is possibly the large percentage of retired respondents (43%) who own and use only one motor vehicle. The high percentage (42%) of respondents owning and using two private motor vehicles can be related to the large percentage (43%) of respondents who are employed outside the home on a full-time basis. Only about 7% of the respondents reported owning and regularly using more than three private motor vehicles per household. More than 90% of the respondents noted that they use private transport for their journeys to shopping-, entertainment- and workplaces. Given the high dependence on private transport one would expect the surveyed GD residents to contribute negatively towards the existing traffic problem in the area (the north-eastern suburbs), but this is apparently not the case possibly due to the large percentage (43%) of retired respondents who only use one motor vehicle per household.

Although the sample used in the questionnaire survey is biased towards Durbanville and therefore not very representative of all the GD residents in the study area, the findings about respondents' demographic and socio-economic characteristics do allow one to create an average profile of the "typical" resident of the GDs in the study area (north-eastern suburbs). This can be done because of the homogeneous nature of this type of development (Vesselinov, Cazessus & Falk 2007). Figure 4.45 is a profile of the average head of a GD household that emerges from the study. The resident can be male or female, aged 40 to 54 and possessing a tertiary qualification. He/ She is married, owns two private motor vehicles, and is employed outside the home on a full-time basis in a managerial or administrative field with a total household income between R5001 and R20 000 per month. He/ She owns the unit his/ her household resides in and was mainly motivated by a desire for increased safety and security to move into the GD where his/

her household has lived for the last four years and is not planning to leave in the foreseeable future. The resident does not feel a strong sense of community with the other inhabitants of his/her GD. Given the predominance of Durbanville GD residents in the survey sample, the profile is dominated by their features.

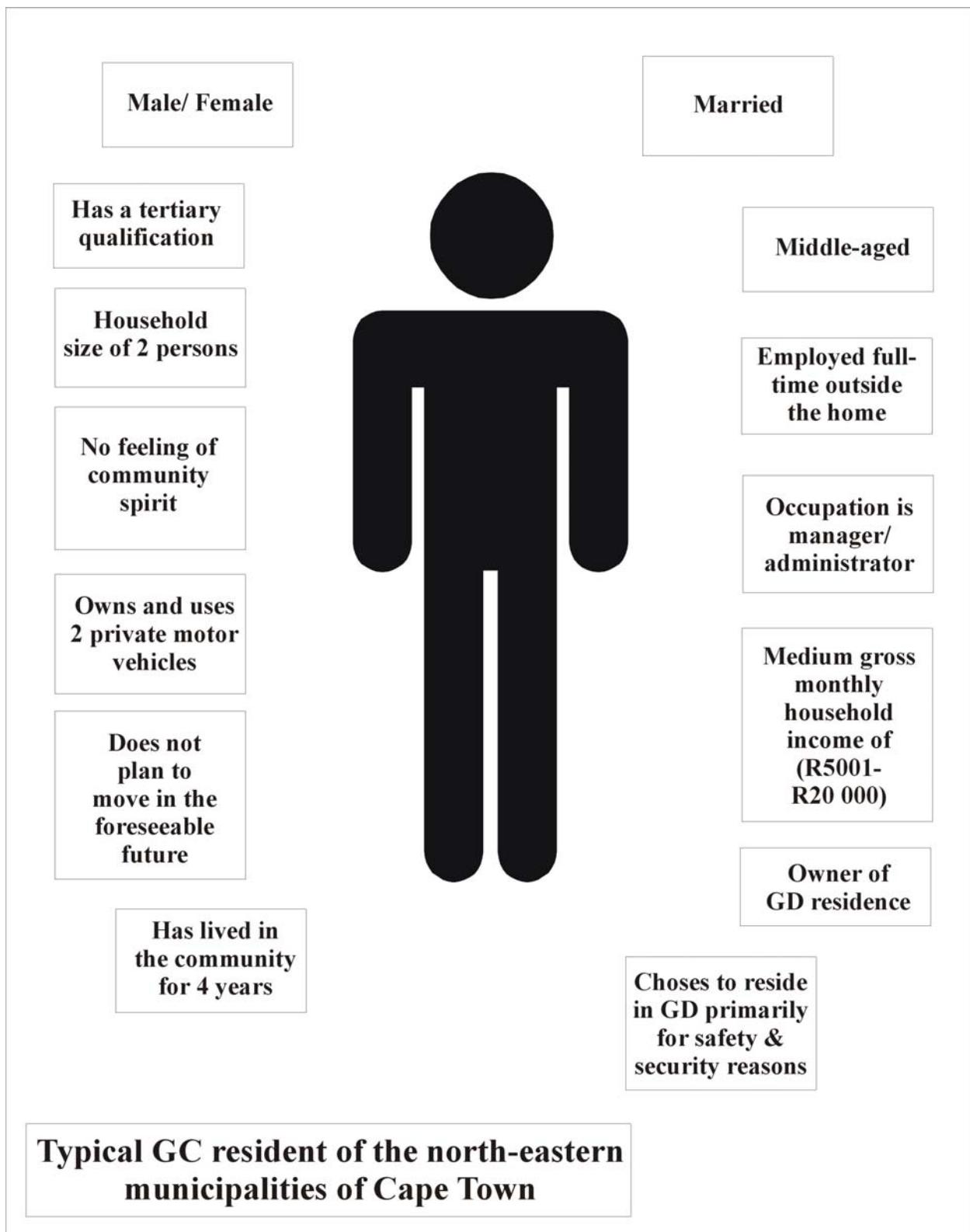


Figure 4.45 Profile of a typical GD resident in the study area

This chapter has examined and mapped the spatial distribution of the GDs in the study area, recorded and analysed the growth of the gating phenomenon as well as depicted the clustering of the GDs in the study area. The physical characteristics of these developments were also investigated and noted in the chapter. The chapter has not only focused on the spatial and physical aspects of the gating phenomenon but also on the socio-economic and demographic features of the residents of these developments, provided a profile of a typical GD resident and has also mapped and analysed the daily activity spaces of these individuals. In summary the chapter has, in combination with chapter two, addressed all the objectives of this study.

The final chapter summarizes the salient findings of the spatial investigation, the survey of the GDs' and the questionnaire survey and also discusses the findings in terms of the six key GD concepts mentioned in Chapter two. This is followed by an examination of the results as they relate to the GD models and theories also presented in Chapter three. Finally, the chapter gauges the significance of the findings for understanding the gating phenomenon in terms of post-apartheid cities in South Africa.

CHAPTER 5: CLOSING THE GATES: CONCLUSION

Chapter four reported on the findings of the spatial and physical investigation of the GDs as well as the socio-economic and demographic profiles of their residents. Chapter five continues by highlighting and discussing the important findings from these three investigations. Specific conclusions are drawn and these are examined in terms of key GD concepts, models and theories used in the study of the gating phenomenon. Finally the chapter concludes with a discussion on the relevance of GDs in our post-apartheid cities.

5.1 REVISITING THE AIM AND OBJECTIVES

The overarching aim of this study is to gain better insight into the social and spatial manifestation of GDs as an current international phenomenon and more specifically in the north-eastern suburbs of Cape Town. The study attempted to answer a number of questions related to the gating phenomenon as it manifests in the north-eastern suburbs of Cape Town. These questions dealt with the spatial location, growth and physical characteristics of these GDs, the socio-economic and demographic features of the residents of these communities as well as their daily activity spaces. The following objectives were effectively realized so as to attain the aim noted above, namely

- the spatial patterns of the GDs were mapped in the study area up to 2005;
- the growth of the GDs in the study area were analysed and recorded;
- the clustering of the GDs in the study area were ascertained;
- the common physical characteristics of these developments were determined;
- the daily activity spaces of the residents of these GDs were uncovered and mapped; and
- the demographic and socio-economic profiles of the residents of these communities was established.

The salient findings of the study are summarized next.

5.2 SUMMARY OF SALIENT FINDINGS

This section first records the salient findings about the spatial location, concentration and growth of GDs in the study area. The findings about the physical characteristics of the surveyed GDs are

then recounted and finally the demographic and socio-economic characteristics of the residents of the surveyed communities are outlined.

5.2.1 The spatial investigation of the gated developments

The spatial investigation found that slightly more than half of the GDs in the study area were located in the affluent Durbanville suburban area. The quite prosperous Bellville and Brackenfell suburban areas accounted for 24% and 9% of all the GDs respectively. The remaining 15% of the GDs were located in the less well off Kraaifontein, Kuilsriver and Parow suburbs and the Section 8 areas. This distribution confirms the tendency of GDs to concentrate in more affluent areas also noted by Grant (2005b) and Thuillier (2005). The spatial investigation also found that 44% of the GDs were located within 1km of the urban edge and 30% within 500m. Le Goix (2005) found that concentrations of GDs close to the urban edge in Southern California contributed towards urban sprawl by attracting more developments towards and beyond this edge. With GD concentrations close to the urban edge in the study area there is a possibility that these concentrations could also attract new developments and in so doing drive development beyond the urban edge contributing to urban sprawl.

The GD concentrations occur in five main clusters. The largest is located in Durbanville on the border between the Durbanville and Kraaifontein suburbs. The cluster contains 51 GDs within a radius of 1.5km and covers an area of 135ha with each GD averaging 2.6ha. The availability of land and the rapid growing commercial and office parks in the Durbanville suburban area help to explain the concentration of GDs in this cluster. It is expected that GD growth in Durbanville will expand to the south and north-east of this major cluster. The large size of GDs in this cluster negatively impact the city form by blocking access to large sections of the neighbourhood for non GD residents increasing travel time and reducing the efficiency of the neighbourhood.

Examination of the spatial growth of the GDs found that prior to 1998 GDs were spread quite evenly throughout the study area, but that after 2001 GDs tended to concentrate forming the clusters noted above. Nearly 70 new GDs were built between 1998 and 2001 representing a 71% growth and between 2001 and 2005 80 new GDs appeared in the study area signifying 48% growth. GDs grew by 154% between 1998 and 2005. This growth in GD numbers foreshadow increased urban fragmentation and sprawl in the study area.

5.2.2 The physical survey of the gated developments

It was found that GDs in the study area revealed that GDs with townhouses and semi-detached houses were more prevalent in wealthy suburbs, while GDs with blocks of flats were concentrated in the less affluent suburbs. Three quarters of the GDs with lower densities were

located in the affluent suburbs of Durbanville and Brackenfell, whereas GDs with higher densities concentrated in the less prosperous suburbs of Kraaifontein, Kuilsriver and Parow. Section 8 areas contained the remaining low-density GDs. Overall the GDs have medium to high densities with uniform types of architecture creating an impression of compactness and uniformity with little diversity in the built environment of these developments. This lack of diversity in the GD units' built-forms creates an unvarying urban environment which is undesirable according to town planners (Stander 2008, pers com).

The majority of the surveyed GDs used unguarded electronically-operated gates and nearly 60% had high perimeter walls with electrified top sections. Sixty per cent of the GDs' perimeter walls had zero permeability contradicting the City of Cape Town's GD policy's specification of visually permeable perimeter walls constructed around GDs (City of Cape Town 2007b). Nearly 80% of the GDs contained housing units employing some form of target hardening ranging from burglar bars, walls, alarm systems or a combination of these. Clearly, security is an important feature for most of the residents of the surveyed GDs.

