Urban Bias Revisited:
Urban and Rural Development in Post-Apartheid South Africa

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Submitted in partial fulfilment of the requirements for the degree of Masters of Development Studies, Faculty of Humanities, Development and Social Sciences, University of KwaZulu-Natal

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Durban
Abstract

Several studies have documented the positive impact of post-apartheid development programmes on economic livelihoods in South Africa. This study explores the impact of post-apartheid policies with a focus on differences across geographical types (geo-types). In this study, I first analyse the design and implementation of key post-apartheid government policies through the lens of urban bias and synergist development theory. Next, I use national-level household survey data from the 1997 October Household Survey (OHS), the 2002 General Household Survey (GHS), and the first (2008) wave of the National Income Dynamics Study (NIDS) to describe key trends and differences in demographic and socio-economic characteristics across geo-types. In doing so, the data reveal large differences between rural and urban areas. Although a few socio-economic disparities have narrowed somewhat since 1997, most differences remain substantial in 2008.

The research also finds that the ‘rural’ and ‘urban’ binary categories provide an incomplete portrait of socio-economic realities in South Africa. More specifically, the four-geo type data identified in the NIDS 2008 uncover significant differences within rural and urban areas which make households located in tribal authority and urban informal areas more vulnerable to poverty.

Using poverty and regression analysis, the study concludes that geo-type of residence and other correlates of socio-economic well-being have a significant impact on differential poverty risk across geo-types. Importantly, even after controlling for a range of observable characteristics, geo-type of residence still has a significant effect on the probability that an individual resides in a poor household. Given these findings, the study advocates further research into factors influencing poverty risk in particular geo-types and more careful attention to differences across geo-types in both research and policy-making.
Acknowledgements

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Finally, a special thanks goes to a few Durban Rotarians and friends: Alethea Duncan-Brown for her guidance before and during the scholarship; and to John and Maggie Ferguson, my host family, who welcomed me into their home, helped me with logistics in the first days of uncertainty, and provided consistent support and many stimulating conversations often over a hot vegetable curry.
DECLARATION

Submitted in partial fulfilment of the requirements for the degree of Masters in Development Studies, in the Graduate Programme in the School of Development Studies, University of KwaZulu-Natal, Durban, South Africa.

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. I confirm that an external editor was/was not used and that my Supervisor was informed of the identity and details of my editor. It is being submitted for the degree of Masters in Development Studies in the Faculty of Humanities, Development and Social Science, University of KwaZulu-Natal, Durban, South Africa. None of the present work has been submitted previously for any degree or examination in any other University.

[Signature]
Student signature

[Date]
6 March 2012

[Editor name and surname (if applicable)]
## List of abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ANC</td>
<td>African National Congress</td>
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<tr>
<td>CASP</td>
<td>Comprehensive Agricultural Support Programme</td>
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<td>CBN</td>
<td>Cost-Of-Basic Needs</td>
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<tr>
<td>CDE</td>
<td>Centre for Development and Enterprise</td>
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<td>CPI</td>
<td>Consumer Price Index</td>
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<tr>
<td>CRDP</td>
<td>Comprehensive Rural Development Programme</td>
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<td>CSG</td>
<td>Child Support Grant</td>
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<tr>
<td>CSS</td>
<td>Central Statistical Service</td>
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<tr>
<td>DFA</td>
<td>Development Facilitation Act</td>
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<tr>
<td>DLA</td>
<td>Department of Land Affairs</td>
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<td>DSD</td>
<td>Department of Social Development</td>
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<td>DWA</td>
<td>Department of Water Affairs</td>
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<td>DWAF</td>
<td>Department of Water Affairs and Forestry</td>
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<td>DWP</td>
<td>Department for Welfare and Population Development</td>
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<tr>
<td>EA</td>
<td>Enumerator Area</td>
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<tr>
<td>FBE</td>
<td>Free Basic Electricity</td>
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<td>FBS</td>
<td>Free Basic Services</td>
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<td>FBW</td>
<td>Free Basic Water</td>
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<tr>
<td>FGT</td>
<td>Foster, Greer and Thorbecke</td>
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<td>Geo-types</td>
<td>Geographical types</td>
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<tr>
<td>GHS</td>
<td>General Household Survey</td>
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<tr>
<td>GNU</td>
<td>Government of National Unity</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
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<tr>
<td>ISRDS</td>
<td>Integrated Sustainable Rural Development Strategy</td>
</tr>
<tr>
<td>LED</td>
<td>Local Economic Development</td>
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<tr>
<td>LRAD</td>
<td>Land Redistribution for Agricultural Development</td>
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<tr>
<td>MLAR</td>
<td>Market-Led Agrarian Reform</td>
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<tr>
<td>N/c</td>
<td>Not Comparable</td>
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<tr>
<td>N/d</td>
<td>No Data</td>
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<td>NIDS</td>
<td>National Income Dynamics Study</td>
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<td>NP</td>
<td>National Party</td>
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<td>NSDP</td>
<td>National Spatial Development Perspective</td>
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<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>OAP</td>
<td>Old-Age Pension</td>
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<td>ODA</td>
<td>Official Development Assistance</td>
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<td>ODI</td>
<td>Overseas Development Institute</td>
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<td>OHS</td>
<td>October Household Survey</td>
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<td>PES</td>
<td>Post-Enumeration Survey</td>
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<tr>
<td>PLAAS</td>
<td>Institute for Poverty, Land and Agrarian Studies</td>
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<tr>
<td>PPP</td>
<td>Purchasing Power Parity</td>
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<td>RDF</td>
<td>Rural Development Framework</td>
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<td>RDP</td>
<td>Reconstruction and Development Programme</td>
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<tr>
<td>Rio Group</td>
<td>Expert Group on Poverty Statistics</td>
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<tr>
<td>RSA</td>
<td>Republic of South Africa</td>
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<tr>
<td>SALDRU</td>
<td>Southern African Labour and Development Research Unit</td>
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<tr>
<td>SLAG</td>
<td>Settlement/Land Acquisition Grant</td>
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<tr>
<td>StatsSA</td>
<td>Statistics South Africa</td>
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<tr>
<td>UB</td>
<td>Urban Bias</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<tr>
<td>WDR</td>
<td>World Bank Development Report</td>
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Table of Contents

Abstract ................................................................................................................................. i
Acknowledgements ............................................................................................................... ii
Declaration ............................................................................................................................. iii
List of abbreviations and acronyms ..................................................................................... iv
Table of contents .................................................................................................................. vi
List of tables and figures ...................................................................................................... viii

Chapter 1: Introduction .......................................................................................................... 1
1.1 Background and problem statement ............................................................................. 1
1.2 Method of study ............................................................................................................. 2
1.3 Objectives of the research and key research questions .................................................. 3
1.4 Outline of the dissertation ........................................................................................... 4

Chapter 2: Context/Literature Review .................................................................................. 5
2.1 Introduction .................................................................................................................... 5
2.2 Theoretical framework .................................................................................................. 5
2.2.1 Dual-economy and urban bias ................................................................................ 5
2.2.2 Contemporary theory: “agrarianists”, “industrialisers”, and “synergists” ............... 8
    Agrarianists ..................................................................................................................... 8
    Industrialisers ................................................................................................................ 9
    Synergists ...................................................................................................................... 9
2.3 Case studies of developing country rural-urban development strategies .................... 11
2.4 Historical background in South Africa: rural and urban policy and impacts ............... 14
2.5 Post-apartheid policies ................................................................................................. 17
    Agrarian reform ........................................................................................................... 17
    Housing ......................................................................................................................... 19
    Education ...................................................................................................................... 20
    Water, health, and sanitation ...................................................................................... 21
    Electricity ...................................................................................................................... 22
    Information and communications technology (ICT) .................................................. 23
    State transfers ............................................................................................................. 23
2.5.1 Biases revisited: design and implementation of post-apartheid policies ............... 25
2.6 Conclusion .................................................................................................................... 31
Chapter 3: Research design and methodology ................................................................. 32
  3.1 Introduction ............................................................................................................. 32
  3.2 Study design and methodology ........................................................................... 32
  3.3 Data limitations and coding adjustments ............................................................... 33
    3.3.1 Identifying geo-types ..................................................................................... 33
    3.3.2 Comparing household income and other welfare indicators across surveys ... 36
  3.4 Poverty statistics .................................................................................................. 38
    3.4.1 Unit of analysis and level of aggregation .................................................... 38
    3.4.2 Poverty measurement and poverty lines ..................................................... 38
    3.4.3 Poverty measures ........................................................................................ 39
  3.5 Data analysis .......................................................................................................... 40
  3.6 Conclusion ............................................................................................................. 41

Chapter 4: Descriptive statistics: Trends and characteristics by geo-type in South Africa, 1997 to 2008 ...................................................................................................................... 42
  4.1 Introduction ............................................................................................................. 42
  4.2 Key trends in individual and household populations across rural and urban areas ..... 42
  4.3 Demographic characteristics and correlates of socio-economic status .............. 45
  4.4 Conclusion ............................................................................................................. 58

Chapter 5: Findings: Poverty statistics and regression analysis ..................................... 60
  5.1 Introduction ............................................................................................................. 60
  5.2 Poverty statistics .................................................................................................. 60
  5.3 Regression analysis .............................................................................................. 70
  5.4 Conclusion ............................................................................................................. 75

Chapter 6: Conclusions and recommendations ............................................................ 78
  6.1 Introduction ............................................................................................................. 78
  6.2 Contributions of empirical findings and limitations ............................................. 78
  6.3 Contributions to literature .................................................................................. 80
  6.4 Areas for future research and additional recommendations .................................. 82

References ................................................................................................................... 84
List of tables and figures

Figure 4.1 South African rural and urban populations (individuals): 1997, 2002, 2008...........43
Table 4.1 Population and household characteristics by geo-type: 1997, 2002, 2008..............44
Table 4.2 Population and household characteristics by four geo-types: 2008.......................44
Table 4.3 Individual demographic characteristics by four geo-types: 2008..........................46
Table 4.4 Individual characteristics of urban and rural adults for education: 1997, 2002,
2008.................................................................................................................47
Table 4.5 Individual characteristics of urban and rural adults for education by four geo-types:
2008.................................................................................................................47
Table 4.6 Household characteristics (percentage of households): 1997, 2008....................48
Table 4.7 Household characteristics by four geo-types (percentage of households):
2008..................................................................................................................49
Table 4.8 Sources of income for the household: 1997, 2002, 2008.......................................51
Table 4.9 Sources of income for the household by four geo-types: 2008...............................52
Table 4.10 Household income (Rands, 2008 prices): 1997, 2008..............................................53
Table 4.11 Household income by four geo-types (Rands): 2008.............................................54
Table 4.12 Other indicators of well-being (percentage of households): 1997, 2002,
2008..................................................................................................................55
Table 4.13 Other indicators of well-being by four geo-types (percentage of households):
2008..................................................................................................................57
Table 5.1 Household poverty by geo-type over time: 1997, 2008..........................................61
Figure 5.1 Household poverty incidence by rural and urban for different poverty lines:
1997, 2008...........................................................................................................62
Figure 5.2 Household poverty by four geo-types: 2008......................................................63
Figure 5.3 Household poverty incidence by four geo-types for different poverty lines:
2008..................................................................................................................64
Figure 5.4 Household poverty by gender of household head: 2008.................................65
Table 5.2 Household poverty by education of household head: 2008.................................66
Figure 5.5 Household poverty by education of household head: 2008.................................67
Figure 5.6 Household poverty by household size: 2008.....................................................68
Table 5.3 Household poverty distribution by employment: 2008.........................................69
Table 5.4 Poverty estimates, Probit model (weighted): 2008...............................................74
CHAPTER 1. INTRODUCTION

1.1 Background and problem statement

More than fifty percent of the world’s population now lives in cities, and this percentage continues to grow rapidly as five million people move from rural to urban areas in the developing world each month (*The Economist print edition* 2011b, 83). Accordingly, many pundits argue that living in an urban area today brings too many benefits to induce one to remain in the countryside. These benefits might include greater job opportunities and better access to higher quality public services such as drinking water, education, and health care. As a result, for the poor in the developing world, it is often thought better to be poor in an urban area than in a rural one (*The Economist print edition* 2011b, 83).\(^1\)

These geographical inequalities raise difficult questions for academics and policy-makers seeking to design effective rural development policies while addressing new challenges in urban areas. Unsurprisingly, there are different views concerning how rural areas should be developed and how rural development policy should fit into national development strategy. In South Africa, this debate is of crucial importance given the country's particular political history. Beginning in the 1860s, a range of government policies promoted unequal development between and within rural and urban areas and apartheid-era policies exacerbated these discrepancies. In rural areas, agrarian policies led to further consolidation of land and power in the hands of a small white commercial farming minority and impeded rural development for the majority of black Africans living in the former “homelands” (Levin and Neocosmos 1989; Office of the President 1994; Bernstein 1996; Aliber 2003). In urban areas, cities were divided into townships with poor basic infrastructure and white suburbs with significantly greater resources (Office of the President 1994, 7).

In 1994, the new government led by the African National Congress (ANC) aimed to provide redress for this inequitable development and reduce poverty in both rural and urban areas. With a strong emphasis on reducing rural poverty, the Reconstruction and Development Programme (RDP) of 1994 explicitly recognised that rural incomes were significantly lower than those in urban areas and sought to improve, *inter alia*, rural housing, facilities, social

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\(^1\) For example, in Lagos, 75 percent of the population has access to safe drinking water compared to a national average of 30 percent for all Nigerians.
services, public transport, and the overall quality of rural life (Atkinson and Marais 2006). At the same time, the Department of Land Affairs (DLA) was established and tasked with implementing a land reform programme to boost economic development in the countryside (Hall 2004; Leibbrandt et al. 2005; Cousins and Scoones 2010). In the following decade and half, a host of government policies would be drawn up to support and advance the development goals articulated in the RDP.

1.2 Method of study

Yet, how have these programmes fared in practice? Have they succeeded in raising the socio-economic well-being of the rural poor? In addressing these questions, this study will examine primary documentary data (e.g. government policies, institutional reports, legal Acts, white and green papers) and secondary data (e.g. journal articles, books) to shed light on the context of post-apartheid development policies and their implementation. Following this, I will use national-level micro-data from three survey years (viz. 1997, 2002, and 2008) to determine how economic status has changed since the end of the apartheid and in particular, to investigate if rural and urban areas have converged in their level of development. The study will make use of two surveys conducted by the official statistical agency in South Africa (Statistics South Africa), the 1997 October Household Survey and the 2002 General Household Survey, as well as the first (2008) wave of the National Income Dynamics Study (NIDS), a panel study conducted by the Southern African Labour and Development Research Unit (SALDRU).

The study will use these data to assess disparities across geographical types (geo-types) in addition to the explanatory power of geo-type of residence and other correlates of socio-economic well-being on the probability of residing in a poor household. In doing so, the study will highlight those individual and household-level characteristics that help account for differential poverty rates by geo-type in South Africa. It will also show that even after controlling for a range of observable characteristics, the effect of living in particular geo-types is still a significant determinant of poverty status. Lastly, in relation to the NIDS 2008 data, I will discuss how more nuanced geo-type categories may help to inform more effective development policy.
1.3 Objectives of the research and key research questions

Multiple studies have assessed changes in economic livelihoods since the end of apartheid.² This study seeks to augment the corpus of knowledge generated by those and other studies in three main ways.

First, with reference to pre-eminant development theories such as urban bias and synergistic development, the research aims to draw out biases in government policies towards urban or rural areas in the post-apartheid period. To this end, the dissertation will assess the design and implementation of several government policies and legal Acts introduced since 1994.

Second, the dissertation compares demographic characteristics and indicators of socio-economic well-being across geo-types, and reviews how these characteristics have changed over the study period (i.e. 1997 to 2008). The study looks specifically at changes in poverty rates by geo-type over time, and at what characteristics account for differences, and trends, in socio-economic well-being across geo-types. In doing so, the research will determine if there has been convergence or divergence between rural and urban areas and along which dimensions.

Third, using the four geo-type data in the NIDS 2008, this study will examine differences within rural and urban areas in order to develop a more detailed understanding of differences across geo-types. To date, most poverty studies in South Africa have employed the rural-urban binary division while few have conducted data analysis across more than two geo-types in South Africa (see Crothers 1997 as an exception). It is suggested that identifying differences in individual and household-level characteristics using the more nuanced geo-type categories will help sharpen analysis of poverty risk across South Africa.

The study seeks to address these objectives through a series of specific research questions:

1) Have development policies focused on enhancing rural-urban linkages or have they been biased towards particular geo-types or sectors—in design or implementation—since the end of apartheid?

² For example, see Hoogeveen and Özer 2005; Leibbrandt et al. 2006; Bhorat and Van der Westhuizen 2008; Leibbrandt et al. 2010a; Leibbrandt et al. 2010b.
2) How do individuals and households compare in terms of socio-economic well-being (e.g. access to education, services, and economic livelihoods) across geo-types and over time?

3) Has there been convergence or divergence between rural and urban households in terms of socio-economic well-being since the end of apartheid?

4) Does geo-type of individual residence have a significant effect on poverty status even after controlling for observable individual and household characteristics?

5) What are the potential policy conclusions for current development strategies in South Africa?

1.4 Outline of the dissertation

The remainder of the dissertation is structured as follows. Chapter Two establishes the context and theoretical framework which will serve as the lens through which I attempt to answer the research questions. Chapter Three then outlines the research methodology and the data used in the study. In Chapter Four, I show descriptive statistics for the demographic characteristics of individuals and households, and indicators of socio-economic well-being, by geo-type. In Chapter Five, poverty statistics are presented to compare economic status by geo-type, and regression analysis is used to explore the correlates of living in a poor household. Finally, Chapter Six offers possible policy recommendations as well as topics for future research.
CHAPTER 2. CONTEXT/LITERATURE REVIEW

2.1 Introduction

This literature review first traces the genesis of some fundamental development theories in relation to rural and urban development. It begins with Arthur Lewis’s dual-economy model (1954) and Michael Lipton’s urban bias (UB) thesis (1977). These seminal theories serve as precursors to the subsequent discussion of contemporary development theories in which I focus primarily on synergistic development, an increasingly prominent school of development thinking that is likely to provide the most appropriate theoretical framework for understanding economic livelihoods across geographical spaces. Notwithstanding the conceptual advantage of the synergist approach, all theories combine to form a lens through which development policy is analysed in the remainder of the review and in the study.

With the analytical framework in place, the review turns to several case studies which help to illuminate elements from successful rural development strategies in other countries. Following this, the review assesses the design and impact of particular development policies in South Africa since the late 1800s and evaluates policy biases in relation to the theoretical framework.³

2.2 Theoretical framework

2.2.1 Dual-economy and urban bias

Despite vigorous debate, pundits and policy-makers have yet to reach a consensus over what constitutes 'rural' and 'urban' and over the types of policies needed to stimulate development across geo-types. In the second half of the 20th century, several theories featured prominently in this debate. Two of the most influential theories were Lewis’s dual-economy model (1954) and Lipton’s UB thesis (1977).

³ Henceforth, I use the term theoretical framework to refer to the development theories discussed in the literature review including Lewis’s dual-economy model and Lipton’s UB thesis in addition to the contemporary theories of the agrarianists, industrialists, and synergists.
In 1954, during modernisation and growth theory’s rise to power in development discourses, Lewis’s dual-economy model effectively split the economy into two sectors: ‘capitalist’ and ‘subsistence’. Essentially, Lewis argued that the subsistence sector functioned as a reserve of cheap labour for the development of the capitalist sector, whereby the transfer of labour across sectors facilitated industrialisation in urban centres. As a result of the labour surplus migrating from the subsistence sector to the capitalist sector, the model posited that marginal productivity and wages in the subsistence sector would increase while marginal productivity and wages in the capitalist sector would decrease until the subsistence wages in both sectors were equalised (Lewis 1954).

