

**EXPLORING JOB SEARCH AND THE CAUSES OF ENDOGENOUS
UNEMPLOYMENT: EVIDENCE FROM DUNCAN VILLAGE,
SOUTH AFRICA**

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ABSTRACT

Despite high rates of unemployment in South Africa, there is little consensus about its origins and solutions to the problem. Job search (how and when people search for work) is one aspect of the unemployment problem. Job search is shown to be a complex process strongly linked to the endogenous structure of the labour market. The flaws in traditional methods (theoretical and measurement) highlight this.

Using data from a tailor-made survey in Duncan Village (a peri-urban area in Buffalo City, South Africa) the research examines factors that influence the effectiveness of job search. The results show that mode of search (how people look for work) is used as a signal by employers. Degrees of success are stratified amongst searchers using either 'word of mouth', place-to-place or formal modes of search. The thesis provides a method-test to reveal a complex body of evidence that has yet to be fully explored by practitioners in this field.

Keyword search: Unemployment, Job Search, Endogenous, Market Failure.

DECLARATION

Except for the references specifically indicated in the text, and such help as I have acknowledged, this thesis is wholly my own work and has not been submitted for degree purposes at any other university.

P.A. Duff

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January 2009

CHAPTER 1

INTRODUCTION

“At the century’s edge, we are less exercised by annihilation – the death of the author – or epiphany – the birth of the ‘subject’. Our existence today is marked by a tenebrous sense of survival, living on the borderlines of the ‘present’...Beginnings and endings may be the sustaining myths of the middle years; but in *fin de siècle*, we find ourselves in the moment of transit where space and time cross to produce complex figures of difference in identity, past and present, inside and outside, inclusion and exclusion.” - Homi K. Bhabba (1994:1)

1.1 Problem Statement

It is widely recognised in South African literature that unemployment generates both economic costs and social costs (Dinkelman and Pirouz, 2003:1).¹

There are several issues that consistently arise with the diagnosis and solutions for unemployment in South Africa.

Firstly, there is the definitional issue, which arises when rates of unemployment are high. For example, Kingdon and Knight (2001a:3), using national survey data for the period 1993 to 1997, show that year-to-year measurements of unemployment are high, and on average differ by roughly 14% depending on what definition is used.²

Secondly, there is the issue of enumeration and survey techniques used by researchers in the field. Fryer and Stuart (2002:2) state that undercounting is most prominent in poorer

¹ Researchers have collected and disaggregated large sets of data with the intention of testing the statistical significance of the relationships associated with unemployment. Duff and Fryer (2004:1) affirm that unemployment is implicated in studies of poverty (Bhorat *et al.*, 2001), crime, alcoholism, HIV-Aids (Nattrass 2003b) and even poor educational outcomes (Hertz, 2003; Fryer and Vencatachellum, 2003).

² As per the convention of the International Labour Organisation (ILO), the criteria used in standard practice is stipulated by the “strict/narrow” definition and are as follows: 1) not working, 2) searching for a job, and 3) is available to take up work on short notice. Alternatively the “expanded/broad” measure drops condition 2) and re-classifies the unemployed based on conditions 1) and 3). Those who are not searching for a job are thus considered Non Labour Force (NLF) (Fryer and Stuart, 2002:3).

households, which constitute a high number of Black and rural families. Subsequently, national data shows that Blacks face rates of unemployment of up to 41%, the highest out of all race groups (Kingdon and Knight, 2000: 8). The main problem with undercounting is that it is closely linked to high rates of “hidden employment” in the informal sector (Anker *et al.*, 1987:1).³

The definitional and enumeration problems discussed above, not only raise questions about rates of unemployment, but also suggest that labour market categories cannot be properly defined. It suggests that the diagnosis of labour market problems may be weak as a result of the ambiguity associated with these basic issues (Standing *et al.*, 1996). This necessitates further exploration into the underlying structure and theory of the labour market.

Take into account that rates of employment have simultaneously increased with rates of unemployment in South Africa (see for example, Casale and Posel, 2004). In a study on the labour market in Kwa-Zulu Natal, Posel (2006:8) states: “Economic growth is not a sufficient condition for employment growth. We need to think more about the constraints to employment...”

Job search may provide several answers to the question of “constraints to employment” (Posel, 2006: 8). Existing theory on job search explores the theme using the following approach. Job searchers will only search for employment if the marginal benefit of doing so exceeds the marginal cost (Dinkelman and Pirouz, 2001). If the cost of search is too high, the jobless person will become depressed and decide not to actively search for work (see for example Theodossiou, 1998). In cases such as these the jobless person has the desire to work but is not actively searching, and thus considered not in the labour force (NLF) by conventional measures (i.e. ‘strict’ criteria).

³ This debate explores the extent by which the activities of the jobless are less than observable at the survey level (Moll, 1986; Anker *et al.*, 1987; Narayan, 1999). Although these themes are implicated in the theory (Fryer and Stuart, 2002:3) they are not explicitly dealt with in this dissertation, although the precautions and guidelines emanating from these insights were exercised in the Duncan Village 2004 survey.

Moreover, the higher the rate of unemployment, the more likely it is that the new labour market entrants will become disheartened about the prospects of finding a job (Begg *et al.*, 1984:590). The relatively high cost of job search and dismal labour market prospects, represent a “discouraging force” to existing and potential labour market candidates (Begg *et al.*, 1984:590).⁴ Thus, the “discouraged worker effect” is considered an endogenous cause of unemployment. This is because the “narrow [i.e. ‘strict’] measure may be endogenous in that the number actively seeking work itself depends upon the broad unemployment rate” (Kingdon and Knight, 2001a:2).⁵

The theme of endogenous unemployment suggests that several components, from varied theoretical backgrounds, need to be addressed. In specific, endogeneity raises questions about labour market distortions (Gordon, 1990), job rationing (Neary, 2004:93-97), human capital stocks (Becker, 1964), as well as possible long-term effects such as hysteresis (Blanchard and Summers, 1986) and inter-generational unemployment.

This dissertation makes use of primary data that is supported by a synthesis of theory. It uses a method-test approach to research and highlight theoretical, analytical and data limitations. In doing so, it hopes to answer several questions surrounding job search and its endogenous link to the unemployment conundrum. However, the research conducted here is from a small sample of residents living in Duncan Village, East London. Results should therefore be treated with a measure of caution.

1.2 Specific research questions and hypotheses

This thesis explores job search in South Africa. A key research question is what influences the effectiveness of job search in the labour market. More specifically, it

⁴ For similar interpretations and models of job search in South Africa, see Wittenberg, 1999a, Dinkelman and Pirouz, 2001, 2003; Kingdon and Knight, 2001a, 2001b; Natrass, 2002.

⁵ The central issue surrounding the measurement of unemployment is determining which measure, either ‘strict’ or ‘broad’, is applicable to the labour market. “Excluding such people [non-searchers] from those who wish to work is incorrect” (CSAE, 1999:42). It is therefore argued in the literature that the use of the ‘broad’ definition of unemployment is preferred in labour markets that have high unemployment and high rates of “discouragement” (for example in OECD countries and regions – see Nickell, 1990).

addresses how job search can be explored in more depth at the theoretical and survey level.

Using a small dataset (160 households) from Duncan Village, the following hypotheses are tested:

Firstly, does the rate of employment inform the level of job search? Traditional literature suggests that when rates of employment are high the number of people actively seeking work is high.

Secondly, does method of job search influence the effectiveness of finding work? This tests how different modes of job search signal quality attributes to employers. An important corollary of which is that flows of information are shown to be crucial in the labour market.

Third, does the level of 'human capital' play a role in the mode of job search? ⁶ This hypothesis tests whether there is a link between 'human capital' and the mode of job search. If so, to what degree does 'human capital' inform mode of job search? This hypothesis aims to establish whether traditional labour market signals, such as education, are effective. The case of South Africa is marked by severe socio-economic disjuncture and the mix of labour market signals is explored to understand how the Duncan Village labour market actually works.

Lastly, the thesis tests the link between the labour market and household poverty. It investigates the possibility that markets have failed and that individuals have either

⁶ The term 'human capital' is used in this dissertation in the sense that labour market candidates use a variety of means and resources to better their occupational mobility (Hughes *et al.*, 1981). Searchers signal their quality to potential employers (Akerlof, 1970). Signals range across individual capabilities and aptitudes and include things such as formal education, training, work-experience and even social contacts. An anecdote to the 'human capital' definition used by Hughes *et al.* (1981) is found in the traditional literature stemming from the Austrian school, which argues that these forms of capital are likely to assist flows of information and constitute as the keystone of society's endowment of knowledge (see for example Hayek, 1945).

become caught in a state of long term joblessness or accepted low security menial jobs in order to make ends meet.

1.3 Chapter overview

It is necessary that a relevant theoretical methodology be laid out. Chapter 2 begins by exploring the labour market in the context of a Neo-Classical General Equilibrium framework. It is shown that flows of information in the labour market are crucial to themes such as stocks of 'human capital' (Becker, 1964), skill differentials (Hughes *et al.*, 1981) and labour rationing (Neary, 2004:93-97).

The study redirects itself by considering market failure literature (Akerlof, 1970). It shows how the structure of the market (including information channels such as job search) may become endogenous.⁷ This provides a framework in which central issues such as unemployment, poverty and stocks of 'human capital' are viewed as endogenous to the labour market. It becomes evident that the insights of other disciplines (sociology, human geography etc.) can be used to further understand these complex themes.

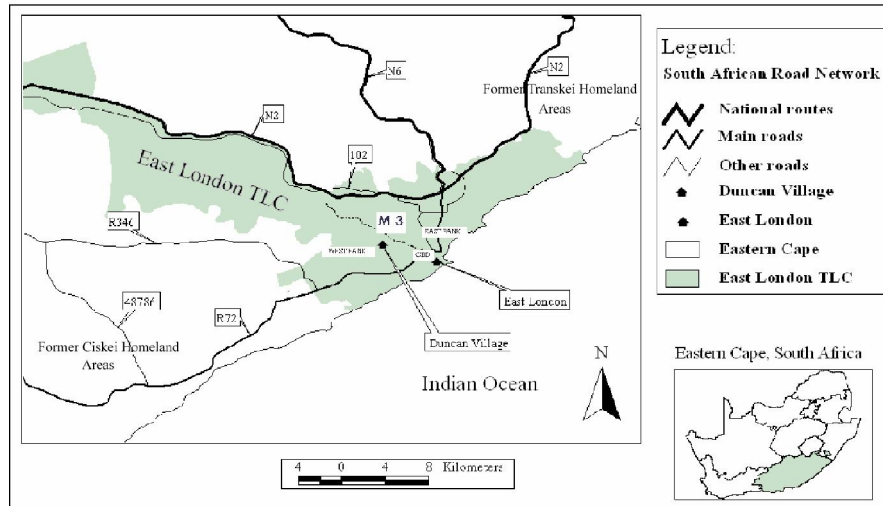
Chapter 3 examines the processes that exist between location, education and unemployment. NEG (New Economic Geography) themes are shown to be particularly important in South Africa, where past political factors play an important role in current society, and in what is referred to as the "post-Apartheid labour market" (Natrass and Seekings, 1997:452). Chapter 3 provides socio economic statistics for Duncan Village, a peri-urban township area that lies outside of the East London CBD (see Figure 1.1).⁸ The reason for which is that the data and survey techniques used in the Duncan Village

⁷ On the basis of a market structure that has the ability to exclude, the value of the New-Keynesian paradigm is that the research agenda focuses on micro-foundations without departing significantly from generally accepted Neo-Classical assumptions (Gordon, 1990). For a general overview of the literature and the recent developments made in this field, see Stiglitz, (2002a), Akerlof (2002) and Spence (2002). To date, very few South African studies have made explicit use of this framework.

⁸ Duncan Village was chosen because it has been well studied, particularly by urban anthropologists (Bank, 2002). Thus local socio-economic processes, and to an extent political factions (Lodge, 1957) are relatively well understood. More specifically, because there is a fairly rich mix of jobs and rates of participation in the urban economy are high, Duncan Village suits the purposes of the research in that the link between 'human capital' trajectories and their relationship to job search and unemployment are explicit.

survey are tailored. The results are therefore localized, and Chapter 3 aims to give the reader more latitude and depth in understanding the dynamics of Duncan Village.

FIGURE 1.1) MAP OF DUNCAN VILLAGE: ROAD NETWORKS AND PROXIMITY TO EAST LONDON CBD



Source: Fourie, K. (2004) – Rhodes University, Department of Geography, Grahamstown. Formulated from ENPAT 99 GIS database.

Chapter 4 considers stocks of ‘human capital’ and links to job search using original survey-specific data from Duncan Village. The results indicate that job searchers are stratified by mode of search (formal, ‘word of mouth’ and place-to-place).

Chapter 5 uses a brief qualitative account of a re-visit made to the Duncan Village area. This is used in conjunction with results from a small sample of youths (98 individuals between the ages of 15 and 25). The results suggest that unemployment may be inter-generational (i.e. youths with an unemployed household head are likely themselves to be unemployed compared to those who are from a household where the head is employed). The rationale underlying the inclusion of Chapter 5 is to explore quantitative uses of data in conjunction with qualitative hypotheses.

Chapter 6 concludes with a final summation of the results and findings. The results from Duncan Village (both empirical and qualitative) show that future research needs to take

into account the complexity of unemployment in South Africa. The implications of which are twofold.

Firstly, theoretical approaches need to be more robust compared to others that don't carry across different economic paradigms (see for example Fullbrook, 2001). In particular, newer models (see Fryer and Stuart, 2002) show that job search is part of a much larger and possibly unobserved labour market phenomenon in South Africa.

The second point is that by exploring endogenous themes surrounding job search and unemployment, the root causes of unemployment are revealed. Policy makers need to take caution of the fact that attempts to solve unemployment, without redress in key areas such as education and poverty, will be futile.

CHAPTER 2
**THEORETICAL METHODOLOGY OF UNEMPLOYMENT: EXAMINING JOB
SEARCH AND ENDOGENOUS THEMES IN THE LABOUR MARKET**

“Everything has been thought before, but the problem is to think of it again.” - Johann Wolfgang von Goethe

"The economic lives of our ancestors . . . [were] of almost unrelieved wretchedness. The typical human society has given only a small number of people a humane existence, while the great majority have lived in abysmal squalor. We are led to forget the domineering misery of other times in part by the grace of literature, poetry, romance, and legend, which celebrate those who lived well and forget those who lived in the silence of poverty. The eras of misery have been mythologized and may even be remembered as golden ages of pastoral simplicity. They were not."
- Rosenberg and Birdzell (1986:3)

2.1 Introduction

The theoretical definition of unemployment, as per the ILO criteria, is conceptually very simple. However, evidence from OECD countries shows that researchers using the ILO criterion are faced with considerable difficulty when categorising the jobless (Nickell, 1990).

In South Africa, for example, Labour Force Survey (LFS) 2002 figures show 30.5% using the ‘strict’ measure, and 41.8% using the ‘broad’ measure of unemployment (Kingdon and Knight, 2002). The difference of 11.3% between the two measures is significant, and by definition this portion of the labour market represents those individuals who want to work but are not actively searching for work (i.e. the non-searching unemployed).

The theoretical definition and subsequent measurement of unemployment has become confusing for researchers. The abovementioned example provides the impetus for

exploring two possibly inter-linked arenas that link job search and unemployment, and that are to be addressed in this Chapter.

Firstly, it demonstrates that high unemployment gives rise to methodological difficulties for researchers trying to measure and understand underlying causal factors.

Secondly, it implicates the theme of job search, which is a pivotal component for addressing unemployment in both theory and practice.

The purpose of this Chapter is to explore job search in a more theoretical context. It hopes to abstract from issues of measurement and attempt to provide a better understanding of unemployment and job search in the endogenous context.¹

Section 2.2.1 begins by detailing the Neo-Classical General Equilibrium framework. The foundations of General Equilibrium and the possible causes of market disequilibrium are briefly discussed. Section 2.2.2 goes on to examine the labour market, and focuses on the traditional causes of unemployment. It demonstrates that when disequilibrium occurs the market wage is non-clearing, and information becomes the determining factor for reaching an equilibrium point. In the absence of perfect information, ‘frictions’ arise to produce transaction costs. Economic agents will thus have to search for information, and are therefore faced with a cost benefit scenario. The Chicago School (a branch of the Neo-Classical paradigm) shows that when individuals invest in stocks of ‘human capital’ they have the ability to generate information. By investing in stocks of ‘human capital’, searchers differentiate themselves according to an acquired level of skill. Skills

¹ Natrass’ (2001:1) comments on the South African case: “the determinants of growth extend beyond the macroeconomic policy stance and into the arena of the growth path itself”. This point reveals that the endogenous growth path of the economy can be defined by factors such as education, capital accumulation, economies of scale and technological advance. These important economic features have emerged in international models of economic growth (for example the Solow residual) from the 1970’s and onwards (Hughes *et al.*, 1981). They are also considered in the labour literature, but show theoretical causal patterns that are indistinctly linked to flows of information (Stiglitz, 2002a). For these reasons endogenous themes remain central to the research agenda.

differentials translate into wage differentials and occupational diversity in the labour market (Perlman, 1958).

Using the Todaran model, Section 2.2.3 illustrates the possibility that exogenous drivers of unemployment may induce ‘frictions’. In turn these ‘frictions’ influence supply-side behaviours. In particular, stocks of ‘human capital’ are shown to inform the structure of the labour market, thereby constituting as a part of its endogenous composition (Hughes *et al.*, 1981).

The Todaran example shows theoretical inconsistencies that arise when trying to examine Third World labour markets where individuals stocks of ‘human capital’ are low. The approach reveals many of the “mythological” (Schmookler, 1993:11) attributes of job search by exploring its theoretical character within the disequilibrium labour market context.

Section 2.3 examines the causes of unemployment more closely. It shows that although each of these is neatly separated by Neo-Classical analysis, it is worth examining cases in which they may be inter-linked by feedback mechanisms.

The section departs from the Neo-Classical tradition and examines the structure the labour market using the tenets of New-Keynesian theory.² It shows that information constraints create market failure and a “decentralized adjustment process” (Stiglitz, 2002b:11) emerges. Supply-side behaviours are considered in the context that they transmit signals to prevent complete market failure.

Section 2.4 shows that signals arise to transmit information in markets where disequilibrium persists (i.e. the market has failed as a result of feedback mechanisms).

² The value of the New-Keynesian paradigm is that its’ research agenda focuses on micro-foundations (without departing significantly from Neo-Classical assumptions), and joins issues of efficiency with issues of equity (Stiglitz, 2002b:14) in order to theoretically examine dynamic effects. For a general overview of the literature and the recent developments made in this field, see Stiglitz (2002a), Akerlof (2002) and Spence (2002). For a detailed survey of the New-Keynesian paradigm, see Gordon (1990).

This illustrates that in the event of failure, the market responds by establishing a standard. Should an individual fall short of this standard, it is likely that they will (or they already) face both physical and social exclusion in the labour market.

Section 2.5 explores how individuals respond to persistent disequilibrium (i.e. joblessness). It shows that signals are crucial to the functioning of the labour market and that they are simultaneously linked to stocks of 'human capital'. Investing in stocks of 'human capital' (so as to generate a signal) constitutes as an endogenous market response. Each of these stocks of 'human capital' is examined according to their ability to transmit a "transparent" (Fedderke *et al.*, 1999:9) signal that is institutionally validated. These are listed as follows: stocks of physical capital, social networks and mode of job search.

Section 2.6 concludes by outlining the theoretical methodology developed in the Chapter. It demonstrates that stocks of 'human capital' and signals are vital to the labour market in which disequilibrium and market failure persist. Moreover, if both stocks of 'human capital' and social networks fail, then the mode of job search becomes the central determinant of success in the labour market. This shows job search to be a micro-foundation of unemployment.

2.2 The orthodox approach to unemployment

2.2.1 The Neo-Classical framework

The Edgeworthian model of trade (Edgeworth, 1881) is the theoretical basis of a Neo-Classical General Equilibrium framework (Eaton and Eaton, 1995:517). The model uses a set of simplified assumptions to ensure that individual choice is at all times preserved. Choices are paramount to the framework as they mirror the behaviours of the "rational and egotistic person" (Pearce and Turner, 1990:10). Provided that all individuals are exercising their supreme right to choose, insofar as to satisfy their preferences, a collection of interests aggregate across the economy to create a market price.

Forces of demand and supply emerge to facilitate the functioning of a competitive market system that equilibrates the interests of all market participants using the price mechanism. The Neo-Walrasian principle contributes to these conditions by stipulating that the causal flow of the market runs from demand to supply (i.e. the market only supplies what the market demands). Provided that these conditions are met, the aggregation of individuals and firms interests across the market results in General Equilibrium.³ If preferences or behaviours change, price adjusts to reflect these changes, and the foundations of efficient trade are safeguarded (Baumol, 1999).

When demand and supply functions do not match, the equilibrium market wage will be non-clearing (i.e. demand is not matched with supply resulting in a partial/transitory equilibrium point). In the Neo-Classical General Equilibrium context, market disequilibrium can only take place when one of the following occurs: 1) economic agents are not acting rationally, 2) there is some artificially created exogenous factor that is holding prices from clearing or 3) there is imperfect competition.

Neo-Classical methodology suggests that individuals are always rational (Becker, 1995), and that the conditions of perfect competition are not always a means to market equilibrium, but that they are the end result of the equilibrium itself. Therefore the cause of disequilibrium must be from an exogenous shock. A corollary to this point is that in order to solve the disequilibrium, the market must be able to contain adverse shocks through a change in price that will re-establish an equilibrium point where aggregate demand will again be matched by aggregate supply.

A methodological point of contention is that the Neo-Walrasian extension of the General Equilibrium model dictates that demand informs supply. Therefore market forces solve adverse shocks using a flexible market price. Prices change to suit the aggregated individual interests of the market (i.e. demand). A crucial component in this regard is the

³ Begg, *et al.* (1984:325) state: “an allocation is Pareto-efficient for a given set of consumer tastes, resources, and technology, if it is impossible to move to another allocation which would make some people better off and nobody else worse off”.

market's ability to process information (i.e. changes in individual preferences that are reflected in changes in price). If the information about a change in preferences is not transmitted, prices will not be a true reflection of aggregated individual interests. The approach leaves a number of unanswered questions, not only about the causes of adverse shocks, but the effective magnitude of changes in behaviour in response to these shocks.

Ultimately, the question surrounding the transmission of information in the market tests the fundamentals of the Positive Economic approach. That is, it examines whether market prices are able to constantly adjust to reflect changes in the market. To see how these problems transpire in Neo-Classical theory, consider the case of unemployment in the labour market.

2.2.2 Flows of information: Labour market 'frictions' and unemployment

Orthodox literature shows that disequilibrium in the labour market (giving rise to unemployment) is the result of either: 1) marginal changes, 2) exogenous causes, or 3) supply-side changes. Marginal changes are those that are characterised by a gradual evolution (Schumpeter, 1942) of the market (such as the ebb and flow of firms and labourers entering and exiting the market). Exogenous changes are defined by unforeseen price changes or imposed ceilings that constrain labour demand. Lastly, supply-side changes are those that are characterised by collective changes in individual behaviour (Hughes *et al.*, 1981) (i.e. the person may wish to disengage from the labour market in order to study further and increase his/her occupational status in the future).

The Neo-Classical treatment of any one of these changes is that they occur on the condition of all things being equal (*ceteris paribus*), and that they are mutually exclusive from one another. In the event of any one of these changes taking place, the market price will adjust to reflect the demands of the market (in accordance with the Neo-Walrasian functioning of the market system). This change in aggregate demand will be met with a concurrent change in aggregate supply. Market forces will thus operate to "match" (Pissarides, 2000:4) aggregate demand with aggregate supply using the nominal market wage (so as to keep the real wage constant) and achieving General Equilibrium.

For example, in the event of an adverse shock of exogenous origins, firms will *ceteris paribus* respond by either cutting jobs (i.e. shedding employment) or they will reduce the going wage rate for employees. Either of these market responses will induce a change in the market wage and solve involuntary unemployment.

However if information is imperfect, labour market ‘frictions’ emerge and the market price will be kept from effectively clearing.⁴ The market will be kept from re-establishing an equilibrium point, as the process of “aggregate matching” (Pissarides, 2000:4) remains incomplete.

Orthodox Neo-Classical economics suggests that ‘first best’ market outcomes are always attainable. Thus, markets remain contestable so that enough information will be generated to create a suitable equilibrium wage (i.e. the Positive Economic approach). The only obstacle faced by the market system is regulating flows of information so as to overcome ‘frictions’.