In sum the physical characteristics of the GDs examined in the study area give an impression of relatively compact and uniform developments with visually impermeable perimeters with remote-controlled electronic gates or booms, in essence enclaves separated from their neighbourhoods and contributing toward urban segregation.

5.2.3 The questionnaire survey of the gated-development residents

Information about the demographic and socio-economic characteristics of 132 residents in 26 GDs in the study area was obtained by the questionnaire survey which examined the residential background of the respondents, their external links, their attitudes towards their communities' governing bodies and their demographic and socio-economic features.

A profile of a typical GD resident was derived from the residential background, demographic and socio-economic information. Such a resident (male/ female) is married, owns two private motor vehicles, and is employed outside the home on a full-time basis in a managerial or administrative field with a total household income between R5001 and R20 000 per month. He/ She owns the unit his/ her household resides in and was mainly motivated by a desire for increased safety and security to move into the GD where his/ her household has lived for the last four years and is not planning to leave in the foreseeable future. The resident does not feel a strong sense of community with the other inhabitants of his/ her GD.

The GD residents' daily activity spaces showed that regular travel to work was generally concentrated in the same suburb in which the GD is located. The Durbanville suburban area was

most often identified as a work destination followed by Cape Town central, Bellville and Brackenfell. Excluding the respondents who travel to workplaces in Cape Town central, only 13% of the respondents travel to workplaces outside the study area. Nearly 60% of the respondents travel short (between 1km and less than 4km) distances to do their regular grocery shopping. A preponderance of respondents travel medium (between 4km and less than 10km) distances for their entertainment needs. Half of the middle-aged respondents were more willing to travel more than 10km for entertainment needs than either the elderly or young adult respondents. Forty-eight per cent of the respondents never use the public parks in their neighbourhoods and more than 90% used private motor vehicles for their work, shopping and entertainment travel. These results accord with the findings of Giglia (s.a.) in that the surveyed GD residents generally concentrated their regular work and shopping trips to a small radius around their communities, but were willing to travel further for their entertainment needs. The large percentage of respondents who never visit their neighbouring public parks indicates the separation between these GD residents and their neighbourhoods and supports the view of these GDs as bases from which residents travel to work, shopping and entertainment destinations. This bears out the territories, objectives and corridors concept of Atkinson & Flint (2004).

The analysis of the respondents' views of and interaction with their communities' governing body revealed a high level of involvement, possibly due to the large percentage of respondents who are owners of their housing units. It also showed that the respondents were hardly involved in neighbourhood-level associations with only 15% having any involvement in such associations and indicating the social separation of these respondents from their neighbourhoods. Most respondents felt that maintenance of the complex's grounds and the general administration and arbitration of conflicts between residents were the focus of the governing bodies. Some forty per cent felt that the bodies had a strong influence on their lives.

5.3 FINDINGS ASSOCIATED TO THE KEY GATED-DEVELOPMENT CONCEPTS

The six key concepts on which the findings shed light are urban segregation and fragmentation, social exclusion, a sense of community, safety and security, urban planning and management, and financial benefit. Each concept is discussed in turn in this section.

5.3.1 Urban segregation and fragmentation

Landman (2000b) has noted that GDs are by nature physically separated from the surrounding urban fabric and that by restricting access to residents only they create closed pockets which result in a coarse urban residential fabric. The GDs in the study area contribute to urban fragmentation and separation by concentrating in clusters. These clusters contain large

concentrations of GDs adversely affecting city form and function and contributing to urban fragmentation and segregation. The congregation of GDs close to the urban edge advance urban sprawl. The GDs in the study area add to urban segregation and fragmentation by being fortified by high perimeter walls with electrified top sections that are visually impermeable, along with their unguarded electronic gates clearly separating these developments from their neighbourhoods. By acting as fortified bases (territories) from which residents can travel along main roads (corridors) to their destinations (objectives) avoiding unplanned social contact with other individuals these GDs contributes to urban segregation and corroborates Atkinson & Flints' (2004) territories, objectives and corridors concept.

These findings provide evidence of the location and concentration of the GDs and the interactions of the GD residents contributing toward urban segregation and fragmentation in the study area.

5.3.2 Gated developments and social exclusion

Social exclusion is of particular concern in South African with its apartheid legacy of a racially-divided society. Although no data was gathered about the race of the GD residents the fact of these developments being concentrated in affluent and mainly white suburbs, such as Durbanville, Bellville and Brackenfell and the respondents having relatively high income levels imply that a large proportion of the city's population would be unable to afford to reside in the GDs. This signals social exclusion. The use, by these GDs, of extreme security measures tends to exclude the average passerby which amounts to increased social exclusion in the study area.

5.3.3 Sense of community and gated developments

Blakely & Snyder (1997) contend that residents of GDs develop a sense of shared identity and security which in turn promotes a strong sense of community and Manzi & Smith-Bowers (2005) hold that GDs increase social cohesion among residents by involving them in the management process of their GDs. This study found that respondents did not feel a strong sense of community spirit although most of the residents were involved in the governing and management of their communities. Landman (2000a) notes that lack of community cohesion could lead to increased conflict in GDs which could be detrimental to urban democracy in general.

5.3.4 Safety and security features

Fear of crime and the need for safety and security have been noted as primary forces behind the rapid spread of GDs, but there are diverse opinions on whether GDs do in fact reduce crime (Blakely & Snyder 1997; Landman 2000a; Low 2003). This need for safety and security is the

main motivation for the study's respondents' selecting to reside in the surveyed GDs. This implies that the perceived need for safety and security is one of the main driving forces behind the growth of GDs in the study area. The high percentage of surveyed GDs (78%) with homes taking additional security measures indicates that the GD residents do not feel completely safe, even behind the gates of their complexes.

Gates and walls present obstacles to criminals, encouraging them to rather focus on the communities without such security measures, thereby displacing crime (Blakely & Snyder 1997; Landman 2000b; Gooblar 2002; Atkinson, Blandy & Lister 2005). The survey found that most of the surveyed GDs used high perimeter walls with zero visual permeability: this lack of visual surveillance could lead to an increase and displacement of crime in and around the GDs.

The growth of GDs in the study area is directly related to the perceived need for the safety and security of the residents of these communities. The use of extra security measures implies that the residents do not believe that the gates of their communities keep them safe and stop all crime. The GDs could increase crime by reducing passive surveillance, through employing zero visually permeable perimeters, and this could have a detrimental effect on the neighbourhoods around these communities.

5.3.5 Urban planning and management

Landman (2000a) argues that the privatisation of public land through the development of GDs could have far-reaching effects, such as increasing the social divisions and encouraging conflict between residents and local government which could lead to HOAs' replacing the functions of local governments. The research did not explicitly investigate the effect of these governing bodies on local governments but the survey did establish that 40% of the respondents felt that their governing bodies had a strong influence on their everyday life. The main functions of these governing bodies were reported to be the upkeep of the complexes' grounds and the general maintenance and arbitration of conflicts among residents. The governing bodies of the surveyed GDs are too small to impact or intrude on the traditional role of local government in the study area.

5.3.6 Financial benefits of gated developments

A major motivational factor for residing in GDs is the perceived increase in property values in these communities (Blakely & Snyder 1997; Landman 2000b). Landman (2000b) distinguishes two schools of thought on the influence of GDs on property values: one contends that GDs increase property values while the other holds that GDs neither increase nor maintain these values. The survey showed that only 8% of the respondents felt that resale value was a

motivation for residing in their GD. This finding is echoed by the small proportion (18%) of respondents who felt that the protection of their property investment was the main function of their community's governing body. These results seem to indicate that the mere fact of being in a GD does not increase a property's value. Next the findings as they relate to models and theories of GDs are discussed.

5.4 FINDINGS RELATED TO THE MODELS AND THEORIES OF GATED DEVELOPMENTS

The study of the gating phenomenon attracts the attention of various disciplines - economics, geography, psychology and sociology to name a few – and this has led to the setting up of a number of theories and models attempting to understand the phenomenon and its effects and possible future impacts. This section examines the research results as they relate to postmodern urbanism, club-goods theory, middle-range theory and the DPSIR model.

5.4.1 Postmodern urbanism

Postmodern urbanism views GDs as an attempt to recreate secure and peaceful spaces, having a distinctive identity and style, all with the purpose of ensuring a specific lifestyle and providing social and economic control (Landman 2002a). This study revealed that the developments have uniform types of architecture and style for the homes in the communities, clearly an attempt to create communities with distinctive identities and styles. Almost eighty per cent of the homes and units in the surveyed GDs employed some form of target hardening, ninety per cent used electronically-operated gates and more than half had perimeters with electrified top sections, all clearly testifying to attempts by the residents to create safe and secure communities. Overall these findings attest to the surveyed GDs being good examples of postmodern urban thought in that they are the products of attempts to ensure a specific lifestyle as well as providing social and economic control through the creation of safe, secure and distinctive spaces. It must be highlighted that although the surveyed GDs are effective examples of postmodern urban thought the similarity of the architectural styles of these GDs' housing units does seem to contradict the perceived alignment with postmodernism.

5.4.2 Club-goods theory

The club-goods theory examines GDs in economic terms as club-goods, or goods which have exclusive benefits but are allocated through groups, because while there is sharing of benefits (which is the definition of a public good) there is also exclusivity of benefits (the definition of a private good) (Manzi & Smith-Bowers 2005). This duality led to the concept of club economics

being applied to GDs (Manzi & Smith-Bowers 2005). Manzi & Smith-Bowers (2005) note that the growth of this phenomenon is due to the rights and obligations associated with this desired and scarce good (the GD) being priced competitively for more households. Although it was found that most (85%) of the GDs were located in the more affluent suburbs of Durbanville, Bellville and Brackenfell, a significant proportion (15%) were located in the less affluent suburbs of Kraaifontein, Kuilsriver and Parow as well as the Section 8 areas. This seems to indicate that these developments are being priced more competitively and are thus available to more residents in the less affluent suburbs. The finding that the majority of the GDs with higher-density units, or blocks of flats, were concentrated in the suburbs with greater proportions of lower income households like Kraaifontein, Kuilsriver and Parow further endorses the notion that these neighbourhood developments are being designed and priced more competitively in order to be attractive to a larger portion of the housing market. Evidently, the results of the study confirm the idea noted in club-goods theory that the growth of this type of development is due to their competitive pricing.

5.4.3 Middle-range theory

Middle-range theory examines GDs as a nexus of social and spatial relations in the context of urban inequality. Vesselinov, Cazessus & Falk (2007) used Tickamyer's (2000) sociological framework for incorporating space in the study of inequality and found that GDs added a new layer of spatial separation to the urban environment. They also pointed out that the combination of interests and actions of local government, real estate developers, the media and consumers combined to create structural conditions for the future proliferation of GDs in American cities. The present study showed that the GDs tended to concentrate in specific clusters, the largest containing 51 GDs within a 1.5km radius. These clusters increase spatial separation in the urban environment. Accelerated growth of the gating phenomenon in the study area was evident with 80 new GDs being developed between 2001 and 2005. This could signal that structural conditions similar to those which Vesselinov, Cazessus & Falk (2007) identified as ensuring the proliferation of GDs in American cities, are also present in the study area and will generate the burgeoning of GDs there too.