The policy conclusion from Lewis’s and related growth models (of Rostow (1960), for example) was that the state should facilitate growth in urban industry as well as the transition to an urban-based economy (Lipton 1977; Douglass 2006). For this reason and others, the Lewis model has been heavily criticised from many quarters especially given that, in many developing countries, rural wages have remained relatively low and urban unemployment has risen (for criticisms and rejoinders of the Lewis model, see Leeson 1979; Fields 2004; Kirkpatrick and Barrientos 2004; Ranis 2004). For example, Lawrence (2004, 5) argues that in many developing countries the “capitalist sector [has] simply not accumulated and expanded in a way which has ‘mopped up’ surplus labour” because the growth of the sector has not “kept pace with the growth of the labour force.”

Following steady criticism of the Lewis dual-economy model and other growth theories in the late 1950s and 1960s, dependency and core-periphery theories paved the way for a new development theory that provided a more critical view of the exploitation of rural areas. In his urban bias thesis, Lipton (1977) argued that urban centres were exploiting and exacerbating the terms of trade for peripheral (i.e. rural) areas. Moreover, his thesis contended that the state, under the control of a powerful urban class, deliberately under-allocated resources and extracted surpluses from rural areas with the help of a parasitic ruling class in the periphery. Furthermore, Lipton indicated that the state created favourable policies for the urban sector through exchange rates, taxations, subsidies, credit policies and other “price twists” or controls (see Lipton 1977 for a discussion of different types of price twists).

Lipton then demonstrated that all of these policies were likely to distort true market prices (factor and product) in favour of urban residents for various reasons. For example,
overvalued exchange rates would bring down the prices for cash crops in the domestic currency (hurting producers) and other government policies such as price ceilings would keep food prices at below-market levels. In addition, inflated public sector expenditure in urban areas on development of infrastructure, public services, and employment would often result in unaffordable services and limited service coverage for rural inhabitants (Lipton 1977; Becker et al. 1994; Kay 2009). In sum, Lipton’s thesis posited that urban-led industrialisation could negatively affect rural dwellers and rural development in general (Lynch 2005). The resulting policy implication was to promote the development of labour-intensive agriculture as a necessary precondition for the development of both rural areas and industry (Corbridge 1982).

As with Lewis, Lipton was not without detractors and critics. One important critique was lodged against Lipton’s unusual groupings of urban and rural people and his lack of attention to class formations and alliances (Kay 2009). Moreover, others noted that the UB thesis failed to differentiate between the geographical types of urban and rural as well as between farm and non-farm components (Becker et al. 1994; Lynch 2005). While these criticisms were well-articulated, Lipton (1977) anticipated many of these objections and outlined a set of reasons why the rural-urban division was a more workable split than other divisions such as between sectors (i.e. industry and agriculture) or classes. Chief among these reasons was the availability of macro-level data pertaining to the rural-urban dichotomy which would allow for analysis of the UB thesis while bearing in mind the conceptual limitations spelled out by his critics (Lipton 1977).

Despite sustained criticism, Lipton’s UB thesis (like Lewis’s dual-economy model) still carries considerable weight today and some academics argue that urban biases remain a significant obstacle to poverty alleviation (see Bezemer and Heady 2008, for example). However, in recent years, the debate has shifted focus to revised theoretical formulations emanating from the seminal theories of Lewis and Lipton, and their detractors. Although similar to their precursors in some respects, these revised theories are also more attuned to recent global trends such as increasing urbanisation and interconnectedness across geographical spaces as well as growing ecological concerns. In the next section, I will further describe these more recent theoretical approaches with a focus on the synergistic development framework.
2.2.2 Contemporary theory: “agrarianists”, “industrialisers”, and “synergists”

In current academia, three theories take centre stage in the rural development debate. In simplistic terms, each theory is articulated by one of three distinct ideological positions: “agrarianists”, “industrialisers”, and “synergists”.  

**Agrarianists**

Agrarianist theory runs parallel to Lipton’s UB thesis. Like the UB thesis, agrarianist theory holds that urban-based development policies are often harmful to rural development. Moreover, agrarianists advocate a development policy that emphasises agriculture given that the majority of the population in many developing countries is rural while labour productivity is low and rural poverty is high. Furthermore, agrarianists argue that developing countries often benefit from a comparative advantage in agriculture and other primary goods (Kay 2009). Thus, agrarianists such as Lipton are more likely to advocate a rural poverty reduction strategy that recognises the pre-eminence of agriculture in development. An agrarian-focused growth strategy might include various elements such as land reform; the elimination of macroeconomic policy biases against agriculture; the development of rural infrastructure; improved access to extension services, information, input and output markets for small-scale producers; as well as diversification in agriculture and the non-farm rural economy (Stewart 2000, 11).

The main emphasis of such a strategy would be to enable rural dwellers to feed themselves and generate income without having to rely on urban labour, migration, or commercial urban enterprises. Along these lines, Veltmeyer (2009, 409) argues that “radical land redistributive measures and the mobilised resistance of small-scale producers would provide a better pathway out of poverty than the capitalist market.” Similarly, contemporary agrarianists (of the neopopulist ilk) are likely to oppose development strategies that promote large-scale commercial farming because they argue that commercial farms create a limited number of jobs and do little to address local food insecurity. In addition, in the present context of land scarcity and climate change, many agrarianists champion small-scale sustainable farming

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4 Here, I present a cursory and simplified overview of each camp. For a more extensive discussion of these theories and their various branches, see Saith 1990, Ellis and Biggs 2001, Kay 2009, and Veltmeyer 2009.  
5 Kay (2009) refers to Lipton as a ‘neopopulist agrarianist’ as opposed to a ‘neoclassical agrarianist’. See Kay (2009) for this distinction.
methods because they believe that these methods are likely to minimise ecological damage (Kay 2009; Veltmeyer 2009).

**Industrialists**

In contrast to the agrarianists, the industrialists emphasise the primacy of industry for economic growth. In parallel to the Lewis dual-economy model, industrialist theory has traditionally argued that the transfer of a large agricultural surplus has been a necessary prerequisite for spurring on the process of industrialisation in developing countries. In Lewis’s case, he argued that surplus labour could be transferred from the traditional sector to the modern sector in order to spur on industrial development with little cost to the traditional sector. Other industrialists have gone further and suggested that industrialisation would stimulate agriculture by providing jobs and higher wages to rural migrants as well as an expanding market for agricultural goods. Thus, in line with Lipton’s UB thesis, industrialists (such as Lewis) have traditionally viewed the rural sector’s primary function as the supplier of food, raw materials, capital, labour, and foreign exchange for the urban sector in addition to creating a rural market for domestically-produced industrial products (Kay 2009; Veltmeyer 2009).

Though not as ostensibly pro-industry, contemporary industrialists (whose views are partially reflected in the World Bank Development Report (WDR) 2008 on *Agriculture for Development*) have made little movement from this position. They contend that the most viable pathways out of rural poverty are not through small-scale ecological agriculture but instead through urban industrialisation, out-migration and labour. For the less viable farming pathway, many industrialisers have promoted linking smallholding peasants to commercial farming enterprises and to global commodity markets (The World Bank 2007; McMichael 2009; Veltmeyer 2009).

**Synergists**

In between the agrarianists and the industrialisers lie the synergists, who might take their cue from Jacques Derrida (1967a; 1967b; 1967c) in perceiving an “undecidable” space which undermines the rural-urban binary opposition (also cited in Collins and Mayblin 2011). Indeed, synergists break with the traditional binary or oppositional understanding of rural and
urban areas and instead view these spaces as dialectally relational. In doing so, they emphasise the dynamic and intricate linkages between rural and urban spaces (e.g. flows of commodities, people, and information) and sectors (e.g. agriculture, services, and manufacturing). In addition to these spatial and sectoral linkages, they also argue that the welfare of people, particularly the urban and rural poor, is closely linked through channels such as demand for goods and services, migration, and remittances (Becker et al. 1994).

In the late 1990s, Tacoli (1998) was one of the first scholars to develop an analytical framework for understanding these linkages. In so doing, Tacoli (1998) also suggested that these linkages were critical for balanced economic growth at the national, regional, and local level and for reduced vulnerability at the household level.

At the national level, synergists show that rural-urban linkages are affected by state policies such as agricultural subsidies, formal sector entry requirements, and education and health user fees. Given this, the synergists promote using state policy to enhance and exploit inter-sectoral synergies for the benefit of both rural and urban economies (Anríquez and Stamoulis 2007; Kay 2009).

At the local and regional level, synergists point out that the type of agricultural land, population density, distribution and transport systems, farming, roads, and local government all help shape rural-urban linkages. They also note that the impact of these linkages on livelihoods varies by household composition, demographic characteristics, and access to the resources of household members (Gough et al. 2010).

At the household level, Tacoli (2002) and other synergists have demonstrated that many households are engaging in multi-occupational and multi-spatial livelihood strategies (with family members spread across rural and urban areas) to reduce risk to both economic and environmental shocks (Cousins and Scoones 2010). These strategies include a range of capabilities, assets, and agricultural and non-agricultural economic activities including small enterprises, labour, migration and remittances (Ellis and Biggs 2001; Kay 2009).

Recent studies have found that these strategies hold multiple advantages. For one, households which can send one or more family members to cities to work may be able to take up greater risk in farm investments and insure themselves against poor crop yields (Becker et al. 1994).
Furthermore, following Dinkleman and Pirouz (2002), multi-spatial households often have access to more information (related to land, housing, education, jobs, and prices of goods) which can be crucial to enhancing welfare.

In summary, in contrast to the agrarianist and industrialist theories which view rural and urban spaces as separate spheres, the synergist theory contends that many households straddle the rural-urban divide and continually move across geographical spaces while engaging in diverse economic activities (for illustrative case studies, see Krüger 1998; Smit 1998; Thanh et al. 2005; Baker 2006; Rigg 2006). Thus, the synergist development theory holds an important conceptual advantage given that it is rooted in a more comprehensive representation of the reality of many rural households. In the next section, I will offer practical examples of successful rural development strategies which combine facets of the three ideological positions presented above in order to extract insights which may be applicable in the South African context.

2.3 Case studies of developing country rural-urban development strategies

China is a country which is often viewed as a paragon for reducing rural and urban poverty. Since the early 1980s, robust economic growth has brought wealth to its coastal cities and uplifted hundreds of millions of rural Chinese people out of poverty (Chen and Ravallion 2008, 10-11).

These large decreases in poverty coincided with several fundamental policy changes. One vital policy was a shift from collective large-scale farms to small-scale family farms in 1979 which afforded farmers more control over their land and production decisions (Chen and Ravallion 2004; Bardhan 2010). This shift, in combination with the subsequent liberalisation of crucial agricultural markets (years after de-collectivisation) and widespread egalitarian rights to land, led to the creation of a small scale agricultural sector and helped China’s peasants become a vehicle for economic growth and poverty reduction. In this process, China’s peasants were transformed from tenants to owners and were thus able to take on

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6 At the national level, over 635 million people rose above the poverty line of 2005 PPP USD 1.25 per day from 1981 to 2008 while the percentage of the total population living in poverty plummeted by 68 percentage points (Chen and Ravallion 2008, 10-11). Despite this tremendous achievement, it should also be noted that China has done little to reduce inequality and particularly the large gap between rural and urban incomes. In addition, there are still numerous other development challenges including the troubled hinterlands as well as exploitation of labour (Marais 2010, 339).
greater risk in starting up both farm and non-farm economic activities. Accordingly, the percentage of farm produce sold in open markets rose dramatically from six percent in 1978 to 80 percent in 1993 (Bardhan 2010, 44).

In addition to significant land reform and more equitable land distribution, Bardhan (2011) highlights several other inter-linked factors that facilitated China’s growth in the 1980s. First, China shed its traditional anti-agricultural bias and shifted production from land-intensive products (e.g. cereals) to more labour-intensive products such as fruits, vegetables, and livestock. Furthermore, China increased investment in agriculture and implemented a rural electrification programme which helped pave the way for the “spectacular success of rural industrialisation” (Bardhan 2010, 43). Rural industrialisation was also spurred on by a new governance structure (mandated by the state) which incentivised local development and promoted local officials based on the performance of their districts. Furthermore, another key element to rural growth was China’s emphasis on improving the education and health of peasants which led to widespread literacy among farmers. Finally, Bardhan (2010) also points to other specific factors such as China’s rapid expansion of its transport network (highways in particular) and intensive population control which enabled the Chinese success story.

Although unique in its conditions, the example of China dovetails neatly with several aspects of rural development strategies which were critical to poverty reduction in other countries such as Vietnam, Malaysia, Indonesia, Costa Rica, Taiwan, and Thailand. These aspects included investing heavily in rural infrastructure for small farmers, maintaining zero or minimal taxation of agricultural production, distributing assets more evenly, and avoiding over-valued exchange rates.

The examples of Malaysia and Vietnam help to shed further light on the positive impacts of some of these policies. In the 1970s, the Malaysian government implemented exchange rate and taxation policy to the benefit of its rural population (Naidoo 2006). More specifically,

7 Pranab Bardhan (Professor of Economics, University of California, Berkeley), interviewed by Harry Kreisler 4 April 2011, Berkeley.
8 Hart (1996, 248) corroborates this view claiming that rural industry was a primary driver of the large increase in China’s overall industrial growth.
9 However, this governance structure also led to increases in regional inequalities and other problems. For example, some have argued that local governments have been given too much power and have avoided responsibility in delivering services in areas such as affordable housing and education. Even worse, some local officials have forced farmers into compact housing blocks or taken away land (without sufficient compensation) in order to open up land for commercial development (Bardhan 2010, 50; The Economist online edition 2011a).
Malaysia achieved agricultural growth rates of five percent per annum with the help of relatively low total commodity taxation (at 19 percent of the value of output) as well as strong government support (i.e. government spending in direct support of agriculture at ten percent of the sector’s value added). By contrast, Ghana’s farm output declined by one percent per annum as it taxed agricultural commodities by over 60 percent and spent only three percent of value added on farm support. Although there are various other factors which could influence agricultural growth rates, the data suggest that, in general, most countries that have performed well in agriculture have moderately taxed the sector while simultaneously providing strong support for the sector (Stewart 2000, 11-12).

Vietnam brings out other facets of successful rural development policy. In Vietnam, one of the major drivers of the dramatic decrease in poverty since 1986 was the redistribution of arable land targeted to rural households. This redistribution, combined with trade liberalisation policies and large outlays in infrastructure—road, transport, and communication networks—led to an agricultural growth rate of five percent per annum (Stewart 2000, 13; also see Thanh et al. 2005).

The Vietnam case also exemplifies how government policy can enhance the links between rural and urban economies to engender widespread economic growth. For example, the government promoted non-farm activities through various policies including establishing industrial zones and clusters in rural areas and craft villages connected to national and export markets; relocating some subcontracting and processing firms to rural areas; and putting in place “preferential policies” which helped funnel investments from throughout the economy into the development of industry and services in the countryside (Thanh et al. 2005, 6).

The case of Nhat, an agricultural village in Vietnam, provides a micro-level example of how national government policies are translating into greater economic security at the local and household level. In Nhat, Thanh et al. (2005) found that most households are combining farming with non-farm employment (including wage labour, trade, services, and crafts) and migration. In farming, most households are expanding their agricultural products beyond the traditional production of rice to raising pigs and cattle for sale. At the same time, agricultural production has increased as a result of egalitarian land distribution and improved services, crop varieties, animal breeds and access to domestic urban and international markets. The village is well-connected in terms of transport and information flow as the village receives
and circulates (via its village loudspeaker system) up-to-date information on market prices, farming techniques, cropping seasons, fertilisers, and seeds (Thanh et al. 2005).

In sum, an array of policies may contribute to strong rural growth and poverty alleviation in particular developing country contexts. A large body of evidence suggests that land reform and land rights have been crucial elements in enabling small farmers and peasants to prosper in certain countries. Moreover, favourable tax and exchange rate policies, investment in infrastructure, and improved access to credit, markets, and non-farm economic activities have also contributed to higher rural incomes. From a synergistic point of view, the example of Vietnam (in general) and the village of Nhat (in particular) directly illustrate the importance of diversifying rural livelihoods and enhancing linkages across rural and urban spaces.

In South Africa, the puzzle is perhaps more complex. At a cursory theoretical level, land reform, tax and exchange rate policies, investment in rural infrastructure and human capital, and increased support to both the farm and non-farm rural economy appear to be facilitative (if not necessary) conditions for rural development. In practice, there are no magic policy bullets to South Africa’s rural development challenges and the best combination of these elements will need to be carefully considered in light of the specific political, economic, and social context of provinces and municipalities. At the very least, policy-makers might do well to pay more careful attention to the multi-spatial livelihood strategies of many South Africans as well as to examine the particular components of successful rural development in other countries such as Vietnam while tailoring programmes to the specific needs of rural communities across the country. With these objectives in mind, the next section will attempt to cast light on the historical trajectory of South African rural development policy and its impacts on rural economies.

2.4 Historical background in South Africa: rural and urban policy and impacts

South Africa has a long history of agrarian policies which have deepened rural poverty, particularly among black Africans. Since the beginning of the mineral revolution in the 1860s, state policies such as the Glen Grey Act of 1894, the 1913 Land Act, and the Native Administration Act of 1927 encouraged the development of a white commercial farming sector at the expense of black small-scale farming in the former “homelands” and other rural areas. More specifically, while a small white minority benefitted from more land and political
power, black Africans were expelled and enclosed into “native reserves” in which they received minimal support (Levin and Neocosmos 1989; Bernstein 1996; Hart 1996; Lipton et al. 1996; Aliber 2003).

As a result, the black peasantry was effectively dispossessed and forced into wage labour en masse (Morris 1989; Naidoo 2006). Hendricks (2001, 291) provides more detail: “while white rural dwellers were encouraged to modernize [sic] their agriculture through subsidies, grants, transport concessions, favourable credit facilities, tax relief, marketing boards, and the ready availability of cheap labour, Africans were [to] be proletarians, not peasants, and certainly not commercial farmers.” Thus, in contrast to Lipton’s thesis of an overarching anti-agricultural bias, government policies in the late 19th and early 20th century reflected a specific intra-agricultural bias that benefitted white commercial farmers at the expense of rural Africans.

During apartheid, new discriminatory policies exacerbated racial and intra-geo-type inequalities. The Group Areas Act of 1950 and the Bantu Authorities Act of 1951 concentrated power into the hands of tribal authorities\(^\text{10}\) and led to the forced removal of 3.5 million Africans from white areas from 1960 to 1983 (Cooper 1981; Bernstein 1996). Moreover, the Bantu Authorities Act facilitated a system in which the traditional or tribal authority, by and large, controlled land ownership and land use decisions within the homelands (Ntsebeza 1999).

Despite the repeal in 1991 of the Land Acts of 1913 and 1936, which had protected 86 percent of the land for white hands, at the end of apartheid, roughly this same percentage of agricultural land was owned by 67,000 farmers, almost all of whom were white (The Economist Intelligence Unit 1996, 33). The remaining 14 percent of agricultural land was located in the homelands where 71 percent of the rural population resided, which was predominantly black. The arable land per capita ratio in the homelands was thus extremely low, in the range of 0.27 hectares per resident to less than 0.1 hectares in other areas (The Economist Intelligence Unit 1995, 30).

\(^{10}\) According to Ntsebeza (1999, 1), “The Tribal Authorities were the formal structures set up under the Bantu Authorities Act of 1951 and comprised chiefs and headmen, appointed councillors and a tribal secretary.”
At the same time, in urban areas apartheid created a spatial configuration of black Africans primarily located in townships with poor basic infrastructure, limited services, increased transport costs, and higher crime rates while whites resided in well-resourced suburbs (Office of the President 1994; Terreblanche 2002; Harrison et al. 2008). One positive policy change was the elimination of the urban influx laws in the late 1980s which allowed for greater ease of permanently settling in urban areas (Posel and Casale 2003).

In evaluating these apartheid-era policies, critics of Lipton’s UB thesis might maintain that the general pro-urban and anti-rural bias in South Africa is a mischaracterisation. Indeed, the evidence suggests that racial or intra-geo-type biases would provide a more accurate representation of apartheid-era policies. Clearly, certain urban areas were neglected (e.g. urban townships) while other urban areas populated by whites were provided with better infrastructure, services, and security. Likewise, in rural areas a specific type of development was promoted in which the beneficiaries were white commercial farmers or tribal authority leaders.