Flows of information are thus fundamental to the labour market methodology in that they determine market-clearing wages. Moreover, they are crucial to the labour recruitment process in the sense that job searchers and employers alike will gather information using different techniques (Reid, 1972). They do so in the interest of attaining an efficient employment treaty/contract. To achieve this, both parties incur transaction costs (Demsetz, 1986) by gathering information (i.e. searching) (Stigler, 1961; Stigler, 1962).⁵ This carries two important themes for further discussion:

⁴ For example, ‘frictions’ may exist if the conditions of competitive bargaining are not present. This may be the result of a lack of an effective public auctioning process or the absence of a physical market place. In such an instance, information about changes in preferences (as a result of the exogenous price shock) will not be transmitted, and prices will not clear.

⁵ Stigler (1961) approaches the problem of information from the perspective that it is essentially a problem of constrained maximisation. He suggests that because information is not forthcoming it becomes “costly” (Hargreaves-Heap, 2004:745), and thus it should only be made available when the marginal benefit of doing so exceeds the marginal cost.

Firstly, flows of information are treated in the Neo-Classical methodology as “another branch of applied economics” (Stiglitz, 2002b:462), in which searchers will weigh the marginal benefits of search against the marginal costs of search. When the marginal benefits exceed the marginal costs, individuals will rationally choose to search. This point has served as a foundation for models of job search (see for example the models by Diamond, 1982; Mortensen, 1982; Pissarides, 1984, and the South African example by Dinkelman and Pirouz, 2001; Bhorat *et al.*, 2001; Kingdon and Knight, 2001a).

Secondly, persistent information imperfections are the result of one or more parties withholding information in the transaction process.⁶ Information is not forthcoming and this is why individuals and firms have to gather information (Bator, 1958).⁷ This raises questions about the generation of information and possible market failure outcomes.

To begin, the Chicago School⁸ suggests the ability of individuals to generate information relies on stocks of ‘human capital’. This has some important theoretical implications for Neo-Classical interpretations of job search, as well as those that can be traced back to Old Austrian Economic (OAE) insights. The Chicago application suggests that stocks of ‘human capital’ allow individuals to generate information in the market place. Thus

⁶ Traditional literature suggests that in the event that neither of the parties wishing to transact is willing to disclose information, information is imperfect and there is no incentive for either of the parties to disclose their information. This is because disclosing information creates possible welfare gains for the other transacting party. In a typical game-theory scenario, it is likely that the problem of asymmetric information will arise in the process of bargaining and that this may lead to an adverse selection problem and sub-optimal outcomes (Hirshleifer and Riley, 1979:1390).

⁷ Because there is no incentive for information to be forthcoming, it becomes indivisible (i.e. information is lumpy) and non-linear (i.e. subject to externalities) (Bator, 1958).

⁸ The morphing ability of the Chicago research agenda makes it a likely candidate for analysing these themes. Although commonly disputed in the labour literature (Boyer and Smith, 2000), it contains a powerful although largely unobserved message. The lesson is that economics should be defined methodologically and not by the object of its study (Becker, 1995:5). The possibility of a positive economic approach is probable, but the foundations informing its achievement need to be better refined. In the context of the labour market, job searchers incur marginal costs and benefits when ‘frictions’ arise, but this does not provide a robust enough explanation for high and sustained rates of unemployment. What is needed is an examination of the factors informing marginal costs and benefits, which are linked to flows of information (such as the level of individual ‘human capital’), for a complete understanding of unemployment.

rational utility-maximising individuals will invest in stocks of ‘human capital’. Collectively, this creates the conditions for General Equilibrium in the market.

This link is an important one and it is critical that it is clear in the reader’s mind. Take for example an individual who chooses to invest in education. The motivation for which is to 1) increase occupational ranking (Hughes *et al.*, 1981), or 2) better their chances in the labour market (Becker, 1964; Becker, 1957).

On this premise, all economic outcomes are to a large extent determined by flows of information. The Chicago⁹ approach shows that it is prerequisite for individuals to gather information using “money prices or imputed shadow prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends...” (Becker, 1976:8 in Kaufman, 2004:26). This type of methodology underscores how individuals make choices.

Importantly however, the second motivation for investing in stocks of ‘human capital’ suggests that disequilibrium already exists. The notion of ‘increasing ones chances’ in the labour market is indicative of General Equilibrium failure. Economists such as Schumpeter (1936:129 in Hirshleifer and Riley, 1979:1415) have long warned: “the generation of information is in large part a disequilibrium-creating process”.¹⁰ This may

⁹ The Chicago Approach shows that individual preference theory (otherwise known as the theory of self interest) assumes stable preferences are the keystone to understanding choices, and that these choices underscore preferences between goods, services and activities. However the link between preferences and choice remains an unobservable (and by Becker’s own admission a largely unobserved) one. Accordingly Becker (1976) framed one of the Chicago school’s founding hypotheses in such a way that it cannot easily be disproved by empirical means. Because the hypothesis can neither be proved nor disproved, it exists simply as a “research agenda” (Lawson, 2002:3), and thus the Chicago approach is a likely candidate to “theory-build” using a broader “economic approach” (Kaufman, 2004:27). Moreover, it provides scope for closer examination of Neo-Classical micro-foundations and endogenous themes (Greenwald and Stiglitz, 1987).

¹⁰ This is also an important consideration for Neo-Institutionalist approaches (see for example Williamson, 1981).

have some important implications for job search. It may also show that knowledge and stocks of 'human capital' inform the *structure* of the market.¹¹

To see how these themes are important, consider the Neo-Classical example of the Todaran model (Todaro, 1969) of urban unemployment vis-à-vis the distinction between gathering and generating information when market disequilibrium occurs.

2.2.3 The Todaran model: A Neo-Classical application

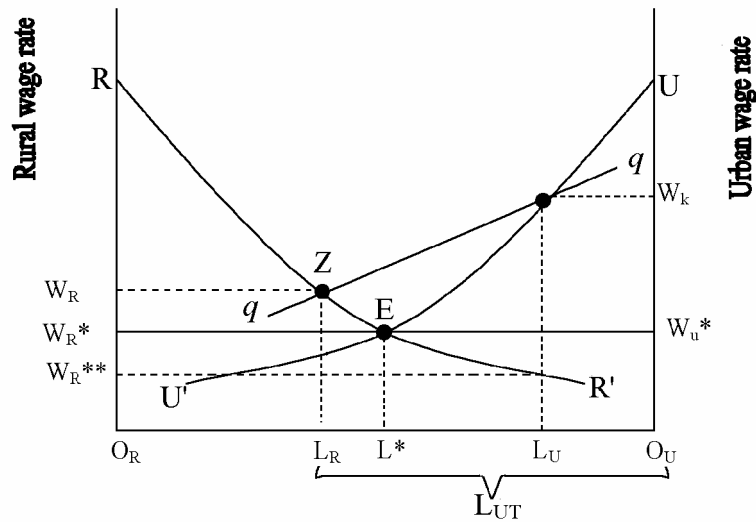
Michael Todaro developed the Neo-Classical model of two-sector migration and urban unemployment from evidence in urban Kenya in the 1960's. Todaro (2000:304-305) states that the basic tenets of the Todaran model (1969) of rural-urban unemployment are as follows:

- Migration is an economic phenomenon.
- There is an equilibrium unemployment point between urban expected wages and average rural income.
- Individuals migrate to urban sectors based on expected rather than actual real wages.
- The probability of obtaining a job is directly related to the urban employment rate.
- The urban-rural wage disparity is a result of some exogenous force.

Assuming a two-sector model, the equilibrium wage in a Neo-classical, flexible wage, full employment market would be established at wage rate $W_R^* = W_U^*$ (in Diagram 2.1 below). This equilibrium is established between demand curves RR' (rural) and UU' (urban). The total labour force is thus $O_R O_U$ with $O_R L^*$ employed in the rural sector and $O_U L^*$ employed in the urban sector.

¹¹ In both of these cases, the process of acquiring information through education allows individuals to accumulate endowments of capital that are internalised as knowledge. Knowledge permits individuals to generate personal information to employers to signal quality, and thus stratifies searchers in the labour market (Perlman, 1958).

FIGURE 2.1) DIAGRAMMATIC ILLUSTRATION OF THE TODARAN MODEL



Source: Todaro (2000:309).

The factors inspiring Todaro's (1969) model were twofold. Firstly, it was an attempt to explain why people migrate to urban sectors in search of work even though there is high unemployment. Secondly, Todaro (like many of the development theorist of the time) was concerned with the emergence of shantytowns in LDC cities such as those in Kenya.

Todaro's explanation of rural migration to the urban sector is that institutional¹² factors result in fixed higher and downward inflexible urban sector wages at W_k . This effectively pulls rural workers into the urban sector, and assuming that no unemployment exists, $O_U L_U$ workers would get urban jobs, and the rest $O_R L_U$ would have to settle for rural employment at $O_R W_R^{**}$ (wages below the free market level of $O_R W_R^*$). The urban-rural wage gap would thus be $W_k - W_R^{**}$ if there were no unemployment in the labour market.

Despite the lack of jobs ($O_U L_U$), workers migrate to the urban sector based on the probability of finding a job at an expected wage of W_R . This probability is expressed by the ratio of employment in the urban sector (L_U) over the total urban labour pool (L_{UT}).

¹² Todaro and Harris (1970:131) later referred to these institutional forces as "political flavour". These are synonymous with an exogenous cause of unemployment, see Page 13.

In equilibrium, the probability is therefore expressed as:

$$W_R = (L_U/L_{UT}) \cdot W_K = \pi \quad (1)$$

As a result of the prevailing downward sticky (politically flavoured) wage at W_K , the flow of individuals from the rural sector into the urban sector will be constant although the market wage W_K is non-clearing. Invariably, parameters in Todaro's model ensure that the probability π value will keep the unemployment equilibrium stable at wage rate W_K .

Based on this probability (π), the individual will be indifferent between jobs in the two sectors (i.e. they will rationally migrate when $W_U > W_R$). To illustrate, an indifference curve is shown at qq , and a new unemployment equilibrium emerges at Z (a disequilibrium point). Thus $O_R L_R$ quantity of workers is still in the rural sector, $O_U L_U$ workers are employed in the urban sector and $L_R L_U$ are unemployed.

A corollary to the Todaro model (1969) is that those who are unemployed have to queue for jobs in the formal sector. Formal jobs are rationed because W_K is fixed by institutional factors thus resulting in exogenously created unemployment. Migrant workers are thus seen as substitutes for workers in the formal sector (Borjas, 1987) and the probability of being selected for employment is equally distributed across the unemployed migrants (an effective Poisson distribution) (Sobel, 2004). Thus searching beyond the point where the market wage (W_K) becomes known has little bearing on procuring work in the formal sector (Pissarides, 2000:5).

A relevant contribution must be made at this point, and one that is important to the theme of flows of information in the labour market. The Todaran model provides a basis for exploring the possible effects of urban migration, unemployment and the rise of the informal sector (see for example Breman, 1996). These themes are dealt with in the context that the urban market wage is fixed at a higher level than that required to clear the

urban labour market (i.e. at W_K). Therefore, W_K determines rates of employment and is the central authority in terms of flows of information (see for example Shapiro and Stiglitz, 1984). In the context of job search, this provides two important considerations that are fundamentally important for the proceeding analysis.

Firstly, the Todaran approach shows that market wages do not always reflect General Equilibrium. Thus to better understand markets, which are in disequilibrium, researchers are faced with the task of explaining why wages do not adjust in the long run. A possible answer is that there is a group of outsiders who face exclusion.¹³ Migrants will thus be excluded from “wage competition” in the formal sector (Thurow, 1957:253 in Boyer and Smith 2000:214), and the productivity of occupational pools of workers will not correspond to wage rates (Dagsvik *et al.*, 1985). The result is one in which extensive labour market distortions may shape class structures (Rowthorn, 1980) and possibly differentiate ‘human capital’ amongst workers (Fryer, 2005).

Secondly, it is likely that the dynamic effects arising from unemployment may prolong this exclusion (particularly ‘human capital’ differentiation between groups of labour market insiders and outsiders – a theme that is dealt with in Chapter 3). Moreover, assuming that individuals prefer stable flows of income (as per the Neo-Classical Permanent Income Hypothesis) (Friedman, 1957), jobless migrants may respond to unemployment by engaging in the informal employment sector. In this scenario, it is possible that migrants will become complements to the urban economy (Borjas, 1987), in the sense that they form a peripheral yet integral component to capitalist modes of production (see Maro, 2001 for a South African example). More recent theoretical developments have attempted to explore this theme by introducing a distinction between “good jobs” and “bad jobs” (Fryer and Stuart, 2002:1).

Both of these questions, and the question of the source of ‘frictions’ suggest that the neat separations in the Todaran model are oversimplifications. In particular, stocks of ‘human

¹³ See Moll (1993) for South the African example of efficiency wage (i.e. disequilibrium) insider-outsider arguments.

capital' (as per the insights of the Chicago School) may differentiate searchers, and levels are likely to be determined by insider-outsider status. An approach that fits in with this aspect of urban unemployment, and that is fundamental to the theme of job search, is market signalling. By synthesising the concept of individual stocks of 'human capital' with flows of information, it is likely that the market has failed and signals emerge to transmit information about labour market conditions.

2.3 Exploring the structure of the labour market

In a textbook chapter on Market Structure and Imperfect Competition, Begg *et al.* (1984:214) state that market structure is in general terms defined as: "the output of minimum efficient scale for a firm relative to the industry output as a whole". In the context of the labour market, output is equated to the economy's levels of utilised labour power, and in which a single minimum cost and efficient employment contract is considered relative to the market whole. The bidding agent, which ensures that this system is safeguarded from possible arbitrage, is the effective flow of information.

Spence (2002:435) states: "an important early part of that effort [referring to the developments in the field of information economics from the 1970's and onwards] was the attempt to capture *informational* aspects of market structure to study the ways in which markets adapt, and the consequences of the informational gaps for market performance" (italics in original). It is necessary to examine the ways in which markets adapt as a result of informational gaps.

Imperfect information prolongs 'frictions' through feedback mechanisms (such as poverty), and this may cause markets to fail. In the scenario where markets fail, the market has to rely on signals to transmit information (that is not available in the wage rate because the market is in disequilibrium). However, the use of signals is only possible if socially constructed standards are available (and these are used so as to avoid the "lemons" effect) (Akerlof, 1970:492). In the event that a labour market candidate falls short of this standard, they will be excluded from the market.

It is therefore necessary to explore these themes with the intention of penetrating the structure of the market and explaining how markets actually work.

2.3.1 Distortionist explanations and the market mechanism

As discussed earlier, ‘frictions’ are the root cause of disequilibrium in the labour market (see section 2.2.2). Given the importance of ‘frictions’ it is worth locating them within a relevant theoretical framework that may provide possible answers to the subject of labour market disequilibrium.

Firstly, ‘frictions’ are not as static as they are shown to be in the Neo-Classical General Equilibrium model. Although the condition of *ceteris paribus* may exist at the outset of an exogenous shock (as in the Todaran model), once the shock has penetrated the market, the wheel is set in motion for marginal adjustments or supply-side causes of unemployment to arise. In other words, when the market wage is not instantaneously cleared (because information is imperfect), it is certainly possible that marginal changes and/or supply-side causes will respond to non-clearing market wages and result in a pending state of flux (i.e. they are responding to a disequilibrium wage and not a market-clearing one).¹⁴

Secondly, the non-clearing market wage rate is a central feature of the disequilibrium labour market as it binds exogenous, supply-side and marginal causes of unemployment together.¹⁵ The going wage is in disequilibrium and the information transmitted to job

¹⁴ Consider the Eurosclerosis case (Blanchard and Summers, 1986; Solow, 1990) that occurred in Europe in the 1970s. A decline in productivity meant that the market wage was presumably supposed to fall. However, due to the reluctance of labour unions (that exhibited extensive bargaining power) to accept the decline in wages, there was an increase in the relative earnings of employees (i.e. an increase in the real wage). The result was a significant wage gap that emerged between the real wage and the market-clearing wage, which resulted in disequilibrium and mass unemployment.

¹⁵ The term ‘hysteresis’ is used to demonstrate how disequilibrium market wages (as a result of some or other exogenous shock) may result in changes in supply-side behaviour (Blanchard and Summers, 1986; Lindbeck and Snower, 1988). For example, in the Eurosclerosis case (see footnote 14) people became unemployed as a result of a wage gap between the market-clearing wage and the deficient real wage. Due to prolonged unemployment (as labour supply and equilibrium tracked employment levels, opposed to unemployment levels) it became socially acceptable for people to be jobless. Because of a decline in the stigma attached to being unemployed, people became voluntarily unemployed and relied on social security and government transfers (Blanchard and Summers, 1986). The extent of hysteresis thus depends on

searchers via the wage is not aligned with the matching function of the market assumed in Neo-Classical models (for example Salop, 1973; Lippman and McCall, 1976). It is possible that by responding to disequilibrium, the “partial equilibria” point will become a stable equilibrium point (Gordon, 1990:1137). Assuming that individuals are rational and utility maximising, redirects the attention towards the structure of the market and the nature of the commodity being traded.¹⁶ In the event of disequilibrium, choice-theoretic General Equilibrium foundations are not evaded.¹⁷ Simply, the disequilibrium point is the result of a disparity between market-clearing wages and the markets’ aggregate matching function and individuals rationally respond to a “partial equilibrium” (Gordon, 1990:1137) point. At this equilibria point, individual utility is constrained although maximising (i.e. individuals take advantage of gains from trade), because “output actually produced is not chosen voluntarily by firms and workers, but is imposed on them as a constraint” (Gordon, 1990:1136).

In the event of partial equilibria, constrained utility results in sub-optimal outcomes, and the initial exogenous shock therefore has the ability to morph into and combine itself with other causes of unemployment (marginal and/or supply-side). Thus the end result is usually very different from that of its origin (and this makes it difficult for policymakers to treat the root causes of disequilibrium problems such as unemployment). It is therefore

changes in supply-side behaviour in response to disequilibrium (i.e. non-clearing wages) in the labour market (Gordon, 1988). For an application of hysteresis and coordination failure models to South Africa, see Fryer (2005).

¹⁶ Stiglitz (2002b:10) notes “one of the greatest “tricks” (some might say “insights”) of Neo-Classical economics is to treat labour like any other factor of production”. Stiglitz (2002b) highlights the extent by which labour differs from other factors of production in terms of its inability to be wage-flexible (i.e. always having an exit option). Stiglitz’s (2002b:11) methodology shows that reduced exit option combined with imperfect information results in non-compliance with the “self-adjusting” and “efficient” foundations of Neo-Classical economics.

¹⁷ Gordon (1990:1119) by his own admission uses the term “disequilibrium” sparingly, believing that it implies that economic agents are not acting in a rational or utility-maximising manner. To illustrate, Gordon (1990) shows that the term disequilibrium is misleading as it “conveys a failure of agents to realize perceived gains from trade” (Barro, 1979:4 in Gordon, 1990). However, disequilibrium is used in the context to illustrate that there may be (as a result of some exogenous cause) multiple equilibria in which the market price differs from the market-clearing price.

ineffective to examine the shock itself, and rather it is worth analysing how causes of unemployment are inter-linked by the processes that inform them.

Combined, the abovementioned considerations typify traditional “distortionist” arguments (Fryer, 2005, Chapter 5). Importantly, it demonstrates that economic features such as inequality and poverty are linked to the central theme of disequilibrium unemployment (see for example Chapter 3, 4 and 5 in Fryer, 2005). However, explaining these effects remains the product of macro-economic analysis. To fully explore the micro-economic processes that inform factors such as inequality and poverty, researchers are compelled to address supply-side themes and examine the central theme of information from a micro-economic perspective (Stiglitz, 2002a; Spence 2002).

2.3.2 Market failure and signalling

In light of the importance of micro-economic processes, take note of the role of job search when the market is in disequilibrium or when prices are distorted:

When the market price is kept from clearing (i.e. it is in disequilibrium), searchers and employers rely on other mechanisms to accomplish an employment arrangement. Employers look for attributes and qualities in potential job candidates, whereas job searchers job hunt for the best available and most suitable type of work given their level of ‘human capital’.

It is important to note that transmitting information in a non-clearing labour market differs from the General Equilibrium context, and this comprises of two components.¹⁸ The first are observable and unalterable “indices” (Spence, 1973:357) that transmit information about the quality of the potential worker to employers. These include individual attributes such as age, race, gender etc. The second component comprises of

¹⁸ Imperfect distributions of information violate the LaGrangean foundations of Pareto-efficiency. More suited to models of labour market success (or exclusion) is the use of Bernoulli distributions using parametric models, opposed to binomial distributions (which assume that an increase in the time spent searching increases the probability of success) (Bator, 1958).

signals that can be altered over time (such as education), and are generated by the job searcher (Spence, 1973:357). These are of obvious significance, as they are part of the process of generating information through stocks of ‘human capital’.

Thus, in the presence of ‘frictions’ that withhold the market from generating and transmitting a market-clearing wage, information (in the form of indices and signals) becomes the keystone to regulating labour market processes. These allow job searchers and employers to transmit information that is not accessible through the market wage (i.e. the foundations of the General Equilibrium aggregate matching function have been violated) (Spence, 1973:370).

It is important to note that market forces will prevail despite eminent signs of failure. However, understanding and theorising this feature of the labour market is fraught with difficulty due to the many available explanations (Fryer and Stuart 2002). It is therefore necessary to synthesise these works into a coherent theoretical corpus.

2.4 Physical and social mechanisms of exclusion: Market standards and heterodox explanations

This section intends to synthesise between Neo-Classical foundations, market failure, ‘human capital’ and other “non economic” theories using an “eclectic approach” (Fullbrook, 2001:1 in Duff and Fryer, 2004:4).

To begin, Akerlof’s (1970) model is founded on signalling mechanisms that emerge in markets where information is imperfect (i.e. when ‘frictions’ exist). In the case of the labour market, employers cannot use market wages (i.e. the potential employees’ reservation wage) as an indicator of quality, simply because current wages are non-clearing. Thus, employers have no sure way of gauging the quality of potential workers, and therefore choose to only hire workers that have some credible signal that validates their ability (i.e. ‘quality’).

In the Akerlofian model, 'frictional' unemployment (resulting in disequilibrium) has more continuity than presumed by static models of unemployment. Akerlof's (1970) principle insight was that physical signals emerge when information is imperfect or asymmetric. It is likely that 'frictions' will result in disequilibrium and the causes of unemployment will become inter-linked. Moreover, the "lemons" effect (i.e. bad quality workers drive out good quality workers) feeds back to the market, and forces employers to use wage rates, which are at disequilibrium levels, as an indicator of quality (Akerlof, 1970:492). This results in complete failure and gives rise to sustained levels of labour market disequilibrium.

As a result, market standards arise to prevent complete failure. These are constructed on the preceding foundation that signals transmit information about the quality of the labour market candidate. Thus, if a job searcher's signal falls short of the market standard they will be excluded. For example, if the market standard required for entry into the labour market is a Matric, a school leaver who only has a standard 8 level of education will fall short and thus remain unemployed. Information that is generated via stocks of 'human capital' is susceptible to the review of a market standard

The Akerlofian model underscores one of the foundations of the market failure tradition; that is when impersonal physical signals fail, personal signals (such as stocks of 'human capital') emerge to preserve market transactions. Akerlof (1970) demonstrates that when information asymmetries are present, there is an incentive for either of the transacting parties to take advantage of potential increases in welfare at the loss of another party. A corollary to the Akerlofian model, and an important point for the proceeding analysis, is that it highlights both social and physical signals. It shows that without social mechanisms, the result will invariably be complete failure (i.e. "counteracting institutions" of a social character are essential to reduce quality uncertainty) (Akerlof, 1970:496).

Social market mechanisms are only viable provided that they are supported by trust (Duff and Fryer, 2004:5). The orthodox treatment of ensuring trust in market transactions relies

on the enforcement of property rights using law courts to eliminate adulteration (Ichino, 1998). However this comes at an expense of using contracts, which by virtue of their nature are incomplete (i.e. not every contingency can always be accounted for) and relatively costly (i.e. the enforcement of contracts incurs costs that will amount with each and every dispute that is settled by the law courts) (Duff and Fryer, 2004:6). Rational, utility maximising firms and individuals will thus opt to use social measures of trust so as to minimise transaction costs. These informal measures are loosely defined as social relationships or institutions, and in effect they constitute as the glue that binds market transactions (Becker, 1968).