5.4.4 The DPSIR model

According to the DPSIR model, human activities and external forces, or drivers, are seen to produce pressures that can induce changes or impacts on the condition of the biophysical and socio-economic environments and thus on the state of human settlements (Landman 2007). Society responds to these changes in pressures with policies and programmes designed to

prevent, reduce or mitigate the pressures and their impacts on the biophysical and socio-economic environment (Landman 2007). In her application of this model to the gating phenomenon in South Africa Landman (2007) found that GDs are not conducive to greater sustainability in post-apartheid cities. This study confirms Landman's conclusion by calling attention to the contribution that the spatial location and growth of the gating phenomenon in this study area makes in intensifying urban sprawl and spatial segregation. Recall that 44% of the GDs were located in 1km of the urban edge and 30% within 500m. Moreover the concentration of the GDs in definite clusters contributes to spatial segregation in the study area.

This section has shown how the results of the spatial and physical surveys and the analyses of the socio-economic and demographic profiles of the residents and their daily activity spaces relate to theoretical interpretations of the GD phenomenon. This chapter ends with some conclusions about the impacts of the gating phenomenon in South Africa on our post-apartheid cities.

5.5 CONCLUSION

Post-apartheid cities are distinctive due to the effects of the political and social histories of South Africa. Landman (2008) notes that our post-apartheid cities are marked by fragmentation, spatial dislocation, separation, mono-functional zoning and by low-density suburban sprawl. It is therefore no wonder that one of the key challenges facing post-apartheid cities is to overcome the fragmentation of politics and space (Mabin 2005). As a result, much of post-apartheid planning has been aimed at integrating South African cities, spatially as well as socially (Landman 2000d).

The results of this study shed light on the effects that GDs have on the post-apartheid city of Cape Town. Most important, the GDs in the north-eastern suburbs of Cape Town are contributing to urban sprawl, urban fragmentation, social exclusion and separation. These GDs are manifestly unconducive to the post-apartheid aims of fostering integrated and sustainable cities. One must agree with Landman (2007) that GDs negatively affect the aims of integration and sustainability in our cities, including Cape Town.

Given that these developments so adversely affect the basic aims of post-apartheid planning, their rapid growth in the study area must be of grave concern to urban planners and political leaders. Fortunately, the authorities in Cape Town have designed and implemented policies to mitigate the effects of these developments (City of Cape Town 2007b). But unfortunately, from the author's observations in the study area it appears that these policies are ineffective in stemming the rapid growth and concentration of GDs there. Although GDs appear to be a logical residential choice on the grounds of safety and security, one must concur with Landman (2007)

that on a large citywide scale these developments will have serious impacts on city form and function in the future.

This research aimed to provide an in-depth look at the gating phenomenon as it manifests in the north-eastern suburbs of Cape Town. By focusing the investigation on the spatial and physical features of the GDs as well as the demographic and socio-economic profiles of their residents the study achieved its aim of providing an in-depth look at the manifestation of this phenomenon in the study area. The conclusion that can most readily be drawn from this study is that GDs adversely affect the integration and sustainability of our cities, including Cape Town. Although structural conditions seem to be aligned in such a way as to ensure the proliferation of GDs throughout our cities the clustering of these developments must be proscribed to moderate the adverse affects of these developments.

The inclusion of a larger sample upon which to base the socio-economic and demographic profiles of GD residents as well as the use of more recent aerial photography would all enhance future studies of the gating phenomenon. A thorough analysis of travel patterns and traffic volumes in neighbourhoods with large clusters of GDs would also be of value to researchers investigating this phenomenon and its affects on urban segregation and fragmentation.

In conclusion it seems clear that although GDs offer the illusion of security and safety to some, they adversely affect both social and spatial integration of our cities crystallizing the difference between the rich and the poor, making our cities even less safe. Clearly these developments are not conducive to the long-term sustainability of our post-apartheid cities.

Two limitations which may negatively influence the results need to be pointed out at this point. The first is the sample's small coverage of the GDs by the questionnaire survey. As already indicated only $\pm 5\%$ of the estimated number of GD units in the sample were surveyed and no GDs from either the Parow or Kraaifontein suburbs were surveyed. This lack of coverage limits the representativeness of the sample of all the residents of GDs in the study area. At least, the largest clusters of GDs are well presented in the sample. Hopefully, the results of the survey do contribute toward a better understanding of the socio-economic and demographic features of some of the GD residents and their links to the surrounding area.

The second restriction is the age of the aerial photos used. The aerial photos used only allow for the identification of the location of GDs existing in 2005. Aerial photos for 2007 were obtained but because they did not cover the whole study area they were not used. This means that the most recent spatial patterns of this phenomenon which could be analysed are for 2005 making the spatial analysis of the GD phenomenon somewhat dated. Nevertheless, it is believed that the

spatial trends identified by the analysis of the dated spatial data do provide a good indication of the future growth of this phenomenon in the study area.

REFERENCES

- ArcMap 2008. *ArcMap* 9.2. ESRI®. [Online Help]. Online Available: <http://www.esri.com>.
- Atkinson R & Blandy S 2005. Introduction: International perspectives on the new enclavism and the rise of Gated Developments. *Housing Studies* 20, 2: 177-186.
- Atkinson R & Flint J 2004. Fortress UK?: Gated Developments, the spatial revolt of the elites and time-space trajectories of segregation. *Housing Studies* 19, 6: 875-892.
- Atkinson R, Blandy S, Flint J & Lister D 2005. Gated cities of today?: Barricaded residential development in England. *The Town Planning Review* 76, 4: 401-422.
- Ballard R 2005. Bunkers for the psyche: How Gated Developments have allowed the privatisation of apartheid in democratic South Africa. *Dark Roast Occasional Paper Series* 24: 11-18.
- Bislev S 2004. Privatization of security as governance problem: Gated Developments in the San Diego Region. *Alternatives* 29: 599-618.
- Blakely EJ & Snyder MG 1997. *Fortress America: Gated Developments in the United States*. Washington DC: The Brookings Institution.
- Blandy S & Lister D 2005. Gated Developments: (Ne)gating community development? *Housing Studies* 20, 2: 287-301.
- Blandy S, Dixon J & Dupuis A 2006. Theorising power relationships in multi-owned residential developments: Unpacking the bundle of rights. *Urban Studies* 43, 13: 2365-2383.
- Canal Walk 2008. *Canal Walk Mall* [online]. Cape Town: Canal Walk Management. Available from <http://www.canalwalk.co.za> [Accessed 01 December 2008].
- Cape Gate 2008. *Cape Gate Shopping Precinct* [online]. Cape Town: Cape Gate Management. Available from <http://www.capecentre.co.za> [Accessed 01 December 2008].
- Cashin SD 2001. Privatized communities and the succession of the successful: Democracy and fairness beyond the gate. *Fordham Urban Law Journal* 28, 5: 1675-1693.
- Chen SCY & Webster CJ 2005. Homeowners' associations, collective action and the costs of private governance. *Housing Studies* 20, 2: 205-220.
- City of Cape Town 2007a. *Five year plan for Cape Town: Integrated Development Plan 2007/8 – 2011/12*. Cape Town: City of Cape Town.
- City of Cape Town 2007b. *Gated development policy Draft 2*. Cape Town: City of Cape Town.
- City of Cape Town 2008a. *City Statistics Latest* [online]. Cape Town: City of Cape Town. Available from <http://www.capetown.gov.za> [Accessed 06 July 2008].

- City of Cape Town 2008b. *City of Cape Town socio-economic profile report* [online]. Cape Town: City of Cape Town. Available from <http://www.capetown.gov.za> [Accessed 07 August 2008].
- City of Cape Town 2008c. *City of Cape Town: Census 2001* [online]. Cape Town: City of Cape Town. Available from <http://www.capetown.gov.za> [Accessed 07 August 2008].
- City of Cape Town 2008d. *Strategic Development Information and Geographic Information System Department* [online]. Cape Town: City of Cape Town. Available from http://www.capetown.gov.za/en/stats/pages/default.aspx#corp_gis [Accessed 07 August 2008].
- Douglas BS & Hsieh C 2001. Gated Developments and residential property values. *Appraisal Journal* 69, 2: 140-149.
- Fotheringham AS, Brunsdon C & Charlton M 2000. *Quantitative geography: Perspectives on spatial data analysis*. London: SAGE Publications Ltd.
- Genis S 2007. Producing elite localities: The rise of Gated Developments in Istanbul. *Urban Studies* 44, 4: 771-798.
- Gie J & Haskins C 2007. *Crime in Cape Town: 2001- 2006: A brief analysis of reported violent, property and drug-related crime in Cape Town*. Cape Town: City of Cape Town Strategic Information Branch.
- Giglia A s.a. Gated Developments in Mexico City. *Home Cultures* 5, 1: 65-84.
- Glasze G 2005. Some reflections on the economic and political organisation of private neighbourhoods. *Housing Studies* 20, 2: 221-233.
- Gooblar A 2002. Outside the walls: Urban Gated Developments and their regulation in the British planning system. *European Planning Studies* 10, 3: 321-334.
- Grant J 2005a. Planning responses to Gated Developments in Canada. *Housing Studies* 20, 2: 273-285.
- Grant J 2005b. The function of the gates: The social construction of security in gated development. *The Town Planning Review* 76, 3: 291-313.
- Grant J, Greene K & Maxwell K 2004. The planning and policy implications of Gated Developments. *Canadian Journal of Urban Research* 13, 1: 70-88.
- Irazábal C 2006. Localizing urban design traditions: Gated and edge cities in Curitiba. *Journal of Urban Design* 11, 1: 73-96.
- Kennedy DJ 1995. Residential associations as state actors: Regulating the impact of Gated Developments on nonmembers. *Yale Law Journal* 105, 3: 761-793.
- Kirby A, Harlan SL, Larsen L, Hackett EJ, Bolin B, Nelson A, Rex T & Wolf S 2006. Examining the significance of housing enclaves in the metropolitan United States of America. *Housing Theory and Society* 23, 1: 19-33.