Lipton and other academics have recognised these divisions in recent years. Twenty years after first publishing the UB thesis, Lipton et al. (1996, iv) wrote: “In South Africa, [an] intra-agricultural bias, which involves incentives, laws, and institutions which favour large farms and discriminate against smaller, more labour-intensive farming.” In parallel, Hart (1996) also implied that the bias was intra-agricultural arguing that government policy facilitated commercial agriculture while inhibiting small farmers from capitalising on the same rural-urban market linkages or state subsidies to improve their livelihoods. These theories provide a more nuanced picture than the UB thesis even if they neglect to place the racial dimension at the forefront of this intra-agricultural bias.

In summary, throughout South African history, state policies have created and sustained large gaps in economic development levels between urban and rural areas (Office of the President 1994, 7). Yet, instead of a clear-cut urban bias, the data show biases towards particular groups within rural and urban areas and most of these intra-geo-type disparities can be easily traced to policies which privileged whites and disadvantaged blacks. The next section will explore post-apartheid policies and the new government’s attempt to rectify longstanding inequalities across race and geo-type.
2.5 Post-apartheid policies

In 1994, with the end of apartheid and the ANC’s rise to power, the new government aimed to correct for inequitable development and reduce poverty in both rural and urban areas. On paper, the government sought to reinvigorate land reform and rural development in addition to providing restitution and tenure security to the millions of black Africans who had been forcibly relocated off their land (Office of the President 1994; Department of Rural Development and Land Reform 2009). According to Atkinson and Marais (2006, 32), “[f]rom 1995, the issue of rural development had been central in the ANC’s thinking”.

The introduction of the Reconstruction and Development Programme (RDP) in 1994 marked the first major shift in post-apartheid development policy. Cognisant of inequalities throughout the country, the RDP advocated for state-led investment in infrastructure and services with large increases in the delivery of social goods (Hoogeveen and Özler 2005; Naidoo 2006). Moreover, the RDP explicitly recognised that rural incomes were significantly lower than those in urban areas and sought to improve, *inter alia*, land reform, rural housing, facilities, social services, public transport, and the overall quality of rural life (Office of the President 1994; Atkinson and Marais 2006; Harrison et al. 2008). “The RDP framework”, according to Atkinson and Marais (2006, 24), “asserted that substantial transfers of funds from the central government to the rural areas would be required, targeted to meet the needs of the rural poor.” The following sections will briefly sketch out the goals and policies in some of the principal focus areas of the RDP as well as other government efforts to promote rural development.

*Agrarian reform*¹¹

Agrarian reform was one of the main components of the post-apartheid government’s programme to provide redress for past injustices and alleviate rural poverty. Because of apartheid-era policies, in 1994 the agricultural sector was made up of a capital-intensive commercial sector and a subsistence sector largely prevalent in the former Bantustans or ‘homeland’ areas (May and Carter 2009). These two sectors are characterised by different

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¹¹ I use the term agrarian reform to include not only land rights and land redistribution (elements that are commonly referred to as land reform), but also the broader political and economic forces governing production and distribution including access to markets, inputs, training, and credit (see Cousins 2007, 232 for the distinction between land reform and agrarian reform).
spatial, demographic, and economic conditions. For example, the commercial sector (primarily large-scale mechanised agriculture) is dominated by well-resourced white farmers in more sparsely populated areas disconnected from neighbouring towns. In contrast, subsistence farming (viz. small-scale agriculture) is primarily carried out by black farmers in areas with strong tribal authority decision-making powers and denser population settlement (Atkinson and Marais 2006). These differences are important to bear in mind in analysing the implications of government policy.

In the homeland areas, one of the key initiatives of the post-apartheid government was its attempt to introduce democracy with respect to local government and land issues, even in rural areas. This effort to elect local government marks a significant shift from the system of a monolithic tribal authority with virtually no democratically elected officials. Unsurprisingly, many traditional leaders have been reluctant to abdicate power and perceive local government’s involvement in land issues as “deeply threatening attempts to undermine their political and economic powers” (Ntsebeza 1999, 3). To some extent, according to Ntsebeza (1999), the non-compliance of traditional leaders with government policy has played a role in stymieing land redistribution efforts in tribal authority areas. Yet, this is only one of many impediments to widespread land reform and land redistribution which would benefit small farmers in the homeland areas.

In general, the impact of land reform programmes since the end of apartheid has accorded with the intra-agricultural bias theory (advanced by Lipton et al. (1996) and Hart (1996)) as greater benefits have accrued to the commercial agricultural sector and, more specifically, to a small group of better-off commercially-oriented farmers. Moreover, despite an array of land reform programmes with the objective of addressing unequal land distribution and transferring land to black farmers (including Market-Led Agrarian Reform (MLAR), Settlement/Land Acquisition Grant (SLAG), Land Redistribution for Agricultural Development (LRAD), Comprehensive Agricultural Support Programme (CASP)), all programmes have failed to do so to a significant extent (Carter and May 1999; May 2000; Gelb 2007; Lahiff et al. 2007; Borras et al. 2008).

In 2004, a decade after the start of the initial land reform programme, over 96 percent of poor households had not benefitted (Sender and Johnston 2004, 157) and by 2007, only 4.7 percent of arable land (about four million hectares) had been transferred to blacks by state
programmes (CDE 2008, 2). This figure is well short of the government’s explicit goal of redistributing 30 percent of white owned land (25 million hectares) by 2014, a goal that the Centre for Development and Enterprise (CDE) claims is impossible to reach (CDE 2008, 4).

Yet, there are additional problems beyond the inability to transfer land to small black farmers. As Du Toit (2009) points out, agrarian policy in South Africa has ignored the challenges faced by small farmers and farm workers in promoting their integration or adverse incorporation into commercial value chains. Given this, the few land transfers that have occurred have done little to alleviate the significant constraints rural farmers face in terms of water for irrigation, as well as access to other inputs, assets, training and extension, credit, and markets for sale (Lahiff 2007; Du Toit 2009). Moreover, farmers with land remain particularly vulnerable to shocks and poor weather, especially in areas prone to flood, drought, and veld fire (Vermaak and Van Niekerk 2004).

**Housing**

In the area of housing, the RDP set out to build one million houses in five years and to provide affordable shelter to all by 2003 (Knight 2006, 6). Moreover, in its White Paper for a new housing policy and strategy document, the government explicitly addressed the historically unequal relationship between urban and rural housing and emphasised the need to integrate a greater focus on rural housing into national housing policy. In doing so, the government sought to give more attention to the specific characteristics and needs of rural communities with respect to housing. In particular, the White Paper underscored the need to recognise the following elements with regards to rural housing: different household composition; a higher percentage of female-headed households; circular migration; the challenges facing sale of housing as well as various tenure arrangements (RSA 1994).

Despite some initial bureaucratic wrangling over the type of housing (e.g. four rooms versus one to two room dwellings) to be built and a struggling construction sector, by 2003, 1.48 million houses had been constructed (The Economist Intelligence Unit 1996, 33). However, there were multiple critiques of the housing programme. First, some housing experts criticised the government for a lack of emphasis on the quality of housing, including its physical durability as well as the different demands for housing and community development (Gelb 2007, 22). Second, others claimed that the housing subsidy policy targeted households
in the middle of the income distribution in non-rural areas. For example, Van der Berg (2001, 146) argued that the new housing subsidy policy (introduced shortly after the RDP) aimed to benefit “relatively poor people in informal housing in urban or metropolitan areas.” Finally, Smit (1998, 87) points out that housing subsidy schemes should have been more flexible to allow families to split the subsidy between urban and rural homes. These critiques help to draw out biases against rural households as well as the failure to recognise the multi-spatial nature of households discussed by Tacoli and others.

**Education**

Education was another priority area of the RDP. Prior to 1994, although a large share of expenditure (e.g. 22 percent of all spending in the 1994/95 budget) was traditionally allocated to education, it was unequally distributed. In 1991-92, spending per white student was 4,448 Rands compared to only 1,248 Rands per black student (The Economist Intelligence Unit 1995, 14, 20). As a result, there were large disparities in average class sizes and school facilities which significantly affected enrolment and educational attainment (Case and Deaton 1999). The RDP recognised this inequality and aimed to raise the quantity and quality of educational facilities for the majority of the population. At the same time, the education ministry supported programmes for distance and adult education. Furthermore, because many education departments were still divided along racial lines, the ministry sought to unify all matriculation systems and create a single national standard for qualifying (The Economist Intelligence Unit 1995).

These initiatives have helped to reduce the gap in quantitative educational attainment (as measured by mean years of schooling). However, despite substantial resource shifts to predominantly black schools, large differences across race groups on numeracy test scores and matriculation results show that higher levels of educational attainment do not necessarily correspond to improved student performance. Thus, there are still large qualitative differences in educational outcomes across racial groups and the racial composition of the school persists as a significant factor affecting matriculation results (Van der Berg 2002; Van der Berg 2007; De Vos 2011). Moreover, according to De Vos (2011), the educational system has largely failed to address the skills constraint challenge that continues to limit labour market opportunities for those completing higher education.
**Water, health, and sanitation**

Water, health and sanitation were three other areas in which the government intended to provide redress for past discriminatory policies. With regards to health, the RDP recognised that health care facilities in rural areas were of particularly low quality and sought to expand health care coverage, boost the number of health clinics, and promote primary health-care projects (The Economist Intelligence Unit 1995; The Economist Intelligence Unit 1996).

Rural areas were also greatly disadvantaged in terms of water and sanitation. In 1993, it was estimated that 85 percent of the rural population did not have adequate sanitation services\(^\text{12}\) (RSA 1995, n. pag.) and that only 25 percent of water provision interventions carried out by the Department of Water Affairs and Forestry (DWAF)\(^\text{13}\) benefitted rural areas without water (Van der Berg 2001, 147).

Recognising this, the RDP aimed to implement a national water and sanitation programme which would provide all households with a safe water supply of 20 to 30 litres per person per day (ANC 1994, 28). In 1994, major policy shifts boosted the DWAF’s involvement in providing water to rural areas and, as a result, the percentage of department spending allocated to rural areas without water increased to 50 percent (Van der Berg 2001, 147).

In the early 2000s, the RDP vision of providing clean water and adequate sanitation services was expanded through the Free Basic Services (FBS) policy implemented under President Thabo Mbeki. The FBS marked a drastic change from previous government policy in which government paid for the capital cost of programmes as long as beneficiaries paid the recurrent costs (Mosdell 2006).

One of the most successful programmes of the FBS was the Free Basic Water (FBW) policy which was initiated in March 2001. According to Mosdell (2006), the FBW maintained a strong pro-poor vision and was able to achieve significant positive impacts in a relatively short time frame. In fact, the DWAF estimated that over two-thirds of the population was

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\(^{12}\) The National Sanitation Draft Paper defines “adequate sanitation” for a household as: “the provision and ongoing operation and maintenance of a safe and easily accessible means of disposing of human excreta and waste water, providing an effective barrier against excreta-related diseases, which is used by all members of a household, and does not have an unacceptable impact on the environment” (RSA 1995, n. pag.).

\(^{13}\) DWAF has since become the Department of Water Affairs (DWA) when forestry was moved to the Department of Agriculture, Forestry and Fisheries in May 2009.
served by the FBW in 2006. Nonetheless, achievements were uneven across municipalities and provinces. For example, in predominantly rural provinces such as Limpopo, only 26 percent of residents benefitted from the FBW compared to 92 percent of the population in Free State. Moreover, significantly more progress was made in larger municipalities compared to poor rural municipalities (Mosdell 2006). Although these unequal rural and urban development outcomes could be indicative of a policy bias towards certain areas, they more likely point to a lack of resources or capacity to implement policy in particularly disadvantaged provinces or municipalities.

Still, following the general success of the FBW, the DWAF drew on the same FBW methodology in developing a Free Basic Sanitation strategy to promote access to at least a basic level of sanitation for poor households. According to Mosdell (2006, 298), this policy was less successful than the FBW strategy and despite some improvements in health and sanitation, in November 2004, the DWAF estimated that only roughly 7 million people out of 46.5 million were receiving free basic sanitation and that the Free Basic Sanitation policy was only reaching 11.1 percent of the poor.

It is thus unsurprising that adequate sanitation continues to be a contentious political issue in South Africa. Most recently, the issue came to the forefront during the unenclosed toilet scandals in the run-up to the 2011 municipal elections. According to political analyst Judith February, unenclosed toilets represented a strong indictment of failed service delivery and were emblematic of a broader movement to protest service delivery in 2011 (Grobler and Montsho 2011). According to Grobler and Montsho (2011), the protests also focused on making sure locally elected councillors were more responsive to constituents’ demands for improved services.

**Electricity**

Scaling up the electricity network was also a primary focus area of the RDP given that 40 to 50 percent of the population (up to 20 million people) lacked access to electricity in 1995. Under the aegis of the RDP, Eskom (a South African electricity public utility which generates roughly 95 percent of the electricity used in South Africa) also planned to finance its own

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expansion programme, with the goal of providing electricity to 19,000 black schools and 4,000 health clinics in addition to two-thirds of houses nationwide (The Economist Intelligence Unit 1995, 23). Between 1994 and 1999, it succeeded in providing 1.1 million new electrical connections in rural areas as well as electricity to 3,891 rural schools (Office of the President 1999, 13). This occurred in spite of relatively higher costs to connect rural areas to the grid (The Presidency 2003, 15).

Beginning in July 2003, The Department of Minerals and Energy implemented the Free Basic Electricity (FBE) policy in which households on the grid were to be provided with 50 kilowatt-hours of free basic electricity, financed by government transfers, and also subject to compliance with the contract between service provider and consumer. However, in comparison to the FBW, Mosdell (2006, 298) found there was significantly less progress with this policy.

**Information and communications technology (ICT)**

The RDP made provision for expanding telephone coverage to address the gross inequalities that existed in 1994 (e.g. 60 telephones per 100 whites and one per 100 blacks) (The Economist Intelligence Unit 1996, 23). The programme performed reasonably well and by 2000 the extension of telephone services to rural areas had increased access from 20 to 40 percent of households (Office of the President 1999, 13). Moreover, by 2005, almost 95 percent of the population resided and worked in an area with cell phone coverage (Thlabela et al. 2007, 8). In addition, though still undeveloped relative to other lower-middle income countries, the percentage of South Africans with Internet access rose to five percent in 2005 (Thlabela et al. 2007, 25).

**State transfers**

Since the end of apartheid, South Africa’s system of state transfers, or social grants, has played an increasingly significant role in keeping households at a subsistence level or lifting them above the poverty line, especially in rural areas (Williams 2007; Leibbrandt et al. 2010b). The state old-age pension (OAP) and the child support grant (CSG) are two social grants that have been particularly critical in the post-apartheid period.
According to various studies, the state old-age pension (OAP) has been an important source of non-labour income in South Africa, particularly in rural areas where the majority of pensioners reside (see Case and Deaton 1998; Dinkelman and Pirouz 2002; Barrientos 2003; Case 2004). In the past two decades, government policies have led to an increase in the number of pension payments. Two major policy changes were the National Party (NP) government’s extension of the pension to all eligible South Africans in 1992,¹⁵ and further non-discriminatory regulations passed by the ANC-led government which led to parity in payments to all race groups in 1996 (Barrientos 2003). As a result of these measures, from 1993 to 2002, the number of old age pensions increased from 1.5 million to 1.9 million beneficiaries (Barrientos 2003, 4-5; Case 2004, 293).

In addition to the social pension, the child support grant (CSG) has played a crucial role in supporting economic livelihoods in the post-apartheid period. The CSG was introduced in April 1998 following the establishment of the Lund Committee in December 1995 and the committee’s recommendation for a new child-linked grant targeted to a larger group of disadvantaged beneficiaries, particularly children and families living in rural areas or informal settlements. Since the grant’s introduction and the subsequent extension of eligibility to children younger than the age of 15 (by January 2008), the percentage of households receiving any form of social grant has increased significantly (Leibbrandt et al. 2010b).¹⁶ For example, by April 2005, approximately 20 percent of South Africans were in receipt of a government grant, of which 60 percent were CSGs (compared to ten percent in 2002, of which 40 percent were CSGs) (Williams 2007, 3).

Having outlined some of the main areas of development which the post-apartheid government sought to address, the next section will discuss some major government policies in relation to the theoretical framework.

¹⁵ The 1992 Social Assistance Act eliminated provisions which discriminated by race (Leibbrandt et al. 2010b).
¹⁶ Before the CSG, social assistance to children was provided in the form of the State Maintenance Grant. However, because of burdensome conditions, the percentage of children receiving the grant was extremely low (McEwen et al. 2009)
2.5.1 Biases revisited: design and implementation of post-apartheid policies

Although some post-apartheid policies emphasised integrated rural and urban development on paper, it is argued that some of these policies were biased towards specific sectors (Atkinson and Marais 2006). This section aims to assess the design of some government policies and, where possible, to critique the implementation of such policies in relation to the theoretical framework.

Shortly after the drafting of the RDP, the Rural Development Strategy of the Government of National Unity (GNU) was released as a discussion document in 1995. Unfortunately, according to the CDE, “the nature and contents of this document [were] a disappointment” (Bernstein, A. 1996, n. pag.). Chief among the CDE’s criticisms was the document’s failure to understand the complexity of South Africa’s rural areas. Instead, the strategy document followed a strictly binary logic and used the term “rural” without defining what it referred to. However, the document did recognise the inadequacy of the traditional concepts of ‘rural’ and ‘urban’ and also stated that “historical complexities, cultural perceptions and modern needs for service delivery, [sic] cannot easily be simplified into a definition that suits South African purposes” (Office of the President 1995b, n. pag.). Unfortunately, the strategy document did not go much further, only proposing an exceptionally vague “interim” categorisation of rural areas based on low levels of services, distances to service points, and the potential ability of municipalities to raise taxes (Office of the President 1995b, n. pag.).

Another major shortcoming of the document was its failure to identify clearly the underlining challenges hindering rural development despite listing several general constraints (Office of the President 1995b; Bernstein, A. 1996). Moreover, the strategy reflected a parochial understanding of rural-urban linkages; the role of small towns in development strategy; and the policy implications of increasing urbanisation and migration (Office of the President 1995b; Bernstein, A. 1996; Vaughan 1997).

In a small improvement from the Rural Development Strategy, the Development Facilitation Act (DFA) (No. 67 of 1995) produced by the (then) Department of Land Affairs (DLA) reflected a few elements of synergistic development thinking. Significantly, the Act stated

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17 The Department of Rural Development and Land Reform is currently charged with the tasks that fell under the mandate of the DLA.
that policy, practice, and laws should “promote integrated land development in rural and urban areas in support of each other” (Office of the President 1995a, n. pag.). Moreover, the Act advocated the promotion of diverse uses of land, redress for “the historically distorted spatial patterns of settlement,” and the contribution of all sectors of the economy to land development (Office of the President 1995a, n. pag.). In general, the Act made various provisions that would seemingly facilitate small-scale rural development (such as security of tenure) and had no clear policy biases towards commercial farming or urban industry (Office of the President 1995a, n. pag.).

Similarly, the DLA’s Extension of Security of Tenure Act (No. 62 of 1997) had no overt policy biases towards commercial farms or urban development in outlining the provision of agricultural subsidies (RSA 1997). However, despite the balanced appearance of the document, it was cited as a reason for the decrease in employment in farming as well as the rapid urbanisation of unemployed farm workers. Moreover, according to Atkinson and Marais (2006), outside of what was stated in the document, the DLA had biased land reform subsidies to commercial farms rather than to peri-urban areas which hurt the small farming sector.

The 1997 Rural Development Framework (RDF) sought to build on the conceptual strides of the two acts mentioned above and to improve upon the shortcomings of the 1995 Rural Development Strategy. Unfortunately, it made no progress on defining rural areas apart from recognising that its own definition was inadequate (DLA 1997). Fortunately, in a promising step forward, the RDF sought to maximise synergies between rural and urban areas including improving economic linkages to facilitate agricultural development. It also stressed the diversification of economic livelihoods in addition to training, housing, service delivery, agricultural support, land reform, tourism, and market development (Nel 2001, 1011). Furthermore, the document envisioned growth in rural towns through improved input and output markets, workshops, finance, social and health services. Finally, in contrast to the industrialist view, the RDF emphasised building rural livelihoods while hoping to discourage labour migration and urbanisation (DLA 1997; Atkinson and Marais 2006).