Standards can be of a physical or social nature (i.e. the qualification must be certified by some or other standards body, but because this enforcement may be costly it is likely that a socially accepted standard will be used). The theoretical component of job search thus centres itself upon both the physical and social elements of exclusion. For these purposes, it is necessary to investigate data and models of unemployment in which exclusion is founded on both physical and social standards, as well as signals. The focus is therefore to contain labour market exclusion by means of reducing the many available arguments into a dynamic theory of endogenous unemployment by linking job search signals and standards (either physical and/or social) to supply-side changes.

2.5 The micro-foundations of unemployment: job search and endogenous feedback mechanisms

At this point, the reader should have a broad understanding of the chemistry of unemployment. It is now necessary to refine these theoretical foundations into an appropriate theory of job search. The preceding analysis starts with a brief overview of macro-economic features associated with unemployment and then narrows in on micro-economic processes and outcomes.

To begin, from a macro-economic perspective, the distortionist contribution shows that disequilibrium wages result in sustained unemployment, which gives rise to poverty (Bhorat *et al.*, 2001). Poverty is a central feature in this analysis as it has a direct bearing

on the supply-side's capabilities (Wilson and Ramphela, 1989). Poverty affects stocks of 'human capital', and these effects are intensified by the fact that the market has failed and relies on signals to transmit information.¹⁹

Before moving onto micro-economic processes and examining responses to market failure and the extent of individual failure, it is important to recall that complete failure can be avoided in two circumstances. Firstly, if thresholds are exceeded in the sense that the adverse selection trap is avoided (for example there is a level of education that reflects true capability), and secondly if the personal relationships are durable and are supported by trust (Duff and Fryer, 2004:5). If either of these is not obtainable, the market will rely purely on signals.²⁰

However, market contestability (Baumol and Willig, 1981; Tavares de Araujo, 1995) implies that markets not only remain functional (despite imperfect competition or externalities) (Coase, 1960) but that they operate in a manner that is as close as possible to Pareto-efficient.

In other words, markets such as these are "second best" (Lipsey and Lancaster, 1956/57; Fryer and Stuart, 2002:3).²¹ In "second best" markets, the social character of the market becomes institutionalised in the form of a market norm or standard that is validated by "transparency" (Fedderke *et al.*, 1999:11).²²

¹⁹ European social democracies have high replacement rates and low natural rates of unemployment. It is for this reason that skills development policies have enjoyed widespread empirical and political support from many countries that have experienced on-the job skill losses as a result of the global recession in the early 1980's (Nickell, 1998a).

²⁰ A recent study on the effects of using the Internet in job search practices, and the duration of unemployment indicates that by holding observable differences constant, there is little effect of using this mode of job search (Kuhn, 2004). Presumably, it indicates that searchers using the Internet have exceeded a 'human capital' threshold (i.e. observable qualities) and are thus considered a quality-homogenous group by employers. Thus, job searchers of this sort are prone to experience short durations of unemployment.

²¹ Lipsey and Lancaster (1956/57 in Fryer and Stuart, 2002:24) state: "the general theorem of second best states that if one of the Paretian optimum conditions cannot be fulfilled a second best optimum situation is achieved only by departing from all other optimum conditions".

²² This is termed as the "secondary sphere of sociability" (Godbout, 1998 in Fryer and Stuart, 2002:22).

Thus any labour market candidate who has sufficient levels of ‘human capital’ (so as to generate a signal) can do so provided the signal is supported by a standard setting institution (either social or physical).²³ The greater the range and reliability of the standard setting institution, the lower the degree of quality uncertainty and the less likely it is that complete failure will occur. The type of signal used and the nature of the standard setting institution depends entirely on whether the market is “second best” (Fryer and Stuart, 2002:3) or not. Or rather, it reflects the degree to which “first best” signals have failed and have been replaced by “second best” signals (Fryer and Stuart, 2002:3).

Another matter, and one that is of considerable importance with regard to the social character of the labour market, is that patterns of exclusion become apparent when social and physical failure is “locked in” (Granovetter, 1992:9). The notion of becoming “locked in” demonstrates that macro-economic features have the ability to shape micro-economic processes (Granovetter, 1992:9). Most importantly, features such as poverty begin to undermine the effective functioning of the market through the effect that it has on the economic agent.

Consider the example, of ‘human capital’. Feedback mechanisms, such as poverty, highlight the role of ‘human capital’ thresholds in two ways. Firstly, feedback mechanisms arise as a result of market failure. This provides an incentive for individuals to invest in stocks of ‘human capital, so as to exceed a threshold level and avoid individual failure. Secondly, and in dissimilar respect to the first, feedback mechanisms afflict individuals with inherently low endowments of ‘human capital’ by dampening the prospect of generating a signal that exceeds the market standard (i.e. “contagion effect” – Calvó-Armengol and Jackson, 2004:427).

²³ Welfare economics and social choice theories have developed the concept of what Sen (1981 in Watts, 2000:201) calls “entitlements”. Watts (2000:201) argues that entitlements are “individually assigned by virtue of a larger unexamined endowment, and are legally derived from state law”. Additionally, they may be created from “modes of production” or “clans” (that constitute as “extended entitlements”). An entitlement failure can lead to sub-optimal outcomes that plausibly undermine the process of social cohesion and economic inclusion.

For example, if there is extensive labour market disequilibrium, employers rely heavily on signals to avoid adverse selection. However, ‘human capital’ barriers to entry may be excessively high for individuals who are unemployed and possibly living in poverty. In such instances it is likely that social and physical thresholds have not been met, and will continue to remain as such. In instances like these, the individual will become dejected, resulting in both physical and social failure (see for example, Dinkelman and Pirouz, 2001; Möller, 1992). Moreover, it is likely that groups of workers become small and exclusive and that this will reinforce social exclusion.²⁴ The importance of these small and fragmented groups is that they undermine institutional transparency or “anomie” of the labour market (Haralambos and Holborn, 1990:319).²⁵

Feedback effects and market failure serve to show that processes such as job search are theoretically complex and more dynamic than is assumed by the Neo-Classical interpretation. To fully examine failure at the individual level, and in the context of ‘human capital’ and labour market signals, take note of the three issues discussed below:

1) *Physical Capital Stocks*

Physical capital stocks refer to productive ‘human capital’ (i.e. education, work experience, cultivated skills etc.). These are considered as signals (in the Akerlofian sense) and represent both standardised ability and worker quality (i.e. productivity).

To begin, there is the issue of having a range of quality signals. Countries that have excellent education systems provide individuals with a range of standardised signals

²⁴ To clarify this point, and in relation to “lock in” (Granovetter, 1992:9) effects, consider evidence provided by Narayan (1999) from 47 of the poorest countries. Narayan (1999:12) notes: “the final conclusion is that from the perspective of poor men and women, the social fabric, the bonds of trust and reciprocity and trust, is unravelling. There are twin forces at work: social *exclusion* of particular groups is reinforced by the more powerful and internally cohesive groups while social *cohesion*, connections across groups, breaks down” (italics in original). This insight is one such example of how individuals who are excluded are likely to remain excluded, because the social barriers to entry are excessively high.

²⁵ The word “anomie” was used by Durkheim in his interpretation of the division of labour, literally translates into the term “normlessness” (Haralambos and Holborn, 1990:319).

(from grade nought to tertiary levels of education) that are effective in terms of providing a zero-defective quality and standardised signal.²⁶

One worker with a particular level of education is the same as any other with the same level of education. For example, Nickell (1998b in Duff and Fryer, 2004:5) shows how the German education system is superior to its USA and UK counterparts. At a particular level of education (for example grade 10), German workers are not only more productive, but there is little quality variance between them (in terms of productivity). Their signal (i.e. their grade of education) is universally effective for all individuals with the same educational grade in the labour market.

Whilst a range of quality signals is required for perfect signalling to occur, the fact that a better education system also produces more productive workers is also worth taking into account. McIntosh and Vignoles (2001:455 in Duff and Fryer, 2004:5) show that the UK and USA perform far below the standards of countries like Germany and Sweden. Thus because workers in these countries are comparatively more productive, despite having the same qualification, they earn a higher wage (i.e. German and Swedish workers earn higher wages even though they have the equivalent 'level' of education as the Americans and British).

In the absence of a range of standards, very large "sheepskin effects" can occur (Ferrer and Riddell, 2002 in Duff and Fryer, 2004:6). People who have lower than a particular standard earn significantly lower wages and are likely to face a lower probability of employment (Duff and Fryer, 2004:5). It seems to indicate that below a certain threshold level of education, individuals are likely to face failure. To see how failure transpires when there is a lack of a range of signals to choose from, consider the South African

²⁶ Part of the reason that quality standardisation is essential across all standards is that it ensures the effective labour market absorption of a variety of skills (as per traditional Neo-Classical labour literature, see Hughes *et al.*, 1981; Perlman, 1958). It is counter-intuitive to the Neo-Classical hypothesis to assume that unskilled labour has no skills (Duff and Fryer, 2004:9). It is positively true that cognitive and numerical skills remain uncultivated by the education system (Akerlof, 1970:493), and thus minorities are "hurt in the recruitment process" as "employers perceptions be overstated...[and] may well reflect some degree of employer discrimination (whether pure or 'statistical')" (Holzer, 1998 in Duff and Fryer, 2004:9).

education system. As a result of past Apartheid discriminatory policies, the provision of standardised education has been differentiated on the basis of race (a matter that is dealt with in more detail in Chapter 3). The current South African education provides no plausible signal below the level of matric (completed secondary education) (Lemon, 2004 in Duff and Fryer, 2004:6). Moreover, there is ample evidence suggesting that significant quality variance exists between those who do have a matric (Chisholm, 1992), even in the Post-Apartheid era (Case and Yogo, 1999; Case and Deaton, 1999).

It therefore seems that workers with a particular range of education signals will not only be on average more productive than their counterparts in countries with weak education systems, but that their quality will also be less variable (Duff and Fryer, 2004:5). This point shows that individual failure in the arena of physical ‘human capital’ depends extensively on the extent of public good characteristics (i.e. public institutions that facilitate “transparency”) (Fedderke *et al.*, 1999:11).

There is a smaller margin for failure to occur provided that thresholds are met. However, if they are not (i.e. there is no range or quality variance is possible) the signal will fail. To illustrate, an individual who has completed secondary education in Germany is likely to be able to find work easily, whereas an individual with a Matric in South Africa must be able to verify his/her quality with some other signal. In the latter, the signal (that is generated via physical ‘human capital’) depends on the extent of public good characteristics inherent in the education system.

2) *Social Networks*

Social networks refer to the social component of ‘human capital’ that is both the embodiment and distribution of information between individuals through networks. These refer to the social fibre of the economy (Fedderke *et al.*, 1999) that facilitates (and in turn are facilitated by) trust and durable personal relationships.

In the Neo-Classical labour market, social networks are considered transparent (see job search models by authors such as Rees, 1966), in the sense that there is no incentive for

individuals to misrepresent their capabilities or aptitudes in the recruitment process. This form of “social capital” (Fedderke *et al.*, 1999) exceeds a threshold level so as to avoid the adverse selection problem.

However, sociologists have long grappled with the problem of social capital and its relationship to the division of labour and other groupings and social strata (Granovetter, 1983). These enquiries have redirected the attention towards micro-network models that in turn have the ability to explain macro-networks, and thus social patterns and structures (Granovetter, 1973).

In markets that fail, social groups are exclusive because they are bound by socio-economic characteristics (for example, it is likely that two people from the same neighbourhood become acquainted because they share similar or homogenous socio-economic characteristics). Should social networks become so exclusive that they are no longer transparent, quality uncertainty arises as social networks begin to differentiate job searchers.

An individual’s “strong” or “weak” ties (Granovetter, 1973:3) play a significant role in determining labour market success. “Weaker” ties (for example, social acquaintances etc.) have a considerably larger impact on “a person’s opportunity for mobility” compared to “strong ties” (for example family members) (Granovetter, 1983:205). Thus, the stronger and individual’s social “ties”, the more likely it is that their signal will not be considered transparent.

There is evidence suggesting that half of workers in the USA labour market find work using social connections (Montgomery, 1991). The theoretical thrust of these findings is that individuals using “weak ties” have a higher payoff in terms of wages and the probability of finding employment (Montgomery, 1992). Conversely, in the event that “weak ties” are not used (or if they fail), individuals will revert to using “strong ties”, with lower wages and diminish the probability of finding employment (Montgomery, 1992).

The obverse side to social networks in the labour market are that they constitute as being signals, and below a critical threshold level they intensify exclusion (Calvó-Armengol and Jackson, 2004). High ability workers use “weak ties” and are likely to be selected out of the market (i.e. they are no longer unemployed). This in turn reinforces the tendency for adverse selection to destroy the market for the remainder of job searchers (i.e. the signal is self-selecting and is likely to result in a “lemons effect” for those who remain unemployed) (Montgomery, 1991:1411-3).

Due to the social nature of networks it is also possible that individuals with certain social associations will be discriminated against (for example, on the basis of their demographic or even regional characteristics as people living in areas with few employed people are least likely to have connections who can put them in contact with potential employers). Furthermore, it is likely that market failure will pronounce these effects (Duff and Fryer, 2005:8), because disequilibrium unemployment is likely to feedback to ‘human capital’ through poverty. This results in a depreciation of the skills and ethics of workers who experience prolonged unemployment (or underemployment) (Theodossiou, 1998). Statistical discrimination (Becker, 1957) is likely to emerge and combine social and physical exclusion together.²⁷

3) Mode of Job Search

As has already been established, job search is not the simple process of gathering information when the labour market is in disequilibrium. Rather, job search forms part of a complex procedure in labour markets that fail. Stocks of ‘human capital’ become labour market signals, and if individuals fall short of a critical threshold level they are likely to become excluded.

²⁷ For a general overview of this literature, see Montagu (1999). Also, Sherer (2000) in a study on South Africa contends that even after educational attainments have been controlled for, there is significant labour market discrimination against Blacks.

Mode of job search constitutes as a “second best” signal as employers or employees will use it as an indicator of quality. Take for example, the case in which both physical and social stocks of capital have failed. The unemployed searcher may use formal methods of job search (for example looking in the newspaper, applying at employment agencies or sending out a curriculum vitae) as an institutional mechanism to validate his/her ability. It is likely that using formal methods requires a degree of cognitive ability (such as reading, writing, typing or using the Internet), which in turn transmits a credible signal that employers can use to gauge quality.

It seems however, that by varying the degree by which the mode of search is validated by an institution (for example an employment agency) the effectiveness of the signal is likely to change. The lack of “transparency” makes it possible for searchers to misrepresent their ability and take advantage of gains from trade. Consider the use of a referral system and/or ‘word of mouth’ (which is synonymous with the use of social networks); other than the referee’s assurance, the employer has no other sure way to validate the quality of the job applicant (i.e. the referral). Moreover, the previous institution (for example the abovementioned formal or social one) has not validated the job searchers abilities, and thus the employer may be sceptical about hiring due to the lack of “transparency” (i.e. there is the possibility that the searcher is misrepresenting his/her abilities).

To reiterate, take the example of an individual who engages in private search by going place-to-place search and asking for work. In this case it is likely that the employer will not trust the searcher as neither a formal nor social institution has validated their ability (i.e. there is no transparency). Place-to-place search mode is thus a last resort for job searchers, and because the signal has no institution to make it transparent (it is entirely private), and searchers are thus considered to be “doubly lemons” (Fryer and Duff, 2004:8).

2.6 Conclusion

The findings of this chapter are reviewed below in three inter-leading points:

Firstly, Neo-Classical labour literature tends to treat unemployment as something that simply happens to individuals (i.e. an exogenous shock creates temporary disequilibrium). The analytical framework used to measure the effects of these exogenous shocks (and the subsequent recovery of the market) tends to be static in the sense that information is assumed to be perfect or is used to 'optimal' cost-benefit maximising levels, and feedback mechanisms do not exist. However, 'frictions' in the labour market distort flows of information, and as a result feedback effects such as poverty arise.

It is also possible that the structure of the market may predetermine levels of unemployment. The classical case showing this is the Todaran Model (1969). This analysis shows that flows of information are linked to stocks of 'human capital', and that the market clearing process is more complex than the General Equilibrium approach.

Secondly, when the market wage is non-clearing, other market mechanisms (such as signals) are required to transmit information. As a result of factors such as poverty, supply-side responses are shaped by the structure of the market. In effect, the economic agent responds to failure. Thus, investments in 'human capital' become signals and these may be considered as an endogenous component of unemployment in the sense that they are co-dependent on the disequilibrium point.

In the recruitment process, imperfect information leads to adverse selection (Akerlof, 1970), and the structure of the market becomes exclusionary. Job searchers therefore invest in 'human capital' in order to transmit signals that show their quality. These signals are however susceptible to the review of a market standard. It is shown that signals are only effective provided they are supported by a standard setting institution (i.e. they are transparent and verified by standardised body).

Thirdly, in the event that market failure occurs, 'human capital' trajectories must exceed a critical threshold level to surpass the market standard (and avoid the adverse selection trap). This has various implications for searchers responding to vast joblessness. The

central theme that emerges shows that various modes of job search become signals in themselves, and these reflect individual stocks of 'human capital'. It is required that the degree to which the standard setting institution has public good characteristics be taken into account. Furthermore, it is shown that physical stocks of 'human capital', and social networks are likely to intensify failure if they are not transparent.

In order to understand these complex features, it is necessary to understand the endogenous structure. In particular, it should be clear in the reader's mind that the endogenous structure of the market relates to flows of information, stocks of 'human capital' and disequilibrium. These are distinct from endogenous feedback effects in the sense that feedback effects relate to things such as poverty, class structure and other phenomena that undermine an individual's capabilities (Deumert *et al.*, 2005) It is shown that job search may be implicated in both the endogenous structure of the labour market, and its feedback mechanisms.

The result is one in which formal; 'word of mouth' and place-to-place modes of job search stratify searchers according to the chances of success in the labour market. For example, evidence suggests that place-to-place search is the dominant search mode used by job searchers in South Africa (Bhorat *et al.*, 2001; Dinkelman and Pirouz, 2001; Kingdon and Knight, 2001a). This attests the theoretical foundations of job search and its link to market failure and disequilibrium.

It is possible that because South Africa suffers from low and variable quality education standards (Bhorat *et al.*, 2001) as well as extensive social disjuncture (Fedderke *et al.*, 1999; Marias, 1997; Parnell and Mosdell, 2003), institutional transparency collapses. For example, the prevalence of place-to-place search indicates to employers that the searcher has, to some extent, fallen short of 'human capital' thresholds and is likely to be bad quality.

Employers have no other way to gauge job applicants' quality, other than using the mode of search, and may revert to using the wage as an indicator of quality (i.e. gauge quality

dependent on price). The line between good quality workers and bad quality workers is likely to become blurred (i.e. the “lemons” effect), and market failure will be complete.

Empirical testing of endogenous themes, which are consistent with the theory laid out in this chapter, has been moderate (Bhorat *et al.*, 2001:10). But before the importance of such themes can be tested, it is worth locating Duncan Village within a broader socio-economic and geographic context. It is to this task that the thesis now turns.

CHAPTER 3

DUNCAN VILLAGE AND THE NEW ECONOMIC LANDSCAPE OF SOUTH AFRICA

“For the truth they soon discover is that urban SA treats newcomers from the hinterland like dirt. In the mid-20th century, industry absorbed unskilled migrants in their hundreds of thousands. Today, all but a lucky few find that they are sentenced to their lives on the periphery of the metropolis, their homes tin shacks, their neighbours untrustworthy strangers, the wages they get when they find work barely better than the countryside. Many end up journeying back to their ancestral homes incessantly during the course of their failed adult lives. They are drifters, not yet properly urban, no longer properly rural, scavenging what they can from both the cities and the rural villages” – Jonny Steinberg 2003 (in Beal 2003:9).

“We must cleanse ourselves of any misplaced nostalgia for the belle époque of that modernity.” - Michael Hardt and Antonio Negri (2000:47)

3.1 Introduction

The human geography of Duncan Village and detail on the local labour market may provide some answers to the question of the endogenous structure and endogenous feedback mechanisms.

It has been established, in Chapter 2, that job search is part of a dynamic body of theory that the economic discipline is just beginning to unravel (Fryer and Stuart, 2002). Krugman (1994:412) asserts that by applying the body of theory that is loosely defined as “the new economic geography” (NEG), researchers are provided with more of the tools necessary for exploring dynamic processes.

The logic for examining unemployment at the local level is that it allows researchers to examine the factors informing a process of cumulative causation (Rogerson, 1995). Lemon (2001:219), in a study on urbanisation and employment, suggests that: “a flexible, regionally sensitive approach is necessary”.

Duncan Village is a peri-urban township area within commuting distance to East London.

¹ It is plausible that the physical distance to places of work (for example the East London CBD) is important. However, the condition of the local labour market, schools, and the community are likely to be of greater importance for job searchers (both the strictly unemployed and to a lesser extent the under-employed and employed). ²

Chapter 3 provides historic and geographic features that are of important to market processes (Clarke, 1987/88). These shape the landscape from which exogenous ‘frictions’ originate and provide greater clarity on how endogenous responses are formed. ³ For example, evidence in South Africa, suggests that search activity varies considerably by geographic location (Dinkelman and Pirouz, 2001:15), and that this has a significant bearing on rates of unemployment.

Poverty and inequality are likely to intensify these features. In South Africa the link between spatial and economic development (what is referred to as the “space economy”) is characterised by “tremendous contrasts and inequalities” (Nel, 2000:128). ⁴ Both poverty and inequality (which are strongly linked to unemployment) (Bhorat *et al.*, 2001)

¹ Duncan Village falls under the Buffalo City municipal area (formerly known as East London) and thus into a socio-economic abyss lying between two of the four former Apartheid homeland areas (Transkei and Ciskei). This has impacted greatly upon the social anthropology (Bank, 2002) and even the political dynamics (Lodge, 1957) of the Duncan Village area. Economic issues should by no means be treated differently.

² Most notably, high rates of urban unemployment are the result of widespread poverty and inequality that has emerged in urban and metropolitan regions (Beal, 2003). These are argued to be the result of migratory flows in to these areas (Parnell and Mosdell, 2003:2).

³ Maylam (1995) emphasises the importance of inter-disciplinary approaches in studies of surrounding the dynamics of urbanisation in South Africa. In particular, Maylam (1995:19) suggests that the benefit of using “afro-centric” approaches lies in their ability to fully understand local dynamics and economic processes that significantly detract from “reductionism and mechanistic explanations” (Maylam, 1995:1). Concepts such as “ethnic capital” are used in economic studies (Borjas, 1992; Borjas 1995). It remains however that the debate over “functionalism” and “reductionism” persists (Du Toit, 2004), and that poverty is a central theme that euro-centric economic models cannot get to grips with (Assmol, 2000:5).

⁴ Beal (2003:2) comments: “of all the horrific legacies bequeathed by the Apartheid regime, there is none more visually stark than the spatial dualism between modern, vibrant, urban economies and marginal and impoverished rural areas.”

tend to concentrate themselves in and around spatial regions (i.e. urban, semi-urban or rural).⁵

Social and economic disparities have an obvious, although indeterminate, bearing on what is referred to the “post-Apartheid labour market” (Nattrass and Seekings, 1997:466).⁶ This is important for the analysis in the sense that these disparities inform the endogenous structure of the labour market through items such as education. Moreover, they play a vital role in defining feedback effects and supply-side responses.

Section 3.2 begins with a brief history of land relations in South Africa and outlines the changing economic orientation of human settlements. Using an “index of rurality” (Cloke, 1979 in Waugh 1995:365), this section defines human-geographic settlements (rural, semi-urban, urban) by means of exploring respective historical backgrounds and current socio-economic indicators. Data is presented and compared to national datasets, showing that both rates of unemployment and job search are high in Duncan Village.

‘Human capital’ in the form of education is strongly linked to skills and wage differentials (Becker, 1964). Education is relatively easy to measure in terms of inputs (for example the availability of schooling resources) and outcomes (for example pass rates) (see for example Lemon, 2004). Additionally there is a wide body of both literature and empirical findings to support the role of education in labour market processes.

⁵ Wittenberg (1999b) shows that the concentration of unemployment varies by spatial location. Furthermore, there is significant evidence of robust wage curve elasticity in South Africa. For example, Kingdon and Knight (1999) find this within the range of 10-30% unemployment. However, if unemployment exceeds 30%, wage curve elasticity is zero. The latter finding is quite striking and is interpreted by Kingdon and Knight (1999) as the result of spatial differences in South Africa. These findings present a definite case of inequality and “lack of opportunities” (Fryer and Stuart, 2002:4) according to geographic location. However, the magnitude and the extent of these factors remains seriously under-explored by empirical or theoretic means.