- Landman K 2000a. Gated Developments and urban sustainability: Taking a closer look at the future. Paper delivered at the second Southern African Conference on Sustainable Development in the Built Environment, Pretoria.
- Landman K 2000b. *Gated Developments: An international review*. Pretoria: BOUTEK Report.
- Landman K 2000c. *An overview of enclosed neighbourhoods in South Africa*. Pretoria: BOUTEK Report.
- Landman K 2000d. The urban future: Enclosed neighbourhoods? Paper delivered at the Urban Futures Conference, Johannesburg.
- Landman K 2002. Gated Developments in South Africa: Building bridges or barriers? Paper delivered at the International Conference on Private Urban Governance, Mainz.
- Landman K 2002b. Planning in the African context: Reconsidering current approaches to Gated Developments in South Africa. Paper delivered at the Planning Africa 2002: Regenerating Africa through planning Conference, Durban.
- Landman K 2002c. *Gated Developments in Brazil and South Africa: Comparative perspectives*. Pretoria: BOUTEK Report.
- Landman K 2003. Sustainable “urban village” concept: Mandate, matrix or myth? Paper (delivered) at the Conference on Management for Sustainable Building, Pretoria.
- Landman K 2004. *Gated Developments in South Africa: Comparison of four case studies in Gauteng*. Pretoria: BOUTEK Report.
- Landman K 2007. The storm that rocks the boat: The systemic impact of Gated Developments on urban sustainability. *Cybergeo* [online], 399. Available from: <http://www.cybergeo.eu/index10222.html> [Accessed 26 May 2008].
- Landman K 2008. *Gated Developments in SA* [online]. Pretoria: CSIR. Available from: <http://www.gatedcomsa.co.za/> [Accessed 26 May 2008].
- Lang RE & Danielsen KA 1997. Gated Developments in America: Walling out the world? *Housing Policy Debate* 8, 4: 867-899.
- Le Goix R 2005. Gated Developments: Sprawl and social segregation in Southern California. *Housing Studies* 20, 2: 323-343.
- Leisch H 2002. Gated Developments in Indonesia. *Cities* 19, 5: 341-350.
- Lemanski C 2006. Spaces of exclusivity or connection?: Linkages between a Gated Development and its poorer neighbour in a Cape Town master plan development. *Urban Studies* 43, 2: 397-420.
- Lemanski C, Landman K & Durlington M 2008. Divergent and similar experiences of ‘gating’ in South Africa: Johannesburg, Durban and Cape Town. *Urban Forum* 19: 133-158.
- Low S 2001. The edge and the center: Gated Developments and the discourse of urban fear. *American Anthropologist* 103, 1: 45-58.

- Low S 2003. *Behind the gates: Life, security, and the pursuit of happiness in fortress America.* New York: Routledge.
- Low S ca 2008. Incorporation and Gated Developments in the greater Metro-Los Angeles region as a model of privatization of residential communities. *Home Cultures* 5: 85-108.
- Mabin A 2005. Suburbanisation, segregation, and government of territorial transformation. *Transformation* 57: 41-63.
- Manzi T & Smith-Bowers B 2005. Gated Developments as club goods: Segregation or social cohesion? *Housing Studies* 20, 2: 345-359.
- McKenzie E 2005. Constructing the pomerium in Las Vegas: A case study of emerging trends in American Gated Developments. *Housing Studies* 20, 2: 187-203.
- Miao P 2003. Deserted streets in a jammed town: The Gated Development in Chinese cities and its solution. *Journal of Urban Design* 8, 1: 45-66.
- N1 City 2008. *N1 City Shopping Centre* [online]. Cape Town: N1 City Management. Available from <http://www.n1city.co.za> [Accessed 01 December 2008].
- Raputsoa P 2003. Planning implications for Johannesburg spatial development framework of proliferating Gated Developments. Johannesburg: University of the Witwatersrand, Faculty of Engineering and the Built Environment.
- Rehder A 2002. Theoretical framework of Gated Developments in South Africa. Masters research report. Stellenbosch: Stellenbosch University.
- Robins S 2002. At the limit of spatial governmentality: A message from the tip of Africa. *Third World Quarterly* 23, 4: 665-689.
- Roitman S 2005. Who segregates whom?: The analysis of a Gated Development in Mendoza, Argentina. *Housing Studies* 20, 2: 303-321.
- Sheskin IM 1985. *Survey research for geographers*. Washington DC: Association of American Geographers.
- South African Police Service 2008. *Crime in the RSA for the period April to March 2001/2002 to 2007/2008* [online]. s.l.: South African Police Service. Available from: http://www.saps.gov.za/statistics/reports/crimestats/2004/western_cape.htm [Accessed 15 October 2008].
- Stark A 1998. America, the gated?: Impact of Gated Developments in political life. *The Wilson Quarterly* 22, 1: 58-80.
- Taleb N 2005. Muslim identity and Gated Development development in Durban. Durban: University of KwaZulu-Natal.
- Thuillier G 2005. Gated Developments in the metropolitan area of Buenos Aires, Argentina: A challenge for town planning. *Housing Studies* 20, 2: 255-271.

- Tickamyer A 2000. Space matters!: Spatial inequality in future sociology. *Contemporary Sociology* 29, 6: 805-813.
- Tshehla B 2003. Barricaded in the suburbs: Private security via road closures. *SA Crime Quarterly* 6: 17-20.
- Tyger Valley 2008. *Tyger Valley Shopping Centre* [online]. Cape Town: Tyger Valley Management. Available from: <http://www.tygervalley.co.za> [Accessed 01 December 2008].
- van de Wetering 2000. Enclosed neighbourhoods in perspective. Bachelors research report. Pretoria: University of Pretoria.
- van der Walt S 2003. Fortress Boland: Gated Developments in Paarl. Honours research report. Stellenbosch: Stellenbosch University, Department of Geography and Environmental Studies.
- Vesselinov E, Cazessus M & Falk W 2007. Gated Developments and spatial inequality. *Journal of Urban Affairs* 29, 2: 109-127.
- Walters C 2005. Parke as ruimtelike, sosiaal-ekologiese bate in die Bellville munisipale gebied. Masters thesis. Stellenbosch: Stellenbosch University, Department of Geography and Environmental Studies.
- Willowbridge 2008. *Willowbridge* [online]. Cape Town: Willowbridge Management. Available from <http://www.willoebridge.co.za> [Accessed 01 December 2008].
- Wu F & Webber K 2004. The rise of “foreign Gated Developments” in Beijing: Between economic globalization and local institutions. *Cities* 21, 3: 203-213.
- Wu F 2005. Rediscovering the ‘gate’ under market transition: From work-unit compounds to commodity housing enclaves. *Housing Studies* 20, 2: 235-254.

PERSONAL COMMUNICATIONS

- Rost L 2008. Principal Town Planner Durbanville Suburb. Durbanville. Interview on 5 March 2008 about Gated Developments in Durbanville suburban area.
- Stander A 2008. Town Planner District C Suburbs. Kraaifontein. Interview on 14 March 2008 about Gated Developments in Brackenfell, Kraaifontein and Kuilsriver suburban areas.

APPENDIX A: CRIME NUMBERS FOR THE SPECIFIC SUBURBS

Crime for the Bellville Police Precinct in the Western Cape for the period April 2001/2002 to
2007/2008

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008
Murder	19	13	10	12	11	10	5
Attempted murder	24	35	38	25	17	17	30
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December							
Rape April to DECEMBER	34	33	37	28	32	25	28
Indecent Assault April to DECEMBER	13	19	14	22	22	22	15
Assault with the intent to inflict grievous bodily harm	126	155	164	139	137	158	132
Common assault	395	447	492	512	483	433	486
Common robbery	214	230	92	110	79	65	89
Robbery with aggravating circumstances	267	267	247	222	237	317	330
Carjacking (subcategory of aggravated robbery)	20	19	12	8	7	11	17
Truck hijacking (subcategory of aggravated robbery)	0	0	0	0	0	0	0
Robbery at residential premises (subcategory of aggravated robbery)	-	9	11	7	14	14	16
Robbery at business premises (subcategory of aggravated robbery)	-	0	4	2	2	24	36
Arson	5	6	6	7	3	6	7
Malicious damage to property	289	375	502	448	441	547	580
Burglary at residential premises	982	1,109	988	742	747	789	789
Burglary at business premises	407	422	384	288	269	444	375
Theft of motor vehicle and motorcycle	660	803	786	647	629	670	601
Theft out of or from motor vehicle	1,597	1,393	1,399	1,007	1,111	1,089	905
Stock-theft	0	0	0	0	0	0	0
Illegal possession of firearms and ammunition	20	17	10	14	11	17	25
Drug-related crime	58	106	122	131	188	220	268
Driving under the influence of alcohol or drugs	110	83	134	116	183	115	158
All theft not mentioned elsewhere	2,920	3,209	3,577	3,365	3,032	2,845	2,740
Commercial crime	518	517	666	463	512	472	713
Shoplifting	407	413	460	451	466	678	662
Culpable homicide	22	14	21	22	21	20	18
Kidnapping	9	5	7	4	4	2	6
Abduction	7	9	10	6	10	18	5
Neglect and ill-treatment of children	2	1	4	1	6	5	3
Public violence	0	5	0	3	4	5	1
Crimen injuria	110	132	151	158	135	81	80

Crime for the Brackenfell Police Precinct in the Western Cape for the period April to March 2001/2002 to
2007/2008

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008
Murder	5	6	3	9	17	12	7
Attempted murder	16	24	18	14	12	10	6
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December.							
Rape April to DECEMBER	11	17	14	17	12	15	13
Indecent Assault April to DECEMBER	7	9	7	9	11	9	9
Assault with the intent to inflict grievous bodily harm	78	80	72	78	73	74	65
Common assault	204	248	287	254	212	240	282
Common robbery	49	78	58	57	43	24	46
Robbery with aggravating circumstances	80	75	48	59	58	59	68
Carjacking (subcategory of aggravated robbery)	3	10	6	4	3	5	4
Truck hijacking (subcategory of aggravated robbery)	2	0	0	0	0	0	0
Robbery at residential premises (subcategory of aggravated robbery)	-	2	3	5	2	0	2
Robbery at business premises (subcategory of aggravated robbery)	-	1	9	10	6	0	7
Arson	5	4	2	3	1	2	1
Malicious damage to property	245	273	242	312	282	305	279
Burglary at residential premises	692	714	724	522	454	466	474
Burglary at business premises	233	253	179	208	176	148	158
Theft of motor vehicle and motorcycle	303	365	310	271	296	364	317
Theft out of or from motor vehicle	615	513	504	487	434	372	455
Stock-theft	2	3	2	1	1	0	2
Illegal possession of firearms and ammunition	6	2	5	4	9	10	13
Drug-related crime	15	16	22	25	36	39	61
Driving under the influence of alcohol or drugs	64	51	101	84	90	158	175
All theft not mentioned elsewhere	1,204	1,203	1,402	1,498	1,402	1,338	1,343
Commercial crime	144	206	198	205	226	146	203
Shoplifting	99	109	150	168	225	204	268
Culpable homicide	14	11	10	16	14	12	13
Kidnapping	1	2	0	3	0	0	0
Abduction	3	0	1	3	2	3	2
Neglect and ill-treatment of children	1	2	4	1	3	3	0
Public violence	0	0	0	5	2	2	0
Crimen injuria	53	37	57	67	66	53	68

Crime for the Durbanville Police Precinct in the Western Cape for the period April to March 2001/2002 to
2007/2008