Despite these conceptual advances in design, how was the RDF implemented in practice? Atkinson and Marais (2006, 27) suggest that while the “RDF hinted at the importance of a nuanced developmental approach to rural and urban areas and the linkages between them”,
this option lacked institutional and political support and as a result “the narrow sectoral priorities of government [departments] reigned supreme” (also see Harrison et al. 2008). Moreover, subsidies and outlays for infrastructural development continued to be biased toward particular areas (Atkinson and Marais 2006).

In parallel to the vision of RDF and in contrast to the industrialist development strategy, the Department of Social Development (DSD) drafted a White Paper on Population Policy (in April 1998) which advocated alternatives to rural-urban migration such as improving social services, infrastructure, and employment opportunities in rural areas within the context of rural development programmes. The White Paper also highlighted the need to mitigate backlogs for urban infrastructure and social services. However, although the proposed policy addressed linkages across sectors (e.g. education and health), it gave little explicit attention to rural-urban linkages (DWP 1998).

Partly as a result of the failure of rural development programmes implemented from 1994 to 2000, in 2001, the Mbeki-led government reinforced the government’s commitment to rural development and initiated the Integrated Sustainable Rural Development Strategy (ISRDS) to tackle poverty in rural areas (Office of the President 1999; Küsel 2009). The ISRDS document is perhaps the most closely aligned with the synergistic development school of thought.

In comparison to previous rural development policy documents, the ISRDS provided a thorough exposition of the necessary components of a potentially effective rural development strategy. In doing so, it first underlined the specific policy and funding biases of the past. It stated that although several government policy documents had emphasised the need to target state transfers to rural areas, the government had been unable to apply this funding principle at local and provincial levels. In fact, the document argued that government allocations in the 1998/99 National Budget remained biased in favour of urban areas. For example, the allocation of provincial funds maintained a 25 percent weight in favour of provinces with relatively large rural populations. Yet, according to the ISRDS, “this weighted-allocation does not reverse urban bias, as it merely compensates for the higher costs associated with servicing a larger rural constituency” (Office of the President 1999, 9). In addition, studies have shown that only 13 percent of all official development assistance (ODA) expenditures from 1996 to 2000 were allocated to rural development (Office of the President 1999, 9).
Second, the document reframed the agricultural debate in less than benign language stating: “The marginalisation [my emphasis] of agriculture, particularly in the former homelands, needs to be addressed” (Office of the President 1999, 10). Moreover, it advocated that gender ought to feature prominently in the ISRDS given women’s high level of participation in agriculture in most provinces. Similarly, it recognised other particular socio-economic and demographic characteristics which typically increase household vulnerability in rural areas such as female headship, low levels of education, limited access to water, fuel, other services, and limited employment opportunities.

Third, the ISRDS emphasised taking into account the diversity of rural areas and livelihood strategies. In particular, it highlighted the strategic importance of rural towns to the development of the rural countryside. In addition to these intra-rural linkages, the document also placed considerable weight on understanding rural-urban linkages to facilitate rural development. The document stated: “In the absence of these linkages neither rural nor urban development can take place. The ISRDS should therefore not only be aimed at integrating only rural development actions, but it should also incorporate actions to integrate rural and urban areas” (Office of the President 1999, 8).

In synthesising these elements, the document concluded that the diversity and complexity of rural areas and rural-urban linkages should be carefully weighed in developing flexible and tailored plans to particular areas. Moreover, the document noted that although past programmes have emphasised integrated development on paper, they have lacked the understanding and the mechanism to ensure integration (Office of the President 1999). The ISRDS thus stands out in its open criticism of past government policies and its articulation of clear policy suggestions for the future.

Unfortunately, this form of constructive engagement with the core issues of rural development would feature to a lesser degree in the 2003 and 2006 National Spatial Development Perspective (NSDP) documents. On the positive side, these documents helped establish a framework for spatial planning in South Africa and correctly demonstrated that the classifications of rural and urban were inadequate because of significant transfers, social
links, and definitional challenges (The Presidency 2003; Atkinson and Marais 2006\textsuperscript{18}; The Presidency 2007). However, because of political pressure from both rural and urban interests,\textsuperscript{19} the documents avoided the rural-urban debate and focused more on ‘people not places’ (Rogerson 2008\textsuperscript{20}; Harrison et al. 2008\textsuperscript{21}).

Yet, in some ways the 2006 NSDP document is overtly biased towards particular urban centres. For example, the document paralleled the vision of Lewis and the industrialists in recognising the central role of major urban centres in development and other areas of high ‘economic potential’ (The Presidency 2007). In addition, following the industrialist view in the WDR 2008 on Agriculture for Development, it explicitly encouraged out-migration to areas of greater economic potential (The Presidency 2007; Rogerson 2008).

In parallel to the NSDP documents, the Comprehensive Rural Development Programme (CRDP) (formulated in 2009) document also fails to articulate a comprehensive understanding of the spatial and sectoral linkages between rural and urban areas. Currently, the government’s rural development strategy centres around the CRDP which comprises a three-pronged strategy of supporting the three broad areas of “agrarian transformation”, “land reform”, and “rural development” (Department of Rural Development and Land Reform 2009). Under each area, the CRDP Framework document (2009) is considerably vague about its objectives and the mechanisms through which it hopes to achieve them. It also makes almost no mention of urban areas or rural-urban linkages. In fact, it makes one explicit mention of “urban” in recognising the “false dichotomy between the urban and rural space” but fails to elaborate on the implications (Department of Rural Development and Land Reform 2009, 9). Based on the Framework document, the CRDP has failed to acknowledge that many rural households may have family members and assets moving across the rural-urban divide with economic livelihoods dependent on both rural and urban economies. In short, the CRDP, like previous rural development programmes, has adopted a very narrow interpretation of the word “comprehensive”.

\textsuperscript{18} Atkinson and Marais (2006) refer to the 2003 NSDP document.
\textsuperscript{19} Harrison et al. (2008, 106-107) highlight ANC-based rural interests and urban interests including the South African Cities Network and policy groupings linked to business, such as the CDE.
\textsuperscript{21} Harrison et al. (2008) refer to the 2003 NSDP document.
The recently released Green Paper on Land Reform 2011 (Department of Rural Development and Land Reform 2011) fails to correct for the shortcomings of the CRDP Framework document. Although it is only an 11-page Green Paper, like the CRDP document, it completely elides the links between rural and urban development and mentions “urban” once. Furthermore, according to The Institute for Poverty, Land and Agrarian Studies (PLAAS), the Green Paper is “insubstantial and vague” and offers practically “no guidance on any of the crucial questions facing land and agrarian reform in South Africa” (Child 2011, n. pag.). Perhaps the one positive point to be drawn from the Green Paper is that it briefly mentions examples of land reform programmes from other countries suggesting that the Department of Rural Development and Land Reform may be looking outwardly in researching and pulling out useful elements from successful land reform programmes (Department of Rural Development and Land Reform 2011).

In contrast to the CRDP Framework document and the Green Paper, the CDE’s (2008, 53) research report on land reform in South Africa did much better in recognising the importance of urbanisation and the movement of family members across urban and rural spaces in order to craft an effective rural development strategy. The report did equally well in recognising the need for tailored policies and distinguishing between potential land for settlement and housing in metro, peri-urban, and rural areas from land on which aspiring black commercial farmers might be settled (CDE 2008, 49). However, somewhat surprisingly, the Green Paper also paralleled the industrialist approach and advocated that the solution to rural poverty is not to be found through land reform but instead through economic growth in industry, and ensuring that more South Africans are able to benefit from urban development (CDE 2008, 55).

In examining these policies, several main conclusions emerge. First and foremost, although there has been no dearth of government policies and programmes since 1994, policies have often been conceptually deficient, inconsistent, and in some cases perhaps biased towards particular sectors or geographical areas in either design or implementation. There are, in contrast, many examples of efforts to underscore the heterogeneity of rural areas and the need to capture the synergies between rural and urban development, at least in policy design. These conceptual advances have, however, rarely been instantiated at the implementation stage as programmes have often been poorly coordinated and incoherently applied at different levels of government and across traditional sectors (Office of the President 1999). According
to Atkinson and Marais (2006, 42), this lack of integration and coordination is due in part to the government delegating development functions to different departments with either an urban or rural focus and to the paucity of political support for integrated rural-urban development. Most importantly, following the ISRDS document, programmes have lacked an “effective mechanism for integration [which would] specify what happens at the various levels, who does what, and how the integration will be accomplished” (Office of the President 1999, 20).

### 2.6 Conclusion

This chapter introduced the theoretical framework and provided an overview of South African development policy. In doing so, it discussed principal theories in relation to rural and urban development and spelled out some of the strengths and weaknesses of those theories. While each theory has made valuable contributions to understanding rural (under)development, the review demonstrated that the increasingly eminent synergistic development school of thought is likely to be the most appropriate for designing effective rural development policy in South Africa.

Following this theoretical discussion, case studies from other developing countries threw light on some potentially crucial elements of successful development strategies needed to uplift the rural poor. These examples set the stage for a review of South African policies with a specific focus on post-apartheid policies and their impacts. It was concluded that despite some examples of synergistic thinking in policy-formulation, policies and programmes have, by and large, been unable to apply the conceptual tools of the synergists at the level of implementation. This has resulted in biased policy and uneven development across geographical areas and geo-types.

Against this backdrop, the remainder of this study will employ quantitative data from three national-level household surveys to shed further light on the degree to which post-apartheid policies have succeeded in improving livelihoods in different geo-types. The next chapter outlines the methodology used to achieve this and the other objectives of the study.
CHAPTER 3. RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter first briefly outlines the research methodology applied in this study. It then discusses the data which are analysed, including data limitations, coding adjustments, and calculations undertaken to ensure comparability across surveys. Lastly, I describe the methodology used to calculate poverty statistics and to conduct regression analysis.

3.2 Study design and methodology

This study investigates differences in socio-economic well-being across geo-types in South Africa using national-level survey data from the 1997 October Household Survey (OHS), the 2002 General Household Survey (GHS), and the first wave of the National Income Dynamics Study (NIDS) conducted in 2008. These nationally representative household surveys were chosen for the quantitative analysis because they collect relatively comparable information particularly on the economic livelihoods of individuals and households across South Africa.

Using these surveys, the descriptive data analysis compares the socio-economic well-being of individuals and households across geo-types, and assesses how this has changed over time. In doing so, the analysis explores a number of individual and household-level variables that can be compared by geo-type across the three surveys. These variables include:

**Individual unit of analysis:**
- Race
- Gender
- Age
- Marital status
- Highest level of education completed
- Ownership of main dwelling
- Province of residence
Household unit of analysis:

- Household size
- Gender of household head
- Education level obtained by household head
- Number of children in the household
- Number of older persons (aged 60 years or more) in the household
- Number of employed members
- Receipt of social grants and average monthly amount from social grants
- Receipt of remittance income and average monthly amount from remittances
- Whether any household members engage in subsistence agriculture
- Total income earned or received by all household members, which is adjusted by household size to generate a per capita measure of household income
- Access to working landline in dwelling or ownership of cell phone
- Access to piped water in dwelling or on site
- Access to flush toilet
- Sources of energy for cooking and lighting
- Child going hungry in past 12 months

Although the three surveys collect a range of demographic and socio-economic data, there are several limitations with these data that merit consideration. These are discussed in the next section.

3.3 Data limitations and coding adjustments

3.3.1 Identifying geo-types

There is no shortage of criticism directed at classifying geo-types, particularly in the case of a rural-urban binary system (see Lynch 2005, 10-11 for some of these criticisms). “The broad category ‘rural’ is obfuscatory”, Hoggart (1990, 245) writes, “[since] intra-rural differences can be enormous and rural-urban similarities can be sharp.” Furthermore, according to Hart (1996, 247), landscapes are often characterised by “interstitial places” which cannot be properly classified as a metro or deep rural area.
These critiques may be particularly apt for South Africa because of an unclear spatial divide between rural and urban areas with many households living on the urban edge\textsuperscript{22} (May 2000). Moreover, common phenomena such as multiple homesteads and circular migration (i.e., individuals moving back and forth between urban and rural areas) pose additional challenges for classifying settlements (Atkinson and Marais 2006, 40).

In light of these realities, instead of a rural-urban dichotomy, a continuum might be a more appropriate way of conceptualising settlements (Kok et al. 2003; Gough et al. 2010). Yet, despite the crudeness of classifying people into fixed geo-types which are somewhat arbitrarily defined, large differences across geo-types still persist. Given this, accounting for geo-type allows policy-makers to better understand specific development challenges in each geo-type.

The three surveys in this study use different approaches to classify individuals by geo-type based on different classifications of enumerator areas (EAs). The 1996 census carried out by the (then) Central Statistical Service (CSS) was the basis of EA and geo-type classification for both the OHS 1997 and GHS 2002. In contrast, the 2001 census implemented by the renamed Statistics South Africa (StatsSA) was the basis for geo-type classification for NIDS 2008. Important differences in these two classification methodologies require further explanation.

The 1996 census identified geo-type using the following methodology. The country was first divided into roughly 86,000 enumerator areas which were organised into 15 EA types.\textsuperscript{23} EA types were defined by two criteria: 1) geographic location and; 2) type of dwelling which predominated within the EA (e.g., formal, informal). For geographic location, groupings distinguished among EAs in urban municipal or local authority boundaries; areas with population concentrations adjacent to an urban municipal area or border; and non-urban (i.e., rural) areas not sharing a common border with an urban area. These three groupings were classified as “urban”, “semi-urban”, and “non-urban”, respectively (CSS 1998b).

\textsuperscript{22} Urban edge is a clearly delineated outer boundary around an urban area which indicates the shift from rural to urban land use. More specifically, the edge marks the boundary between urban areas—with full municipal services supplied to land uses other than agriculture—and rural areas (Department of Environmental Affairs and Development Planning 2005, 8).

\textsuperscript{23} For both the 1996 and 2001 census, the descriptions of these EA types for proper identification are very brief and somewhat vague (see CSS 1998a; CSS 1998b; StatsSA 2001a, for further information).
The “urban” category comprised the following four EA types within an urban municipal or local authority boundary: 1) ordinary town or city area with various formal structures; 2) area with primarily informal dwellings; 3) area with primarily hostels; and 4) area with primarily institutions (e.g. prisons, hospitals) (CSS 1998b).

The “semi-urban” category included towns without a local authority and mainly formal dwellings as well as three other options with the same type of dwelling criteria as two through four listed above (for the “urban” category) but with the geographic criterion of location outside of an urban municipal or local authority area (CSS 1998b).

The “non-urban” category included the three same options for type of dwelling criteria mentioned in “semi-urban” for EA’s located in non-adjacent (i.e. rural) areas in addition to the following options: village/settlement without a local authority and outside a tribal area but with formal and semi-formal dwellings; tribal authority area with villages or tribal authority area outside of villages; and area with holiday resorts, farms, agricultural holdings, schools, and colleges (CSS 1998b).

Because the “semi-urban” category only covered roughly three percent of the population (Cronje and Budlender 2004, 75), CSS then collapsed these three categories into dichotomous “urban” and “rural” categories based on the 15 EA types. All four “urban” EA types were classified as urban and the remaining 11 EA types falling under the “semi-urban” and “non-urban” categories were classified as “rural” (CSS 1998b).

The 2001 census reduced the number of EA types from 15 to the following ten: urban settlement; informal settlement; tribal settlement; commercial farms; state, park and recreational land; hostels; ‘institutions’ (i.e. all collective living quarters other than hostels); industrial areas; smallholdings; and vacant land (StatsSA 2001a; Cronje and Budlender 2004). The 2001 census also broke from the 1996 census procedure and classified EAs using fixed criteria based on their rural-urban status prior to the re-demarcation of municipal areas, in addition to type of economic activity, land-use and human settlement (StatsSA 2001a).

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24 It is worth mentioning that the 15 EA types were also combined into five EA types in order to draw a sample for the post-enumeration survey (PES). These areas were urban formal, urban informal, commercial farms, tribal authority areas, and other non-urban areas (for definitions of these areas, see CSS 1998a; CSS 1998b). However, because these categories were not preserved in the dataset, this study could only use the binary categories for geo-type.
Each EA type was subsequently classified into four geo-types (i.e. urban formal, urban informal, rural formal, and tribal authority area) based on the following characteristics: total population; population density; types of economic activity; and legal proclamation (Verhoef 2010).

This study preserves the four geo-type system in NIDS to explore differences within rural areas and within urban areas in 2008. In contrast, in order to compare the NIDS 2008 data to the data from the other two surveys, I collapse the four geo-types into a binary classification. However, these comparisons across surveys are undermined by the different ways in which EAs were identified as well as re-classified from the 1996 census to the 2001 census.

In terms of re-classifications, the total number of EAs was reduced by more than 5,000 in the 2001 census because some EAs which were delineated in 1996 were merged to form new EAs in 2001, while other EAs were split into multiple EAs. Furthermore, the decrease in EAs occurred unevenly across provinces (Cronje and Budlender 2004, 75-76).

However, notwithstanding the different systems of EA identification and classification and the crudeness of geo-type categories, this study shows that there are significant differences between rural and urban areas—and within rural and urban areas—for a range of demographic and socio-economic variables which persist over time. Moreover, although the validity of direct comparisons—of the numerical or percentage values—across survey years is weakened by changes in survey design, comparisons across geo-types for a particularly survey year are not compromised by different classification methodologies. For example, the NIDS four geo-type system, while still a crude division, enables policy-makers to identify specific development challenges for particularly disadvantaged geo-types. The next section elucidates other limitations to making comparisons across surveys.

3.3.2 Comparing household income and other welfare indicators across surveys

For comparisons over time, data are provided for all three survey years if available and if there are also generally statistical significant changes across each survey (i.e. over five and six year periods). If either condition is not met, I report only the OHS and NIDS data and thus depict aggregate changes from 1997 to 2008. This occurred in two instances. First, comparable income data were not available for the GHS 2002 because no amounts were
collected in Rand values for grants, pensions, remittances, and other sources of income received (see Table 4.10). Second, for household characteristics by household head, changes were mostly insignificant across survey years so the GHS data were omitted (see Table 4.6).

The three surveys capture extensive information on an array of income sources, including earned income and non-labour income. However, the range of income sources identified in the OHS (and the GHS) is smaller compared to that in the NIDS. For example, for grants, the OHS 1997 did not list the child support grant as an option because it was introduced only in 1998. Also, in the OHS an individual could receive multiple foster care grants or care dependency grants but the data would only reflect the receipt of one grant. As a result, the average number of social grants in the OHS could be underestimated.

Another income source which was accounted for in the NIDS (but not in the OHS) was implied rental income for all households not paying rent. Thus, compared to income measured in the NIDS 2008, income may be underestimated in the OHS 1997.

An additional problem with the income data is related to non-response, which results in missing information for these data. The OHS data do not provide imputed data for missing income information while the NIDS carried out these imputations. As a result, relative to income in the NIDS, total income at both the individual and household level may be underestimated in the OHS.

I attempt to address this problem by using household expenditure to impute a value for household income in the OHS when households report no income or when there is missing information for both earned income and non-labour income. Of the total 29,810 households in the OHS 1997, household income was imputed for 11,716 households which reported no earnings or social grant information. However, 778 households were left with missing income because they also did not report any expenditure information.

To make income measures comparable, all monetary values were adjusted for inflation based on the average Consumer Price Index (CPI) for 1997 using all items in metropolitan areas with 2008 as the base year (2008=100). However, this study does not consider potential spatial price differences (i.e. lower prices in rural areas). Thus, the standard caveat of
overestimating rural poverty applies (Hoogeveen and Özler 2005, 16; Brandt and Holz 2006, 44; Deaton and Dupriez 2011, 139).

3.4 Poverty statistics

3.4.1 Unit of analysis and level of aggregation

It is difficult to collect data that depict individual access to resources within households. Resources are typically shared within households (particularly between parents and children, or between income-earners and dependents more generally) but the nature of this sharing may be unequal.

In order to identify individual income within households, I calculate a per capita measure of household income derived from the aggregated household data. This measure assumes perfect sharing of income among household members. However, if this is not the case, the income of some household members may be overestimated while that of others may be underestimated (see Rio Group 2006, 36-37).