⁶ Rogerson and Pirie (1979 in Nel, 2000:128) note that expansion of capitalism in South Africa has been marked by institutionalised structural imbalances. Structural imbalances are characterised by previously inequitable provisions of infrastructure and services. Moreover these were permeated in the social strata of the economy via the labour market, and in what has been referred to as “radical Fordism” (Pickles, 1991 in Nel, 2000:128). It is therefore no surprise to find extensive wage and poverty gaps in urban areas (Parnell and Mosdell, 2003).

Section 3.3 begins with a brief history of the education system in South Africa. Existing arguments suggest that there is vast inequality between schools as a result of previous Apartheid educational policies (Lemon, 2004). The section then examines recent Geographic Information Systems (GIS) data and maps of East London and Duncan Village. The data provides a list of potential indicators for the quality of schools within a 5-kilometre radius of the East London CBD, and schools within a 2-kilometer radius of Duncan Village.

The chapter concludes in section 3.4 and argues the importance of regional human-geographic themes. In particular, the role of 'human capital' is shown to be vital for understanding dynamic local labour market processes and current patterns of exclusion.

3.2 An overview of the new economic geography in South Africa

Lemon (2001:219) notes that the role of an urbanisation strategy goes beyond applying a basic nationwide policy framework. An examination of the dominant themes in areas such as Duncan Village requires an assessment of the "urban hierarchy" (Lemon, 2001:219) and other inter-linking processes. In order to achieve this, the approach examines the process of urbanisation using NEG theory. It intends to theoretically locate and explain local labour market dynamics.

3.2.1 A brief history of the changing economic and social landscape

Krugman (1994) highlights the importance of departing from "initial conditions" (such as the Neo-Classical market equilibrium) when addressing complex economic landscapes (for example spatial conglomerations of labour and industry). The argument is that history is the authoritative body that allows researchers to examine a wider range of possible factors that play an important role in economic processes, such as those of the labour market (Krugman, 1994:15).

The historical dispossession of land has played an important role in the spatial development and labour processes that have evolved in South Africa. Land dispossession occurred in two distinctive waves. The first wave occurred with the European colonial

movement, and is one that is paralleled with many of the countries that were colonized by the Anglo-Saxon empire (Landes, 1999). This wave occurred on a considerable scale in South Africa during the 19th and 20th centuries (Waugh, 1995:349). The second wave of land dispossession began with the 1948 political victory of the National Party, and was sustained by a gradual introduction of the Apartheid political system in South Africa (Percival and Homer-Dixon, 1995).⁷

A prominent feature of the current South African economic landscape is that of vast inequality. Krugman (1994:14) asserts that the underlying dynamics of such economic landscapes amount to a structure of vast “complexity”.⁸ For this reason South African literature provides an extensive assessment of the forces that drew workers from rural into urban areas before and throughout the Apartheid period. The two main arguments are characterised by much of the traditional “push” versus “pull” debates (Krugman, 1994:413).⁹

Nonetheless, the Apartheid objective was to establish an effective dumping ground for the contingent supply of Black labourers in the form of rural homeland and Self

⁷ At the height of Apartheid’s land and residential policies, the minority of whites owned 87% of the land, while Blacks (almost 75% of the country’s population) were forced to live within artificially created Bantustans (commonly known as homeland areas), that accounted for only 13% of the land (Percival and Homer-Dixon, 1995). To illustrate the magnitude of this objective, between 1960 and 1980 the South African government had engaged in the forced removal of over 1.75 million people from their resident areas (both rural and urban), and is believed that a total of 3.5 million people were relocated throughout the Apartheid forced removals program (South Africa online, 2004).

⁸ Krugman, (1994:415) examines the economic landscape by interlinking different regions and showing the possibility for complex systems to arise. These possibilities include phenomenon such as multiple equilibria, external economies and externalities arising from differing technological choice.

⁹ There is a wide body of study surrounding this debate in South Africa. Commonly used arguments suggest that the “centripetal” pull of wages (Krugman, 1994:413) has historically drawn rural residents into urban areas. The implications of which suggest that forced removal policies that were placed on Black South Africans from the 1950’s and onwards were adopted with the intention of reversing flows of rural homeland immigrants (Simkins, 1983; Bundy, 1979). Conversely, other arguments suggest that severe economic failure and poverty effectively pushed peoples from rural into more urbanised areas (see for example Knight and Lenta, 1980:175). The latter argument is founded on evidence from government commissions in the 1920’s and 1930’s reporting that rural African economies were collapsing from the pressures of rapid increase in population. Presumably, the ambition of underdevelopment in these areas induced the state to extend the reserves, thereby exasperating the situation of rural poverty.

Governing areas (Norval, 1996).¹⁰ This was juxtaposed with the continued reliance of the Apartheid economy on a Black labour force of urban dwellers. The clash between political and economic objectives is one that highlights the contradictory logic of the Apartheid administration.¹¹ As a consequence, significant debate (much of which lies outside the scope of this study) surrounds the intentions of the Apartheid regime (for example see Fryer, 2005).

Two points are worth further examination. Firstly, Black individuals were not so much geographically isolated during the Apartheid era, as they were subjected to severe underdevelopment.¹² Apartheid policies embodied “a set of adverse education, population control and labour market measures...having the effect of diminishing a nation’s greatest resource: its people” (Altman, 2003:158). Secondly, due to the incoherent dialogue between economic and political objectives, groups of Black labour market insiders and outsiders began to emerge between urban and rural areas.¹³

It would seem a reasonable question to ask that: if the restrictions placed on Black residents were disobeyed with illegal influxes of rural immigrants (see footnote 12), why was there an insider/outsider division between urban and the rural labourers? The extent of this consideration reaches across a broad and very detailed body of literatures and

¹⁰ The dependence on a rural migratory labour force was most notable in key industries such as mining and manufacturing (Aspirant, 1995).

¹¹ Norval (1996:26) argues that forced removals (amongst other things) were central to the Apartheid objective of simultaneously solving “the native problem” and “the poor white problem”. The former was largely a politically motivated control objective, whereas the latter was the result of Black labour impinging upon the economic opportunities of the lower class whites (who were predominantly Afrikaans speaking).

¹² At the height of the implementation of forced removals programs, people relocated to rural homeland areas or to the nearby “garden cities” (Bank, 2002:84). The effects of “lamenting poverty” (Bank, 2002:86) combined with greater commuting distances to urban centres provided an incentive for rural dwellers to seek illegal residence in the urban areas. For example, evidence from East London suggests that in the period between 1950 and 1960, illegal immigrants were entering the urban centres at a rate of more than 1000 people a year (Atkinson, 1991:185).

¹³ The general term ‘Black’ can be misleading. Under the Apartheid regime the terms, ‘Indians’, ‘Coloured’, ‘African’ and ‘white’ were used in reference to “different rights and their consequences and not [by] any physiological characteristics” (Crankshaw, 1993:30). Nonetheless, those who were classified as Black were subjected to Apartheid forced removal programmes. The distinction between Black rural and urban dwellers therefore became socially and economically pronounced (Lemon, 2001).

theories (e.g. urban anthropology – Bank, 2002; sociology – Du Toit, 2004; Marxist – Natrass, 1991) and a complete synthesis would be an exceedingly difficult task.

The point does however serve to highlight the effects of artificially created class structures and rural underdevelopment that stratified regional levels of ‘human capital’ and thus determined local labour market outcomes. Therefore, the aim of this section is to further explore the role of these features.

3.2.2 Rethinking human settlement in South Africa

The traditional human-geography literature explains that the definition of human settlements depends on several characteristics. These are:

- Population size
- Existing economic centres
- The availability of services
- Land use
- Developed and practised social norms

However, Waugh (1995:365) notes that it has become increasingly difficult to differentiate between settlements (such as urban, semi-urban and rural) based on these criteria alone. Cloke (1979 in Waugh 1995:365) introduced the concept of a continuum that exists between “strongly rural” and “strongly urban”. The continuum is underscored by systems of knowledge (i.e. flows of information) that link different areas even though they may not be spatially connected or within proximity to one another.

Cloke (1979 in Waugh 1995:365) reduces these into an “index of rurality” based on criteria such as: migratory movements of people, varied short-term population densities, and the connections between similar or different industries (Waugh, 1995:365).

Although established economic and geographic literature suggests that the formation of urban centres, cities and residential areas emerge with the primary objective of developing unique physical resources; urban development is also considered to be largely

the result of social and cultural change that embodies sophisticated behaviours, social interactions and heightened levels of satisfaction (Knauder, 2000:23). For example, Bank (2002) explains that residents in Duncan Village have developed hybrid identities and patterns of consumption that are neither characteristic of the practices of white urbanite nor rural 'tribesmen'.

To theoretically substantiate upon this point, Waugh (1995:576) notes that "core poles" (such as cities and CBD areas) are the product of complex systems and spatial conglomerations resulting in a process of cumulative causation (such complex labour market dynamics and processes). The emergence of a core-periphery model results in changes that take place in both physical and social spheres of the economy.

It is important to note, however, that a study of this sort can only hope to firstly acknowledge these effects, and secondly attempt to better understand their bearing on the labour market (through 'human capital' stocks and supply-side responses).

The surfacing of a relationship between secondary and peripheral cores, and formal and informal sectors of employment induces a complex development of systems and spatial conglomerations (Waugh, 1995:576). To better understand these key features, and their implications on the labour market, there is a need to explore a set of spatial classifications that are applicable to South Africa. Traditional approaches make use of "urban hierarchies" (Lemon, 2001:213) by linking levels of urbanisation (i.e. population size) with density (Davies, 1967 in Lemon and Cook, 1994).

NEG literature suggests that it is more appropriate to distinguish between spatial classifications using an eclectic approach. Three general spatial classifications are conceptualised in this dissertation, and these are explained as follows:

1. *Rural Areas* - In South Africa, areas that are engaged in primary production, whether at a subsistence or commercial level, differ according to the following largely politically induced spatial morphologies:

- i. Firstly, rural areas traditionally refer to those areas that are engaged in primary commercial production, and that lie within commutable distances to secondary towns or cities (Waugh, 1995:470). In South Africa, the historical development of white owned farms is believed to have played an important role in the politics of Apartheid, as only whites had access to the majority of arable land (Lewis, 1990; Davenport and Saunders, 2000). White owned commercial farms were a primary source of formal sector employment for Black workers throughout the earlier periods of Apartheid (Lipton, 1985). However, evidence suggests that very few Africans can be considered as peasants in the traditional sense and that commercial farming has played a diminished role in creating employment in the years leading up to the end of Apartheid.¹⁴
- ii. Secondly, the definition of rural areas includes former Apartheid homeland areas such as the majority of the Transkei and Ciskei (with the exception of secondary towns and commercial centres along the N2 national highway). These overly exaggerated “commuter hinterlands” (Waugh, 1995:352) were at the heart of the contradiction that underlay the Apartheid logic (see Page 43). The distinction between Black homeland areas and white urban and commercial farming areas were based on the demarcations between the Republic of South Africa (RSA) and Transkei, Bophuthatswana, Venda and Ciskei (TBVC) and Self Governing Territory (SGT) areas.
- iii. Thirdly, areas that are considered rural are those that form massive satellite settlements subjacent to urban areas. For example, Mdanstane in Buffalo City or the conglomeration of areas to the north and south of Umzinto in Kwa-Zulu Natal. What Bank (2002:84) ironically refers to as “garden cities”, became increasingly populated as a result of the economic boom experienced in the early period of the 1970’s (Percival and Homer-Dixon, 1995). However, the urban-rural wage

¹⁴ This is supported by recent evidence suggesting that on average as little as 10% (if not less) of African’s income is derived from farming alone (Seekings, 2000 in Fryer and Stuart, 2002:3-4).

disparity not only caused over-crowding in these settlements but also lead to a collapsing of rural homeland economies (Knight and Lenta, 1980). In addition, the failure of the Apartheid government to attract investment in these areas (as part of industrial decentralisation and deconcentration policies) lead to massive unemployment in these areas (Parnell and Mosdell, 2003:15).

In 2001, 42.5% of the total South African population lived in rural areas (Beal, 2003:7). Most of which were Black residents who reside in former homeland areas that are characterised by inadequate access to shelter, energy, water and sanitation (Aliber, 2002:10). However, not only is there a severe lack of basic provisions but there is little access to productive resources (including arable land) (Aliber, 2002:10), and this has resulted in a continued reliance on remittances, kinship patterns and petty-commodity exchange (in the form of either goods, services or money).¹⁵

2. Semi-urban - The definition of semi-urban areas in South Africa is twofold, and the distinction is largely the result of the racial separateness embodied by Apartheid legislature. Semi-urban areas include:
 - i. “Secondary Towns” and “Major Towns” that constitute as small areas in which urbanisation has occurred around an “old core” (Waugh, 1995:369). A good example of such an area is Grahamstown in the Eastern Cape. According to Lemon (2004:278) former commercial centres, like Grahamstown, are artefacts of old settler “whiteness”. These towns have historically played an important role in serving as physical trading posts for agricultural produce, and to a lesser extent small-scale industrial production.
 - ii. “Other towns” are semi-urban areas that serve as newer commercial trading posts. These towns do not necessarily possess the historical weight that characterise “Secondary” and “Major” towns (Waugh, 1995:369). “Other Towns” have

¹⁵ See for example, Southall, 1977; de Wet, 1989; Wilson and Ramphela, 1989; and McAllister, 1980, 1997; Iliffe, 1987.

emerged significantly in previous homeland and Self Governing Territories (for example Butterworth and Idutywa in the Transkei), as well as around commercial farming areas in South Africa (for example Alexandria or Kirkwood in the Eastern Cape).

Beal (2003:8) states that there is rapid population growth occurring in semi-urban and secondary towns. It is argued that these semi-urban areas have felt the pinch of declining demand for labour in agricultural sectors (Becker *et al.*, 1992), and are prone to large influxes of unemployed and socially excluded people looking for work (Cassim *et al.*, 2004:5). Generally speaking, rates of poverty in these areas are believed to be high (Woolard, 2002), and sustained by the lack of large-scale industry to accommodate excess supplies of labour (Dewar *et al.*, 1984). In addition, people living in small town areas often have the intention of relocating to more industrialised urban centres within the near future, and thus semi-urban areas can plausibly serve as an effective 'half-way house' for an extremely mobile section of the population (Beal, 2003:8).

3. *Urban* – Urban areas are largely characterised by concentrations of industry and labour. The process of urbanisation in South Africa does not differ from other international modernist planning regimes (Bank, 2002:17). However, the Apartheid emphasis on rural underdevelopment and artificial class differentiation has impacted upon a vast range of social and economic processes that have largely influenced the formation of urban areas in South Africa (Lemon, 2000). Parnell and Mosdell (2003:17) and Beal (2003:1-5) argue that Apartheid dualist policies have left a legacy that is best characterised by the disintegration of spatial areas that were established by Apartheid regulations. For example, the average population growth rate between 1991-1996 for the East London and Mdanstane area was 19% (the highest figure out of all the urban areas, the next highest was 3.8 for Bloemfontein, Botshabelo and Thaba Nchu) (Parnell and Mosdell, 2003:8). The urban population growth is on average higher than national population growth (Beal, 2003:8), and is linked to rural collapse and urban population

implosion resulting in chronic urban poverty. To see the effects of this, consider the following distinction between suburban and peri-urban areas:

- i. In the traditional literature, suburban areas are both cause and consequence of the development of large cities and commercial/industrial centres of trade (Waugh, 1995:384). Conventionally, a clustering of residential suburban areas occurs outside of city centres. Following “a blueprint for the scientific administration of modern life” (Rainbow, 1989:344), the labour force residing in suburban areas forms the core (and presumably skilled) component of the labour force that participates in urban CBD centres (Silverson, 1996). Residents in the city and on the urban periphery generally typify the disadvantaged or chronically unemployed (Massey, 1980).¹⁶ During Apartheid, suburban areas were reserved for white urban residents, and standards of living in these areas ranked “amongst the highest in the world” (Parnell and Mosdell, 2003:9).

- ii. The term “peri-urban” literally means “around the edges or periphery of a city” (Saniplan, 2001:1). Saniplan (2001:1) states that the definition includes colloquial terms such as “informal settlement, illegal settlement, shanty town and squatter settlement”. During Apartheid in South Africa, the remainder of the Black population that was not forced to relocate to homeland areas were restricted to legally defined townships lying within proximity to the urban centres and cities.¹⁷ Parnell and Mosdell (2003:3) note: “there are high concentrations of poverty within particular cities, making poor urban areas (normally ex township or informal areas) the highest concentrations of

¹⁶ Parnell and Mosdell (2003:2-3) note the following about South Africa: “the problem with the comparison between rural and urban places is that, especially in urban areas, we fail to acknowledge the extent of poverty. While it is true that cities are centres of wealth, they are also the focus of intense poverty.”

¹⁷ The forced removal of Black residents into these urban settlement areas, which were in commutable distances to urban centres, and came to be known as “black spots” (Percival and Homer-Dixon, 1995). Urban resettlement was reserved for those Blacks who had lived in the city since birth, lived in the same urban residential area for longer than 15 years, or worked for the same employer for more than 10 years.

poverty in the country.” This is argued to be the result of historically dislocated social structures, crime, high costs of living and poor quality of life in these areas. Moreover, the centripetal pull of wages into urban areas creates mass overcrowding (Crankshaw, 1993) in peri-urban areas. The effects of this have been twofold. Firstly, physically poor living conditions have resulted in social pathologies (such as “ecologies of fear” – Davis, 1990 in Bank, 2002:19) Secondly, and counter to the first, the forces of a vibrant social dynamic have resulted in considerable degrees of positivism and motivation, which is geared towards both social and economic improvement. One such example of the latter is Duncan Village, where despite high rates of unemployment there is considerable labour force participation (Duff and Fryer, 2004), and this is supported by an agenda that is geared towards social and civic improvement (Bank, 2002).

Based on South African Cities Network (SACN) data between 1996 and 2001, Beal (2003:9) highlights two important findings. Firstly, there is growing poverty, insecurity and social exclusion in urban areas (Beal, 2003:9). Secondly, given high levels of urban unemployment, there is heightened mobility amongst people in search of multiple occupations. The latter of which is likely to lead to high rates of informal sector participation.

It can therefore be surmised that poverty has persisted in urban areas despite steady rates of economic growth (Trevor Manual, 2002 in Nattrass, 2003a:141), and this is the result of high levels of metropolitan unemployment (Parnell and Mosdell, 2003:2). However, features such as vast housing and infrastructural backlogs (Lupton and Murphy, 1995) are likely to intensify the effects of unemployment through poverty (Bhorat *et al.*, 2001).

On a national level, the unemployment figures between rural and urban unemployment are comparable using the ‘strict’ definition. For 2001, these are 21.7% and 27% respectively (SAIRR, 2001:380). Presumably however, those in urban areas have better access to services and infrastructure and levels of social exclusion are lower (although it

is believed that social exclusion has increased with higher numbers in urban areas) (Beal, 2003:9).¹⁸ Moreover, the situation of poverty and joblessness differs from the rural context in the sense that “modernism” prevails (Dodson, 2000:152). In 2001, ‘broad’ rates of unemployment showed 31.7% and 44.8% for urban and rural areas respectively (SAIRR, 2001:380). This indicates that rates of search are higher for the urban unemployed (i.e. discouragement is low).

It therefore remains that the challenges facing the urban unemployed (and presumably those who are impoverished) have yet to be fully integrated into an approach that details the effect of ‘human capital’ on unemployment and job search.

3.2.3 Access to opportunities: labour market figures

May (1998:8) notes that the decline in rates of employment has been partly the result of declining investment. However, the decline has also been attributed to “increasing demand for skilled rather than unskilled labour; the rising cost of unskilled labour in the formal sector due to increasing unionisation and labour market regulation; apartheid spatial policies which increased the difficulty and cost of job-seeking by those living in remote areas; and under-investment in education, which limits the opportunities open to many of the unemployed” (May, 1998:7).

In terms of a supply-side response, Dinkelman and Pirouz (2001:25) show that discouragement (i.e. the marginal cost of search is higher than the benefits, therefore individuals choose not to search and are thus considered unemployed by the ‘broad definition’) is highest in the rural areas of South Africa. Therefore searching unemployed

¹⁸ In the context of the labour market, social exclusion is pronounced for individuals with limited or no social ties (see Chapter 2). For example, during the 1950’s in Duncan Village, the rural “amaquaba” or “red” people, who moved from rural into urban areas, continued to engage in traditional practices. They were subjected to the abuse and exclusion of urban “school” or “townsmen” residents (Bank, 2002). In cases of cultural allegiance, social divides become distinct, and this is most likely to occur in social and cultural meeting points such as metropolitan urban areas (Sandercock, 1998). However, the topography of norms and behaviours in newer forms of urbanism coalesces into “hybrid” forms (Bank, 2002:267). Urban hybrids create a social binary for all urban residents, and constitutes as a vibrant form of social cohesiveness (Hannerz, 1992).

and non-searching unemployed are distinct in terms of regional characteristics (*inter-alia* “the index of rurality”, as shown in Section 3.2) (Cloke, 1979 in Waugh, 1995:365).

Table 3.1 shows unemployment rates and labour force participation rates for various surveys and according to different variants of the standard definition. Duncan Village has a comparatively high rate of unemployment, with 72% and 76% for men and women respectively by the ‘highest plausible rate’ (that is the “strict” definition in its logical conclusion) (Duff and Fryer, 2004:10). However, search activity in Duncan Village is also shown to be high (i.e. there are little signs of discouragement), and thus there is little difference between strict and broad measures (for both men and women). The case of unemployment in Duncan Village therefore differs from national datasets in that the figures illustrate a divergence from the predicted trend (i.e. high rates of unemployment that correspond to in lower levels of search).

TABLE 3.1) POSSIBLE RANGE WITHIN THE STANDARD DEFINITION OF UNEMPLOYMENT (U) AND LABOUR FORCE PARTICIPATION RATES (LFP) (%): FIGURES FROM VARIOUS SURVEYS IN SOUTH AFRICA

	Strict		Expanded		Highest plausible	
	U	LFP	U	LFP	U	LFP
Machibisa ^c Women (1990)	24	63	33	72	47 ^b	75
Grahamstown ^c Women (1996)	21	48	39 ^a	62		
Men	21	58	36	71		
Duncan Village (2004) Women	52	70	58	80	76	82
Men	46	78	51	86	72	89
National SALDRU (1993) Total	12		30			
OHS (1995) total	13		27			
OHS (1997) Women	26	38	44	50		
Men	18	57	29	67		
Total	21	47	36	58		
OHS (1999) Total	23		36			
LFS (2002 – September) Total	31	57	42	68		

Source: Duff and Fryer (2004:11).

- Note:
- a) Even when the expanded unemployment rate is less than double the strict rate, it is possible that the expansion has more than doubled the number classified as unemployed. The rate may not double because the expansion increases the denominator (the number classified as in the labour force) by the same number as it does the numerator.
 - b) Highest plausible U Machibisa: All cases that *could* be classified as unemployment within the standard definition, including all part-time workers who want more work and “non labour force” women who present no “valid” non-labour force occupation; Duncan Village: All ‘NLF’ women who would accept an RDP job and all underemployed women who were both searching actively and would accept an RDP job.
 - c) The Grahamstown results are drawn from Grahamstown East, the “poor” side of Grahamstown, a small university city in the Eastern Cape Province (Fryer and Stuart, 2002). Machibisa is part of Edendale, a freehold township of Pietermaritzburg, a medium size city and administrative capital of Kwa-Zulu Natal (see Fryer, 1994 and Fryer and Vencatachellum, 2002).

The Duncan Village data shows that there is little difference between ‘strict’ and ‘expanded’ definitions of unemployment (52% compared with 58% respectively for men and 46% compared to 51% respectively for women). This indicates that there are high levels of search in Duncan Village.

Discouragement amongst searchers results in a decline in the strict unemployment rate (those who are discouraged are classified as NLF), but leads to an increase in the broad unemployment rate (that reclassifies the discouraged as unemployed). Coupled with high levels of search in Duncan Village, it appears that there are also few signs of discouragement. Moreover, the data shows that coupled with high rates of search there is high labour force participation (LFP) in Duncan Village. This suggests that there is extensive joblessness in the region.