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008
Murder	6	7	7	12	12	12	14
Attempted murder	28	31	24	6	4	5	8
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December							
Rape April to DECEMBER	15	16	16	24	26	20	24
Indecent Assault April to DECEMBER	6	7	5	11	6	9	10
Assault with the intent to inflict grievous bodily harm	74	68	126	168	151	133	123
Common assault	194	168	183	298	272	221	219
Common robbery	26	23	35	25	37	40	29
Robbery with aggravating circumstances	43	73	46	32	42	62	52
Carjacking (subcategory of aggravated robbery)	7	5	2	5	1	3	2
Truck hijacking (subcategory of aggravated robbery)	1	0	0	0	0	0	0
Robbery at residential premises (subcategory of aggravated robbery)	-	8	11	5	1	3	7
Robbery at business premises (subcategory of aggravated robbery)	-	0	0	0	0	0	3
Arson	6	3	4	0	4	2	2
Malicious damage to property	159	374	439	291	340	336	301
Burglary at residential premises	736	836	699	673	669	828	825
Burglary at business premises	115	154	78	51	62	90	85
Theft of motor vehicle and motorcycle	291	401	405	219	232	273	287
Theft out of or from motor vehicle	768	611	770	524	592	548	402
Stock-theft	28	11	28	10	9	9	7
Illegal possession of firearms and ammunition	6	8	4	2	4	8	8
Drug-related crime	33	18	32	116	152	215	258
Driving under the influence of alcohol or drugs	33	13	22	23	44	51	72
All theft not mentioned elsewhere	1,005	1,220	1,567	1,537	1,325	1,166	1,128
Commercial crime	71	97	108	82	74	108	159
Shoplifting	49	68	63	56	48	45	47
Culpable homicide	13	11	12	18	10	12	15
Kidnapping	3	0	0	2	0	0	0
Abduction	2	2	5	3	4	4	1
Neglect and ill-treatment of children	0	3	4	4	3	3	4
Public violence	0	0	2	3	4	2	0
Crimen injuria	38	43	50	71	53	31	36

Crime for the Kraaifontein Police Precinct in the Western Cape for the period April to March 2001/2002 to
2007/2008

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008
Murder	129	140	109	87	115	113	118
Attempted murder	115	128	109	78	73	85	89
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December							
Rape April to DECEMBER	148	118	101	121	137	131	127
Indecent Assault April to DECEMBER	37	72	50	52	63	61	43
Assault with the intent to inflict grievous bodily harm	1,021	1,068	989	897	730	650	457
Common assault	1,096	1,050	905	629	644	590	420
Common robbery	378	638	501	347	234	215	180
Robbery with aggravating circumstances	291	185	245	267	241	287	234
Carjacking (subcategory of aggravated robbery)	16	12	4	8	9	14	11
Truck hijacking (subcategory of aggravated robbery)	1	0	1	0	0	0	1
Robbery at residential premises (subcategory of aggravated robbery)	-	1	0	8	2	8	9
Robbery at business premises (subcategory of aggravated robbery)	-	2	0	1	3	3	13
Arson	26	24	14	11	17	21	6
Malicious damage to property	498	622	636	512	593	605	507
Burglary at residential premises	1,451	1,582	1,508	1,100	915	939	908
Burglary at business premises	161	162	59	74	84	84	97
Theft of motor vehicle and motorcycle	282	209	235	172	141	255	233
Theft out of or from motor vehicle	615	644	706	576	494	500	503
Stock-theft	25	6	16	5	3	8	10
Illegal possession of firearms and ammunition	44	38	35	54	46	52	59
Drug-related crime	152	77	245	337	568	641	726
Driving under the influence of alcohol or drugs	50	53	33	61	93	134	121
All theft not mentioned elsewhere	2,112	2,257	2,107	1,848	1,562	1,692	1,403
Commercial crime	78	56	72	60	53	65	75
Shoplifting	149	157	135	115	130	226	124
Culpable homicide	43	40	28	31	40	21	25
Kidnapping	7	9	13	4	5	2	2
Abduction	21	18	14	11	8	11	7
Neglect and ill-treatment of children	12	14	29	30	29	21	20
Public violence	2	5	4	11	5	23	7
Crimen injuria	156	154	189	131	113	72	44

Crime for the Kuilsrivier Police Precinct in the Western Cape for the period April to March 2001/2002 to
2007/2008

Kuilsrivier ceded Kleinvlei July 2004. Kuilsrivier ceded Mfuleni July 2005

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2006	April 2006 to March 2008	April 2008 to March 2007	April 2007 to March 2008
Murder	162	155	115	100	28	16	14
Attempted murder	171	301	212	104	26	10	14
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December							
Rape April to DECEMBER	267	234	255	204	91	52	45
Indecent Assault April to DECEMBER	102	104	136	69	43	24	16
Assault with the intent to inflict grievous bodily harm	1,735	1,511	1,618	1,318	413	238	223
Common assault	2,069	2,203	2,595	1,624	669	444	475
Common robbery	615	866	755	562	276	151	182
Robbery with aggravating circumstances	664	650	668	428	189	145	217
Carjacking (subcategory of aggravated robbery)	52	56	42	39	21	9	13
Truck hijacking (subcategory of aggravated robbery)	6	1	0	1	0	0	0
Robbery at residential premises (subcategory of aggravated robbery)	-	23	38	14	2	4	8
Robbery at business premises (subcategory of aggravated robbery)	-	7	2	1	2	2	10
Arson	55	49	64	44	13	6	3
Malicious damage to property	1,113	1,224	1,264	858	411	320	295
Burglary at residential premises	2,620	2,746	2,533	1,749	738	795	783
Burglary at business premises	510	376	286	211	83	109	156
Theft of motor vehicle and motorcycle	439	378	408	297	220	306	333
Theft out of or from motor vehicle	1,383	1,449	1,268	747	402	407	555
Stock-theft	8	4	15	11	7	9	5
Illegal possession of firearms and ammunition	63	95	81	87	38	27	20
Drug-related crime	223	197	508	557	271	279	359
Driving under the influence of alcohol or drugs	151	138	172	207	171	192	227
All theft not mentioned elsewhere	3,462	3,829	4,272	2,921	1,418	1,288	1,283
Commercial crime	192	207	187	172	83	75	103
Shoplifting	202	210	386	171	124	98	167
Culpable homicide	62	67	42	53	22	16	9
Kidnapping	20	15	20	15	4	5	2
Abduction	29	56	49	32	18	7	9
Neglect and ill-treatment of children	37	53	76	51	14	4	6
Public violence	7	10	17	18	5	4	1
Crimen injuria	311	327	398	197	99	61	70

Crime for the Parow Police Precinct in the Western Cape for the period April to March 2001/2002 to 2007/2008

Crime Category	April 2001 to March 2002	April 2002 to March 2003	April 2003 to March 2004	April 2004 to March 2006	April 2006 to March 2008	April 2008 to March 2007	April 2007 to March 2008
Murder	11	19	10	17	7	9	8
Attempted murder	36	29	33	15	10	9	11
Due to a changed definition of sexually-motivated crime resulting from the implementation of Act 32 of 2007 on 16 December 2007, rape and indecent assault figures are only provided for the period April to December							
Rape April to DECEMBER	18	27	46	41	30	30	27
Indecent Assault April to DECEMBER	26	18	27	29	24	19	25
Assault with the intent to inflict grievous bodily harm	79	95	140	132	71	52	78
Common assault	439	549	525	583	441	384	370
Common robbery	231	324	323	386	215	114	107
Robbery with aggravating circumstances	175	175	176	127	277	299	284
Carjacking (subcategory of aggravated robbery)	11	9	9	4	10	6	6
Truck hijacking (subcategory of aggravated robbery)	1	0	0	0	1	0	0
Robbery at residential premises (subcategory of aggravated robbery)	-	7	10	1	1	2	16
Robbery at business premises (subcategory of aggravated robbery)	-	1	0	0	1	1	12
Arson	8	4	10	5	5	3	4
Malicious damage to property	227	304	308	361	386	493	439
Burglary at residential premises	793	885	662	576	552	571	669
Burglary at business premises	297	381	271	170	201	276	320
Theft of motor vehicle and motorcycle	519	597	538	471	643	623	509
Theft out of or from motor vehicle	990	1,003	832	747	752	713	662
Stock-theft	1	0	1	0	0	0	0
Illegal possession of firearms and ammunition	8	14	15	4	15	24	22
Drug-related crime	32	49	53	100	161	256	365
Driving under the influence of alcohol or drugs	44	39	56	48	54	78	113
All theft not mentioned elsewhere	1,748	2,546	2,597	2,426	2,130	2,157	2,033
Commercial crime	259	242	246	242	197	209	343
Shoplifting	295	369	422	436	373	479	594
Culpable homicide	14	20	16	5	24	20	13
Kidnapping	14	7	8	7	6	4	2
Abduction	4	6	6	6	5	3	3
Neglect and ill-treatment of children	4	3	11	11	8	1	2
Public violence	1	0	1	4	3	4	0
Crimen injuria	137	135	143	166	115	100	111

Property crime numbers for the City of Cape Town were obtained by combining property crime numbers for all suburbs in the metropolitan area of the city for the period April to March 2001/2002 to 2007/2008.

APPENDIX B: FIELD SURVEY DOCUMENT

1. Name of GD:

2. Physical size of GD:

3. Road network in GD:

Closed = [] Open = [] Class of road =

4. Layout of GD:

Does GD back onto main road or access roads? = []

Is parking concentrated in one area in GD? = []

Does GD form one large super-block? = []

Is GD broken into smaller blocks with public roads between? = []

5. Security measures of GD:

Approximate height and permeability of walls:

Low walls (<2m) without spikes/barbed wire = []

Low walls (<2m) with spikes/barbed wire = []

High walls (>2m) without spikes/barbed wire = []

High walls (>2m) with spikes/barbed wire = []

High walls (>2m) and electrified top section = []

Permeability of walls? =

Number of vehicular access points? = []

Number of pedestrian access points? = []

Is there a guardhouse at entrance? = []

Type of access restriction:

Unguarded control gate, electronic operation = []

16-hour guarded control gate/boom & guardhouse = []

24-hour guarded control gate/boom & gatehouse = []

Number of access points into GD = []

Are these entrances monitored by CCTV? = []

6. Architectural style & housing types:

Indicate types of land-use taking place in GD:

Residential = []

Recreational = []

Movement = []

Commercial = []

Indicate the architectural style of development:

Traditional classic = []

Modern classic = []

Eclectic to modern = []

Postmodern = []

Italian = []

Mediterranean = []

APPENDIX C: COVERING LETTER USED IN QUESTIONNAIRE SURVEY



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

Vriendelike versoek vir die kontakbesonderhede van die voorsitter van die huiseienaarsvereniging

Ek is 'n student in die Departement Geologie, Geografie en Omgewingstudie aan Stellenbosch Universiteit, besig met 'n meesterstesis wat die rol van sekuriteitsoorde binne die noordoostelike munisipaliteite van Kaapstad ondersoek. Hierdie studie word onder leiding van dr SLA Ferreira, onderneem. Dit is baie belangrik dat ek in verbinding tree met die voorsitter van die huiseienaarsvereniging. Dus vra ek u om asseblief die voorsitter se kontakbesonderhede of te sms na **082 479 0027** of te epos na **lwelgemoed@gmail.com**.

Anonimitet en vertroulikheid word gewaarborg. Die informasie sal slegs vir akademiese doeleindes gebruik word en sal nie met enige ander instellings gedeel word nie.

Vir meer inligting, kontak mnr Louis Welgemoed by 082 479 0027 enige tyd of vir dr SLA Ferreira by (021) 808 3218 gedurende kantoorure.