3.4.2 Poverty measurement and poverty lines

Poverty can be conceptualised and measured in a plethora of ways. Because of the income data available and the absolute deprivation of a high percentage of South Africans, this study measures poverty using household per capita income in relation to an absolute poverty line. Following the poverty literature on South Africa, this paper links per capita income (derived from aggregate household data) to the per capita poverty line of 515 Rands (lower bound) in 2008 prices.

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25 For example, Hoogeveen and Özler (2005, 16) calculate that the cost of a basic food bundle in South Africa is 4.5 percent more expensive in urban areas than in rural areas using 1993 prices.

26 Hoogeveen and Özler (2005, 7) initially calculated this (lower bound) poverty line at 322 Rands using the “cost-of-basic needs” (CBN) approach in 2000 prices. This original line has been adjusted to 2008 prices using the CPI. A number of poverty studies have adopted this poverty line, including Ardington et al. 2006; Leibbrandt et al. 2006; and Bhorat and Van der Westhuizen 2008.
3.4.3 Poverty measures

Having selected a poverty line, this study describes poverty using the Foster, Greer and Thorbecke (FGT) class of poverty measures which comprise the headcount ratio ($p_0$), poverty depth ($p_1$), and poverty severity ($p_2$). These measures are widely used and complement each other in helping policy-makers understand the country’s poverty profile.

In general, the FGT measures are formally defined by the following equation:

$$P_\alpha = \frac{1}{n} \sum_{i=1}^{m} [(z - y_i)/z]^\alpha$$

where $n$ is the size of the total population, $m$ corresponds to the number of people with incomes below the poverty line $z$, and $y_i$ is the mean per capita monthly household income of individual $i$.

The headcount measure ($\alpha = 0$) provides the incidence of poverty by dividing the number of households or individuals below the poverty line by the total population. It is easy to calculate and interpret as well as compare across data sets. However, it does not take into account the depth or severity of poverty. For instance, if all households below the poverty line become even poorer the measure will not change.

The poverty depth measure ($\alpha = 1$) captures the average income shortfall below the poverty line (Ravallion and Bidan 1994; Lipton 1997). It also can be used to derive the poverty gap measure (by multiplying the $p_1$ by the poverty line) which is the minimum per capita cost of eliminating poverty. Its main disadvantage is that it is insensitive to the distribution of income among the poor.

Fortunately, the poverty severity measure (or squared poverty gap) ($\alpha = 2$) is sensitive to changes at the bottom of the distribution and is therefore able to pick up on inequality among the poor by allocating greater weight to households farther away from the poverty line.

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27 The total poverty gap measure reveals the minimum cost of eliminating all poverty which equals the money required to bring the income or expenditure of all the poor to the poverty line assuming perfectly targeted and costless transfers from the state (Oosthuizen and Nieuwoudt 2002).
(Ravallion and Bidan 1994; Lipton 1997). Unfortunately, the measure has no intuitive explanation (it is just a number) and thus is not easy to interpret or communicate. Nonetheless, this measure allows policy-makers to determine how inequality among the poor changes over time or, put differently, if policies are effective at raising the income of the most severely poor.

3.5 Data analysis

I present the data analysed in the study in three parts. First, descriptive data analysis compares demographic and socio-economic attributes of individuals and households across geo-types and survey years. Second, poverty measures are generated based on four key characteristics or correlates of socio-economic well-being. These characteristics are the gender of the household head; the education level obtained by the household head; household size; and the number of employed members in the household. Third, regression analysis measures the effect of a host of variables on poverty status and probes whether the effect of geo-type on poverty status remains significant even after controlling for other observable characteristics.

The regression equation is designed to predict the probability that an individual resides in a household that is poor. I account for survey design by using the weighted estimates (for the population) just in case the surveys have under or over-sampled certain groups or areas. I also assume a standard normal distribution for the error term and therefore use a probit model for binary response options for poverty status. The dependent variable in the probit regression equals one if the individual lives in a household which is poor (i.e. an average per capita household income below 515 Rands), and equals zero if the individual does not live in a poor household.

I examine goodness-of-fit using a likelihood ratio test to check the overall significance of the model; a likelihood ratio index; and a calculation for the sum of the percent correctly predicted for the samples “poor” and “non-poor”. I then conduct Wald tests to test the joint significance of different parameters. All tests show that the probit model was a good fit and that most parameters were jointly significant (excepting province dummies).
In determining the appropriate regression equation, multiple regressions were run to check for multi-collinearity and clustering. In order to adjust for multi-collinearity, some independent variables which were highly collinear with the dependent variable or other independent variables were dropped from the equation based on collinear tests (e.g. income). In checking for clustering, cluster or stratification checks were carried out for the sample population at different levels of aggregation. Accounting for clustering did not affect the coefficient estimates but it did affect standard errors to a small extent.

3.6 Conclusion

This chapter described the design and methodology of the study. The chapter first introduced the three national household surveys as well as the individual and household-level variables which are used to analyse changes in socio-economic well-being across geo-types over time.

Although the three surveys collected a wide range of relevant data, several data limitations undermine inter-temporal comparisons. This chapter spelled out those shortcomings in detail including calculations and coding adjustments made to enhance data comparability across survey years. It also shed light on methodological weaknesses and inconsistencies in classifying EAs and geo-types which may further weaken the conclusions of the comparisons across surveys. With these considerations in mind, the next two chapters present the analysis of the research findings.
CHAPTER 4: DESCRIPTIVE STATISTICS: TRENDS AND CHARACTERISTICS BY GEO-TYPE IN SOUTH AFRICA, 1997 TO 2008

4.1 Introduction

This chapter first introduces the data on population and household characteristics across rural and urban areas from 1997 to 2008 (with data from 2002 as the middle point in time). It then explores the distribution of the population across the four geo-types used in NIDS 2008. Next, the discussion highlights key demographic attributes and indicators of socio-economic well-being for individuals and households in rural and urban geo-types over time. For the geo-type analysis, I examine results from the NIDS 2008 data using the four geo-type classification system and the traditional rural-urban dichotomy (by combining rural and urban sub-categories). This allows for greater insight into how each classification system affects results and throws light on current differences within rural areas and within urban areas.

4.2 Key trends in individual and household populations across rural and urban areas

Figure 4.1 depicts population trends across rural and urban areas in South Africa from 1997 to 2008 (also see the first two rows of Table 4.1). The data convey increasing individual and household populations in both rural and urban areas, but an increase that is far larger in urban areas. As a result, there is a widening gap in the size of rural and urban individual and household populations (with significance at the 99 percent level).28 This latter trend has accelerated with rising rural-urban migration in the past decade. For example, from 2002 to 2008, the urban individual population increased by an average of roughly one million per year while the rural individual population rose by just one million over the entire six year period. Moreover, the gap between the number of rural and urban households has grown to an even greater extent from two million more urban households in 1997 to 4.5 million more in 2008.29

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28 Statistical significance refers to differences that are significant (i.e. that the two figures are not equal with a specified level of confidence). It does not imply that the numerical differences are significant (e.g. there are 4.5 million more households in urban areas with a specified level of confidence). Henceforth, all statistics are significant at the 99 percent level unless otherwise stated.

29 All numbers reported in the text are rounded to the first decimal place (except for the marginal effects estimates in Chapter 5 which are rounded to the third decimal place) and all percentages are rounded to the
This rapidly widening gap between the number of rural and urban households reflects a greater increase in the number of households compared to the number of individuals. For example, from 1997 to 2008, the total number of urban households increased by more than 60 percent compared to only a 36 percent increase in the total urban individual population.

This disparity in growth rates between individual and household populations is largely due to a steady decrease in average household size resulting, *inter alia*, from increasing fragmentation of households. As Table 4.1 shows, the percentage decreases in household size and the average number of children per household are particularly pronounced in urban areas. As a result, rural households in 2008 were almost 1.5 persons larger than their urban counterparts.

**Figure 4.1. South African rural and urban populations (individuals): 1997, 2002, 2008**

Source: OHS 1997; GHS 2002; NIDS 2008

Notes: The data are weighted.

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households (millions)</td>
<td>3.62 (0.03)</td>
<td>4.78 (0.05)</td>
</tr>
<tr>
<td>Number of individuals (millions)</td>
<td>19.00 (0.05)</td>
<td>21.10 (1.37)</td>
</tr>
<tr>
<td>Average household size (under 16)</td>
<td>6.83 (0.01)</td>
<td>6.39 (0.02)</td>
</tr>
<tr>
<td>Average number of children per household (under 16)</td>
<td>2.32 (0.02)</td>
<td>1.83 (0.08)</td>
</tr>
</tbody>
</table>

Source: OHS 1997; GHS 2002; NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses. Because the numbers are presented in millions, the numbers of households and individuals have been rounded off.

Table 4.2 provides a more detailed picture of differences in individual and household numbers across the four geo-types which are identified in the 2008 data. The table illustrates that a straight rural-urban bifurcation conceals important differences in the distribution of the population within urban areas and within rural areas.

Table 4.2. Population and household characteristics by four geo-types: 2008

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>Rural formal</th>
<th>Tribal authority</th>
<th>Urban formal</th>
<th>Urban informal</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households (millions)</td>
<td>1.03 (0.20)</td>
<td>3.64 (0.25)</td>
<td>7.58 (0.42)</td>
<td>1.47 (0.37)</td>
<td>13.73</td>
</tr>
<tr>
<td>Number of individuals (millions)</td>
<td>3.48 (0.74)</td>
<td>18.80 (1.34)</td>
<td>24.80 (1.46)</td>
<td>5.75 (1.46)</td>
<td>52.80</td>
</tr>
<tr>
<td>Average household size</td>
<td>4.95 (0.36)</td>
<td>6.26 (0.20)</td>
<td>4.44 (0.16)</td>
<td>5.75 (0.75)</td>
<td>5.27</td>
</tr>
<tr>
<td>Average number of children per household (under 16)</td>
<td>1.08 (0.14)</td>
<td>2.12 (0.08)</td>
<td>0.96 (0.05)</td>
<td>1.36 (0.21)</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

In terms of population statistics, urban formal areas account for 47 percent of the total individual population and 81 percent of the individual population in urban areas. Within rural areas, the majority of the population (84 percent) lives within tribal authority areas, which provide residence to 15 million more individuals than in rural formal areas.

Average household size also varies within rural and urban areas. Within rural areas, the size of the average household is noticeably larger in tribal authority areas (6.3) than in rural formal areas (5.8) (with significance at the 95 percent level). Within urban areas, the average
household size is larger in urban informal areas (5.8) than in urban formal areas (4.4), although this difference is not statistically significant.

In parallel to the household size findings, similar intra-rural and intra-urban differences are evident for the average number of children per household. The average number of children is significantly larger among households in tribal authority areas (2.1) compared to the number in rural formal households (1.1). Within urban areas, the average number of children is greater in urban informal households (1.4) than in urban formal households (1.0), although this difference is not statistically significant. As I will show in Chapter 5, these disparities place tribal authority and urban informal households at a disadvantage because larger household sizes and more children per household are correlated with household poverty (Crothers 1997, 509; Hoogeveen and Özler 2005, 18).

### 4.3 Demographic characteristics and correlates of socio-economic status

In this sub-section, I explore the characteristics of individuals, and the households in which they live, according to the geo-type of residence. I focus on those characteristics that are typically correlated with socio-economic status in South Africa. For individuals, these characteristics include the individual's race, age, gender and level of education; for households, standard correlates of socio-economic status include the gender and educational attainment of the household head, and the sources from which household members draw income.

Table 4.3 presents data on the demographic characteristics of individuals across the four geo-types in 2008. Racial composition varies considerably across the geo-types. Given the historical policies of the former Bantustans as well as urban influx laws, it is not surprising that almost the entire population in tribal authority (99.7 percent) and urban informal areas (96.7 percent) is African. In contrast, the percentage of the total population that is African in rural formal (69.6 percent) and urban formal areas (62.5 percent) is significantly lower. Moreover, these areas are also characterised by significantly lower percentages of females compared to tribal authority and urban informal areas.
Table 4.3. Individual demographic characteristics by four geo-types: 2008

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>Rural formal</th>
<th>Tribal authority</th>
<th>Urban formal</th>
<th>Urban informal</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>69.59</td>
<td>99.73</td>
<td>62.45</td>
<td>96.74</td>
<td>79.35</td>
</tr>
<tr>
<td>Percentage female</td>
<td>47.88</td>
<td>52.36</td>
<td>50.75</td>
<td>52.19</td>
<td>51.29</td>
</tr>
<tr>
<td>Average age</td>
<td>27.29</td>
<td>23.88</td>
<td>28.16</td>
<td>23.88</td>
<td>26.12</td>
</tr>
<tr>
<td>Percentage 60 or older</td>
<td>6.78</td>
<td>6.87</td>
<td>7.19</td>
<td>4.02</td>
<td>6.71</td>
</tr>
<tr>
<td>Percentage younger than 16</td>
<td>31.96</td>
<td>41.12</td>
<td>29.22</td>
<td>34.69</td>
<td>34.22</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

Average age also diverges within both rural and urban areas. In tribal authority areas, the average age is roughly three years less than that in rural formal areas. Similarly, individuals on average are approximately four years younger in urban informal areas than in urban formal areas.

Consistent with these differences in the age profile of individuals across geo-types, the percentages of children in both urban informal and tribal authority are significantly higher than their formal counterparts. Most strikingly, over 41 percent of the population in tribal authority areas is younger than 16 compared to 32 percent in rural formal areas and 29 percent in urban formal areas.

Having shed light on population and demographic statistics, the discussion now turns to various indicators of socio-economic status. Table 4.4 compares three indicators for adult education status across rural and urban areas over time: average years of schooling; percentage with no schooling; and percentage with at least a matric (grade 12) education. The table shows that in 1997, rural adults had lower levels of education than urban adults across all three measures. They had an average of three years less schooling and were considerably worse off based on the percentages with no schooling and the percentages with at least a matric. Most strikingly, the percentage of adults with at least a matric in urban areas (33 percent) was roughly three times greater than the percentage in rural areas (11 percent).
Table 4.4. Individual characteristics of urban and rural adults for education: 1997, 2002, 2008

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th></th>
<th>Urban</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average years</td>
<td>7.09</td>
<td>6.74</td>
<td>7.56</td>
<td>9.92</td>
</tr>
<tr>
<td>of schooling</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.11)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Percentage no</td>
<td>21.53</td>
<td>17.98</td>
<td>15.63</td>
<td>6.27</td>
</tr>
<tr>
<td>schooling</td>
<td>(0.21)</td>
<td>(0.27)</td>
<td>(0.73)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Percentage at</td>
<td>10.83</td>
<td>13.72</td>
<td>19.56</td>
<td>32.62</td>
</tr>
<tr>
<td>least a matric</td>
<td>(0.17)</td>
<td>(0.25)</td>
<td>(0.73)</td>
<td>(0.25)</td>
</tr>
</tbody>
</table>

Source: OHS 1997; GHS 2002; NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses. The sample includes all adults older than 15 years of age.

In analysing change in education over time, Table 4.4 describes some progress in educational attainment for adults in rural and urban areas since 1997. For instance, the percentage of adults with no schooling fell in both rural and urban areas, but the absolute decrease (almost six percentage points) was larger in rural areas. Moreover, the percentage of adults with at least a matric education almost doubled in rural areas compared to only a 25 percent increase in urban areas. By 2008, adults residing in broadly defined rural areas remained significantly less educated than adults in urban areas, but these differences had contracted considerably over the ten year period.

Table 4.5. Individual characteristics of urban and rural adults for education by four geo-types: 2008

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>Rural</th>
<th></th>
<th>Tribal</th>
<th></th>
<th>Urban</th>
<th></th>
<th>Overall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>formal</td>
<td>7.28</td>
<td>10.12</td>
<td>8.57</td>
<td>8.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.31)</td>
<td>(0.16)</td>
<td>(0.17)</td>
<td>(0.11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average years</td>
<td>no schooling</td>
<td>16.41</td>
<td>15.47</td>
<td>3.56</td>
<td>6.82</td>
<td>8.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.22)</td>
<td>(0.79)</td>
<td>(1.43)</td>
<td>(0.41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>at least a matric</td>
<td>16.34</td>
<td>20.25</td>
<td>44.25</td>
<td>23.55</td>
<td>32.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.94)</td>
<td>(0.82)</td>
<td>(2.32)</td>
<td>(1.87)</td>
<td>(1.41)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

In parallel to the earlier findings, Table 4.5 indicates substantial heterogeneity depending on whether or not adults live in “formal” areas, particularly among urban dwellers. In 2008, urban formal dwellers were much more educated than urban informal dwellers by all three measures (with significance at the 99 percent level for “average years of schooling” and “at least a matric” and at the 90 percent level for “no schooling”). Most strikingly, the percentage of individuals in urban formal areas with at least a matric was more than 20 percentage points higher than the percentage in urban informal areas.
In addition to individual characteristics, socio-economic status is likely to be influenced by the characteristics and composition of the household in which the individual resides. One way of distinguishing among households is to examine the characteristics of the self-reported household head.30 Table 4.6 describes households according to the gender of the household head over time. In 1997, more than 50 percent of rural households were female-headed compared to 32 percent of urban households. By 2008, this gap had shrunk by roughly eight percentage points, but the percentage of female-headed households remained ten percentage points higher in rural areas.

Table 4.6. Household characteristics (percentage of households): 1997, 2008

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female-headed</td>
<td>50.31</td>
<td>46.86</td>
</tr>
<tr>
<td>(0.45)</td>
<td>(1.67)</td>
<td></td>
</tr>
<tr>
<td>Household head has no schooling</td>
<td>36.62</td>
<td>29.72</td>
</tr>
<tr>
<td>(0.43)</td>
<td>(1.43)</td>
<td></td>
</tr>
<tr>
<td>Household head has matric or higher</td>
<td>10.95</td>
<td>12.38</td>
</tr>
<tr>
<td>(0.29)</td>
<td>(0.97)</td>
<td></td>
</tr>
</tbody>
</table>

Source: OHS 1997; NIDS 2008  
Notes: The data are weighted. Standard errors are in parentheses.

Household heads in rural areas are not only relatively more likely to be female, but they also have lower levels of education than household heads in urban areas. Table 4.6 shows that in 1997, 26 percentage points separated rural and urban household heads in terms of having no schooling or having a matric or higher.

Since 1997, the percentage of rural households in which the household head has no schooling has decreased by more than six percentage points. This finding, coupled with a small improvement in the percentage of rural household heads with at least a matric (not statistically significant), aligns with earlier data in Table 4.4 which demonstrated small positive impacts on individuals’ access to education in rural areas. However, based on the data, rural household heads (in Table 4.6) have made relatively smaller gains in comparison to all rural adults (in Table 4.4).

30 I use gender of the self-reported head—instead of gender of the highest income-earner in the household—to distinguish among household types because this is a standard axis of analysis adopted in poverty studies.
In comparing rural and urban household heads, inequality has persisted over time. In 2008, roughly six percent of urban household heads had no schooling compared to nearly 30 percent of rural household heads. Moreover, the percentage of household heads in urban areas with at least a matric (41 percent) remained more than three times as high as the percentage in rural areas (12 percent).

Using the disaggregated geo-type data for these variables in the NIDS 2008, Table 4.7 uncovers large differences within rural and urban areas. For example, within rural areas, roughly 51 percent of tribal authority households in 2008 were female-headed compared to just over 30 percent of rural formal households. Within urban areas, over 42 percent of urban informal households were female-headed compared to 35 percent of urban formal households, although the difference is not statistically significant.

Moreover, in terms of education, roughly 16 percent of urban informal household heads had at least a matric compared to over 45 percent of urban formal household heads. These disparities are important given that a higher education level achieved by the household head is likely to be a strong predictor of an individual not residing in a poor household.