There are several reasons for simultaneous high rates of unemployment and search in Duncan Village, compared to other datasets:

First, the criteria used for OHS and the LFS data are much stricter and therefore the rates of participation are lower compared to the Duncan Village data.¹⁹

Second, high rates of search and unemployment in Duncan Village could be the result of the ambiguity associated with categorising labour market participants (these effects are dealt with in Chapter 4).²⁰

Third, low rates of labour force participation in the OHS and LFS data may be the result of a stricter classification of ‘informal’ work. Although very little is known about the informal sector, especially in conjunction with the themes raised above (problems of ambiguity, enumeration etc.), what is known suggests that it is “driven by necessity” and is a very “vibrant” part of the economy (Statistician-General Pali Lehola, in a Sunday Times article, 12/12/2004). However, the Duncan Village data was calculated from criteria based on any earnings (other than transfers) and which were considered as income accrued from work. This was determined from several questions in different sections of the Duncan Village survey questionnaire.

¹⁹ These surveys classify individuals as searching if they had engaged in any search in the last four weeks (LFS, 2001 and OHS, 1999), whereas the Duncan Village survey used criteria based on the last 6 months.

²⁰ This ambiguity presumably arises from the challenge of capturing data for informal sectors of employment (see for example Anker *et al.*, 1987 and Moll, 1986). This theme is dealt with further in Chapter 4.

It is interesting to note that there were a significant number of cases where respondents considered themselves “unemployed” but were in fact earning money (excluding transfers). Standard survey questionnaires are likely to categorise respondents who consider themselves as “unemployed” leading to no further information being acquired on the respondents’ income. However, the Duncan Village survey questionnaire probed respondents about sources of income even when they said that they considered themselves “unemployed”.

In cases such as this, it is worth examining why rates of participation are comparatively higher despite widespread joblessness in the labour market.

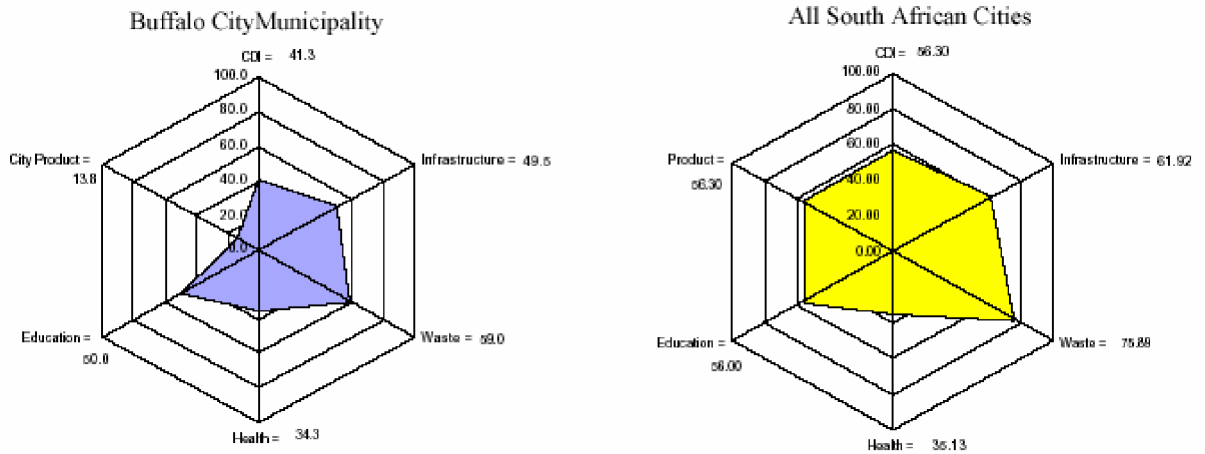
3.3 Gauging ‘human capital’ endowments as a function of the economic landscape

Although declines in employment have varied across different sectors (mining, manufacturing, public sector etc.) from the 1990’s and onwards (Nattrass, 2003a:142), the link between employment and the spatial location of industry is not necessarily a direct one. This is because the dynamics of rural underdevelopment and class differentiation implicate a broader range of factors that play a determining role in the labour market.

Empirically assessing and gauging ‘human capital’ from a holistic perspective would be an exceedingly difficult task. However, education is one such factor that is strongly linked to ‘human capital’, and that has a definite bearing on individual labour market outcomes (Becker, 1964). Furthermore, it is relatively easy to measure educational inputs and outcomes, with a number of indicators to choose from.

Consider evidence from City Development Index (in Parnell and Mosdell, 2003:19-20) from 1996. The index uses the sub-indices as a means to gauging urban development, and these are listed as: infrastructure, waste, health, education and city product.

FIGURE 3.2) CITY DEVELOPMENT INDEX: BUFFALO CITY VS ALL SOUTH AFRICAN CITIES



Source: Parnell and Mosdell (2003:19).

Buffalo City, in figure 3.2, shows slightly lower provisions of education compared to the average of All South African cities (50.0 compared to 56.0 respectively). However, the sub-indices named “city product” (which is calculated using the mean household income) is shown to be significantly lower for Buffalo City (a figure of 13.8) compared to the national average for all other cities (a figure of 56.3) (Parnell and Mosdell (2003:19).

In order to get a more comprehensive picture of educational aspects, and their impact on labour market outcomes, it is necessary to probe the issues surrounding education. Moreover, the CDI figures are dated (1996 census data), and by the authors’ own admission (Parnell and Mosdell, 2003:21) it is likely that many cities have rapidly developed since.²¹ By no means does this imply that the history of the education system is unimportant. If anything, both past and present factors play a central role in features such as education. To see this, consider the general case of South Africa, and with particular reference to data from the Eastern Cape, Buffalo City and Duncan Village itself.

²¹ See Richards *et al.* (2003) for a more recent account of quality of life in Buffalo City.

3.3.1 The South African education system and issues of quality variation

Evidence in South Africa, from the period between 1910-1993 shows that educational inputs (learner-teacher ratios, teacher training, educational resources and facilities) have been strongly differentiated by race (Fedderke *et al.*, 2000). The Bantu Education Act of 1953 was the legislative foundation inspiring discrimination in terms of access to educational resources, funding, and even choice of language.²² Although much of the problem of poor quality education was contained within Homeland and Self Governing Territories (SGTs), a large portion of Black schools were established within proximity to urban areas, urban schools experience the same problems.²³ Part of the challenge therefore facing the new democratic government has been to create equality and reform for all schools in South Africa (both former homeland and Self Governing Territory schools, as well as poor quality predominantly Black schools within proximity to urban areas).²⁴

In economic terms, education is a primary constituent of ‘human capital’ (Becker, 1964). However, education presumably also plays an important role in an individual’s social development, and it is one such aspect that mirrors the availability, level and quality of civil services. In the Durkheimian sociological view, education plays a central role in the development of human behaviours that culminate into a system of class (Haralambos and Holborn, 1990:319). It is thus apparent that education was a critical component of the Apartheid strategy to pursue underdevelopment in rural homeland areas, and to artificially create systems of class both across and inside all race groups in South Africa.

²² Apartheid planners sought to craft the “intellectual, moral and emotional development of the individual” as well as “the socio-economic development of the Bantu as a people” (The Report of the Commission on Native Education, in Brookes, 1968:42). It is widely recognised that these two objectives were an effective juxtaposition; one that highlights the irony that underlay much of the Apartheid logic that was to develop the “barbarous and undeveloped” (Bank *et al.*, 2003:23) and simultaneously create cheap pools of Black unskilled labour for white owned industry.

²³ In 1994 for example, the average white pupil benefited from government spending on education, a figure of almost four-times compared to a Black pupil (Lemon, 2004:270).

²⁴ Figures in 1995 indicated that the national pupil-teacher ratio for whites was 18:1, whereas for Coloureds it was 26:1, Asians 23:1, but for African pupils it was 42:1 (Waugh, 1995:350).

Based on the research conducted by the Department of Education in 1997, it was confirmed that “deep inequality” and persistent state neglect of historically Black schools had been sustained throughout the early years of a unitary and democratic education system (Lemon 2004:270). The post-Apartheid society is thus one that is characterised by the vast challenge of redressing access to educational infrastructure and services. Lemon (2004:289) concedes that: “the vast backlogs of the Apartheid legacy, combined with modest economic growth, precluded, and continue to preclude, the transformation of schools serving historically disadvantaged groups”.

The main concern surrounding the current state of education in South Africa is that there is in fact a significant degree of quality variation. The issue of quality variation is implicated in studies of poverty (Bhorat *et al.*, 2001), inequality (Lemon, 2004) and even low demand for education in South Africa (Fryer and Vencatachellum, 2002).

Despite a complex process of provincial and administrative restructuring, as well as attempts made to better allocate resources (such as teacher redeployment), variation in schooling quality has persisted. Furthermore, it seems that the variation is no longer a case of racial discrimination, but that it is to a large extent determined by class. Class reproduction (besides the small minority such as the new class of Black “elites”) (Nattrass, 1994:348) is permeated through inherited spatial patterns, and impacts on features such as the quality of education at local schools.

Lemon (2004) provides a detailed account for schools in and around Grahamstown (a “Secondary Town”, see page. 48); demonstrating that although many schools have access to basic facilities and resources, educational outputs remain poor as the result of falling short of a resources threshold. Subsequently, there is a tendency for better quality schools to ‘commodify’ themselves in terms of relying less on state subsidies and charging higher school fees in order to maintain a standard of good quality (Lemon, 2004:279). Falling short of the quality threshold thus sustains the process of quality divergence between schools.

The dominant factor however is still the issue of race. This is evident in terms of educational inputs (learner-to-teacher ratios, educational resources) and outcomes (i.e. enrolment, pass rates and exemption rates).²⁵ A decade after democracy, the racial aspect associated with of quality variation in schools prevails (Jansen, 2001). One factor contributing to this is the political symbolism that underlies the policies directed at reform in the education realm (Chishlom, 1997). Another factor that lies outside the direct control of policymakers is the social make-up (i.e. race, class and locality factors) of education.

Recognising the importance of education (as a component of 'human capital' in the labour market, and by the aspects of race and class (such as regional economic landscapes), brings supply-side responses to vast joblessness into consideration. For the purposes of this dissertation it is worth examining the potential impact of these factors, and the causal implications between them. Consider evidence from Duncan Village and the East London CBD area.

3.3.2 Evidence of schools inequality between schools in the Duncan Village and East London CBD areas

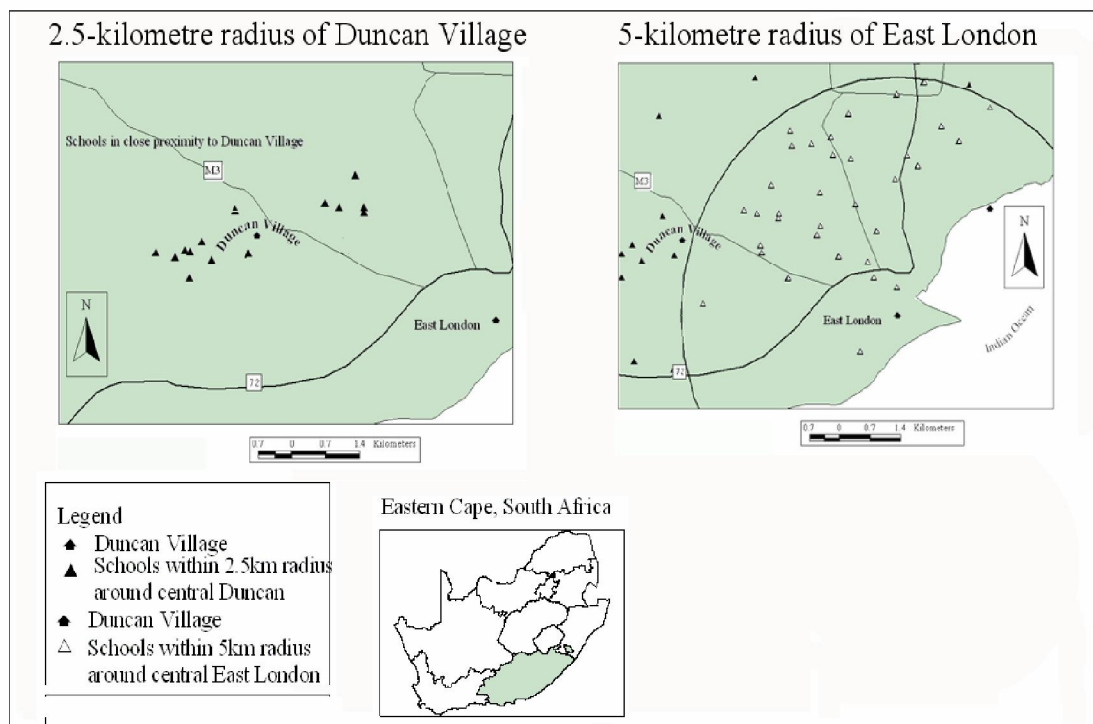
It is most certainly possible that unequal access to good quality education persists even in areas that are perceived to have high educational outputs. The East London area (of which Duncan Village belongs) has fared relatively consistently amongst surrounding regions, in terms of achieving better matric pass rates between 1999 and 2001 (65-85% pass rate and 50-65% pass rate respectively) compared to other regions in the Eastern Cape province (Lemon, 2004:275-277). Despite the obvious concern surrounding the

²⁵ The real issue at hand is that spatial patterns have a direct bearing on who has access to better quality education. With each school being allocated to a "feeder area" as per the Schools Act of 1996, better quality schools are effectively entitled to "screen out" (Lemon, 2004:272) learners from poorer areas. In the example of the Eastern Cape (including former Ciskei and Transkei homeland areas), Lemon (2004:77) shows that pass rates and exemption rates are higher for schools in urban areas (such as East London), and that this is a reflection of higher learner-to-teacher ratios compared to other areas. However, it seems as though the central determinant of access to good quality education is by a small degree linked to spatial classification (rural, semi-urban, urban). The 1999, examination results show that educational output is higher in areas such as Graaf Reinet and Humansdorp (characterised as rural commercial farming areas). Conversely areas such as Peddie, Mdanstane, Queenstown, Butterworth, Port St. Johns etc. fared much worse in terms of their results.

decline, it seems that although pass rates have dropped, rates of matric exemption (i.e. university entrance) have increased by a significant margin (Lemon, 2004:277). Whether or not this is indicative of persisting divergence remains to be answered.

Consider the data from a GIS database (ENPAT, 1999 and SA Explorer II, 2000), the information of which is gathered for two mutually exclusive clusters of schools in the Buffalo City region (see Figure 3.3). The first sample was taken from schools within a 2.5-kilometer radius of Duncan Village, and the second sample was taken from the schools within a 5-kilometre radius of the East London CBD.

FIGURE 3.3) MAP SHOWING SAMPLE OF SCHOOLS IN PROXIMITY TO DUNCAN VILLAGE AND EAST LONDON CBD



Source: Fourie, K. (2004) – Rhodes University, Department of Geography, Grahamstown. Formulated from ENPAT 99 GIS database and SA Explorer II database.

Data from a total of 48 schools were used to assess and compare the quality of schools in the two regions shown above. There were 8 schools that fell into both of these regions; to keep the two samples mutually exclusive, each of these were allocated into a sample based on a physical address and the proximity to either Duncan Village or the East

London CBD (5 of these to the Duncan Village sample and the remaining 3 to the East London sample). Roughly half of the schools in both of the samples were primary schools. Table 3.1 shows a combined total of 33280 learners, the proportions of learners in each sample did not differ dramatically (41% of the total number of learners attend schools in the Duncan Village area, and the remaining 59% in schools around the East London CBD). However these figures are contrasted with the number of available schools in the respective areas. Although Duncan Village has 16 schools within a 2.5-kilometre radius, and the East London CBD area had exactly double the number with a radius of twice the size (5-kilometres), the average number of learners per school (calculated as the number of learners divided by the number of schools) was dramatically higher for Duncan Village.

TABLE 3.2) VITAL STATISTICS FOR SCHOOLS WITHIN 2.5KM RADIUS OF DUNCAN VILLAGE AND 5 KM RADIUS OF EAST LONDON CBD AREA

	Number of Schools	Number of Learners	Average number of Learners per School	Ratio of Schools to Learners
Duncan Village 2.5-kilometre radius	16	13845	865	1:7.3
East London 5-kilometre radius	32	19435	607	1:2.5

Source: Fourie, K. (2004) Rhodes University, Department of Geography. Grahamstown. Formulated from ENPAT 99 GIS database and SA Explorer II database.

Although the ratio of learners per school is higher in the Duncan Village area, it is not a distinct indicator of the differences in the quality of education in the respective areas. Following the enquiry set out by Lemon (2004), differentiated access to educational resources plays a central role in determining the quality of schools (in terms of educational outputs and exceeding a quality threshold). Data for the resources available to learners in both of the sample areas is provided in Table 3.3.

TABLE 3.3) RESOURCES AVAILABLE TO SCHOOLS WITHIN 2.5 KM RADIUS OF DUNCAN VILLAGE AND 5 KM RADIUS OF EAST LONDON CBD AREA

	Available Resources (% that have)			
	Electricity	Sanitation	Water	Computers
Duncan Village 2.5-kilometre radius	88%	94%	94%	38%
East London CBD 5-Kilometre radius	97%	100%	100%	97%

Source: Fourie, K. (2004) – Rhodes University, Department of Geography. Grahamstown. Formulated from ENPAT 99 GIS database and SA Explorer II database.

It seems that in many respects, the government initiative to create equality amongst schools has been successful. Basic provision of sanitation and water resources is comparable between the two samples. However the availability of electricity is slightly less in the Duncan Village sample, but the difference in the provision of computers is alarming (97% in East London compared to 38% in Duncan Village).

3.4 Conclusion

Flowing from the theoretical foundations set out earlier in Chapter 2, Chapter 3 has focussed on regional socio-economic themes in the context of the labour market. The intention has been to explore political, human-geographic and labour market dynamics that possibly inform job search practices in Duncan Village.

In particular, the chapter has outlined the following:

Firstly, the political objectives of the past Apartheid regime have shaped current social and economic features in South Africa. Rural underdevelopment and artificial class creation has created an economically fragmented society. The dual effects of which seem not only to have delineated South Africa's human-geography, but also created urban-rural amalgams such as Duncan Village. There is a growing body of literature to support the notion of vast and concentrated poverty in urban areas such as Duncan Village (although there are well-studied examples of rural poverty, it remains that cases of urban poverty in South Africa are less observed). Urban poverty is thus shown to have emerged through a

mixture of rural collapse and mass urban influx, and resulted complex socio-economic dynamics that occur at the local level.

Secondly, labour market statistics from national and survey-specific data show that Duncan Village diverges from the standard labour market trend. That is, despite high measured rates of unemployment in Duncan Village, searchers continue to look for work (i.e. they do not become discouraged). Corresponding with these figures, the theory developed in Chapter 2 suggests that there is more body to the endogenous component of unemployment in markets that fail. A central finding of which is that stocks of 'human capital' play a significant role in the success of an individual labour market candidate. In a manor that is consistent with both the theoretical approach and human-geographic themes explored here, it is necessary to gauge local features of the labour market. In particular, the role of education is a factor that lends itself to both of these arenas.

The third contribution of this chapter shows that the formal abolition of Apartheid has not been adequate to create equal access to opportunities. This is especially notable in arena of access to a better and standardised level education. What seems to be indicated is that not only is there a divide between rural and urban schools, but that intra-urban schooling inequalities have persisted too. Evidence from ENPAT 99 database and SA Explorer II database demonstrates that schools from two differing human-geographic areas in East London (Duncan Village and the East London CBD) suffer from vast differences in the school-to-learner ratio. Moreover, there are disparities in the availability of schooling resources (most significantly the availability of computers).

In conclusion, this chapter has demonstrated that unemployment is part of a larger and possibly unobserved structure of exclusion in South Africa. The notion of a "post-Apartheid" (Nattrass and Seekings, 1997:466) society is confirmed by findings that suggest vast regional inequality that persists in the provision of housing and services (most notably in education) (Parnell and Mosdell, 2003; Beal, 2003). Although it could be argued that these disparities are based on the differentiated entitlements of various classes in South African society, the underlying structure of exclusion is one that is still

predetermined for the majority on the basis race. In order to synthesise these themes into the corpus of job search, it is necessary to examine survey specific data from the Duncan Village 2004 survey.

CHAPTER 4

RESULTS FROM THE DUNCAN VILLAGE 2004 HOUSEHOLD SURVEY

“Human beings make a strange fauna and flora. From a distance they appear negligible; close up they are apt to appear ugly and malicious. More than anything they need to be surrounded by sufficient space – space even more than time.” – Henry Miller in the Tropic of Cancer (1934:318)

4.1 Introduction

The methods used in this Chapter represent a method-test.¹ The figures presented here are case-bound and should not be generalised.

The chapter begins by exploring the migratory issues surrounding Duncan Village, and assess how these could affect labour market outcomes. It is shown that a large proportion of residents who are unemployed have been living in Duncan Village for over 16 years, and also that a large portion of under-employed residents has been living in Duncan Village for between 6 and 15 years. The results are suggestive of the fact that there are little signs of labour market flows and transitions (as originally presumed by the Todaran model).

With this in mind, the chapter turns to exploring the “distinctness” between labour market categories (Kingdon and Knight, 2001a:1). The results show that “pure” unemployed and under-employed labour market categories are indistinct, and that search state must be informed by other factors that have yet to be fully explored (Duff and Fryer, 2004:12).

Section 4.3 turns to exploring factors that influence the status and the type of job search used, by under-employed and unemployed groups. The modes of search that are explored here are: formal, ‘word of mouth’ and place-to-place search. The data shows that there are several factors that determine access to jobs. These differ from “statistical discrimination” in the labour market (Becker, 1957). The

¹ The results provided below are set out in simple cross tabulations and have yet to been explored using multivariate analysis. As such, the intention is to keep the findings simple, and as straightforward as possible. This step has been crucial in fashioning a method test of this sort.

results are suggestive of a scenario whereby below a certain level of education, searchers rely on other non-economic factors such as social networks to find jobs. These features are captured by mode of job search, which are considered here to be valid forms of 'human capital'.

Section 4.4 examines the cost of search accrued by searchers across the various search modes. The results show that below a certain threshold level of education, searchers use modes other than formal methods and that these have a dissimilar set of monetary costs.

Section 4.5 investigates the role of information flows in the labour market and addresses how searchers get information about jobs. The results reveal the extent of the importance of information in the labour market but also show that various types of information inform the mode of search used by unemployed and under-employed groups.

4.2 The Peri-urban nature of Duncan Village: Migration and unemployment

The Neo-Classical inclination is to assume that the under-employed and strictly unemployed groups are newcomers in the urban labour market, and that they will effectively queue for formal sector jobs (Todaro, 1969). The time spent queuing is considered by the Neo-classicists as the duration of unemployment, and it is assumed that the transition into employment is frictionless.

It is instructive at this point to contextualise migratory flows of labour in Duncan Village. Based on the findings presented in Table 3.1 (showing simultaneous high rates of unemployment and search) the question that begs to be addressed is one of causal significance. In other words, are people unemployed because they are living in Duncan Village? Or are they living in Duncan Village because they are unemployed. Secondly, it is worth addressing how the duration of unemployment affects flows of people in the labour market, and what bearing this has on job search.

To begin it is worth noting that in response to the question “Where is the household head originally from?” (question B2) - 50% of the survey respondents indicated that they were from rural areas (predominantly Mdanstane and Transkei areas), 21% were from Secondary Towns (mainly those in the surrounding Eastern Cape areas such as King Williams Town), and 29% were from East London (West Bank, other locations on the East Bank etc.). Thus a combined total of 71% of Duncan Village residents were either from what are classified as rural or Secondary Town areas.

Secondly, and with regard to unemployment duration, the Duncan Village database showed that the average duration of job search was 40 months (calculated from the respondents who gave information to question F7 eii). Of this figure, 43% (out of a total of 141 searchers) had been searching for over a year, and the remaining 57% for less than a year.

In conjunction with these labour market indicators, consider Table 4.1 showing the duration of residence in Duncan Village across the different “pure” (Duff and Fryer, 2004:12) labour market categories.

TABLE 4.1) YEARS RESIDING IN DUNCAN VILLAGE FOR VARIOUS “PURE CATEGORIES” IN 2004

Duration living in Duncan Village	% Strictly Unemployed (searching and has zero income)	% Under-employed (searching and has income)	% Employed (not searching and has income)
Less than 5 years	12%	6%	13%
Between 6 and 15 years	35%	46%	39%
More than 16 years	53%	48%	48%
Total (n)	137	48	79

Source: Calculations determined by author from survey data.

Table 4.1 breaks Duncan Village labour market participants (aged 15 – 65 years of age) into three groups. The strictly unemployed are the jobless and searching, the under-employed searchers are those who indicate some earnings (other than transfers) and are searching, and lastly the employed are those with income and who are not searching.

A greater proportion of short-term residents (i.e. less than 5 years) were found to be employed (13%) or strictly unemployed (12%), compared to under-employed (6%).