Baie dankie

Louis Welgemoed

Friendly request for the contact details of the chairman of the homeowners' association

I am a student enrolled in the Department of Geology, Geography and Environmental Studies at University Stellenbosch. I am currently doing research for a masters thesis investigating the role of Gated Developments in the north-eastern suburbs of Cape Town, under the guidance of dr SLA Ferreira. I need to contact the chairman of the homeowners' association and would appreciate it if you could either send the contact details via sms to **082 479 0027** or email to **lwelgemoed@gmail.com**.

Anonymity and confidentiality is guaranteed. The information will be used for academic purposes only and will not be shared with any other institutions.

For more information feel free to contact either mr Louis Welgemoed at 082 479 0027 any time or dr SLA Ferreira at (021) 808 3218 during office hours.

Thank you

Louis Welgemoed

APPENDIX D: ENGLISH VERSION OF THE QUESTIONNAIRE



QUESTIONNAIRE ON THE SOCIO-ECONOMIC PROFILE OF GATED DEVELOPMENT RESIDENTS IN THE NORTH- EASTERN SUBURBS OF CAPE TOWN

2008/12/09

This questionnaire is part of masters degree research investigating the role of Gated Developments in the north-eastern suburbs of Cape Town. The study is being undertaken by a student enrolled in the Department of Geology, Geography and Environmental Studies at University Stellenbosch under the guidance of dr SLA Ferreira. The purpose of the questionnaire is to acquire information about the characteristics of gated-community residents in the northern suburbs of Cape Town. The head of the household is asked to answer the questionnaire.

Anonymity and confidentiality is guaranteed. The information will be used for academic purposes only and will not be shared with any other institutions. No individual's identity or address will appear in the final research report and all completed forms will be destroyed after the data have been captured.

For more information feel free to contact either mr Louis Welgemoed at 082 479 0027 any time or dr SLA Ferreira at (021) 808 3218 during office hours.

Please make a cross, or where indicated write a number, in the appropriate box. Where a written answer is required, write it on the dotted line.

Section A: Residential background

A.1. How long have you been living at your current address?

.....years Less than one year

A.2. Including your current residence, how many residences have you lived in during the past 10 years?

.....residences

A.3. Does your household plan to move to another residence in the foreseeable future?

No Yes

A.4. What type of dwelling do you presently live in?

- Single detached home (e.g. bungalow, split-level house, double-storied house)
- Attached dwelling (e.g. duplex, fourplex)
- Row housing (e.g. condominium)
- Apartment (less than five storeys)
- Apartment (more than five storeys)
- Other (specify).....

A.5. Do you currently?

- Rent your residence
- Own your residence ► If owned:
 - Clear title (no mortgage)
 - Outstanding mortgage

A.6. Have you ever been the victim of serious crime? (e.g. hijacking, burglary, assault, car theft)

- No
- Yes (specify year(s) and seriousness of the incident(s)).....

A.7. Why did you choose to reside at this security complex?

Most important reason:.....

Second-most important reason:.....

Third-most important reason:.....

A.8. Indicate the importance of the following factors that have caused you to settle here:

	Important	Neutral	Unimportant
Security			
Price			
Attractive environment			
Size of unit			
Resale value			
Good residential address			
Number of bedrooms			
Amenities in the complex			
Size of stand (erf)			
Affordable levy			
Space for children to play in the complex			
Accessibility to work			
Accessibility to schools			
Accessibility to shops			

Specify other factors not mentioned here or in question A7.
---	-------

A.9. Compared to the surrounding area, crime in your Gated Development is:

Less About the same More Don't know

A.10. How much do you agree or disagree with each of the following statements? Indicate with a cross (x) in one box in each line.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
a) I feel safe walking alone in my neighbourhood after dark.						
b) My neighbourhood is generally a very safe and secure place in which to live.						
c) I often fear for my personal safety if I am alone in my neighbourhood.						

A.11. How much do you agree or disagree with each of the following statements? Indicate with a cross (x) in one box in each line.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
a) The Gated Development I live in shows that I must have reached a certain level of financial success.						
b) Living in this Gated Development has increased my social status.						
c) It is obvious that residents of this Gated Development are about similar in age.						

A.12. How much do you agree or disagree with each of the following statements? Indicate with a cross (x) in one box on each line.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
a) I truly feel at home in this Gated Development.						
b) Living in this Gated Development gives me a sense of community.						
c) I feel loyal towards the people in my Gated Development.						
d) I don't really feel at home in this Gated Development.						
e) A feeling of fellowship runs deep between me and other people in my Gated Development.						

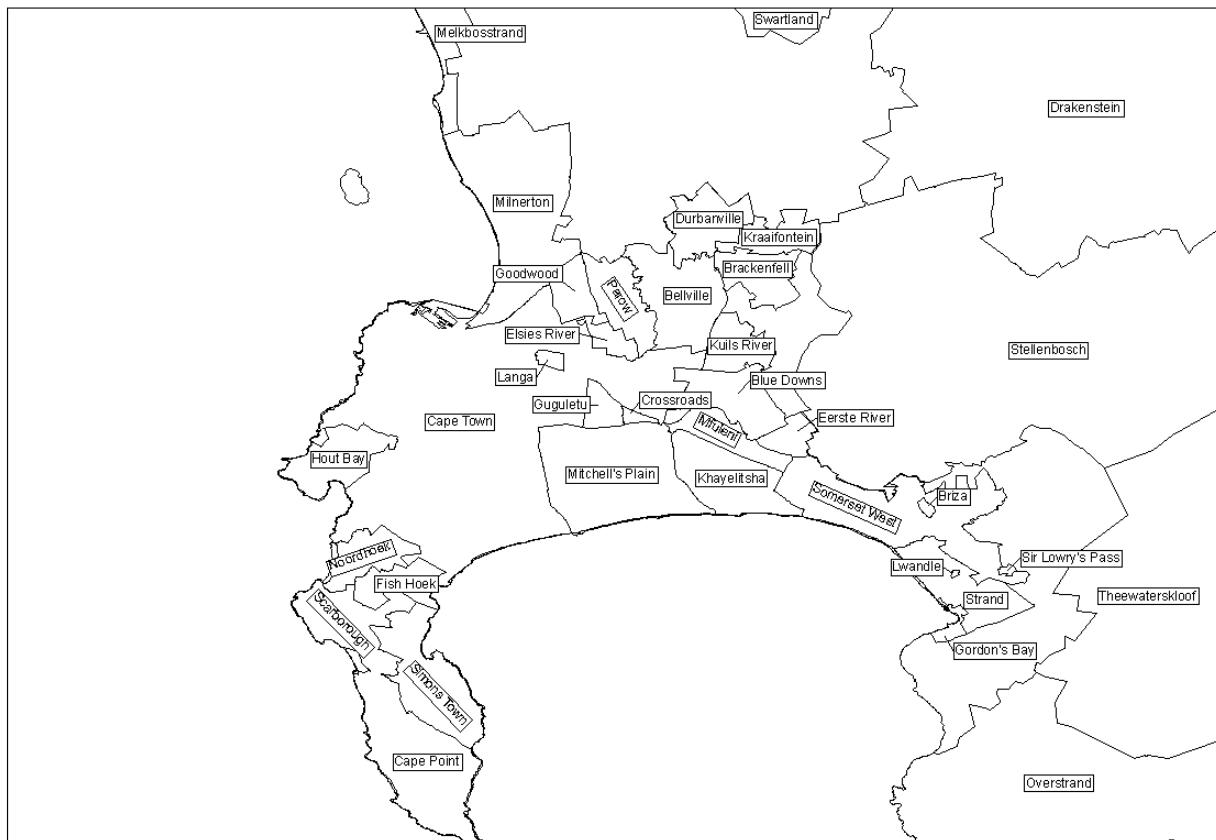
Section B: Links to the surrounding area

(If you are retired please skip this section (B))

B.1. How far do you usually travel to the workplace?

- Less than 5km 5 to 10km 11 to 20km 21 to 30km More than 30km

B.2. Examine the map below and indicate the suburban area where your place of work is located by writing the name of the appropriate suburban area in the space provided



Suburb:.....

If uncertain, write the street address of the workplace

.....
.....
.....

B.3. How do you usually travel to your place of work?

- Walk Public transport Own motor car/motorcycle Taxi Other
(specify).....

B.4. Do you or any members of your household make use of lift clubs to travel to work/school?

- No Yes

B.5. How far do you usually travel to do your grocery shopping?

- ½ to less than 1km 1 to less than 4km 4 to 10km More than 10km

B.6. Which of the following shopping centres do you often visit to buy groceries? (You may indicate more than one.)

- Tyger Valley Cape Gate Canal Walk Willow Bridge N1 City

- Other

(specify).....

B.7. How do you usually travel to these shopping centres to do your grocery shopping?

- Walk Public transport Own motor car/motorcycle Taxi Other
(specify).....

B.8. How far do you travel for most of your entertainment needs?

- ½ to less than 1km 1 to less than 4km 4 to 10km More than 10km

B.9. Which of the following shopping centres do you often visit for your entertainment and recreational needs?

- Tyger Valley Cape Gate Canal Walk Willow Bridge N1 City

- Other

(specify).....

B.10. How do you usually travel to these shopping centres for your entertainment needs?

- Walk Public transport Own motor car/motorcycle Taxi Other
(specify).....

B.11. How often do you or members of your household visit the public parks in your neighbourhood?

- Very often Often Occasionally Rarely Very Rarely Never

Section C: Organizational information

C.1. Mark which of the organizations listed below that you belong to and indicate how active you are in the organization. Write an x in the “Yes” or “No” membership column, and if your answer is “Yes” mark an x in the column on each line to indicate how active you are.

	No	Yes		Attend some meetings	Volunteer my time	Have been an elected officer
a) Homeowners' association, condominium association or club			If Yes ►			
b) Neighbourhood or community association			If Yes ►			
c) Other (specify):			If Yes ►			

C.2. What, according to you, is the most important function or role of the Gated Development's governing body (e.g. homeowners' association, body corporate, condominium association)

.....
....

C.3. What level of influence or control does the governing body of this Gated Development have over you?

- Very strong Strong Neutral Weak Very Weak None

Section D: Demographic information

D.1 What is your gender?

- Male Female

D.2. How many people live at your current residence?

How many of these persons are? (write the number of persons in each category in the appropriate block)

Males

- Younger than 14 years
 14 – 18 years old
 19 – 24 years old
 25 – 34 years old

Females

- Younger than 14 years
 14 – 18 years old
 19 – 24 years old
 25 – 34 years old

35 – 44 years old	<input type="checkbox"/>	35 – 44 years old	<input type="checkbox"/>
45 – 54 years old	<input type="checkbox"/>	45 – 54 years old	<input type="checkbox"/>
55 – 84 years old	<input type="checkbox"/>	55 – 84 years old	<input type="checkbox"/>
85 or more years old	<input type="checkbox"/>	85 or more years old	<input type="checkbox"/>

D.3. How old were you at your last birthday?

- Younger than 25 25-29 30-39 40-49 50-54 55-59 60-64
 65-69 70-74 75-79 80-84 85 or older

D.4. What is your marital status?

- Single (never married) Married Common-law relationship
 Divorced/separated Widow or widower

D.5. What is your highest level of education attained?