Table 4.7. Household characteristics by four geo-types (percentage of households): 2008

<table>
<thead>
<tr>
<th></th>
<th>Rural formal</th>
<th>Tribal authority</th>
<th>Urban formal</th>
<th>Urban informal</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female-headed</td>
<td>30.52</td>
<td>51.67</td>
<td>35.08</td>
<td>42.74</td>
<td>39.80</td>
</tr>
<tr>
<td></td>
<td>(3.53)</td>
<td>(1.75)</td>
<td>(1.83)</td>
<td>(3.41)</td>
<td>(1.21)</td>
</tr>
<tr>
<td>Household head has no schooling</td>
<td>25.87</td>
<td>30.86</td>
<td>5.22</td>
<td>9.56</td>
<td>13.83</td>
</tr>
<tr>
<td></td>
<td>(2.90)</td>
<td>(1.63)</td>
<td>(0.60)</td>
<td>(2.56)</td>
<td>(0.75)</td>
</tr>
<tr>
<td>Household head has matric or higher</td>
<td>11.56</td>
<td>12.62</td>
<td>45.99</td>
<td>15.73</td>
<td>31.57</td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td>(1.15)</td>
<td>(2.67)</td>
<td>(3.03)</td>
<td>(1.94)</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

Tables 4.8 and 4.9 investigate other possible correlates of household well-being including the number of employed people in the household as well as household receipt of social grants and remittances. These data show that households are currently deriving their livelihood from several sources including employment (in which subsistence agriculture is included)\textsuperscript{31}, different social grants (e.g. old-age pension, child support grant, and disability grant), and

\textsuperscript{31} All individuals involved in subsistence agriculture were classified as employed in the three household surveys.
remittances. These data also reveal large differences between and within rural and urban areas as well as important changes over time.

In terms of employment, in 1997, only 45 percent of rural households had at least one employed member compared to 75 percent of urban households. Moreover, the average number of employed members in a rural household (0.6) was roughly half the figure for urban households (1.2). Since 1997, the gap has narrowed considerably as employment has increased among rural households and declined among urban households.

Post-apartheid migration patterns may be partly responsible for this trend (i.e. the rural unemployed may have migrated to become the urban unemployed). However, this type of migration would not explain the increasing percentage of rural households that report at least one employed member, unless households with no employed members were more likely to migrate or to disband after the migration of key income earners, leaving a larger share of “employed” households behind.

Another explanation is that various government initiatives, such as public works programmes, have also contributed to an increasing share of rural households that include at least one employed member. However, research suggests also that this type of employment may inhibit household members from performing other low-wage employment (McCord 2003; McCord 2004; ODI 2004).
Table 4.8. Sources of income for the household: 1997, 2002, 2008

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage with at least one</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employed member</td>
<td>44.89 (0.44)</td>
<td>58.11 (0.58)</td>
</tr>
<tr>
<td>Average number of</td>
<td>0.62 (0.01)</td>
<td>0.79 (0.01)</td>
</tr>
<tr>
<td>employed members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage engaged in</td>
<td>N/d (0.24)</td>
<td>4.35 (1.40)</td>
</tr>
<tr>
<td>subsistence farming*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage receiving a</td>
<td>34.84 (0.43)</td>
<td>N/c (2.07)</td>
</tr>
<tr>
<td>government grant**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of social</td>
<td>0.43 (0.01)</td>
<td>N/c (0.04)</td>
</tr>
<tr>
<td>grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average value of social</td>
<td>371.96 (5.16)</td>
<td>N/c (23.52)</td>
</tr>
<tr>
<td>grants (Rands, monthly)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage receiving</td>
<td>30.21 (0.41)</td>
<td>N/d (0.95)</td>
</tr>
<tr>
<td>remittances***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average value of remittances</td>
<td>190.78 (3.61)</td>
<td>N/d (18.94)</td>
</tr>
<tr>
<td>(Rands, monthly)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: OHS 1997; GHS 2002; NIDS 2008

Notes: The data are weighted. Standard errors are in parentheses. Average amounts are calculated for all households and not only those in receipt of grants, remittances, or pensions. All Rand values are in 2008 prices.

*The GHS data reflect if anyone in the household performed farm work in the seven days prior to the interview while the NIDS data reflect the same for the 30 days prior to the interview.

** The GHS data on grants were not comparable (N/c) to the OHS 1997 and the NIDS 2008 data, and were thus omitted.

*** The GHS 2002 did not collect data (N/d) on the percentage of households receiving remittances or the value of remittances.

In disaggregated form, the NIDS four geo-type data (in Table 4.9) reveal that employment in tribal authority areas is considerably lower than in all other geo-types based both on the percentage of households with at least one employed member and on the average number of employed members per household. Most noticeably, in 2008, only 48 percent of tribal authority households had at least one employed member compared to over 80 percent of rural formal households.
Table 4.9. Sources of income for the household by four geo-types: 2008

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>Rural formal</th>
<th>Tribal authority</th>
<th>Urban formal</th>
<th>Urban informal</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage with at least one employed member</td>
<td>80.66 (3.41)</td>
<td>48.46 (1.62)</td>
<td>69.99 (1.72)</td>
<td>59.55 (2.78)</td>
<td>63.94</td>
</tr>
<tr>
<td>Average number of employed members</td>
<td>1.08 (0.05)</td>
<td>0.66 (0.04)</td>
<td>0.92 (0.03)</td>
<td>0.79 (0.05)</td>
<td>0.85</td>
</tr>
<tr>
<td>Percentage engaged in subsistence farming</td>
<td>9.19 (2.87)</td>
<td>14.33 (1.69)</td>
<td>2.45 (0.48)</td>
<td>5.29 (1.73)</td>
<td>6.41</td>
</tr>
<tr>
<td>Percentage receiving a government grant</td>
<td>38.22 (4.81)</td>
<td>64.21 (1.93)</td>
<td>26.91 (1.86)</td>
<td>48.95 (5.34)</td>
<td>40.01</td>
</tr>
<tr>
<td>Average number of social grants</td>
<td>0.55 (0.08)</td>
<td>0.97 (0.03)</td>
<td>0.39 (0.03)</td>
<td>0.73 (0.11)</td>
<td>0.59</td>
</tr>
<tr>
<td>Average value of social grants (Rands, monthly)</td>
<td>362.05 (60.08)</td>
<td>619.91 (23.00)</td>
<td>255.36 (18.35)</td>
<td>383.58 (62.40)</td>
<td>373.76</td>
</tr>
<tr>
<td>Percentage receiving remittances</td>
<td>9.89 (2.24)</td>
<td>17.11 (1.03)</td>
<td>12.42 (1.19)</td>
<td>13.39 (2.30)</td>
<td>13.58</td>
</tr>
<tr>
<td>Average value of remittances (Rands, monthly)</td>
<td>72.19 (21.80)</td>
<td>192.39 (22.61)</td>
<td>367.34 (156.70)</td>
<td>130.25 (41.54)</td>
<td>273.36</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

This finding is unsurprising given that rural formal areas are primarily characterised by employment-based large-scale commercial production. In contrast, tribal authority areas are more likely to be associated with subsistence farming activities. Although the percentage of households engaged in subsistence farming is clearly higher in tribal authority areas than in rural formal areas, only 14 percent of tribal authority households reported subsistence farming activity in 2008.

Instead of participation in subsistence agriculture, the 2008 data reveal that the majority of tribal authority households are receiving social grants (64 percent) while only 17 percent are receiving remittances. These data reflect a general trend in sources of rural income since 1997 which is closely aligned with Leibbrandt et al.’s (2010b, 26) finding that (from 1993 to 2008) the contribution of remittances to total income has steadily declined for lower deciles and has been replaced by an increasing share of government grants (also see Posel 2010, 137, for the decline in inter-household income transfers).

To illustrate this point, 58 percent of rural households received a social grant in 2008 compared to less than 35 percent in 1997. (It should also be noted that within rural areas 64 percent of tribal authority households received grants compared to only 38 percent of rural
formal households in 2008.) These data reflect the large extent to which government grant programmes have been scaled up in the late 1990s and 2000s especially in rural areas.

Table 4.10 explores the impact of these changes in sources of income (i.e. remittances, grants, and employment) on real incomes across rural and urban areas. The table shows that—because rural households are larger than urban households—the difference in monthly income is even more pronounced when making comparisons based on per capita income instead of total household income.

Since 1997, average per capita household income increased by 88 percent in rural areas and by 71 percent in urban areas (with significance at the 99 and 90 percent levels, respectively). Yet, despite the larger percentage increase in rural areas, the income gap between rural and urban areas remained large and significant. In 2008, urban households still had an average total household monthly income 3.1 times larger than that of rural households (down from 3.4 times larger in 1997) and an average per capita household monthly income 3.4 times greater (falling from 3.7 times as large in 1997).


<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997</td>
<td>2008</td>
</tr>
<tr>
<td>Average household monthly income</td>
<td>1733.84 (43.78)</td>
<td>2526.62 (131.19)</td>
</tr>
<tr>
<td></td>
<td>5942.13 (113.77)</td>
<td>7864.94 (869.08)</td>
</tr>
<tr>
<td>Average per capita household monthly income</td>
<td>492.38 (27.05)</td>
<td>923.34 (90.04)</td>
</tr>
<tr>
<td></td>
<td>1837.45 (42.88)</td>
<td>3142.52 (349.87)</td>
</tr>
</tbody>
</table>

Source: OHS 1997; NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

Table 4.11 reveals the same discrepancy within rural and within urban areas because households are markedly larger in tribal authority and urban informal areas compared to households in rural formal and urban formal areas (see Table 4.2 for household size data). For example, total household monthly income in rural formal areas is 1.4 times larger than in tribal authority areas. However, this gap increases to 1.8 times when per capita household monthly income is compared. Similarly, within urban areas, per capita household monthly income is 4.2 times greater in urban formal areas while total household income is only 3.4 times greater. For current policy discussion, these figures demonstrate that, on average,

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32 These increases may be overstated because the NIDS 2008 income calculations included implied rental income (the OHS did not) (see Chapter 3 for full discussion).
households in tribal authority and urban informal areas are significantly worse off than their formal counterparts and are even worse off in per capita terms.

Table 4.11. Household income by four geo-types (Rands): 2008

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>Rural formal</th>
<th>Tribal authority</th>
<th>Urban formal</th>
<th>Urban informal</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average household monthly income</td>
<td>3292.32</td>
<td>2309.23</td>
<td>8884.59</td>
<td>2603.71</td>
<td>6048.03</td>
</tr>
<tr>
<td>(326.46)</td>
<td>(128.74)</td>
<td>(984.39)</td>
<td>(280.78)</td>
<td>(587.09)</td>
<td></td>
</tr>
<tr>
<td>Average per capita household monthly income</td>
<td>1417.11</td>
<td>783.16</td>
<td>3586.07</td>
<td>853.85</td>
<td>2387.22</td>
</tr>
<tr>
<td>(106.56)</td>
<td>(107.00)</td>
<td>(391.15)</td>
<td>(68.34)</td>
<td>(238.85)</td>
<td></td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

Tables 4.10 and 4.11 used income to gauge average household well-being across and within rural and urban areas. I further explore money-metric indicators of well-being in the next chapter, where I investigate the extent and depth of poverty. However, there are many additional indicators that can be used to proxy socio-economic well-being. Table 4.12 compares some of these indicators across rural and urban areas from 1997 to 2008.

One potential proxy for well-being is whether or not a household owns the dwelling it resides in. In 1997, rural households were 12 percentage points more likely than urban households to report that their dwelling place was owned. This gap grew to 16 percentage points in 2008. Higher dwelling ownership among rural households may be due in part to a larger impact of the Reconstruction and Development Programme (RDP) on rural areas, as well as to an increasing share of rural-to-urban migrants who do not own their dwelling place in destination areas. Moreover, it should also be borne in mind that in 1995 there was a housing backlog of three million units and housing demand was increasing by 240,000 homes per year primarily because of rapidly growing urban populations (The Economist Intelligence Unit 1996, 34). However, these explanations do not help explain why the percentage of households owning its dwelling decreased in both rural and urban areas. One possible explanation is that RDP’s housing subsidy component could not provide housing opportunities at a rate commensurate with the increase in the total number of households, an increase that was associated with a fall in the size of households (RSA 2008, 28).

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of dwelling</td>
<td>87.05</td>
<td>75.36</td>
</tr>
<tr>
<td></td>
<td>(0.29)</td>
<td>(0.53)</td>
</tr>
<tr>
<td>Piped water, in dwelling or on site</td>
<td>26.81</td>
<td>33.22</td>
</tr>
<tr>
<td></td>
<td>(0.39)</td>
<td>(0.56)</td>
</tr>
<tr>
<td>Electricity for main source of energy for lighting*</td>
<td>35.52</td>
<td>58.65</td>
</tr>
<tr>
<td></td>
<td>(0.43)</td>
<td>(0.58)</td>
</tr>
<tr>
<td>Candles for main source of energy for lighting**</td>
<td>44.66</td>
<td>31.93</td>
</tr>
<tr>
<td></td>
<td>(0.44)</td>
<td>(0.55)</td>
</tr>
<tr>
<td>Electricity for main source of energy for cooking</td>
<td>20.04</td>
<td>26.64</td>
</tr>
<tr>
<td></td>
<td>(0.36)</td>
<td>(0.53)</td>
</tr>
<tr>
<td>Flush toilet</td>
<td>25.34</td>
<td>15.10</td>
</tr>
<tr>
<td></td>
<td>(0.39)</td>
<td>(0.48)</td>
</tr>
<tr>
<td>Phone in dwelling** or own cell phone</td>
<td>4.79</td>
<td>25.28</td>
</tr>
<tr>
<td></td>
<td>(0.20)</td>
<td>(0.52)</td>
</tr>
<tr>
<td>Child going hungry in past 12 months***</td>
<td>29.89</td>
<td>29.84</td>
</tr>
<tr>
<td></td>
<td>(0.43)</td>
<td>(0.53)</td>
</tr>
</tbody>
</table>

Source: OHS 1997; NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.
*For the NIDS, electricity could come from mains or a generator as a main source of energy for lighting. In contrast, the OHS did not distinguish between electricity from mains or a generator.
**For the NIDS, the questionnaire options for the phone in dwelling included a landline in working or non-working condition. The data above reflect only those households with a working landline. For the OHS, the working condition of the phone in dwelling was unspecified.
***In the OHS, the question asked if one could “afford to feed children in the last year” with “yes” or “no” or “not applicable” as the only options. In contrast, for the GHS and the NIDS, the question asked if a “child went hungry in the past year” and provided four options for different frequencies of a child going hungry. Because the questions were worded differently, I refrain from making comparisons between the OHS data and other surveys.

In contrast to dwelling ownership, the remaining correlates of well-being indicate that urban households had significantly more access to services than rural households. Access to piped water is a critical service because it frees up time spent fetching water for productive activities and is linked to reducing the risk of dehydration, disease, infection, illness, poor hygiene, and infant mortality (see Butz et al. 1984 and Esrey et al. 1992 for infant mortality; also see Hutton and Haller 2004). In 1997, roughly 27 percent of rural households had access to piped water (in dwelling or on site) compared to 89 percent of urban households. This gap has narrowed to a small extent; by 2008, the percentage of rural households with access to piped water increased by 12 percentage points while the figure for urban households increased by only two percentage points. Nonetheless, the 2008 figure of 38 percent for rural households remains remarkably low compared to the figure of 91 percent for urban households.

A second important service, which is connected to household well-being, is access to energy for cooking and lighting. In 1997, the percentage of urban households with electricity as the
main source of energy for lighting was almost 50 percentage points higher than the figure for rural households. From 1997 to 2008, this gap has decreased markedly as the share of rural households with electricity for lighting grew by more than 31 percentage points while that for urban households increased by only five percentage points (with significance at the 95 percent level). Similarly, the percentage of rural households with access to electricity as the main source of energy for cooking increased by 27 percentage points compared to just a seven percentage point rise among urban households (with significance at the 95 percent level). Despite these gains, in 2008, rural households remained 33 and 36 percentage points less likely than urban households to use electricity as the main source of energy for lighting and cooking, respectively.

A third crucial service is access to a flush toilet which is linked to child weight and lower infant mortality (see Butz et al. 1984 for infant mortality and Cheung 1999 for child weight). In 1997, the percentage of urban households with a flush toilet was more than three times the percentage in rural households. This gap has since increased to more than seven times in 2008 because the percentage of rural households with a flush toilet decreased by more than 50 percent over the period. This decrease may be partially explained by rural households with access to a flush toilet migrating to urban households which did not have access to a flush toilet. (However, this does not explain what happened to the dwellings that these households left behind.) Still, this result is very surprising particularly given that the post-apartheid government explicitly aimed to improve sanitation (and thus presumably access to flush toilets) (RSA 1995; Knight 2006).

A fourth important service is access to a landline or cell phone. According to Dinkelman and Pirouz (2002, 880), limited phone access makes it difficult for rural inhabitants to access job information and search for employment because of restricted lines of communication to distant job centres and social networks. This limitation was perhaps more acute in 1997 when only five percent of rural households either had a landline phone or owned a cell phone compared to half of all urban households. Since 1997 this gap has closed tremendously (from roughly 45 percentage points to just 25 percentage points) as the percentage of rural households with a landline or cell phone increased eight-fold. Nonetheless, a sizeable gap still persists and the absolute percentages of rural and urban households with a phone (38 and 63 percent, respectively) leave ample room for improvement.
The final indicator for well-being presented in the table is a proxy for food security. In 1997, the percentage of urban households with a child going hungry any time in the past year was seven percentage points lower than in rural households. The 2002 and 2008 data also reflect large disparities between rural and urban areas of more than 14 percentage points. It is interesting to note that in comparing the 2002 to 2008 data, the percentage of households which reported that a child had gone hungry in the past year actually increased in both rural and urban areas, although this change is not statistically significant.

The child hunger variable also reveals important differences across the four geo-types used in the NIDS 2008. Table 4.13 shows that the percentage of urban informal households and tribal authority households with a child going hungry at any point during the past year (37 and 35 percent, respectively) is more than 2.5 times greater than the percentage in urban formal households (14 percent).

<table>
<thead>
<tr>
<th>Table 4.13. Other indicators of well-being by four geo-types (percentage of households): 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geo-type</strong></td>
</tr>
<tr>
<td>Ownership of dwelling</td>
</tr>
<tr>
<td>Piped water, in dwelling or on site</td>
</tr>
<tr>
<td>Electricity for main source of energy for lighting</td>
</tr>
<tr>
<td>Candles for main source of energy for lighting</td>
</tr>
<tr>
<td>Electricity for main source of energy for cooking</td>
</tr>
<tr>
<td>Access to flush toilet</td>
</tr>
<tr>
<td>Landline or own cell phone</td>
</tr>
<tr>
<td>Child going hungry in past 12 months</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses.

Apart from child hunger, the NIDS four geo-type data bring to light other key differences across geo-types. In parallel to earlier findings presented in this chapter, for almost every indicator, households in tribal authority areas are worse off than rural formal households while households in urban informal areas are worse off than urban formal households.
For access to electricity for cooking, there is a 17 percentage point gap between rural formal and tribal authority households and a 31 percentage point gap between urban formal and urban informal households (with significance at the 95 and 99 percent level, respectively). For access to a flush toilet, the same gaps are 41 and 50 percentage points. For access to piped water, there is a 26 percentage point disparity between rural formal and tribal authority households and a 23 percentage point disparity between urban formal and urban informal households. Similarly, the same gaps are 16 and 27 percentage points for access to a phone.

In contrast to all other indicators of well-being shown in Tables 4.12 and 4.13, the percentage of households that owns its dwelling is considerably higher in tribal authority (89 percent) and urban informal areas (83 percent) compared to rural formal and urban formal areas. One reason for this is that these areas have a much stronger association with certain dwelling types such as traditional huts and shacks, which are more affordable than formal housing. However, the data presented in this section demonstrate that these dwelling places correspond to significantly lower access to services.

### 4.4 Conclusion

This chapter presented descriptive statistics using quantitative data from the OHS 1997, the GHS 2002, and the NIDS 2008. I began by discussing key trends in the distribution of individuals and households from 1997 to 2008 by geo-type, using the binary classification system. These data revealed that the urban population has increased at a much faster rate than the rural population thereby widening the population gap between rural and urban areas. Moreover, the number of households has increased at a significantly greater rate than the number of individuals partly because of the fragmentation of households and a corresponding fall in household size.