However, a greater proportion of medium-term residents fall into the under-employed category (46%), compared to the strictly unemployed (35%) and employed (39%).

Lastly, there is little difference in labour market success for the group of residents who had been living in Duncan Village for 16 years and longer (i.e. long term residents).

Exploring possible labour market flows brings about the issue of labour market “distinctness” (Kingdon and Knight, 2001a:1) between labour market groups in Duncan Village. Evidence in Chapter 3 (Table 3.1) shows that ‘highest plausible’ rates of unemployment in Duncan Village were high (72% and 76% for men and women respectively). Simultaneous high rates of unemployment and job search are likely to be due to the proximity of Duncan Village to the East London CBD. However, it may also be due the re-classification of the ‘under-employed’ searching into the ‘highest plausible figure’ (shown in Table 3.1). Thus, in order to fully grasp the extent of unemployment and job search in Duncan Village, it is necessary to disaggregate the Duncan Village data and gauge the “distinctness” (Kingdon and Knight, 2001a:1) between ‘under-employed’ searching and strictly unemployed members of the labour market.

TABLE 4.2) CHARACTERISTICS OF THE VARIOUS “PURE” LABOUR MARKET CATEGORIES, DUNCAN VILLAGE 2004

	Strictly Unemployed (searching and has zero income)	Under-employed (searching and has income)	Employed (not searching and has income)
Total (n)	138	52	83
“First best” earnings (per week) ¹	R525	R506	R777
Actual earnings (“ ”) ²	R0	R188	R631
Hours worked (“ ”) ³		34	44
RDP? ⁴	89%	84%	17%
Education (years) ⁵	10	9	10
Gender (% male)	45%	54%	52%
Age ⁶	30	35	38

Source: Duff and Fryer (2004:11).

- Notes: 1) “First best” earnings were cited by respondents as the weekly earnings that they would earn in the “best job you could do given [their] “formal” qualification?” (from Question E4 bi in the survey questionnaire).
2) Actual earnings were the weekly earnings of respondents other than transfers.
3) Respondents stipulated their “hours worked per day” according to their “primary job” (from Question F2 ciii in the survey questionnaire).
4) Individuals were asked whether or not they would take an “RDP job paying R30 per day for six-hours of work” (from Question 46 ai in the survey questionnaire).
5) Education is an indication of the “highest level completed” (from Question E4 ai in the survey questionnaire).
6) All respondents in this section of the questionnaire were between 15 – 59 years of age.

Table 4.2 shows that despite working 34 hours a week, an under-employed searching person has an average income of only R188 (per week), compared to an employed person that works 44 hours a week and earns R777 (per week). Education is lower for the under-employed group (Standard 9) compared to both the employed and strictly unemployed (both standard 10), which could indicate a threshold level required for entry into the formal labour market.

For the strictly unemployed group the scenario is different. Despite having comparable levels of education to the employed group (both Standard 10), all other characteristics are similar to the under-employed searching group expect for the greater number of females compared to males. Under-employed searching and strictly unemployed show that “first

best” earnings are low (R506 and R525 respectively). Furthermore, 89% of strictly unemployed and 84% of under-employed searching indicated that they would take an RDP job paying R30 for a six-hour day of work. This could indicate low reservation wages.

What is indicated in the results presented in Table 4.2 is that the under-employed and strictly unemployed groups are to a large degree indistinct. Notions of ambiguity in the labour market are supported by the fact that the under-employed searching group constitute a significant portion of the overall labour market in Duncan Village (roughly 19%), and that they are similar to the strictly unemployed. However, it is interesting to note that the under-employed have on average lower levels of education.

Another feature of the Duncan Village labour market, and one that is pronounced by the figures in Table 4.2, is the significant wage gap between the under-employed searching and employed groups (R188 compared to R631 respectively). This seems to confuse the issue raised in the above paragraph regarding the indistinctness of strictly under-employed and unemployed groups. The key element needed to address this confusion surrounds the extent and the dynamics of job search.

Although the role of job search is argued by the South African literature to be an endogenous component of unemployment, the underlying factors informing the extent of job search and thus differentiated degrees of success in the labour market have yet to be empirically explored.

4.3 Job search in Duncan Village: Mode of job search and differential labour market success

Orthodox literature detailing the mode of search used by searchers in South Africa suggests that place-to-place search is by a significant degree the dominant mode. Table 4.3 provides data from various datasets to confirm this.

TABLE 4.3) PERCENTAGE (%) OF UNEMPLOYED SEARCHERS USING THE VARIOUS SEARCH MODES

MODE	OHS (1995) ¹	Grahamstown (1996)	Duncan Village (2004)
Place to place (p-p)	80	52	60
Word of mouth (w-o-m)	8	35	18
Newspaper/agency (formal)	12	13	21

Source: Duff and Fryer (2004:13).

Notes: Bhorat *et al.* (2001:78) for OHS 1995.

What is indicated in Table 4.3 is that place-to-place search is much higher in national datasets (such as the OHS 1995 data) (80% in OHS compared to 52% and 60% in Grahamstown and Duncan Village respectively). Also, it is worth noting the specific human geography of the two smaller datasets (Grahamstown is a secondary town and Duncan Village a peri-urban area). Compared to these smaller datasets, place-to-place mode of job search may be nuanced by larger national datasets, which reflect data from a variety of geographic areas (rural, semi-urban, urban etc.). Thus, compared to the smaller datasets it can be said that national datasets include data from rural areas in which place-to-place mode of job search is shown to be much higher.

An interesting feature possibly arising from Table 4.3 is “the idea that search activity is dominated by ‘place to place’ search...does not take into account the likelihood that the sample of individuals who are unemployed have failed to find work, and that their search is therefore ineffective” (Duff and Fryer, 2003:13) As such, there would be little data showing the use of ‘word of mouth’ and formal methods as if these were effective modes of job search, they would not be reflected in a study of the unemployed (Duff and Fryer, 2004:13).

By comparison, ‘word of mouth’ is less frequently used (8%) in the OHS dataset, compared to Duncan Village (18%) and Grahamstown (35%). With a lack of immediate access to the industrial labour market, rural areas would rely more on ‘word of mouth’ in the form of social networks and kinship patterns.

Following the Neo-Classical hypothesis, the extent by which education (which is synonymous with formal modes of job search) serves as a credible and usable signal for searchers in Duncan Village and is worth exploring further.

Table 4.3 shows that Duncan Village has a higher percentage (21%) of searchers using formal methods of search, compared to OHS (12%) and Grahamstown (13%).

Note that the differences in the levels of education between unemployed and employed groups in Duncan Village are insignificant in Table 4.1 (both show the average level of education as Standard 10). It suggests that the level of education amongst strictly unemployed (i.e. unemployed and searching) is not a central factor in the success of an individual entering the Duncan Village labour market.

To better understand these labour market dynamics, Table 4.4 provides data on how employed people in Duncan Village “got their current main job” (question 4.3ai in the survey questionnaire) compared to the method of search used by current searchers.

TABLE 4.4) PERCENTAGE (%) EMPLOYED WHO USED SEARCH MODE TO GET CURRENT JOB COMPARED TO PERCENTAGE OF CURRENT SEARCHERS, DUNCAN VILLAGE 2004

MODE	Duncan Village 2004 (Males and Females)	
	Searching	Employed
Place to place (p-p)	60	27
Word of mouth (w-m)	18	46
Newspaper/agency (formal)	21	28

Source: Duff and Fryer (2004:13).

Table 4.4 compares employed (who answered questions on “how did you get your job?”) with unemployed searching. The figures show a high percentage of employed people used ‘word of mouth’ (46%). In the same group, only 28% used formal methods and 27% used place-to-place search.

For the current group of unemployed searching individuals, 60% are using place-to-place search, 21% formal methods and 18% ‘word of mouth’.

The figures indicate that the mode of search most used by unemployed searchers is not necessarily the best in terms of effectiveness, and confirms the earlier notion by Duff and Fryer (2003:13) that the number of searchers using a particular mode of search will be selected out of the sample of the unemployed. 46% of employed people got their jobs using ‘word of mouth’, compared to 27% who used place-to-place and 28% who used formal methods. It is likely that similar portions of unemployed searchers use these methods. However what is shown in Table 4.4 is that out of the current group of searchers, only 18% are using ‘word of mouth’, 21% used formal methods, and 60% place-to-place search. The percentages are in a sense ‘opposite’ to what would be expected.

Table 4.4 shows that 21% of the current group of searchers are using formal methods, and of the employed group of people, 28% got their job using the formal mode. The use of formal methods between currently employed and unemployed (and searching) groups is comparable, showing that formal methods of search fair consistently amongst the currently unemployed.

However, despite the past high success rate of ‘word of mouth’ (i.e. the highest proportion of employed workers got their job using this mode) only 18% of current searchers currently use it. Surprisingly, although only 27% of the currently employed found their jobs using place-to-place search, 60% of the current pool of searchers use this mode.

What therefore seems to be indicated is that there is a central factor that differentiates between searchers using ‘word of mouth’ and place-to-place search modes. Table 4.5 elaborates further.

TABLE 4.5) INDICATORS OF DIFFERENTIAL ACCESS, DUNCAN VILLAGE 2004

MODE	% Male	Mean education (years)	Expected Wage ^b	Unemployment Rate	Mean wage (employed) ^b
p-p	76% ^a	10.1	R98	76%	R415
w-m	51%	9.7	R256	36%	R399
formal	46%	11.7	R439	52%	R894

Source: Duff and Fryer (2004:15).

Notes: a) The percentages represent the share of the search group with the particular characteristic. Note that percentages do not add to 100% in columns.
 b) “Wage” represents earnings per week. The expected wage is a rough indicator of the return to each search mode. It is calculated as the average over the whole group of employed and unemployed associated with that search mode.

The results reveal an important pattern. Firstly, a higher percentage (76%) of men are shown to use the place-to-place search mode, compared to 51% for 'word of mouth' and 46% for formal methods. Although the mean average of education is higher for searchers using this mode (10.5 years compared to 9.7 for 'word of mouth' and 11.7 for formal methods of search), it is evident that there is a lower expected wage (R98 compared to R256 and R439 for 'word of mouth' and formal methods respectively).

The results discussed in the paragraph above conjure notions of place-to-place searchers representing a lemons effect (Akerlof, 1970) in the Duncan Village labour market. To support this, it is shown that despite having on average lower levels of education, 'word of mouth' searchers have a higher probability of finding work (unemployment rate of 36% compared to 76% for place-to-place for searchers who used this method to find their current work). This is not however to suggest that education has no bearing on labour market outcomes for 'word of mouth' and place-to-place searchers. Rather, it is possible that education may have an impact on other types of capital, and is thus an indirect determinant of labour market outcomes (Becker, 1968).

Although there may be one single signal that differentiates between workers (such as education), this signal may be susceptible to other factors that influence and in turn are influenced by it. Most notably in the Duncan Village data is the use of 'word of mouth' that is synonymous with high levels of social capital (Granovetter, 1973; Granovetter 1983). Whereas for place-to-place search, the prospects of failure are higher.

Moreover, there is the question of quality variation in the signal, as is demonstrated earlier in Chapter 3 using the case of the South African education system. Note that the figures presented in Table 4.5 show that although the average education of individuals using 'formal' methods in Duncan Village is almost 12 years, over 50% of individuals using this search mode have not found work. This may be due to the cohort effect (discussed above), but it may also reflect that there is a high level of risk (Akerlof, 1970) for employers wishing to employ job searchers who have a South African education.

By comparison, the difference between the level of education amongst individuals using 'word of mouth' and 'place to place' search is telling. Orthodox theory suggests that individuals' using 'place to place' search face labour market failure, and that this is the result of diminished access to information or poor quality market signalling. Place-to-place searchers believably fail because they lack both formal and social connections (Montgomery, 1991; Montgomery, 1992). It suggests that 'place to place' search relies on information that is difficult to verify, or for which there is no labour market standard to gauge quality. However, it is likely that individuals using 'word of mouth' have also failed in that they use this mode because their level (or quality) of education has not validated their skill in the labour market.

The findings from Table 4.5 suggest that labour market success for place-to-place and 'word of mouth' groups are possibly explained by other factors. Consider Table 4.6, which breaks the sample into males and females, and examines the mode of job search used for the group of currently employed (and self-employed).

TABLE 4.6) HOW DID YOU GET YOUR JOB? DUNCAN VILLAGE 2004

	Female				Male			
	SE	formal	p-p	w-o-m	SE	formal	p-p	w-o-m
% of employed		34%	15%	51%		23%	36%	42%
% SE and employed	36%	22%	9%	33%	18%	18%	29%	34%
Education	9.3	12.2	7.7	9.5	9.3	11.2	10.9	9.9
Age	34	36	38	36	33	39	37	38
UE rate ^a		56%	87%	42%		45%	68%	29%
Weekly earnings:								
Current	R245	R1020	R229	R352	R476	R748	R474	R445
"First best"	R336	R1060	R594	R524	R1029	R769	R691	R448
Searching now?	48%	0%	0%	33%	83%	17%	11%	32%
RDP?	78%	0%	50%	44%	80%	25%	56%	39%
Total (n)	23	14	6	21	12	12	19	22

Source: Duff and Fryer (2004:15).

Note: Unemployment rate, calculated for sample of earners and unemployed using that category. All other figures for earners only.

Table 4.6 confirms some of the earlier expectations. Firstly, people who find their jobs using formal modes of search are shown to earn significantly higher weekly wages (R1020 and R748 for females and males respectively), have an on average higher level of education (12.2 years and 11.2 years for females and males respectively) and most unlikely to take an RDP job (0% and 25% for females and males respectively).

'Place to place' search gives the weakest access to jobs (more so for females than males), showing that the unemployment rate is highest for this mode of search (87% and 68% for females and males respectively). Weekly earnings are shown to be significantly higher in jobs accessed through 'word of mouth' (R352 and R445 per week for females and males respectively), compared to place-to-place search (R229 and R474 per week for females and males respectively).

‘Word of mouth’ is quantitatively the most important mode for both male and females (as is suggested by earlier literature, see Table 4.2), as the greatest number of searchers used this particular mode (a total of 21 females and 22 males out of a combined total of 94 employed people and 129 employed and self employed people).

There are certain factors that may differentiate the use of ‘word of mouth’ between males and females in Duncan Village. Firstly, there is existing evidence suggesting stronger kinship and network patterns amongst females compared to male residents in Duncan Village (Bank, 2002:217). Consider for example, that on average there are a higher proportion of women who are self employed (23 females compared to 12 males). Self-employment amongst women is a feature of a “sisterhood” (Bank, 2002:217). For women it seems important to have strong social ties that are geared towards overcoming adverse economic and social conditions. By contrast, males were more than twice as likely to have got their jobs using ‘place to place’ search compared to women (a total of 19 men used this mode of search compared to 6 women). It is also worth noting that a far less proportion of males are self-employed (only 18% compared to 36% of women are “self-employed and employed”).

Consider evidence in Table 4.7, which provides data for the relative number and proportions of searchers who are either working or not working but also currently searching (i.e. currently underemployed and unemployed groups).

TABLE 4.7) PERCENTAGE OF CURRENTLY UNEMPLOYED AND EMPLOYED SEARCHERS BY SEARCH MODE, DUNCAN VILLAGE 2004

MODE	Without work (Unemployed)		With work (Underemployed)	
	Female	Male	Female	Male
Newspaper/agency (formal)	25	17	8	27
Word of mouth (w-m)	21	14	40	15
Place to place (p-p)	55	69	52	58
Number (n)	73	59	25	26

Source: Duff and Fryer (2004:16).

Females that are currently working and searching (either formally or self-employed) use 'word of mouth' by a far higher proportion than males (40% of females compared to 21% of males).

Combined with evidence from Table 4.6, which shows that rates of unemployment are lowest for females and males who used 'word of mouth' (42% and 29% for females and males respectively), this highlights the importance of social capital and the development of "strong" and "weak ties" (Montgomery, 1991:1408). Most notably, it shows that a far smaller proportion of males use 'word of mouth', despite better prospects of finding work using this mode.

For females, 'word of mouth' seems to be a consistent feature for job searchers, but its effectiveness is differentiated by employment status (i.e. it is likely that there are exclusive groups of women, and that this has an impact on flows of information about available jobs). As such, a greater proportion of underemployed women use 'word of mouth' compared to unemployed women. This is likely to be the result of unemployed women having fewer social ties with employed persons.

4.4 Cost of search

Traditional South African literature on the topic of job search suggests that the relative cost and benefit of search determines access into labour markets (Dinkelman and Pirouz, 2001). Evidence from the Duncan Village 2004 database shows that mode of job search is strongly linked to an individual's access to the market, where the effectual cost of job search has hereunto been ignored.

Table 4.8 gauges the average weekly cost of search between females and males between unemployed and underemployed groups by mode of search.

TABLE 4.8) AVERAGE WEEKLY COST OF SEARCH FOR CURRENTLY UNEMPLOYED AND EMPLOYED SEARCHERS BY SEARCH MODE, DUNCAN VILLAGE 2004

MODE	Without work (Unemployed)		With work (Underemployed)	
	Female	Male	Female	Male
Newspaper/agency (formal)	R31	R28	R25	R36
Word of mouth (w-m)	R24	R19	R24	R25
Place to place (p-p)	R24	R19	R24	R18
Number (n)	73	59	25	26

Source: Calculations determined by author from survey data.

Note: Figures are quoted as nominal values in response to Question F7 (iv) in the survey questionnaire.

The data in Table 4.8 indicates that formal methods of search tend to be more costly for both females and males who are unemployed (R31 and R28 respectively, compared to R24 and R19 for both 'word of mouth' and place-to-place).

Note that underemployed females using formal methods of search spend on average R25/week, which is comparable to the average weekly cost of the other two modes of search.

Secondly, consider the possibility that the difference between the average weekly costs incurred by females is less variable than the costs incurred by males across all search modes. This indicates that females (underemployed and unemployed) who do not use formal methods of search face a standard search fee that is R24/week, and that this is much higher than the costs faced by males (in all categories except for the use of 'word of mouth').

By comparison, males who do not use formal methods face varied average weekly costs depending on what mode of search they use. Note that there is no difference between the costs associated with place-to-place and 'word of mouth' search for unemployed males (both cost an average of R19/week).

There is however a greater cost associated with 'word of mouth' than there is with place-to-place for underemployed males. Thus the third point about the cost of search between unemployed and underemployed groups is that unemployed males and females tend to face similar costs in place-to-place and 'word of mouth' categories.

However underemployed males who use 'word of mouth' face a higher cost when compared to females, and it is likely that information leading to jobs in 'word of mouth' circles comes at a premium.

Next, consider the strictly unemployed. Table 4.9 provides detail on groups of both males and females by their modes of search, and the effect that various characteristics have on these.

TABLE 4.9) STRICTLY UNEMPLOYED: CHARACTERISTICS BY SEARCH MODE, DUNCAN VILLAGE 2004

	Female			Male		
	w-o-m	Formal	p-p	w-o-m	formal	p-p
% of strictly unemployed	21%	25%	55%	14%	17%	69%
Av Ed	10.2	11.3	9.4	7.7	12.0	10.1
Age	30	32	30	30	27	32
% searching more than a year	23%	56%	66%	40%	43%	68%
Average weekly cost of search ^a	R24	R31	R19	R24	R28	R19
Weekly wage:						
Reservation	R486	R498	R258	R223	R568	R285
'first best'	R636	R855	R322	R329	R766	R468
RDP?	85%	61%	97%	100%	75%	98%
Total (n)	15	18	40	8	10	41

Source: Duff and Fryer (2004:18).

Note: a) Calculations determined by author from survey data and are those presented in Table 4.6 above.

Firstly, formal modes of search are the preserve of more educated males and females (12 and 11.3 years of schooling respectively). This group of searchers also displays higher reservation wages (R498/week for females and R568/week for males) and 'first best' earnings (R855/week for females and R766/week for males). The cost of using this mode of search is comparatively higher when compared to using 'word of mouth' and place-to-place modes of search, more so for females than for males (R31/week for females and R28/week for males). It is shown that formal job searchers are less likely to take an RDP job (only 61% of females and 75% of males would take a job of this sort). However, these figures in no way confirm that formal methods of search guarantee immediate access to jobs. Figures show that 56% of female and 43% of male formal searchers have been searching for more than a year.

Secondly note that 'word of mouth' mode of search reduces the duration of search. This is more pronounced for females than it is for males (only 23% of females have been searching for longer than a year using this mode, compared to 40% of males). 'Word of

mouth' is shown here to be more of a viable option for unemployed females than it is for males, as figures suggest higher reservation and 'first best' weekly earnings (R486 and R636 respectively for females, and R223 and R329 respectively for males). Moreover, females using 'word of mouth' search are less likely to take an RDP job (the for figure for females is 85% compared to 100% of males). However, it remains that only a small percentage of unemployed women pursue this mode of search (only 21%). Note too that the figures show that the average weekly cost of using this mode is the same for both males and females (R24/week). Most likely, this is the result of limited access to pivotal sources of social capital for both groups.

A minority of males use 'word of mouth', and figures show that this group has on average the lowest level of education for all groups (only 7.7 years). Whilst it seems that 'word of mouth' reduces the duration of search (40% of searchers have been using this mode for longer than a year, and this is the lowest figure across all modes of search for men), it remains that this mode translates into lower reservation and 'first best' weekly earnings. Moreover, 'word of mouth' is comparatively more expensive to use when compared to place-to-place search.

Lastly, despite longer durations of search (66% of females and 68% of males had been searching for over a year), lower weekly reservation (R258 for females and R285 for males), 'first best' weekly earnings (R322 for females and R468 for males) and a greater likeliness of accepting an RDP job (97% and 98% for females and males respectively); place-to-place is by some extent the dominant mode of search for both genders (55% of females and 69% of males use this mode). Note that males using this mode are slightly better educated than those using 'word of mouth' (10.1 years of education compared to a low 7.7 years of education), and have significantly higher 'first best' earnings compared to females (R468 compared to R322). For females, the prevalence of 'place to place' search is likely the result of lower weekly search costs when compared to other modes of search (an average of R19/week) and use of this mode seems to translate into poorer earnings and longer durations of unemployment.

The figures presented in Table 4.9 reveal most of the earlier expectations about strictly unemployed searchers. To recap:

- Formal methods of search are closely linked to higher levels of education for both males and females.
- 'Word of mouth' is more costly than place-to-place search but shows higher reservation and 'first best' wages, as well as lower periods of search. The trade off is that this group displays lower levels of education and thus individuals are forced to rely on social connections that are considered here to be private and exclusive groups.
- Place-to-place search is the least costly method of search and yields the lowest reservation and 'first best' weekly earnings compared to the other methods of search. Other than the lower wages associated with this method, the main drawback of using this method is that the period of search is higher, showing that complete failure and a lemons effect (Akerlof, 1970) are most prevalent for this group.

4.5 Sources of information

The data presented thus far reveal varied degrees of success and failure associated with each of the modes of job search used by searchers in Duncan Village. The analysis now turns to explaining how flows of information inform these degrees of success.

Table 4.10 examines types and sources of information by unemployed job searchers according to their mode of search.

TABLE 4.10) STRICTLY UNEMPLOYED: TYPE OF INFORMATION USED BY SEARCH MODE, DUNCAN VILLAGE 2004

MODE	SOURCE OF INFORMATION							
	Females				Males			
	Media	Went where I heard about jobs	Just went place to place (cold hit)	Friends /relatives	Media	Went where I heard about jobs	Just went place to place (cold hit)	Friends/relatives
Newspaper/agency	72%	12%	4%	12%	59%	6%	12%	24%
Place-to-place	9%	40%	35%	15%	5%	28%	50%	17%
'Word of mouth'	14%	5%	14%	67%	15%	8%	8%	69%
Number (n) ^a	27	30	27	27	15	19	33	90

Source: Calculations determined by author from survey data.

Note: a) These figures were calculated from question F7 c) in the survey questionnaire, for which some respondents made reference to more than one source of information. All answers have been included. Possible weightings may be further calculated.

Table 4.10 shows that 72% of females and 59% of males who were using formal methods of search considered the media to be the most important source of information. It demonstrates that formal modes of search are synonymous with the use of media. This supports the notion that searchers in this group either have the necessary level of education² or better access³ to this information. Moreover, searchers using formal methods are unlikely to rely on others for information.

² For example, Kuhn (2004) investigates the use of the Internet to find jobs. Recent data from the USA suggests that job searchers using the Internet are likely to be associated with shorter search periods (Kuhn, 2004). This can be interpreted as a signal showing greater levels of 'human capital' for those who use the Internet. Likewise, an individual who applies for a job through the newspaper signals that s/he has a requisite level of literacy and numeracy to employers. This supports the earlier notion that individuals using formal methods of search have on average a higher level of education.