- Grade 10 or lower Grade 12 (Std 10/Matric) Diploma/Graduate degree
Postgraduate degree

D.6. Which one of the following categories best describes your current employment status?

Employed outside the home, full-time	Homemaker
Employed outside the home, part-time	Retired
Self-employed, full-time	Semi-retired
Self-employed, part-time	Student
Unemployed	Other (specify):

D.7. If you are employed outside the home, self-employed, or if you are now retired, which of the following occupational sectors best reflects your principal occupation (now or prior to retirement)?

Managerial/administrative	Manufacturing
Teaching and related fields	Construction
Health and medical care	Transport
Clerical or sales (services)	Information technology
Agriculture	Other (specify):

D.8. Indicate your **household's** total gross **monthly** income.

- No income R1-R5000 R5001-R10 000 R10 001-R15 000
 R15 001-R20 000 R20 001-R30 000 More than R30 000

D.9. How many private motor vehicles do your household/family own and make regular use of?

PLEASE GIVE THE COMPLETED QUESTIONNAIRE TO THE HEAD OF THE BODY CORPORATE.

THANK YOU VERY MUCH FOR YOUR KIND CO-OPERATION.

APPENDIX E: AFRIKAANS VERSION OF THE QUESTIONNAIRE



VRAEELYS OOR DIE SOSIO-EKONOMIESE PROFIEL VAN SEKURITEITSOORDINWONERS IN DIE NOORDOOSTELIKE VOORSTEDE VAN KAAPSTAD

2008/12/09

Hierdie vraelys is deel van 'n meestersgraadnavorsing wat die rol van sekuriteitsoorde binne die noordoostelike munisipaliteite van Kaapstad ondersoek. Hierdie studie word deur 'n student van die Departement Geologie, Geografie en Omgewingstudie aan Stellenbosch Universiteit, onder leiding van dr SLA Ferreira, onderneem. Die doel van die vraelys is om inligting in te win oor die eienskappe van die inwoners van sekuriteitsoorde in die noordelike voorstede van Kaapstad.

Anonimitet en vertroulikheid word gewaarborg. Die informasie sal slegs vir akademiese doeleindes gebruik word en sal nie met enige ander instellings gedeel word nie. Geen informasie t.o.v die identiteit of adres van individue sal in die finale navorsingsverslag verskyn nie en al die voltooide vorms sal na vaslegging vernietig word. Die hoof van die gesin word gevra om die vraelys te voltooi.

Vir meer inligting kontak mnr Louis Welgemoed by 082 479 0027 enige tyd, of dr SLA Ferreira by (021) 808 3218 gedurende kantoorure.

Plaas asseblief 'n kruisie, of waar verlang word 'n syfer, in die toepaslike spasie. Waar 'n geskreve antwoord verlang word, skryf dit op die stippellyn.

Afdeling A: Residensiële agtergrond

A.1. Hoe lank woon u al in by u huidige adres?

.....Jaar Minder as 'n jaar

A.2. Insluitend u huidige adres, hoeveel wonings het u in die laaste 10 jaar bewoon?

.....Wonings

A.3. Beplan u huisgesin om in die voorsienbare toekoms na 'n ander woning te verhuis?

Nee Ja

A.4. In watter tipe woning is u tans woonagtig?

- Enkel lostaande huis (bv. huthuis, meervlakhuis, dubbelverdiepinghuis)
- Dorpshuis (bv. dupleks, fourplex)
- Skakelhuis (bv. kondominium)
- Woonstel (minder as vyf verdiepings)
- Woonstel (meer as vyf verdiepings)
- Ander (spesifiseer).....

A.5. Tans word u woning:

- Deur u gehuur
- Deur u besit ► Indien u dit besit, is dit met: Skoon titel (geen verband/lening)
- Onafgelosde verband/lening

A.6. Was u al ooit die slagoffer van ernstige misdaad? (bv. kaping, diefstal, aanranding, motor-diefstal)

- Nee
 - Ja (spesifiseer jaar en erns(Lys ander gevalle ook))
-

A.7. Waarom het u besluit om in hierdie sekuriteitsoord te vestig? (bv. veiligheid en sekuriteit, bekostigbaarheid, lewenstylkeuse)

Belangrikste rede:.....

Tweede belangrikste rede:.....

Derde belangrikste rede:.....

A.8. Dui die belangrikheid aan van die onderstaande faktore wat 'n rol kon gespeel het om u hier te laat woon:

	Belangrik	Neutraal	Onbelangrik
Sekuriteit			
Prys			
Aangename omgewing			
Grootte van wooneenheid			
Herverkoopwaarde			
Goeie residensiële adres			
Aantal slaapkamers			
Geriewe in kompleks			
Grootte van erf			
Bekostigbare heffing			

Ruimte vir kinders om te speel			
Toeganglikheid tot werk			
Toeganglikheid tot skole			
Toeganglikheid tot winkels			
Spesifiseer ander faktore nie hier of in vraag A7 genoem nie.		

A.9. Die voorkoms van misdaad in u sekuriteitsoord teenoor dié in die omliggende gebied is:

Minder Omtrent dieselfde Meer Weet nie

A.10. Tot watter mate stem u saam, of verskil u, met elkeen van die volgende stellings? Dui aan deur 'n kruisie in die toepaslike blokkie aan te bring.

	Stem sterke saam	Stem saam	Neutraal	Stem nie saam nie	Stem glad nie saam nie	Geen opinie
a) Ek voel veilig wanneer ek alleen in my buurt saans stap.						
b) My buurt is in die algemeen 'n baie veilige gebied om in te woon.						
c) Ek voel gereeld onveilig wanneer ek alleen in my buurt is.						

A.11. Tot watter mate stem u saam, of verskil u, met die volgende stellings? Dui aan deur 'n kruisie in die toepaslike blokkie aan te bring.

	Stem sterke saam	Stem saam	Neutraal	Stem nie saam nie	Stem glad nie saam nie	Geen opinie
a) Die sekuriteitsoord waarin ek woon, dui daarop dat ek 'n sekere vlak van finansiële sukses bereik het.						
b) My verblyf in hierdie sekuriteitsoord het my sosiale status verbeter.						
c) Dit is duidelik dat inwoners van hierdie sekuriteitsoord om en by dieselfde ouderdom is.						

A.12. Tot watter mate stem u saam, of verskil u, met die volgende stellings? Dui aan deur 'n kruisie in die toepsalike blokkie aan te bring.

	Stem sterke saam	Stem saam	Neutraal	Stem nie saam nie	Stem glad nie saam nie	Geen opinie
a) Ek voel dat ek regtig in hierdie sekuriteitsoord tuis is.						
b) Ek voel nie regtig tuis in hierdie sekuriteitsoord nie.						
c) Ek voel lojaal teenoor die mense van my sekuriteitsoord.						
d) Om in hierdie sekuriteitsoord te woon, gee vir my 'n gemeenskapsgevoel.						
e) Daar is 'n diepe kameraadskap tussen my en ander inwoners van my sekuriteitsoord.						

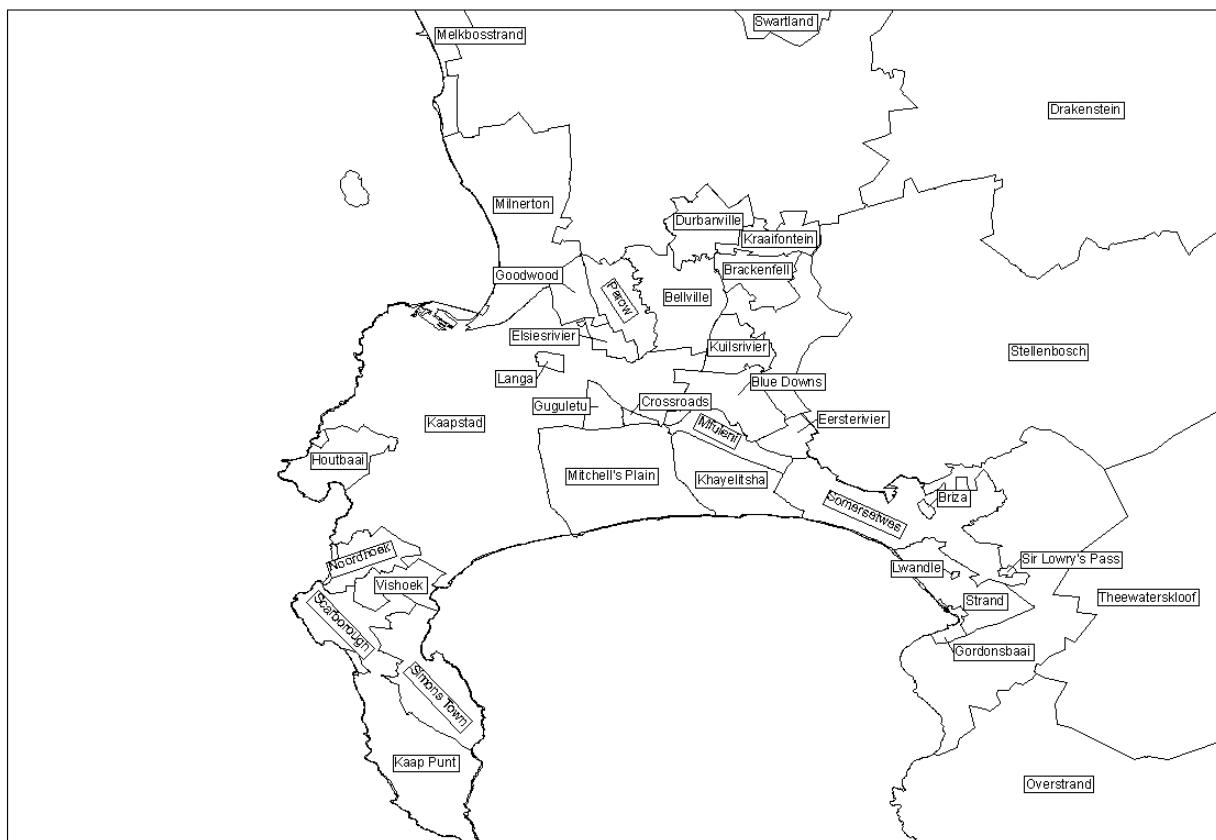
Afdeling B: Skakels met die omliggende gebied

(As u 'n afgetree is ignoreer die afdeling (B))

B.1. Hoe ver ry u tot by u werkplek?

- Minder as 5km 5 tot minder as 10km 10 tot minder as 20km 20 tot 30km
 Meer as 30km

B.2. Bestudeer die kaart hieronder en dui die munisipale gebied aan waar u werkplek geleë is deur die naam van die betrokke munisipale gebied op die stippellyn te skryf.



Munisipale gebied:.....

Indien u onseker is, skryf die straat adres van die werkplek hier neer:

.....

B.3. Van watter tipe vervoer maak u gebruik om by die werkplek te kom?

- Stap Openbare vervoer Eie motor/motorfiets Taxi Ander
 (spesifieer).....

B.4. Maak u of u gesinslede gebruik van 'n saamryklub as vervoer na werk/skool?

- Nee Ja

B.5. Hoe ver reis u gewoonlik om u kruideniersware te bekom?