I then highlighted differences in individual and household characteristics within rural and urban areas, using the four-geo type classification identified in the NIDS 2008. These data illustrated significant differences within rural and urban areas according to race, gender, age, and education level as well as household size and the average number of children per household. Many of these differences would place tribal authority and urban informal households at a relatively greater risk of poverty.
The study then compared individual and household-level demographic variables and correlates of socio-economic well-being across geo-types over time. Using the binary system, the data portrayed large differences between rural and urban areas across a range of variables including race, age, household composition, as well as access to resources and employment. Importantly, following the literature on diverse livelihoods presented in Chapter Two, both rural and urban households are currently securing livelihood from various sources with important differences between the two geo-types. Over time, rural households have increased their access to sources of livelihood and have gained ground on urban households for a few correlates of socio-economic well-being. Nonetheless, the contrast between rural and urban areas remains striking.

However, in line with earlier findings presented in the chapter, these binary data mask considerable heterogeneity within both rural and urban areas. The four geo-type data identified in the NIDS uncover significant disparities—across a host of demographic and household characteristics—which would be expected to make households located in tribal authority and urban informal areas more vulnerable to poverty.

The next chapter will explore more rigorously the socio-economic status of households by geo-type in South Africa, in particular by investigating the extent and depth of poverty. I will also examine the relationship between the individual and household-level characteristics described in this chapter and the poverty status of households.
CHAPTER 5: FINDINGS: POVERTY STATISTICS AND REGRESSION ANALYSIS

5.1 Introduction

This chapter first compares poverty statistics for rural and urban areas in 1997 and 2008. It then presents the 2008 poverty measures for all four geo-types to uncover the intra-geo-type differences which are masked by the binary data. Next, poverty measures are calculated based on four important inter-related indicators of household well-being in order to highlight their relationship to household poverty.

Following this univariate analysis, I conduct multivariate regression analysis (using the NIDS 2008 data) to underscore the contribution of geo-type of residence to the probability of an individual living in a household that is poor. In order to understand why poverty risks vary by geo-type, I control for a range of demographic and socio-economic characteristics, which were shown in Chapter 4 to affect poverty status and which vary by geo-type.

5.2 Poverty statistics

The previous chapter illustrated how access to resources, livelihood strategies and services vary across geo-types in South Africa. This section will generate poverty statistics based on geo-type and four other key variables which are likely to influence a household’s livelihood strategy. Table 5.1 compares measures of household poverty between rural and urban areas, and documents how these have changed over time.

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33 For a full explanation of the dependent variable, see Chapter 3.
Table 5.1. Household poverty by geo-type over time: 1997, 2008

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of all households (%)</td>
<td>39.10 (0.30)</td>
<td>34.04 (2.15)</td>
<td>60.90 (0.30)</td>
<td>65.96 (2.15)</td>
</tr>
<tr>
<td>Poverty share (%)</td>
<td>54.27 (0.00)</td>
<td>53.36 (0.03)</td>
<td>45.73 (0.00)</td>
<td>46.64 (0.02)</td>
</tr>
<tr>
<td>p0</td>
<td>0.76 (0.00)</td>
<td>0.56 (0.01)</td>
<td>0.35 (0.00)</td>
<td>0.25 (0.01)</td>
</tr>
<tr>
<td>p1</td>
<td>0.47 (0.00)</td>
<td>0.26 (0.01)</td>
<td>0.19 (0.00)</td>
<td>0.11 (0.01)</td>
</tr>
<tr>
<td>p2</td>
<td>0.34 (0.00)</td>
<td>0.16 (0.01)</td>
<td>0.14 (0.00)</td>
<td>0.06 (0.01)</td>
</tr>
</tbody>
</table>

Source: OHS 1997; NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses. The poverty line is defined as 515 Rands per capita in 2008 prices.

In 1997, despite accounting for only 39 percent of all households, rural households made up over 54 percent of the total poverty share as the poverty headcount in rural areas was 75 percent compared to just 35 percent in urban areas. Moreover, the average income shortfall below the poverty line was more than twice as large among rural households (with p1 of 0.47 compared to p1 of 0.19 among urban households) and the distribution of income among the poor was more than twice as unequal among rural households (with p2 of 0.34 compared to p2 of 0.14 among urban households).

Since 1997, considerable improvements in poverty measures reflect the positive impact of post-apartheid policies in both rural and urban areas. Moreover, the gap between rural and urban areas has narrowed considerably as rural households achieved larger absolute decreases in all three measures of poverty. For example, the poverty headcount fell by 20 percentage points in rural areas compared to ten percentage points in urban areas.

Nonetheless, poverty is still more prevalent and more severe in rural areas. In 2008, rural households account for over 53 percent of all poor households despite constituting only 34 percent of the total population of households. Furthermore, in more than 55 percent of rural households, average per capita household income remains below the 515 Rands poverty line in contrast to roughly 25 percent of urban households.

Figure 5.1 tests whether poverty comparisons by geo-type would be affected by the choice of poverty line at 515 Rands vis-à-vis other poverty lines. The figure illustrates that the choice

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34 However, it is important to bear in mind that if income were underestimated in 1997 (see Chapter 3 for relevant discussion) then the decrease in poverty measures would be over-estimated.
of poverty line does not affect the two main findings drawn from Table 5.1, that rural poverty is worse than urban poverty and that rural and urban poverty rates have decreased from 1997 to 2008.

**Figure 5.1. Household poverty incidence by rural and urban for different poverty lines: 1997, 2008**

![Graph showing poverty incidence by poverty line for rural and urban areas in 1997 and 2008.](image)

Source: NIDS 2008

Notes: The data are weighted. Lines generated using poverty estimates at increments of one hundred Rands.

However, the dichotomous rural and urban poverty measures conceal large variation within rural areas and within urban areas. This is demonstrated in Figure 5.2 which displays poverty rates across the four geo-types used in the NIDS 2008 data.

Unsurprisingly, poverty rates are lowest in urban formal areas at 21 percent. Despite this low rate, because urban formal areas include 55 percent of the total number of households, they still make up the second largest poverty share (32 percent). Tribal authority areas, in which 27 percent of all households are located, account for 48 percent of poor households because they have the highest poverty rate of 64 percent. In contrast to these two areas, rural formal and urban informal areas constitute relatively low population shares (eight and 11 percent, respectively) and make up the lowest shares of poverty (six and 15 percent, respectively).

Yet, it is important to note that rural formal households have a markedly lower poverty rate (27 percent) than urban informal households (48 percent). Thus, the NIDS 2008 data throw light on a large difference obscured by the binary data and illustrate that, between these two
areas, resources would probably be better targeted to urban informal areas which are far more vulnerable to poverty.

**Figure 5.2. Household poverty by four geo-types: 2008**

![Bar chart showing household poverty by four geo-types: 2008](image)

Source: NIDS 2008
Notes: The data are weighted. Poverty is measured using a per capita household income poverty line of 515 Rands in 2008 prices.

Figure 5.3 tests whether the choice of poverty line would significantly alter the poverty statistics for the four geo-type data. The results generally align with the data presented in Figure 5.2: at all poverty lines, tribal authority areas have the highest headcount rate and urban informal areas have a higher poverty rate than urban formal and rural formal areas. Interestingly, rural formal and urban formal households have roughly the same poverty rates until a poverty line of approximately 300 Rands per capita is reached, at which point rural formal poverty rates overtake the rates in urban formal areas. This indicates that rural formal households are more heavily clustered at the lower end of the income distribution than urban formal households.
Having presented poverty statistics by geo-type, the remainder of this section compares poverty measures across four inter-connected household-level characteristics which are likely to be key correlates of poverty: gender of the household head; education level of the household head; household size; and the number of employed in the household. In doing so, I begin to explore whether differences in poverty risk across geo-types can be explained by differences in these four household characteristics.

Beginning with the gender of the household head, Figure 5.4 (below) indicates that more than 60 percent of households are male-headed (for those households that report a head). Yet, because the poverty rate among male-headed households is less than 25 percent, these households only account for 43 percent of poor households. In contrast, despite a population share of only 40 percent, female-headed households account for 57 percent of poor households. This is because their poverty rate (49 percent) is nearly twice as large as that in male-headed households. Thus, high levels of female headship in tribal authority and urban informal areas (52 and 43 percent, respectively) may help explain high poverty rates in these geo-types (see Table 4.7 in Chapter 4 for data on female headship). One reason for this is that female-headed households are often constrained in their access to economic resources because they have fewer employed household members and because of wage differentials between men and women in the labour market (Posel 2001).

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35 Of 7305 households, 7043 reported a household head in the sample.
Table 5.2 explores poverty statistics for a second key correlate of well-being, the education of the household head. The table describes clearly how poverty rates fall as the education of the head rises. At the lowest two levels of education (no schooling and primary education), the depth and severity of poverty are markedly higher than at all other education levels and the headcount rate is above 50 percent. Furthermore, these two categories combined form a poverty share of roughly 57 percent and account for 71 percent of the total poverty gap.
Table 5.2. Household poverty by education of household head: 2008

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Population Share (%)</th>
<th>Poverty Share (%)</th>
<th>p0</th>
<th>p1</th>
<th>p2</th>
<th>Poverty gap (Rands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling</td>
<td>13.59 (0.74)</td>
<td>22.81 (1.01)</td>
<td>0.58 (0.02)</td>
<td>0.27 (0.02)</td>
<td>0.16 (0.01)</td>
<td>146,049,300</td>
</tr>
<tr>
<td>Primary (Grades 1-7)</td>
<td>22.57 (1.13)</td>
<td>33.97 (1.25)</td>
<td>0.52 (0.02)</td>
<td>0.23 (0.01)</td>
<td>0.14 (0.01)</td>
<td>185,246,924</td>
</tr>
<tr>
<td>Incomplete secondary</td>
<td>30.65 (1.13)</td>
<td>30.16 (1.25)</td>
<td>0.34 (0.02)</td>
<td>0.15 (0.01)</td>
<td>0.09 (0.01)</td>
<td>107,272,628</td>
</tr>
<tr>
<td>Complete secondary or Matric</td>
<td>21.95 (1.27)</td>
<td>10.17 (1.25)</td>
<td>0.16 (0.02)</td>
<td>0.06 (0.01)</td>
<td>0.04 (0.01)</td>
<td>14,460,857</td>
</tr>
<tr>
<td>Diploma/Degree</td>
<td>9.55 (1.27)</td>
<td>0.55 (1.25)</td>
<td>0.02 (0.01)</td>
<td>0.01 (0.00)</td>
<td>0.00 (0.00)</td>
<td>131,076</td>
</tr>
<tr>
<td>Other/Missing</td>
<td>1.68 (0.25)</td>
<td>2.33 (1.53)</td>
<td>0.48 (0.06)</td>
<td>0.25 (0.03)</td>
<td>0.15 (0.02)</td>
<td>1,3834,988</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>35.43 (1.53)</td>
<td>0.16 (0.01)</td>
<td>0.10 (0.01)</td>
<td>466,995,772</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Notes: The data are weighted. Standard errors are in parentheses. Poverty gap measures are rounded to the nearest Rand.

Following these two education levels, the headcount rate drops by 18 percentage points (from 52 to 34 percent) if the household head has some (but incomplete) secondary education. Despite the lower poverty rate, households with a head who has obtained this level of education make up 30 percent of the total poverty share and 23 percent of the total poverty gap because they constitute the largest population share (almost 31 percent). If this population group’s poverty gap share is added to the shares of the two lowest education levels, all three categories would account for 94 percent of the total poverty gap.

After this level of education all poverty measures improve enormously. For households with a head who has completed secondary or matric education, the poverty rate drops by another 18 percentage points (from 34 to 16 percent) and the depth and severity of poverty fall by more than half.

At the highest possible level of education (diploma or degree), the poverty measures fall even more precipitously; the poverty headcount plunges to two percent while the depth and severity of poverty drop to one-eighth and one-sixth the size of the measures for households where the head has a matric education. As a result, households with a head who has tertiary education form less than one percent of the total poverty share despite comprising almost ten percent of the total household population.
Figure 5.5 tests whether this negative correlation between education of the household head and poverty risk holds for different poverty lines. Each line depicting the level of education which the household head obtains has first-order stochastic dominance over the line for the education level preceding it. Thus, lower levels of educational attainment among rural household heads (both rural formal and tribal authority) compared to urban household heads (see Table 4.7 in Chapter 4 for data on education level of household head) may help explain why rural households overall are far more vulnerable to poverty than urban households. More specifically, studies have found that the education of the household head is positively linked with access to services (including electricity, sanitation, clean water) and smaller household sizes (see StatsSA 2001b for example), two channels through which the education of the household head is likely to influence economic opportunities for the household.

Figure 5.5. Household poverty by education of household head: 2008

Source: NIDS 2008
Note: The data are weighted. Lines are generated using poverty estimates at increments of one hundred Rands.

Figure 5.6 identifies a third household characteristic that may be a key correlate of poverty risk: household size. The data reveal a clear pattern of increasing poverty alongside increasing household size with the lowest poverty rate (18 percent) occurring in households with one to two residents. Because of this low rate, these one to two person households constitute 21 percent of poor households, despite making up over 40 percent of the total number of households.
The second largest population group of households (accounting for 32 percent of all households) is households with three to four resident members. Yet, these households constitute the largest poverty share (33 percent) because their poverty rate (36 percent) is double the rate in one to two person households. Among five to six person households, the poverty rate climbs another 16 percentage points to 52 percent and the rate continues to grow with larger household sizes.

In light of these data, larger household sizes in tribal authority and urban informal households (with mean household sizes of 6.3 individuals and 5.8 individuals, respectively) therefore may help account for high poverty rates in these geo-types (see Table 4.2 in Chapter 4 for all household size figures).

**Figure 5.6. Household poverty by household size: 2008**

![Chart showing household poverty by household size]

Source: NIDS 2008
Note: The data are weighted.

Table 5.3 describes poverty risks according to a fourth household attribute: the number of employed members in the household. The data demonstrate the large impact of employed members on reducing a household's poverty risk. More specifically, households with no employed members have the highest poverty rate of 57 percent compared to a rate of 24 percent for households with at least one employed member. Moreover, the measures for the depth and severity of poverty among households with no employed members are more than three times as large as the measures for households with at least one employed member. “No employed” households also make up the lion’s share of poor households (58 percent) and
constitute over 80 percent of the total poverty gap despite only accounting for 36 percent of the total household population.

Even the presence of only one employed person in the household significantly reduces the risk of poverty. Among these households, the poverty rate drops 33 percentage points (from 57 percent to 24 percent). As a result, these households form a poverty share of only 32 percent despite accounting for 48 percent of all households. Fewer employed members therefore may also contribute to higher poverty rates among tribal authority and urban informal households compared to those in “formal” households (see Table 4.9 in Chapter 4 for statistics on employment across geo-types).

<table>
<thead>
<tr>
<th>Number of employed</th>
<th>Population Share (%)</th>
<th>Poverty Share (%)</th>
<th>p0</th>
<th>p1</th>
<th>p2</th>
<th>Poverty gap (Rands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No employed</td>
<td>36.06 (1.19)</td>
<td>57.69</td>
<td>0.57</td>
<td>0.28</td>
<td>0.18</td>
<td>409,001,618</td>
</tr>
<tr>
<td>1 member</td>
<td>47.55 (1.12)</td>
<td>32.34</td>
<td>0.24</td>
<td>0.09</td>
<td>0.05</td>
<td>76,153,137</td>
</tr>
<tr>
<td>2 or more members</td>
<td>16.39 (0.77)</td>
<td>9.96</td>
<td>0.22</td>
<td>0.08</td>
<td>0.04</td>
<td>20,247,409</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>0.35</td>
<td>0.16</td>
<td>0.10</td>
<td>505,402,164</td>
</tr>
</tbody>
</table>

Source: NIDS 2008
Note: The data are weighted. Standard errors are in parentheses.

In summary, the above discussion has highlighted large differences in poverty incidence, depth, and severity across broad urban and rural geo-types in both 1997 and 2008. However, there are also significant differences within these broad geo-types. Using the more disaggregated classification scheme provided in the NIDS data, poverty rates are shown to be significantly higher in tribal authority and urban informal areas. Despite having the lowest poverty incidence, urban formal areas still account for almost a third of the households in poverty because they account for 55 percent of the total number of households. The analysis then flagged four household-level characteristics which vary across geo-types in order to describe how poverty risks diverge based on these characteristics. The next section will explore further the correlates of poverty risk in a multivariate context. In so doing, the study will assess the contribution of the geo-type of residence specifically on the probability of an individual living in a household that is poor.

69
5.3 Regression analysis

The regression analysis uses a probit model to explore the probability that an individual lives in a poor household. The first column of Table 5.4 displays the initial estimation (short regression) that includes only the geo-type of individual residence, with urban formal as the omitted category. The estimated coefficients are significant with the positive signs indicating that individuals residing in tribal authority, rural formal, and urban informal areas are more likely to be poor compared to individuals living in urban formal areas (in line with the poverty analysis presented earlier).

The marginal effects show that the risk of poverty is highest in tribal authority and urban informal areas compared to urban formal areas. For a discrete change in geo-type of residence from urban formal to tribal authority and urban informal (with all other dependent variables held constant at mean values) the probability of being poor increases by 50 percentage points (i.e. 0.501 with 95 percent confidence interval [0.431, 0.571]) and 32 percentage points (i.e. 0.321 with 95 percent confidence interval [0.222, 0.420]), respectively.\(^{36}\) By comparison, for a discrete change from urban formal to rural formal, the probability of poverty increases by 15 percentage points (i.e. 0.145 with 95 percent confidence interval [0.035, 0.255]).

Although these regression and marginal effects estimates do not control for variables apart from geo-type of residence, they reveal considerable differences across geo-types and thus highlight the importance of using the four geo-type classification in the NIDS to highlight spatial differences in poverty, rather than a rural-urban binary. To illustrate this point further, the marginal effect using the rural-urban binary categories is a 37 percentage point increase (i.e. 0.373 with 95 percent confidence interval [0.301, 0.445]) in the probability of being poor for a discrete change from urban to rural. Although this result conveys the large inequality between rural and urban areas in general, it might lead to inappropriate policy conclusions. For example, as the marginal effects estimates show, rural formal areas are significantly less likely to be poor in comparison to urban informal areas and tribal authority areas. The regression using the four-geo type classification thus allows for a more nuanced understanding of differences in poverty risk within rural and urban areas.

\(^{36}\) Because the standard errors for the marginal effects are not straightforward, I report 95 percent confidence intervals. All marginal effects were calculated with all other variables held constant at mean values.
The second (long) regression, reported in Column 2, investigates whether the power of geo-type in predicting poverty persists after controlling for a range of individual and household characteristics, which vary by geo-type and which were shown earlier to be strongly related to poverty risks. Unsurprisingly, the marginal effect of geo-type on the probability of being poor decreases significantly. For example, the marginal effect for a discrete change from urban formal to urban informal and tribal authority residence drops from 0.321 to 0.113 (with 95 percent confidence interval [0.046, 0.179]) and from 0.501 to 0.209 (with 95 percent confidence interval [0.124, 0.295]), respectively. (Similarly, using the same specification but with the binary categories for geo-type, the estimated marginal effect for switching from urban to rural falls from 0.373 to 0.130 (with 95 percent confidence interval [0.066, 0.195]). As expected, therefore various individual and household-level characteristics help to explain why poverty risks vary by geo-type.

At the individual level, race, marital status, and education are all significant predictors of poverty. The large positive coefficients on the African and Coloured variables indicate that individuals belonging to these groups are significantly more likely to be poor compared to the White reference group. Most strikingly, the marginal effect of a discrete change from White to African (0.533 with 95 percent confidence interval [0.403, 0.663]) is the largest positive marginal effect in the specification and thus has the strongest predictive power of poverty. In percentage terms, the probability of being poor increases by 53 percentage points for a discrete change from White to African. Because tribal authority and urban informal areas are predominantly African (see Table 4.3 in Chapter 4 for these data), the regression results therefore confirm that race plays an important role in contributing to differences in poverty risk across geo-types.

Individuals who are married are significantly less likely to be poor, perhaps signalling that married individuals face better labour market prospects, although the causality may run in the reverse direction—because individuals are not poor, they are able to marry. The regression also shows that as education levels rise from no schooling (the base category), the probability of being poor initially increases slightly, but it then falls considerably and particularly with the attainment of post-secondary education. Individuals with post-secondary education confront a far smaller probability of living in a poor household compared to individuals with no schooling. However, it is important to note that if the quality of education is generally
higher in urban formal areas than other geo-types, then controlling for the level of education obtained might not pick up all the effects of education on poverty status. More specifically, other factors such as the quality of teachers, school facilities, and management as well as pupil-teacher ratios might also affect the earning prospects of household members.