³ There may be income effects associated with this mode of search. The Duncan Village data already shows that the group of searchers using formal methods have on average higher levels of education when compared to other modes of search. The data also reveals that the majority of school leavers stopped attending as a result of "family poverty" (see Question E4d. in the survey questionnaire, and a theme that is dealt with at more length in Chapter 5 of the dissertation), however the survey data also shows high literacy scores (see Question K1 in the survey questionnaire) for words associated with job search for all survey respondents. It suggests that the successful completion of school (i.e. Matric) is the preserve of relatively wealthier families (but this does not necessarily translate into higher levels of literacy), who are likely to be

For place-to-place searchers, the data reveals that females using this mode will likely search when they “hear about jobs” (40%). A smaller number of females use the “cold hit” tactic (35%). By comparison, a far higher percentage of men using place-to-place mode of search used the “cold hit” approach (50%), and a smaller proportion of males using place-to-place searchers considered information from others to be important (28%).

The results reveal that there is a greater tendency for women using place-to-place search to rely on information from others. These findings demonstrate that female job searchers in this category rely on social capital. For men using place-to-place search it seems, however, to be common practice to go from place-to-place without prior knowledge from others about available work.

The survey questionnaire does not differentiate from whom the place-to-place job searcher “heard the information from”. It is possible that only a certain amount of this information in these circles is trustworthy or useful to job searchers. “Good” information is likely to only exist amongst small and exclusive groups. This could explain the poor success rate for females using place-to-place search (Table 4.6 shows that 87% of females using place-to-place search are unemployed, whereas ‘word of mouth’ had the lowest rate of unemployment at 42% across all three categories). This is indicative of varied degrees of reliable and “good” information for job searchers depending on what mode of search they use.

Next consider the importance of friends/relatives for those using ‘word of mouth’ mode of search. The data indicates that ‘word of mouth’ forms an integral part of strong ties (close friends and family) for both men and women. A high percentage of ‘word of mouth’ job searchers (67% of women and 69% of men) rely on friends and relatives, as they are likely to be a source of useful and reliable information about jobs and vacancies.

able afford durable assets such as television and radio. Families such as these are thus likely to have greater access to job information via the media.

By comparison only 8% of males and 5% of females using ‘word of mouth’ relied on weak ties (i.e. where they “heard about jobs”).

In summation, the results presented in Table 4.10 show formal modes of search rely on information flows from media. For place-to-place searchers, information “about jobs” is considered more important for women using place-to-place search (39% of women using place-to-place search relied on prior information about a vacancy compared to 28% of men using this mode).⁴

The link between social capital and job search can be ambiguous if social capital is considered synonymous with ‘word of mouth’ search. These results show that social capital is also an important component of place-to-place search, especially for females. Although the quality of this information, and whether it leads to jobs, is questionable (place-to-place search is shown to have the lowest rate of success for job searchers, even though it is shown here that there is some prior knowledge of work from “weak tie networks”). By comparison, ‘word-of-mouth’ searchers rely on information from “strong tie networks” (i.e. friends and relatives). This is synonymous with “strong tie social networks” (Granovetter, 1973). Searchers using ‘word-of-mouth’ must therefore perceive information from close relatives and friends as reliable.

4.6 Conclusion

Based on the results there are several consistencies that can be summarised into three brief points:

Firstly, it is shown that formal methods of job search exhibit some of the properties of the Neo-Classical labour market. Formal methods correlate to higher levels of education (12.2 years for females and 11.2 years for males) and higher wages (R1020/week for females and R748 for males) for those that are currently employed. This is indicative of degrees of success in the Duncan Village labour market for searchers using the method.

⁴ Bank (2002:129) comments: “I was struck by the ability of women to access resources and opportunities that men seemed unable to grasp. It was as if the social and economic marginalisation of women during the era of modernist planning had strengthened their networks and resourcefulness.”

To support this notion, 0% of females who found their work using this method are searching for something else (i.e. there are no underemployed females in this category) and only 17% of males who found their work using this method are searching for other work. However, this method is by no means the most successful or widely used. 34% of females and 23% of males currently employed got their jobs using formal methods. This method is the second most used mode of search amongst current searchers (25% of females and 17% of males) who are currently unemployed. It is the most costly form of search (weekly cost of R31 for females and R28 for males) and has the highest weekly reservation wages (R498 for females and R568 for males). This group of searchers were the least likely to accept an “RDP job” (61% of females and 75% of males, which was the lowest out of the search categories). Unsurprisingly, the main source of information for this group of searchers is “media” (72% for females and 59% for males).

Secondly, the use of ‘word of mouth’ is shown to have some Neo-Classical properties, and exhibits some ‘first best’ market properties. 51% of females and 42% of males that are currently employed used ‘word of mouth’ to find their job. For females the earnings are moderate (R352/week) compared to those who got their jobs using formal modes (R1020/week) and place-to-place search (R229/week). For males, ‘word of mouth’ had the second highest earnings (R474/week which is comparable to the other modes of search).

However, ‘word of mouth’ has the lowest number of current users. Only 21% of females and 14% of strictly unemployed males are currently using this mode of search. Yet, searchers currently using ‘word of mouth’ are more likely to find jobs compared to the other modes of search (51% of females and 42% of males who are currently employed used ‘word of mouth’ to find their jobs). The average education for currently unemployed females and males is 10.2 and 7.7 years respectively. Males currently using this mode of search have the lowest education and the lowest reservation wage (R223). Whereas for females; ‘word of mouth’ users have the second highest level of education and the second highest reservation wage (R486).

‘Word of mouth’ search relies heavily on friends and family. 67% of females and 69% of males who are currently employed and used ‘word of mouth’ got information about jobs from close friends/family. Only 5% of females and 8% of males who are currently employed and found their jobs using word of mouth relied on loose information in the marketplace. Information about jobs therefore needs to come from reliable and trustworthy sources for this group of searchers.

Lastly, place-to-place search correlates to lower levels of education and to a large extent demonstrates how complete labour market failure occurs. Females who used place-to-place search to find their current employment (only 15% of the sample) earn the lowest wages (R229/week) and have the lowest education (7.7 years). For men, the scenario is slightly different, currently employed males who used this type of search (36% of the sample) earn R474/week (which is the lowest current earning but is comparable to other modes of search for males) and have an average education of 10.9 years. This group has the highest rate of unemployment for both males and females that are currently employed (68% and 87% respectively, calculated for the sample of earners in this category).

The strictly unemployed who are currently using place-to-place search constitute 55% of the sample for females, and 69% of the sample for males. It is the most widely used method of job search in Duncan Village for both males and females. Of these, 66% of females have been searching using this method for longer than a year, and 68% of the male sample have been using place-to-place search for longer than a year (this is the highest percentage out of all the search categories). The cost of the search is the lowest out of all search categories for both males and females (R19 per week for both genders), and has the lowest reservation wage for females (R258 per week) and second lowest for males (R285 per week).

Place-to-place search also reveals some interesting points regarding flows and uses of information in the labour market. For example, the sample of females currently using place-to-place search rely on information from others about jobs (40% of females and 28% of males followed loose leads where they “heard about jobs”). Strikingly, only 15%

of females and 17% of males embarked on place-to-place search with information from family/friends. “Cold hit” tactics dominate place-to-place search (35% of females and 50% of males who used place-to-place to find their current employment went door to door looking for work with no prior knowledge of job availability).

CHAPTER 5
INTERGENERATIONAL FEEDBACK EFFECTS: TESTIMONIES FROM THE
STREETS OF DUNCAN VILLAGE

“Nobody can be a great economist who is only an economist – I am even tempted to add that the economist who is only an economist is likely to become a nuisance if not a positive danger.” – Friedrich von Hayek (1956 in Lindbeck, 1992:173)

“Schumpeter claimed that there were too many scholars and not enough fools...fools who do the more original thinking: they are not hampered by the preconceptions of scholars.” – Richard Ruggles on economist Joseph Schumpeter (1952: 425)

5.1 Introduction

This chapter provides a brief personal account of my impressions of Duncan Village upon revisiting the field in December 2004; eleven months after the Duncan Village 2004 survey. The motivation for which was to re-confirm some of the empirical findings from the survey. Having spent very little time engaged in the Duncan Village area (besides conducting/supervising the survey with limited participation in the day-to-day interviews) the return visit brought with it a whole *other* dimension that no figure or statistic could provide.¹

An experienced interviewer/translator from the East London Fort Hare campus Institute for Social and Economic Research (Ayanda Tyali) was hired to assist with the visitation. Ayanda worked on the Duncan Village 2004 survey in January with other previous research experience in Duncan Village, and is also a resident living in Duncan Village. Ayanda set up formal meetings with one family in the D-section of Duncan Village, and with a recognised community spokesperson. We also made visits to some of the poorer

¹ Fullbrook (2001) provides a normative account of the merits of synthesising economic theory with other disciplines and approaches.

areas in Duncan Village (Bebelele and Kayelitsha) to take photographs and informally chat with residents in a somewhat Flâneur fashion.²

The Flâneur approach put me in touch with everyday people on the streets of Duncan Village. A significant proportion of these were youths aged between fifteen and twenty-five years of age. This raised my interest in investigating the unemployment dynamics that affect the youth group and motivated me to further analyse the Duncan Village data for this group. The results presented in this chapter are taken from a small sample size. However, the results reflect several possible factors that may determine the aspirations of youths from unemployed households.

The data is broken down into youth groups from ‘unemployed households’ (youths who live in homes where the household head is without a job), ‘employed households’ (youths who belong to homes in which the head is fully employed) and ‘under-employed households’ (youths from homes in which the head is unemployed). The results suggest that there is a strong case of inter-generational feedback effects that may affect future prospects for youth groups.

5.2 Economics as Flâneur: Revisiting the field

Douglas Smith Highway is the road that runs parallel to the M3 East London highway. The road provides a visual vantage point as one can look up into the C-section (the notorious ‘bad area’) and down into the shack areas of Bebelele and Kayelitsha. In Duncan Village, there is a potent blending of spaces, identities and social activity that occurs on the streets across the different areas. This is accompanied by an explosive energy that can be best described as a form of suppressed aspiration; the forces of which simultaneously operate to create a pertinent undercurrent of energy (for example, there are visible signs of labour market participation and a distinct urban hustle and bustle as people and local vendors gather alongside Douglas Smith highway).

² Flâneur is associated with the urban studies conducted by Walter Benjamin in 19th century Paris with the description of “the voyeuristic tendencies of men who took to the sidewalks to survey and consume the pleasures and public spectacles of the city” (Bank, 2002:122).

I took note that Douglas Smith highway was clean despite the extensive activity on the street. There were municipal workers fixing the roads and a few residents who were engaged in cleaning the sidewalk.³ The signs of general community maintenance and even improvement (compared to when the survey was conducted) were observable. I also noted a general upkeep of the land in front of the shacks and houses, and was reminded of the dynamic uses of space in settlements such as Duncan Village; this was most evident when I observed a woman ploughing a small area used for growing vegetables in front of her shack alongside the Douglas Smith highway.

The Douglas Smith highway winds up towards the D-section, which consists of former apartheid houses (and shacks that have been set up in residential yards and rented to tenants) that cluster around a highpoint overlooking the entire Duncan Village area. The view from the top of the D-section is simply overwhelming as the observable congestion stretches across the hills and valleys that lie between the Buffalo River and M3 highway, portraying to the onlooker the extent of blanketing poverty. Upon our arrival in the D-section I felt partly paralysed by a typical 'white man's paranoia'⁴ as the scale of the former separatist urban planning policies became visually quantifiable. Nonetheless, the excitement was immense and we parked the car in the D-section to make a start on documenting the everyday Duncan Village environment.

³ I was later informed by a resident that the new Duncan Village community litter and recycling program has been a big success, although it has received little or no support from the municipality.

⁴ I was strongly advised to take measures of personal safety whilst in the field, to which I adhered as best as I could.

5.2.1 Duncan Village: No Jobs

According to Tester (1994) one of the characteristics of Flâneur is to become invisible in the sense that the observer is unobserved for the duration in the field. However, as Bank (2002:122) notes: “while I gazed at the world around me, I was also being gazed at. It was a gaze that was often so intense that I was sometimes made to account for my presence”. During the re-visitation to Duncan Village I walked around the fringes of some of the areas that are within proximity to the Douglas Smith highway and lying to the west of the D-section. Although the general atmosphere in most of the areas was welcoming and accommodating, I was aware that many people were sentient of my presence. When I produced my camera to take photos, people were excited and asked for their photos to be taken. The most interesting of which is the one below (photo 5.1).

PHOTOGRAPH 5.1) DUNCAN VILLAGE YOUTH - “DUNCAN VILLAGE, NO JOBS!!!”



Source: Author's collection (taken on 01/12/04).

Local knowledge suggests that the youth group are the source of many of the social pathologies in the Duncan Village area. Researchers and residents warned that young men (referred to as ‘Tsotsis’) are the primary drivers of crime and moral decay in the

community. The general sentiment is that young men are lazy, unwilling to earn an honest living, and uncommitted to a civil upliftment of the community.

Accordingly, I was wary of the male youths. But when asked by the anonymous group (in photo 5.1) to take a photo, I was intrigued to see what would happen and obliged. Just as I snapped the shot, the man on the far right shouted out: “Duncan Village, No Jobs!” and the others laughed. Despite the friendly banter there was a weary undertone, as a distinct tension lingered between the group and myself.

For me this photograph is very telling. It suggests that there is a determined frustration amongst the youth of Duncan Village. It is not so much a question of a diminished value that the youth place on employment, or social and civil improvement. Rather it is a matter of unbridled frustration that stems from high barriers to entry into these arenas. Moreover, the rejection of subservience that is associated with ‘bad jobs’ is not necessarily the result of non-pecuniary social norms. Rather, this can be explained by individual disenfranchisement that has subsequently resulted in low levels of capital stocks.

It is worth asking oneself whether the current group of South African youths are willing to “sit at the devils table and eat with a long spoon”.⁵ The answer is probably not. In such circumstances poverty and joblessness become absolute, the effects of which presumably elicit abject behaviours that economists have long dismissed on the basis of their non-economic attributes. Notwithstanding, these problems carry an obverse economic side that is not well theorised and thus needs to be better understood.

The photograph also visually portrays a current mass-scale economic coordination failure in South Africa. Although companies like Cell-C (as shown in the background of Photo 5.1) have attempted to target ‘African youth markets’ (like the ones in Duncan Village), there is reason to believe that this particular consumer group has little means to engage in

⁵ Quote cited from an interview with Chris de Wet of the Rhodes University Department of Anthropology (16/06/04).

this form of consumer activity (at least at a sustainable level). With the effects of joblessness and poverty, it is most certain that the circular flow of the economy is severed as the majority of this group of consumers are living in dire conditions. Ironically they are excluded from participation in the labour market but included in the consumer market. Moreover, the prominence of global manufacturers (most notably the motor industry) lying within a few kilometres of Duncan Village on the West Bank is indicative of a general industrial outward looking “openness”. However in Duncan Village itself, industrial participation has remained dislocated. The situation is one that encompasses a distinct state of “closedness”⁶ and a form of commercial separatism for local residents.

5.2.2 Khanyile and Viyokazi

Khanyile and Viyokazi consider themselves as “residents of the New Democratic South Africa”. Despite the foul odour from the nearby community toilets, Khanyile and Viyokazi proudly welcomed me into their home. Inside I became aware that all of their possessions were tucked into one room. The space indoors suits a variety of purposes and needs. It was tidy and humbly kept with a mix of old furniture and newer consumer durables such as the hi-fi and TV.

Khanyile does small electrical jobs within the Duncan Village community to earn a sporadic wage of R40 a week. He has been doing this for 5 years and has continued to search for a better job by going ‘place to place’ around the East London CBD, as well as “asking friends to look out” for him. Khanyile believes that he needs more time to search effectively, his current work and his family duties taking up most of his time during the day. Khanyile has no certified qualification for his skills, but given the opportunity he would enrol for a tertiary course in electrical repairs. As he only reached grade 8 in school (he was forced to drop out of school as “there was no-one to help me with the money for fees”), there is little chance of this.

⁶ Quote cited from an interview with Leslie Bank of the Fort Hare University, institute for Social and Economic Research (20/03/04).

Viyokazi is unemployed and hoping to find work as a domestic. Like Khanyile, she dropped out of school 7 years ago (during grade 9) due to family poverty. She is not actively searching for work as she takes care of their children during the day. Although from time to time consults her friends about any available information that might lead to a “piece job”.

As an indicator of their willingness to work, both Khanyile and Viyokazi stated that they would take an RDP job paying R30 a day or any other form of “secure work”. This point was emphasised in the interview and it became evident that both Khanyile and Viyokazi are caught in an effectual vicious cycle. They have neither the physical means nor the time to search more effectively. Coupled with this it seems that despite their eagerness to work in the formal sector their effective chances are diminished by low levels of capital that are likewise time-intensive and require physical resources (such as money) to further augment. Also, it is questionable whether either Khanyile or Viyokazi will be reflected as ‘strictly unemployed’ in government released labour market statistics as their search activity, labour effort and income remain indistinct by conventional survey methods.

Khanyile and Viyokazi have high hopes for their 2 sons, Olwetu and Tina, who are 6 years and 9 months old respectively. They would like to see their children become either doctors or teachers. Although their first son Olwethu (6 years old) had started at pre-school, Khanyile could not afford to keep him there as he does not have a stable income. Nowadays Olwethu spends his days either with his mother or occupying himself within the different areas of Duncan Village with other children and friends. Khanyile agrees that this is a problem.

Khanyile’s views on the current state of the labour market were very much to the point, but nonetheless confirmed many of the research findings. In particular, Khanyile believes that although there are job opportunities, without the right connections or sufficient education it is almost impossible to find or secure them. He is confident in his level of skill (as someone who fixes radios and electrical appliances) but has no sure way to

convey this to potential employers. Nonetheless he states that he is searching and that given the opportunity to work he would definitely do so, even on short notice.

When asked to cite an example of exclusion, Khanyile relayed that council workers (who he perceives as being people who “give out jobs”) only choose potential candidates from their own social circles. Khanyile confirmed that there is a distinct division within Duncan Village between those people who have jobs (and subsequently live in wealthier areas around Duncan Village, such as the residential Gompo Town), and those who are unemployed and living in the poorer areas. Non-begrudgingly Khanyile says that the people who have jobs “just don’t care” about the unemployed.

PHOTOGRAPH 5.2) KHANYILE AND VIYOKAZI, WITH OLWETU AND TINA AT HOME IN DUNCAN VILLAGE



Source: Author’s collection (taken on 01/12/04).

My suspicion of a strong sense of cohesiveness amongst families in Duncan Village was confirmed. Khanyile and Viyokazi were, for me, symbolic of intra-family unity amongst

households in Duncan Village. Despite widespread poverty and joblessness they have managed to maintain sense of faith and hope.

Having lived in Duncan Village for 31 years (Khanyile's family relocating from rural Chalumna in hope of finding work in Duncan Village) Khanyile believes that because he has moved from C-section (comparably poorer with less available services and infrastructure) to D-section; it is a sign that things will slowly continue to improve for his family and his community.

5.2.3 Marshall Morgan

Leaving Khanyile and Viyokazi's home, I began to wonder what the missing link between their aspirations and their current situation was. Arguably it is due to either diminished individual endowments of capital, or alternatively an inappropriate mix of capitals that are inadequate for effective passage into the formal labour market via the signalling mechanism. In effect, they lack assistance from the government or private sector to develop credible and trustworthy labour market signals.

Keeping these thoughts in mind, we briefly visited and interviewed Marshall Morgan for his opinion on the current situation in Duncan Village. Mr. Morgan works for South Africa's labour bargaining confederation (COSATU), and his wife works for a global motorcar manufacturer on the West Bank of East London. Despite having a stable income (and one that exceeds his immediate neighbours) Mr. Morgan and his family have remained in Duncan Village's D-section because they are familiar with and fond of the Duncan Village area.

Mr. Morgan believes that the situation of mass unemployment in Duncan is twofold. Firstly, he blames the private sector for the lack of commitment in terms of investing in communities like Duncan Village, which he believes is in dire need of jobs with many workers available to take up work on short notice. Secondly, he believes that the people's needs, in terms of local welfare, infrastructure and municipal provisions, are not being met because of a failure to deliver at the local level. In summation, Mr. Morgan

acknowledged that the action taken by the government and private sector would have to be a coordinated one.

Although he agrees that there is widespread consensus about these problems, he says that the mix of policies is “just not right”. Mr. Morgan stated that a tripartite course of action is needed and believes that the only component of the alliance that is committed to change, is the workers. However, he did not make reference to how either government or the private sector could dually join in the ambition of job creation. It is also worth mentioning that somewhere in Mr. Morgan’s prognosis there was a blurring of the objectives of worker’s unions. Agreeably, unions protect the interests of those who have jobs. Who then is responsible for those who are unemployed? On this subject, Mr. Morgan spoke as if the fate of those who are unemployed in Duncan Village was a separate matter altogether (a point that confirms Khanyile’s earlier perspective on class formations in Duncan).

On the topic of education, Mr. Morgan agreed that there is variation in the quality of schools in East London. However, he believed South Africa is engaged in a process of transformation and that it will take time to see changes of this sort occur. Again, Mr. Morgan stressed the commitment on the part of the people living in Duncan Village, but believed that this commitment goes unmet by both the government and the private sector. Nonetheless, Mr. Morgan believes that things are slowly improving in their own way, but again stressed this is only due to the commitment of the greater Duncan Village community.

Upon leaving Mr. Morgan’s home, he reiterated to me that I was not to call him either ‘mister’ or ‘sir’ because he believes that we are all equal within the new Democratic South Africa. Rather he would have me call him “my brother”. Although Mr. Morgan’s insights on the current situation Duncan Village were valid and insightful, it seemed to me that there was a certain patriotic idealism that motivated his views and opinions. Indeed, although there is a democratic ideal in South Africa, the fulfilment of this ideal is

far from complete, especially in areas such as Duncan Village.⁷ In addition, his opinion was somewhat diluted with the institutional polarisation that is apparent in most the South African lobbyist objectives. This generally typifies “the lingering darkness”⁸ that many South African policymakers and lobbyists face with regards to unemployment in communities like Duncan Village.

5.2.5 Closing thoughts on Flâneur

To emphasise a central insight from the Flâneur experience, it would have to be the dynamic vibrancy of Duncan Village. It was apparent to me that as a result of this, simultaneous high rates of search will continue despite high unemployment.

Another dimension that became apparent to me during the re-visitation was that individual joblessness is by some extent circumvented by a macro-economic ‘anaesthesia’ (i.e. ineffective policy in the sense that it fails to penetrate macro problems such as unemployment at the individual and household level). This was most apparent in policy-maker and lobbyist views presented by Mr. Morgan, the great irony of which the fact that Marshall Morgan and Khanyile’s family are virtual neighbours in the D-section area.

5.3 Intergenerational feedback effects

The dynamics and characteristics of job search in Duncan Village are explored methodically in Chapter 4. The theoretical foundations that underlie these findings tend to ignore inter-generational features that inform current labour market dynamics.

⁷ Bunce (2000:715) notes: “while the comparative study of democratization produced many useful broad generalizations, there are some significant dynamics that appear to be regionally bounded.” As such, the democratic ideal means many different things to many different people across the regions of South Africa. In the example of Duncan Village this was most explicit in contrasting views of the definition of democracy cited by Mr. Morgan and Khanyile. The respective definitions of which are summarised as ‘entitlement’ (i.e. direct intervention and short-term economic empowerment) versus ‘equality’ (economic and social reform through equal rights with long term benefits).

⁸ Quote cited from an interview with Leslie Bank of the Fort Hare University, institute for Social and Economic Research (11/01/05).

It is well established in the development literature that there may be strong household substitution effects (operating through the effect of higher returns to education improving the incentive to acquire ‘human capital’) and income (wealth) effects on the demand for education. For example, Glewwe and Jacoby (2004 in Duff and Fryer, 2004:18) find significant wealth and substitution effects at the household level on the demand for education for children in Vietnam. Likewise, Thomas *et al.* (2004:71 in Duff and Fryer, 2004:18) show that reductions in household education spending were prominent during the Indonesian crisis in 1997/98. It demonstrates that despite the importance of education, cuts in household education expenditures in times of financial constraint seem to persist in Third World regions.