- ½ tot 1km 2 tot 4km 5 tot 10km Meer as 10km

B.6. Watter van die volgende winkelsentrums besoek u die meeste om u kruideniersware te bekom?

- Tygervallei Cape Gate Canal Walk Willow Bridge N1 Stad

- Ander (spesifiseer).....

B.7. Watter tipe vervoer gebruik u die meeste om na die bogenoemde winkelsentrum te reis?

- Stap Openbare vervoer Eie motor/motorfiets Taxi Ander (spesifiseer).....

B.8. Hoe ver reis u gewoonlik om aan u vermaaklikheidsbehoeftes te voorsien?

- ½ tot minder as 1km 1 tot minder as 4km 4 tot 10km Meer as 10km

B.9. Watter van die volgende winkelsentrums besoek u die meeste vir u vermaaklikheids- en ontspanningsbehoeftes?

- Tygervallei Cape Gate Canal Walk Willow Bridge N1 Stad

- Ander (spesifiseer).....

B.10. Van watter tipe vervoer maak u die meeste gebruik om na hierdie winkelsentrum(s) te reis?

- Stap Openbare vervoer Eie motor/motorfiets Taxi Ander (spesifiseer).....

B.11. Hoe gereeld besoek u of u gesinslede die openbare parke in u buurt?

- Baie gereeld Dikwels Soms Selde Baie selde Nooit

Afdeling C: Beheerliggaam informasie

C.1. Dui aan van watter van die organisasies hieronder genoem u ‘n lid is en hoe aktief u in die organisasie is. Plaas ‘n kruisie in die “Ja” of “Nee” spasie, en as die antwoord “Ja” is, plaas ‘n kruisie onder een van die opsies.

	Nee	Ja		Woon sommige vergaderings by	Doen vrywillig diens	Was al ‘n verkose amptenaar
a) Huiseienaarsvereniging, kondominiumvereniging of klub			Indien Ja ►			
b) Buurt- of gemeenskapsvereniging			Indien Ja ►			
c) Ander (spesifiseer):			Indien Ja ►			
.....						

C.2. Wat, volgens u, is die hoof funksie of rol van die bestuursliggaam wat die sekuriteitsoord bestuur? (bv. huiseienaarsvereniging, regspersoon, deelblokvereniging)

.....

.....

C.3. Watter vlak van beheer of invloed het die bestuursliggaam van hierdie sekuriteitsoord oor u?

- Baie sterk Sterk Neutraal Swak Baie swak Geen

Afdeling D: Demografiese informasie

D.1 Wat is u geslag?

- Manlik Vroulik

D.2. Hoeveel mense bly tans in u woning?

[]

Hoeveel van die persone is? (Skryf die getal mense in elke kategorie in die toepaslike blokkie(s) in.)

Mans

- Jonger as 14 jaar
 14 – 18 jaar oud
 19 – 24 jaar oud
 25 – 34 jaar oud

Vrouens

- Jonger as 14 jaar
 14 – 18 jaar oud
 19 – 24 jaar oud
 25 – 34 jaar oud

- | | | | |
|------------------|--------------------------|------------------|--------------------------|
| 35 – 44 jaar oud | <input type="checkbox"/> | 35 – 44 jaar oud | <input type="checkbox"/> |
| 45 – 54 jaar oud | <input type="checkbox"/> | 45 – 54 jaar oud | <input type="checkbox"/> |
| 55 – 84 jaar oud | <input type="checkbox"/> | 55 – 84 jaar oud | <input type="checkbox"/> |
| 85 jaar of ouer | <input type="checkbox"/> | 85 jaar of ouer | <input type="checkbox"/> |

D.3. Hoe oud was u met u laaste verjaardag?

- Jonger as 25 25-29 30-39 40-49 50-54 55-59 60-64
 65-69 70-74 75-79 80-84 85 of ouer

D.4. Wat is u huwelikstatus tans?

- Enkel (nooit getroud) Getroud Gemeenregtelike huwelik
 Geskei/verwyder Weduwee of wewenaar

D.5. Wat is die hoogstevlak van onderrig wat u bereik het?

- Graad 10 (St 8) of laer Graad 12 (St 10/Matriek) Diploma/Voorgraadse graad
 Nagraads

D.6. Watter een van die volgende kategorieë beskryf u huidige werksituasie die beste?

In diens buite die woning, voltyds	Huisbesorger
In diens buite die woning, deeltyds	Afgetree
In eie diens, voltyds	Gedeeltelik afgetree
In eie diens, deeltyds	Student
Werkloos	Ander (spesifiseer)

D.7. As u buite die woning in diens is, in eie diens is, of as u nou afgetree is, watter van die volgende beroepsvelde beskryf u werk die beste (nou of voor astrede)?

Bestuur/administratief	Vervaardiging
Onderrig en verwante velde	Konstruksie
Gesondheids- en mediese dienste	Vervoer
Klerikale of verkoopsdienste	Informasietegnologie
Landbou	Ander (spesifiseer):

D.8. Dui asseblief u gesin se totale bruto maandelikse inkomste aan.

- Geen inkomste R1-R5000 R5001-R10 000 R10 001-R15 000
 R15 001-R20 000 R20 001-R30 000 Meer as R30 000

D.9. Hoeveel privaat voertuie besit, en gebruik, u gesin gereeld?

**LEWER ASSEBLIEF HIERDIE VOLTOOIDE VRAELYS BY DIE VOORSITTER VAN
BESTUURSLIGGAAM IN.**

BAIE DANKIE VIR U VRIENDELIKE SAMEWERKING.

APPENDIX F: RESPONSE SUMMARY OF THE QUESTIONNAIRE SURVEY

Suburb	Community name	Number of units	Questionnaires distributed	Returned questionnaires	GD unit coverage rate (%)	Response rate (%)
Bellville	Chianti Villas	67	6	6	9%	100%
Bellville	Del Aire	5	5	4	80%	80%
Bellville	Fairfield Villas	16 (Estimated)	0 (Declined to participate)	0	0%	0%
Bellville	Simonsig	20	0 (No contact information)	0	0%	0%
Bellville	Twin-Peaks	46 (Estimated)	0 (No contact information)	0	0%	0%
Subtotals		154 (Estimated)	11	10	6.5%	91%
Brackenfell	Aroma Sands	92 (Estimated)	6	5	6.5%	83%
Brackenfell	Bergvrede	76 (Estimated)	6	6	8%	100%
Brackenfell	Champagne Park	32	0 (No contact information)	0	0%	0%
Brackenfell	Hill Crest	88 (Estimated)	6	6	7%	100%
Brackenfell	Onze Grondje	54 (Estimated)	6	6	11%	100%
Brackenfell	Paradise Park	200 (Estimated)	0 (Retirement village)	0	0%	0%
Brackenfell	Vermont	41 (Estimated)	0 (No contact information)	0	0%	0%
Subtotals		383 (Estimated/Paradise Park omitted)	24	23	6%	96%
Durbanville	Amalifi	13	6	6	46%	100%
Durbanville	Andante	8	0 (No contact information)	0	0%	0%
Durbanville	Avignon	16	0 (No contact information)	0	0%	0%
Durbanville	Barcelona	15	6	6	40%	100%
Durbanville	Belami Ridge	162 (Estimated)	0 (No contact information)	0	0%	0%
Durbanville	Belvedere Mews	29	0 (No contact information)	0	0%	0%
Durbanville	Bergshoop	67 (Estimated)	6	5	7.5%	83%

Suburb	Community name	Number of units	Questionnaires distributed	Returned questionnaires	GD unit coverage rate (%)	Response rate (%)
Durbanville	Centurion	72	0 (Declined to participate)	0	0%	0%
Durbanville	Charlesville	14	0 (No contact information)	0	0%	0%
Durbanville	Cinsaut	14	6	6	43%	100%
Durbanville	Concerto Court	14	6	5	36%	83%
Durbanville	Falcon's Crest	20	6	2	10%	33%
Durbanville	Fontenay	17	0 (No contact information)	0	0%	0%
Durbanville	La Meer	31	0 (No contact information)	0	0%	0%
Durbanville	La Vie est Belle	130 (Estimated)	0 (Declined to participate)	0	0%	0%
Durbanville	Marbella	16	0 (No contact information)	0	0%	0%
Durbanville	Merlot	13	0 (No contact information)	0	0%	0%
Durbanville	Minuet Ridge	112	0 (No contact information)	0	0%	0%
Durbanville	Monte Pescali	63 (Estimated)	6	6	9.5%	100%
Durbanville	Mulberry Gardens	64	6	4	6.3%	67%
Durbanville	Pinotage	15	0 (No contact information)	0	0%	0%
Durbanville	Soleil	20	0 (Declined to participate)	0	0%	0%
Durbanville	St. Georges	80	0 (No contact information)	0	0%	0%
Durbanville	Symphony Villas	41	0 (No contact information)	0	0%	0%
Durbanville	Taai-Bos	10	6	6	60%	100%
Durbanville	Tulip Close 1-8	8	6	6	35.3%	100%
Durbanville	Tulip Close 9-17	9	0	0	0%	0%
Durbanville	Turnberry	15	6	6	40%	100%
Durbanville	Vierlanden Estate	30	6	5	16.7%	83%
Durbanville	Vierlanden Villas	45	6	2	4.4%	33%

Suburb	Community name	Number of units	Questionnaires distributed	Returned questionnaires	GD unit coverage rate (%)	Response rate (%)
Durbanville	Villa Palazzo	24	0 (No contact information)	0	0%	0%
Durbanville	Wedgewood	19	0 (No contact information)	0	0%	0%
Durbanville	Wentworth	16	6	4	25%	67%
Durbanville	Zinfandel	62 (Estimated)	6	5	8%	83%
Subtotals		1284 (Estimated)	90	74	5.8%	82%
Kraaifontein	Gallager Gardens	9	0 (No contact information)	0	0%	0%
Kraaifontein	Selborne Place	114 (Estimated)	0 (No contact information)	0	0%	0%
Kraaifontein	Sunset Views	42	0 (No contact information)	0	0%	0%
Kraaifontein	Welgezicht	22	0 (No contact information)	0	0%	0%
Subtotals		187 (Estimated)	0	0	0%	0%
Kuilsriver	Bougainville	39	6	5	13%	83%
Kuilsriver	Gardenia	48	6	0	0%	0%
Kuilsriver	Magnolia	53	6	5	9.4%	83%
Kuilsriver	Monte Bello	23	6	6	26%	100%
Subtotals		163	24	16	9.8%	67%
Section 8 ¹²	Christaville Estate	55	0 (No contact information)	0	0%	0%
Section 8	George Park	12	0 (No contact information)	0	0%	0%
Section 8	Jewel Place (Klein Bron Park)	68	0 (No contact information)	0	0%	0%
Section 8	Summerwood Pinehurst Garden City	322 (Estimated)	0 (No contact information)	0	0%	0%
Section 8	Zanddrift	9	6	3	33%	50%
Subtotals		466 (Estimated)	6	3	0.6%	50%
Totals		2637 (Estimated)	155	126	4.8%	81%

¹² “Section 8” in the table in Appendix F refers to GDs on the outskirts of the old municipal boundaries of the study area.