At the household level, the signs of the coefficients accord with the findings presented in Chapter 4 and earlier sections of this chapter. As expected, the large positive coefficient on the female-head variable demonstrates that female headship is a strong predictor of poverty. Individuals living in a female-headed household are significantly more likely to be poor than the same individuals would be if they lived in a male-headed household. For example, for a discrete change in household headship from male to female, the probability of poverty increases by 12 percentage points (with 95 percent confidence interval [0.107, 0.140]).

A positive relationship also exists between the probability of being poor and household size and number of children under the age of seven. Using marginal effects analysis, the probability of being poor increases by six percentage points for each one unit increase in household size (with 95 percent confidence interval [0.054, 0.064]) and by eight percentage points for each additional child younger than seven years (with 95 percent confidence interval [0.073, 0.095]).

By contrast, the variable representing the number of children between the ages of seven and 14 is not significant in determining poverty status. Following Bhorat and Leibbrandt (2001, 120), this might suggest that household employment decisions including work activities or searching for employment may be less constrained by older children in comparison to children under the age of seven.

There are other important household-level characteristics which reduce the likelihood of poverty. Dwelling ownership, for example, is negatively correlated with poverty. For a discrete change in the dwelling ownership variable from non-owner to owner, the probability of being poor decreases by 12 percentage points (with 95 percent confidence interval [-0.143, -0.100]) Thus, dwelling owners are less vulnerable to poverty compared to non-owners. In contrast to all other variables, tribal authority dwellers maintain an advantage based on this variable because they are far more likely to own their dwelling place than dwellers in formal areas (see Table 4.13 in Chapter 4 for these data).
With regards to services and resources, the data show that households with access to piped water or to a phone are less vulnerable to poverty. These findings may reflect how services assist households in accessing employment and income-generating activities, for example. But they may also indicate that households that are not poor are better able to secure services. Higher levels of education for the household head and more employed members are both negative and significant predictors of the probability of being poor. However, it is important to note that the type of employment is also relevant. This is clearly the case for households with at least one person who is employed through subsistence agriculture activities, as individuals residing in these households are more likely to be poor. This finding is not surprising given that many households involved in agriculture—apart from those involved in commercial agriculture—are likely to be growing food as a subsistence activity because they are poor. Thus, the coefficient on this variable (participation in subsistence agriculture) may also convey an effect of poverty rather than a contributing factor.

In terms of non-labour income, receipt of pensions, remittances (both with significance at the 95 percent level), and disability grants are all negatively associated with poverty. The negative relationship between social pension receipt and poverty risk is consistent with other studies which have found significant increases in welfare as a result of the pension (see Duflo 2000; Barrientos 2003; Leibbrandt et al. 2005; Case and Menendez 2007; Vincent and Cull 2009). In particular, McCord (2004) found a negative association between higher value grants because often the value of the transfer itself (both the old-age pension and the disability grant had a median value of 870 Rands per month in 2008) would lift the household above the poverty line. In the case of the old-age pension, the receipt of a social pension reduces the probability of being poor by 20 percentage points (with 95 percent confidence interval [-0.223, -0.185]).

In contrast to receipt of a pension or disability grant, receipt of the child support grant (CSG) is positively correlated with poverty. There are a few possible interpretations for this finding. First, although studies have found positive impacts of the CSG on household welfare (for example, see Barrientos and DeJong 2006; Agüero et al. 2007; Adato and Bassett 2009), the grant payment may be too small (a median reported value of 210 Rands per month in 2008) to lift households above the poverty line. Second, the majority of caregivers who receive a CSG on behalf of children belong to particularly vulnerable groups (e.g. African females) and
are thus more likely to be poor (Williams 2007, 4). Furthermore, because the CSG is targeted to poor households, it is also possible that there is reverse causality—because individuals are poor, they apply for the grant.

Table 5.4. Poverty estimates, Probit model (weighted)

<table>
<thead>
<tr>
<th>Geo-type</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban informal</td>
<td>0.806***</td>
<td>(0.127)</td>
</tr>
<tr>
<td>Rural formal</td>
<td>0.363*</td>
<td>(0.141)</td>
</tr>
<tr>
<td>Tribal authority</td>
<td>1.257***</td>
<td>(0.090)</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African</td>
<td>1.363***</td>
<td>(0.172)</td>
</tr>
<tr>
<td>Indian</td>
<td>0.232</td>
<td>(0.255)</td>
</tr>
<tr>
<td>Coloured</td>
<td>1.050***</td>
<td>(0.186)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.014</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Age</td>
<td>0.005</td>
<td>(0.003)</td>
</tr>
<tr>
<td>Age squared</td>
<td>-0.000**</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Married</td>
<td>-0.105*</td>
<td>(0.050)</td>
</tr>
<tr>
<td>Primary</td>
<td>0.102**</td>
<td>(0.036)</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.045</td>
<td>(0.042)</td>
</tr>
<tr>
<td>Matric</td>
<td>-0.253***</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Diploma/degree</td>
<td>-1.115***</td>
<td>(0.168)</td>
</tr>
<tr>
<td><strong>Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female-head</td>
<td>0.423***</td>
<td>(0.070)</td>
</tr>
<tr>
<td>Years of schooling of head</td>
<td>-0.055***</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Household size</td>
<td>0.188***</td>
<td>(0.027)</td>
</tr>
<tr>
<td>Number of children under 7</td>
<td>0.162***</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Number of children 7-14</td>
<td>0.059</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Number of employed</td>
<td>-0.596***</td>
<td>(0.055)</td>
</tr>
<tr>
<td>Disability grant receipt</td>
<td>-0.342***</td>
<td>(0.103)</td>
</tr>
<tr>
<td>Child support grant receipt</td>
<td>0.344***</td>
<td>(0.074)</td>
</tr>
<tr>
<td>Remittance receipt</td>
<td>-0.312**</td>
<td>(0.094)</td>
</tr>
<tr>
<td>Pension receipt</td>
<td>-0.514***</td>
<td>(0.085)</td>
</tr>
<tr>
<td>Owns dwelling</td>
<td>-0.405***</td>
<td>(0.085)</td>
</tr>
<tr>
<td>Piped water</td>
<td>-0.211*</td>
<td>(0.095)</td>
</tr>
<tr>
<td>Phone</td>
<td>-0.350***</td>
<td>(0.104)</td>
</tr>
<tr>
<td>Subsistence agriculture</td>
<td>0.786***</td>
<td>(0.129)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.592***</td>
<td>(0.069)</td>
</tr>
<tr>
<td>F stat</td>
<td>71.02</td>
<td>32.60</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Sample size</td>
<td>31,170</td>
<td>26,549</td>
</tr>
<tr>
<td>Population size</td>
<td>52,824,354</td>
<td>46,123,850</td>
</tr>
</tbody>
</table>

Notes: The data are weighted. Standard errors are in parentheses. ***Significant at the 99 percent confidence level. **Significant at the 95 percent confidence level. *Significant at the 90 percent confidence level. The dependent variable is a dichotomous poverty indicator based on household per capita income. The regressions include controls for the nine provinces in South Africa. For the second specification (long regression) for all individuals (weighted), the omitted categories are white, female, not married, male-headed, no schooling, and urban formal residence.

In sum, Column 2 illustrates that differences in individual and household-level characteristics across geo-types are responsible for part of the predictive power attributed to geo-type in the
first specification. However, even after controlling for these characteristics, the effect of an urban informal and tribal authority location is still statistically significant and a relatively strong predictor of the probability of being poor.

The persistence of geo-type as a significant predictor of poverty indicates that there are other factors—either observable characteristics, which are not included in the regression, or unobservable characteristics associated with these geo-types— that increase the likelihood of poverty in these geo-types.\(^{37}\)

Many factors may be relevant here. For example, wage differences across geo-types would likely explain a large part of the higher poverty risk in tribal authority and urban informal areas. The NIDS 2008 data (with only half the sample reporting any income) on labour market income support this explanation as the mean household monthly income from the labour market is far lower in tribal authority and urban informal areas (yet not statistically significant because of wide confidence intervals). In addition, following Van der Berg (2002), the education variables included in the regression may not control adequately for differences in the quality of education across geo-types. Moreover, there may also be a range of other factors related to infrastructure (including access to transport and other services), access to credit markets and insurance, as well as crime and security, which impose differential costs on economic activity across geo-types.

It is also possible that there is reverse causality—because individuals are poor, they are forced to live in urban informal areas or tribal authority areas. There is also the possibility that causality runs in both directions and that living in a particular geo-type not only affects the probability of being poor but is also a consequence of poverty status.

5.4 Conclusion

This chapter presented poverty statistics using quantitative data from the OHS 1997 and the NIDS 2008. Poverty measures generated using the binary classification demonstrated that

\(^{37}\) It merits mentioning that the relationship of unobservable characteristics to certain geo-types does not have to be direct (i.e. the omitted variable is present in certain geo-types and not in others). For example, there could be an omitted variable that is a nonlinear function of an observed variable. The function could be the same across geo-types, but if the observed variable varies significantly across geo-types, then its function will vary as well.
poverty has decreased over time in both rural and urban areas while the gap between rural and urban areas has narrowed significantly. However, the extent and depth of poverty remain far worse in rural areas.

Because of the crudeness of the binary classification system, I then discussed poverty measures across all four geo-types identified in the NIDS 2008. These data highlighted large differences in poverty rates and poverty shares across geo-types. As expected, owing to significantly higher poverty rates, tribal authority and urban informal areas accounted for the lion’s share of the total number of poor households. However, despite a much lower poverty rate, urban *formal* areas still represented almost one-third of the poverty share because they include more than half the total number of households.

The chapter then attempted to explore whether four key household level attributes would contribute to explaining higher poverty rates in particular geo-types. Poverty measures disaggregated according to these variables revealed significant differences in poverty risk. Moreover, the data demonstrated that, on aggregate, the characteristics associated with higher poverty risks are particularly evident among individuals and households in tribal authority and urban informal households.

Following these univariate results, the final section of the chapter employed regression analysis to examine more rigorously the effect of geo-type on poverty risk in a multivariate context. The data confirmed that many individual and household attributes help account for why individuals living in households in certain geo-types face a higher probability of being poor. However, for individuals living in a tribal authority or an urban informal area, the effect of geo-type remains a large and statistically significant predictor of poverty even after controlling for these factors. Thus, households in these areas are at a greater risk of poverty than households in urban formal areas for reasons unexplained by the model and there are likely to be other factors—observable or unobservable—38—that affect poverty risk in those geo-types. Differences in wage rates in the labour market and the quality of education, access to infrastructure, credit markets and insurance, as well as crime and security were posited as possible factors not accounted for in the model. Further research, both qualitative and

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38 Here, I use ‘unobservable’ to mean any characteristic for which quantitative data is not currently available but could be collected as well as other factors which may be observed by the research but are not easily measurable (in quantitative terms).
quantitative, is needed to explore how these factors and others affect poverty risk across geotypes in South Africa.
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the main findings of the research and offers suggestions for the way ahead. The motivation of this research was theoretically and empirically to investigate rural development in South Africa with a focus on differences across geographical types. At a theoretical level, the study sought to analyse key post-apartheid policies and their implementation through the lens of important development theories including Lipton’s urban bias thesis and the more recent synergist approach. At an empirical level, the research aimed to understand important trends since the end of apartheid and identify the factors contributing to differential poverty risks across geo-types. Although several of the findings of the research are weakened by limitations across the data, the study offers important insights that may be useful in guiding future policy-making and research.

6.2 Contributions of empirical findings and limitations

There are a few reasons for questioning the strength of the conclusions drawn from the inter-temporal and inter-geo-type analysis of this study. In analysing changes over time, the comparability of the empirical findings was undermined, to an extent, by differences in the surveys used and by changes in the geo-type and enumerator area classification methodologies employed by Statistics South Africa. Although these reasons do not compromise comparisons across geo-types within a particular survey, the crudeness of geo-type categories (especially for the binary data) and the movement of individuals and households across different geographical spaces mean that comparisons over time should be interpreted with caution. In particular, more weight should be given to directions of change rather than precise magnitudes of change.

Notwithstanding these limitations, the study generated an important set of findings. Despite the crudeness of the binary categories, the study still found large and significant differences between rural and urban areas for a range of demographic and socio-economic characteristics including race, age, household composition, as well as access to education, resources, and employment. The research also showed that since 1997, the economic livelihoods of rural and
urban individuals and households have improved and the gap between rural and urban areas has narrowed based on a few correlates of socio-economic well-being. Yet, despite a host of programmes and large resource shifts designed to benefit rural areas, rural households still lag well behind urban households.

Similarly, using poverty measures based on the binary data, the study showed that poverty has fallen over time in both rural and urban areas while the disparity between rural and urban areas has decreased significantly. However, the extent and depth of poverty remain far worse in rural areas using the NIDS 2008 data.

More importantly, the study demonstrated that although differences are significant between the ‘rural’ and ‘urban’ binary categories, the picture that the rural-urban binary data paint is incomplete and perhaps misleading. This study’s findings provide support to moving beyond the rural-urban binary because of considerable heterogeneity within both rural and urban areas. The four geo-type data identified in the NIDS 2008 help to uncover significant disparities—across a host of demographic and socio-economic characteristics—which make households located in tribal authority and urban informal areas far more vulnerable to poverty than their formal counterparts.

The study then attempted to determine which specific characteristics help to explain differential poverty risks across geo-types. Using poverty analysis, the study presented figures showing the degree to which four key inter-linked household-level attributes (i.e. gender of the household head; education level of the household head; household size; and the number of employed in the household) contribute to explaining higher poverty risk in particular geo-types. As expected, the data demonstrated that the characteristics associated with higher poverty risks are particularly evident among tribal authority and urban informal households.

In providing additional rigour, the regression analysis then concluded that these characteristics and others are correlated with higher poverty risk and therefore help to account for why individuals living in households in these geo-types face a higher probability of being poor. However, even after controlling for these factors, the effect of geo-type (for individuals living in a tribal authority or an urban informal area) remains a large and statistically significant predictor of poverty. Thus, individuals in these areas face a greater
risk of poverty than individuals in urban formal areas for reasons unexplained by the data and there are likely to be other factors—such as differences in labour market wages; the quality of education; crime; security; and access to infrastructure and services—that affect poverty risk in those geo-types. It is also possible that there is some reverse causality (i.e. that poverty status also affects geo-type).

6.3 Contributions to literature

Few studies have analysed South African development policy in the post-apartheid era through the lens of an urban bias or synergist theoretical framework (see Atkinson and Marais 2006 and Harrison et al. 2008 as exceptions). Through this prism, the review found that several South African policy documents related to rural development paid little attention to rural-urban linkages and in some cases were perhaps biased towards particular sectors or geographical areas in either design or implementation. By contrast, a few policy documents such as the ISRDS (Office of the President 1999) and CDE research report on land reform (2008) did much better at highlighting the heterogeneity of rural areas, the multi-spatiality of households, and the need to capture the synergies between rural and urban development.

However, despite these examples of synergistic thinking in policy-formulation, the review concluded that policies and programmes have, by and large, been unable to apply the conceptual tools of the synergists at the level of implementation as programmes have often been hampered by a lack of coordination and inconsistencies at different levels of government. This has resulted in biased policy and inequitable development across geographical areas and geo-types. Moreover, the government has generally failed to muster the political will and has been unable to articulate the vision and establish the mechanisms needed to carry out an integrated rural-urban development programme.

The study thus concluded that all these factors have limited the success of rural development programmes in the post-apartheid era. Bearing in mind these limitations, the study aimed to draw out other elements which might enhance the success of future development initiatives. In doing so, the research distilled key elements from successful development strategies in countries such as China, Malaysia, and Vietnam which may be applicable in the South African context. This study aimed to throw light on these examples and did not attempt to definitively pinpoint which specific elements should be integrated into a South African rural
development strategy. As noted earlier, because rural areas in South Africa are heterogeneous and face multi-faceted challenges, policies will need to be flexible and tailored to the specific social, political, and economic conditions at the provincial, municipal, and local level. For example, at the local level, careful attention will have to be paid to the structures governing land rights, the types of agriculture and non-farm economic activities taking place, in addition to access to markets and other resources.

Nonetheless, given the review of policies in this study, there are areas in which rural development programmes might wish to dedicate more attention and resources. If reinvigorating small-scale agriculture is part of South Africa’s rural development strategy, the literature review in this study has suggested that individuals with the desire to farm on a small-scale would likely benefit from more substantive land rights and post-transfer support services. The literature has also implied that these policies are likely to be more effective when complemented by other policies which improve infrastructure as well as access to credit, markets for inputs and outputs, and information.

In addition, in line with the synergist framework, this study also advocated for greater attention in policy-making to the multi-spatial and multi-dimensional livelihood strategies of many South Africans. This point was supported by the empirical data in this study which illustrated that households are securing their livelihood from several sources. Given this, initiatives which help households build capacity to diversify sources of income from farm and non-farm economic activities while mitigating risk would likely be a good first step to greater livelihood security. Moreover, at the macro-economic level, policies that enhance rural-urban linkages as well as reduce biases against the agricultural sector (e.g. favourable tax and exchange rate policies39) may also play an important role in stimulating rural development.

39 Few policies examined in this study explicitly mentioned reconfiguring exchange rate or tax policy to benefit agriculture. No document reviewed mentioned exchange rate policy. An exception to the lack of attention to tax policy was one of the resolutions on land issues adopted at the ANC’s national conference in 2007 which advocated special tax measures to accelerate the re-allocation of under-utilised land and land redistribution, and urgent action to eliminate biases in the tax system that “provide incentives for the ownership of large tracts of land, capital intensity and the underutilisation of agricultural land” (CDE 2008, 26).
6.4 Areas for future research and additional recommendations

The findings of this study are speculative and suggestive in nature. Further research, both quantitative and qualitative, is needed to develop a better understanding of many aspects of this study with particular reference to South African households across geographical types. Following the work of Tacoli (1998, 2002, 2006) and the micro-level case studies of Thanh et al. (2005), Baker (2006), and Rigg (2006), similar studies should be conducted to enrich the theoretical and empirical work on the multi-spatial nature of households and the diversity of strategies used to secure livelihoods.

In South Africa, rural-urban linkages remain crucial for many households. In line with Hart and Sitas (2004), more research is needed to understand these “spatial interconnections” as well as the shifting rural-urban relationships resulting from increasing urbanisation and urban insecurity. Smit’s (1998) insightful study of urban households’ linkages to rural areas in Durban is one example of this type of research that can be replicated in different parts of South Africa. These studies can also augment the empirical knowledge of other factors which may affect poverty risk in particular geo-types but are often unaccounted for by household surveys.

In addition, panel survey data (such as future waves of the NIDS) could be used to track changes in the socio-economic well-being of particular rural and urban households as they modify livelihood strategies in the face of changing constraints and opportunities. 40 This analysis could also control for, and assess the effect of different household compositions and socio-economic characteristics. For example, panel data could be very useful in determining whether new policies (such as the extension of the child support grant to children under the age of 18, new land reform initiatives, or extended service provision) have an impact on household participation in agriculture or other non-farm economic activities.

Lastly, the study has argued that the NIDS 2008 four geo-type classification system allowed for significantly greater insight than the previous binary geo-type system. However, as discussed in Chapter 3, the four geo-type system is perhaps still crude and the rigour of the

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40 For example, May et al. (2007) used panel data from the KwaZulu-Natal Income Dynamics Study (KIDS) to track the economic well-being of particular households in the province of KwaZulu-Natal.
methodology employed by Statistics South Africa for classifying geo-types is weakened by ambiguities in definitions and criteria. This study therefore suggests both a more rigorous methodology in classifying geo-types as well as preserving the broader geo-type categories (there are ten) in the final data set instead of consolidating to the four categories used in NIDS 2008. These adjustments would enable researchers to generate stronger empirical findings in relation to the geo-type categories.
REFERENCES


89


www3.qeh.ox.ac.uk/pdf/qehwp/qehwps37.pdf.


94