Households in South Africa may respond differently (Duff and Fryer, 2004:19) depending on whether families are faced with chronic, rather than transitory, poverty (Aliber, 2002). Examining the magnitude of these effects lies beyond the scope and capacity of this dissertation, but this is not to suggest that they do not play an important role. Evidence in South Africa shows that income effects may be of great importance (Fryer and Vencatachellum, 2003).

Table 5.1 provides data on possible inter-generational effects in Duncan Village. It shows levels of education and indicators of household unemployment. The table breaks the sample of youths (between ages 15 to 25) into two groups: type I youths that belong to a household with an unemployed head, and type II youths that belong to a household with an employed head.

TABLE 5.3) CHARACTERISTICS OF YOUTHS (15-25) IN HOUSEHOLD WITH EMPLOYED AND UNEMPLOYED HEADS, DUNCAN VILLAGE 2004

	Type I youths Unemployed head	Type II Under-employed head	Type III youths Employed Head
still at school/tertiary education of those who have left school:	20%	37%	49%
completed matric	5%	18%	71%
average years education	8.9	9.6	11.2
employed	0%	36%	18%
searching	55%	68%	60%
Total (n)	20	35	43

Source: Duff and Fryer (2004:20).

The results are generated from a small sample size but the data nonetheless seem to reveal two important inter-generational features.

Firstly, it is evident that inter-generational effects are a function of the household head's employment status. This is apparent for the number of youths still attending school or tertiary education, and the number whom have completed matric. The figures also illustrate that a far lesser proportion of children belong to unemployed households (only 20 out of a sample of 98 youths). This is a possible indicator of family planning, showing that poorer households do not have children probably because they cannot afford to. Or it may indicate that unemployed household's do have children but that they are not residing in Duncan Village. Nonetheless, Type I youths are shown to have, on average, less education and no hope of employment (0% of Type I youths are employed). Despite levels of education and employment acting as a function of the household head's employment status, search activity did not vary across the three groups of youth. Presumably however, search success (as is shown in Chapter 4) varies by mode of search and other characteristics (such as education), but this remains to be explored further.

Secondly, and in relation to job search, the figures show that type II youths from underemployed households are more likely to be actively searching (68%) or employed (36%) when compared to Type III youths from fully employed households. Despite this group's lower levels of education (9.6 years) and a fewer proportion showing to have completed matric (18% - a figure that is almost half of the Type III youths), there are high rates of participation in the labour market for this group when compared to Type I and Type II youths. This may be a possible indicator of the dynamic and vibrant environment that the informal sector provides, and one which Type II youths are most likely to have been exposed to.

5.4 Conclusion

The combination of empirical and normative evidence presented in this chapter suggests a strong case of inter-generational feedback effects that influence the youth groups of Duncan Village. Whilst the head of the household's employment status has little bearing on the level of search for youths, the effect on achievement at school and rates of employment are notable.

The level of education and higher pass rates of youths from employed households is most significant. However, it would seem that youths from under-employed households are more likely to be employed and this may stem from strong network and social ties in these arenas. Conversely, it may be a reflection of sustained under-employment, as labour market attachment of the youth group was not tested for the Duncan Village sample. Thus, determining whether this portion of youths is strictly employed is not possible, although one can only assume that it is a likely hypothesis.

The results are striking but their message is far more powerful than their content. Having personally interacted with families such as Khanyile and Viyokazi's, it is apparent to me that the future development of 'human capital' from a household's perspective is to a large extent reliant on the current employment status of the head. Moreover, the views of the "No Job" street youths that are contrasted by the views of Mr. Morgan highlight the ineffectiveness of institutions and state authorities to penetrate the inter-generational

sphere. Thus illustrating that in order to cultivate future growth in the form of higher standards of living, it is crucial that officials take corrective measures against the effects of unemployment for those who are currently employed. This achievement will to a large extent eliminate the inter-generational effects of unemployment for future generations.

CHAPTER 6

CONCLUSION

This research attempts to highlight themes surrounding job search and unemployment. A tailored dataset from Duncan Village is used to explore these issues. However, the results presented here are limited to the size of the dataset, and the localised economic geography of Duncan Village.

Current literature links job search to unemployment by using rates of attachment and participation (Dinkelman and Pirouz, 2001; 2003). These quantify the number of people who participate, or are in some way active, in the labour market. Figures show that a negative relationship exists between rates of unemployment and rates of job search. The “discouraged worker effect” is shown to be a central theme because the “narrow [i.e. ‘strict’] measure may be endogenous in that the number actively seeking work itself depends upon the broad unemployment rate” (Kingdon and Knight, 2001a:2).

At the micro-economic level, traditional cost versus benefit scenarios can be used to explain this. When the probability of finding work is low, there is little incentive for individuals to search for work and levels of search will thus be low (Pissarides, 2000).

The data from Duncan Village show the converse. Duncan Village has exceptionally high rates of unemployment, with 72% and 76% for men and women respectively using the ‘highest plausible rate’ of unemployment. However, the data also show that there is little difference between strict and expanded measures of overall unemployment (49% and 55% respectively).¹ The fact that there is little difference between strict and expanded measures of unemployment suggests that job search activity is high in Duncan Village.

¹ As per the convention of the International Labour Organisation (ILO), the criteria used in standard practice is stipulated by the “strict/narrow” definition and are as follows: 1) not working, 2) searching for a job, and 3) is available to take up work on short notice. Alternatively the “expanded/broad” measure drops condition 2) and re-classifies the unemployed based on conditions 1) and 3). Those who are not searching for a job are thus considered Non Labour Force (NLF) by the strict definition (Fryer and Stuart, 2002:3).

We can establish the following from the Duncan Village dataset. Increased unemployment does not lead to a decrease in job search (there are little signs of the “discouraged worker effect”). But increased job search does not necessarily increase the rate of employment either.

This problem demonstrates that other factors must be at play. A central finding, which emerges from the Duncan Village data is that different modes of job search have different outcomes in the labour market. It is not so much a matter of whether people search; rather the question that is asked here is *how* people search. Some modes are effective, whereas other modes have little or no bearing on the rate of employment.

It is shown in the theoretical body of the dissertation that where market failure exists and markets rely on signals; human and social capital can either promote or constrain the probability of employment. Market failure literature demonstrates that the mode of search relies on levels of ‘human capital’ and social ties to signal quality attributes to employers. The data from Duncan Village seems to confirm this.

Consider that in South Africa, there are severe variances in levels of education between races, and this has an impact on the range of employment opportunities and wages available to certain groups (Ferrer and Riddell, 2002). Moreover, there is evidence suggesting further variances in the quality of education (Chisholm, 1992). These two features of the “post-Apartheid labour market” (Natrass and Seekings, 1997:466) have significantly shaped labour market practices and levels of discrimination (i.e. employer’s ‘tastes’).

In the absence of using education as a signal of quality, other signals emerge to convey information about skills and abilities. However, it is important to remember that markets have failed and in areas such as Duncan Village joblessness is high. In instances such as these, individuals are either ‘lucky’ in the sense that they have some form of reliable indicator of their level of education and/or ability. For those who do not possess the necessary credentials and cannot signal quality, the chances are that they will face long-

term unemployment. Alternatively, the individual can accept a “bad job” (Fryer and Stuart, 2002), which is synonymous with menial work, low security and poor pay. It is important to recognise that the central theme here is the initial failure of signals. The structure of the labour market and the existence of “bad jobs” are only important in the way that they compound the effects of failure in the labour market.

To demonstrate, social networking and ‘word of mouth’ are considered by traditional theory to be an alternative method to formal modes of job search. ‘Word of mouth’ has the ability to mimic formal methods of job search, which are shown in traditional theory to rely on levels of human capital (Montgomery, 1992). However, the use of ‘word of mouth’ as a method of job search can also produce exclusion (as individuals with high ability are unlikely to socialize with low ability individuals). The relationship between social capital and human capital is shown to systematically intensify exclusion in labour markets. In the long term these effects may become “locked in” (Granovetter, 1992:9).

With this in mind, consider that the results from the Duncan Village data show that ‘word of mouth’ searchers rely heavily on “strong ties” (close family and friends) to give them information about potential work. This is counter-intuitive to traditional social networking theory (the “Strength of Weak Ties Theory”) (Granovetter, 1983), and demonstrates that where individuals do not use formal methods of search, they are likely to be faced with labour market failure. The data shows that 51% of females and 42% of males who are currently employed in Duncan Village used ‘word of mouth’ to find their jobs. For females, the earnings are the lowest out of the three modes of search (R229/week compared to individuals who got their jobs using formal, R1020/week and place-to-place search, R352/week) yet there are higher degrees of success for females using ‘word of mouth’. For males, ‘word of mouth’ had the second highest earnings (R474/week) yet fewer males currently use this mode of search compared to females (14% of males currently use ‘word of mouth’ compared to 21% of females). The average level of education for males currently using ‘word of mouth’ is lowest (7.7 years), whereas females using ‘word of mouth’ have an average education of 10.2 years. This is counter-intuitive, as we would expect that earnings would be lower for men in this

category as they have less education. This mode of search, although successful, is likely to yield low returns in the form of income (males earned R352/week and females R445/week). To support this notion, only 21% of females and 14% of males were currently using 'word of mouth' search. Yet relative to levels of human capital, the returns are higher for males using 'word of mouth', when compared to females.

Alternatively, individuals using place-to-place search in Duncan Village tend to rely on information about jobs from people other than their family and friends (only 5% of females and 8% of males using this mode relied on information from close friends or family). 40% of females and 28% of males use place-to-place because they "heard about jobs" from others. Place-to-place search for those who are currently employed showed lower levels of education for both males and females (7.7 years and 10.9 years respectively) and this is reflected in their current earnings (R229/week for females and R474/week for males). However, although the wages are comparable for males, only 36% of employed people found their jobs using place-to-place, the figure is less for females (15%). The market has failed in the sense that "hearing about jobs from others" combined with low levels of human capital do not translate into employment opportunities. Yet, current place-to-place searchers constitute the largest number of searchers (55% of females and 69% of males who are strictly unemployed are currently using this method of search) in the labour market. Moreover, people using this mode of search have the lowest reservation wages (R258/week for women and R285/week for men).

Lastly, the use of formal methods of search are shown to be linked to higher levels of education for both males and females. For currently unemployed females and males that are using formal methods, education is highest (12 and 11.3 years respectively). Moreover, they display the highest reservation wage (R568 and R498 respectively) and the highest weekly cost of search (R31 and R28 respectively). This group represents the second most used mode of search amongst the strictly unemployed (17% and 25% respectively for males and females). These findings are consistent with the group of employed who found their current work using this method of search. Levels of education

are highest for females and males (12.2 and 11.2 respectively), which correlates to the highest weekly earnings for this group (R1020 and R748 respectively). This group of employed individuals showed the lowest number of “searching now” for better work (0% for females and only 17% of males), which is indicative that people who found their work using formal methods are close to being “fully employed” (i.e. there are low levels of underemployment).

These findings illustrate that markets have failed in Duncan Village. The implications of which are twofold:

Firstly, market failure has changed the endogenous structure of the labour market. As humans are viewed as ‘production inputs’ in the labour market, human behaviour collectively determines market outcomes. The endogenous structure of the market is therefore represented by how individuals interact with the labour market. What is observed from the data in Duncan Village does not lend itself to current notions about labour markets in South Africa. The data from Duncan Village is localised, yet it provides an insight into how labour markets could otherwise be observed if survey techniques are tailored and theoretical hybrids developed. Low levels of human capital, extensive market failure and high levels of poverty change the labour market “rule book”. They change the endogenous structure of the labour market. The question that needs to be asked is whether they change the degree by which traditional theory and survey techniques address unemployment. Or is it an entirely new form of unemployment? One that is markedly different – where individuals are joblessness despite levels and types of job search. They do not meet the requirements of the modern economy and will be kept on the periphery.

Secondly, and part flowing from the first, consider the effects on how labour market practitioners classify those in the labour market. Traditional theory suggests that an exogenous shock, which leads to an increase in unemployment, results in workers being laid off. The prospects of finding work become low for both existing searchers and the newly laid off workers. Beyond a certain threshold (either the duration of high

unemployment, or the vast number of searchers in the marketplace) searchers will become discouraged and some will stop searching. This will decrease the narrow rate of unemployment and increase the broad rate of unemployment as people become classified as NLF (i.e. they are no longer searching). However, consider a scenario where unemployed people do not stop searching. Imagine that there were the following factors at play: low levels of human capital, higher rates of unemployment (as a result of the exogenous shock) and a large volume of people who are unemployed. This typifies Duncan Village. What the data shows us is that there are little signs of discouragement and the NLF category remains the same. The narrow measure of unemployment will remain high as the same number of people continue to search for work and therefore cannot be classified as NLF. Under what circumstances would this be possible? Perhaps where market failure has emerged and employers resort to relying on signals? Even so, what if the human economic geography dictates that the quality of searchers signals varies, thereby making signals weak? Searchers resort to alternative methods of search that by their very nature signal bad quality to employers. These methods of search rarely yield any real benefits. Cost of search is low and the socio economic environment is one of desperation. People continue to look for work against all odds, yet they remain jobless.

APPENDIX A
DUNCAN VILLAGE 2004 SURVEY:
SURVEY METHODOLOGY AND REPORT

A.1 Introduction

The survey process involved two basic primary objectives. Firstly, to design a questionnaire that addressed and probed certain issues that would justify the theoretical rationale set out in Chapter 2. Secondly, to gather data that would be representative of the population that was to be analysed. However, the survey itself would not be statistically representative of Duncan Village (due to its small-scale nature – only 0.1% of the Duncan Village population, was surveyed), but it hoped to capture a definite set of labour market and socio-economic features. The research findings of which do not, in any way, answer all the questions surrounding unemployment in South Africa.¹

Section A.2 details the survey questionnaire attributes. Sections A.3 and A.4 demonstrate how the survey was carried out to ensure that a representative distribution of respondents was achieved. The sample technique (Section A.3) was adopted from the Kayelitsha/Mitchell's Plain 2000 Survey using a Probability Proportional to Size (PPS) sample methodology. Section A.4 demonstrates how a systematically selected sample of the total geographic population was drawn. In the process of applying the technique to the Duncan Village area, minor problems were encountered relating to the availability of Population Census data and maps. Such encounters are documented using a step-by-step approach to show exactly how representation was achieved and the aforementioned limitations overcome.

¹ The sampling process did not aim to achieve statistical representation in the sense that the sample was biased in favour of those who are jobless or job seeking. In other surveys (KMP 2000), the intention has been to engage in labour market quantification as well as the exploration of significant statistical relationships (KMP, 2003). In such surveys return visits are made to selected households and data is gathered for a predetermined portion of the total population. The intention of the Duncan Village 2004 survey, however, was to locate a study within the everyday environments of those living in the urban periphery. The survey questionnaire prematurely acknowledged the uncertainty regarding how many face-to-face interviews would be conducted; enumerators were simply informed to conduct the interview only if there were active searchers in the household at the time of the visit, 180 out of a total of 433 respondents (older than 15 years of age) were active searchers and available to answer the face-to-face questionnaire at the time of the visit.

A.2 Questionnaire

The questionnaire was jointly designed by David Fryer (supervisor) and the author, and was an amended version of a questionnaire used in the pilot study conducted 6 months prior to the Duncan Village 2004 survey in the township area east of Grahamstown.²

The Duncan Village 2004 survey questionnaire followed the insights of current literature documenting the validity of types of data. The questionnaire was designed with the intention of probing information at different levels in an attempt to contextualise possible multi-dimensional factors that play an important role in endogenous drivers of unemployment. As such, the questionnaire was directed at people who are marginalised and it gathered types of information that demonstrates how such environments are perceived at the household and individual level. The questionnaire was therefore broken up into two sections: Firstly a section in which proxy data was gathered using one respondent from each household. In most cases, the respondent was the household head (the process was self-selecting as the head was nominated by each respective family/household that was visited). The questions focussed on labour market, socio-economic and community/family orientated factors. Secondly, the remaining section of the questionnaire was strictly face-to-face interviews that were conducted with active job searchers.³

Both data (individual and household/proxy) were generated using a mixture of qualitative and quantitative interview techniques. The main motivations for gathering the two types of data were: Firstly to generate a dataset that is comparable with other datasets on a categorical level. Secondly the survey intended to probe information that may not have

² David Fryer developed and designed the majority of the questionnaire. Adult and children's, as well as the socio-economic section are accredited to him. The author designed a much smaller component that was the active searchers section of the questionnaire. For a copy of the survey questionnaire e-mail the author at: ziggystardust@webmail.co.za.

³ Active searchers were classified as those who had engaged in any search activity in the previous six months.

been forthcoming in other studies.⁴ In achieving this, the questionnaire was designed with a series of categorical questions that provided respondents with vast lists of possible answers, as well as a series of open-ended questions.

All of the enumerators who worked on the survey were fully conversant in the vernacular language (85% percent of respondents in the Duncan Village 2004 survey, on a scale of 0-3, reported that their spoken Xhosa scored a 3; the remainder scored themselves a 2). This enabled the interviewers to form a rapport with the respondents and also ensured that the information given was not misinterpreted as a result of translation errors. All respondents were informed of the research objectives and given the right to refuse being interviewed as per the British Sociological Association Ethical Guidelines (Harvey and MacDonald, 1993:4). The respondents were also informed that the information given was strictly confidential and was to be used for statistical analyses only. Contact details were provided to respondents who wished to query the motivations of the survey.⁵

A.3 Sample area

Duncan Village belongs to the greater Amatole District in the Eastern Cape. The 1996 Population Census data indicated that the population within the boundaries of the East London Transitional Local Council totalled 409 035 people. 75 per cent of these African, 15 per cent white, 8 per cent coloured and 1 per cent Indian. Duncan Village itself had a population of 56657 people and falls under the Buffalo City local municipality, which is the super-municipality for the greater East London area.

⁴ Infopoll's (2001) online guide to questionnaire design verifies that questionnaires should be designed in a way that encompasses both qualitative and quantitative questions to record statistical answers that allowed for a deeper empirical analysis. The use of qualitative questions often generates a wealth of information that may not be related to the study. Whereas other studies and disciplines may view this as a drawback, one of the primary aims of the Duncan Village 2004 survey was to find new forms of information as well as gather information. The results of the survey thus being both informative as well as exploratory in the sense that the survey offers an alternative method-test to mainstream schools of thought – but in no way aims to replace mainstream survey techniques as it aims to compliment them (see Narayan *et al.*, 1999:15-16).

⁵ This was of particular importance as South Africa was due hold its third democratic election in 2004 and we wished to emphasise the politically impartial nature of the survey.

The Duncan Village 2004 survey was primarily concerned with individuals over 15 years of age (as per ILO standards, C138 Minimum Age Convention, 1973 Ratified by South Africa on 30/03/2000). It was calculated that a total of 41036 individuals fall into this category. Given that there are 15778 households in Duncan Village, the average number of adults per household (older than 15) was therefore calculated to be 2.6. The Duncan Village 2004 survey made use of a probability proportional to size (PPS) sampling technique (see Levey and Lemeshow, 1999). The technique was used in the Kayelitsha /Mitchells Plain (KMP) 2000 survey that was jointly conducted by SALDRU, Centre for Social Science Research, University of Cape Town, Population Studies Centre and the University of Michigan.⁶ The Duncan Village survey 2004 was conducted as close as possible to that of the KMP 2000 survey; the only difference being that the Duncan Village 2004 survey had a smaller sample size, a different questionnaire, some minor changes were made as result of missing or unavailable information and obvious cost constraints. Also, the fact that no return visits were made to any of the households had obvious implications for data.

A.4 Sample technique

The sampling technique utilises a two-stage cluster sample that yields a sample that is implicitly stratified by location and housing type (Levey and Lemeshow, 1999 *inter-alia* Crankshaw *et al.*, 2001). The first stage of the sampling process entails selecting clusters of households and the second stage made use of systematic sampling of the households themselves. Accordingly, the first stage of the sampling process requires a defined set of sampling frames that represent geographic boundaries that divide the Duncan Village population into identifiable clusters. As per the KMP 2000 survey, the Duncan Village Survey 2004 made use of Enumeration Areas⁷ that are developed and used by the Population Census. These Enumeration Areas are loosely defined as neighbourhoods with between 50-200 households and are designed to be homogenous with respect to

⁶ Mathew Welch and Lynn Woolfrey (of Data First Research Unit) assisted with gathering the baseline sample information for the Duncan Village 2004 survey. As too did Dudley Horner of SALDRU who supplied us with hands-on experience and advice with regard to the day-to-day running of the survey.

⁷ Please note that the terms “Enumerator Areas” and “Enumeration Areas” are used interchangeably.

housing type (KMP Survey Report and Baseline Information, 2000:5). The survey opted to make use of Enumeration Areas that were used by Statistics South Africa in the 1996 Population Census.⁸ Accordingly, the sample represented a mix of enumeration areas across Duncan Village (see Graph A.1).

The 1996 Population Census database was accessed at two levels. Firstly to get baseline population information about Duncan Village and secondly to use Enumeration Area information to select clusters of houses that would be surveyed as per the PPS technique. To ensure that continuity was maintained the survey therefore made use of 1996 Population Census data and maps for all of the baseline workings.

A.4.1 First stage of sampling: Selecting enumeration areas

The first stage of the sampling technique entailed selecting Enumeration Areas. These areas form the first part of the two-stage clustering technique. The sampling methodology ensures that the probability of an Enumeration Area being selected is proportionate to the respective population size. The accuracy of the procedure relied heavily on the availability of maps and demarcations for the enumeration areas. Problems arose when it was discovered that the Statistics SA database was missing maps for 59 of the total of 211 Enumeration Areas. The Duncan Village set of enumeration areas runs between areas 2190545 and 2190706 in which the missing batch of maps seemed to correspond mainly to areas in the last quartile of the set on the Population Census Enumeration Areas GIS database. The survey thus opted to disregard this batch and made use the remaining 152 Enumeration Areas to draw a sample from. This reduced the total number of households from 15778 to 10219 from which a sample was drawn. However, further problems were encountered when maps for selected Enumeration Areas were also discovered to be missing. Avoiding such problems was impossible and alternative procedures were followed to compensate for the missing data and maps (see Table A.2).

⁸These Enumeration Areas are drawn up as per order of the Chief Directorate of Demography. The directorate is responsible for developing and maintaining the GIS system that allows Census surveyors to develop accurate maps for the five-yearly census (Statistics South Africa, 2001/02:42-44). Unfortunately access to the Census 2001 data was restricted as a result of new laws that forbid the supply of information at an Enumeration Area level (Statistics South Africa Confidentiality and Disclosure Act 17.1).

The survey intended to gather proxy information for 400 adults. Dividing the target number of individuals by the average number of adults (that were older than 15) per household determined the number of households that would be selected. Dividing 400 by 2.6 (average number of adults between 15) determined that 154 households would be selected. The survey aimed to visit at least 14 households from each selected Enumeration Area. The number of Enumeration Areas to be selected in the first stage of clustering was then calculated by dividing the target number of households by the number of surveys that were to be administered to each Enumeration Area. It was therefore calculated that 11 Enumeration Areas (out of 152) would be surveyed in order to safely reach the target number of households.

The following procedure was used to select the 11 Enumeration Areas. First, the total number of households in the first Enumeration Area was added to the total number of households in the second Enumeration Area. This total was then added to the total number of households in the third Enumeration Area.⁹ Table A.1 below shows the first few rows of the 1996 Population Census baseline data with the respective calculated cumulative total.

⁹ This procedure was carried out for all 152 Enumeration Areas in Duncan Village. This procedure is commonly known as a cumulative total.

TABLE A.1) CALCULATING THE CUMULATIVE HOUSEHOLD TOTAL FOR DUNCAN VILLAGE 2004 SURVEY SAMPLE

Enumeration Area	Number of Households	Cumulative Total
2190558	41	41
2190559	55	96
2190560	49	145
2190561	57	202
2190562	59	261
2190563	44	305
2190564	61	366
2190565	242	608
2190566	220	828
2190567	161	989

Source: Calculations determined by author from 1996 Population Census data.

Secondly, the sample interval was calculated by dividing 10219 (the total number of households in the 152 Enumeration Areas of Duncan Village) by 11 Enumeration Areas, giving a sampling interval of 929. Thirdly, a number between 1 and 929 was randomly selected; the number was 428. Accordingly, the first Enumeration Area with a cumulative total greater than 428 was selected to be surveyed. The process was systematically repeated by adding the sampling interval of 929 to the random number; the enumeration area with a cumulative total greater than or equal to the calculated figure was then selected. This is illustrated in Table A.2 below.

TABLE A.2) SELECTION OF ENUMERATION AREAS FOR DUNCAN VILLAGE 2004 SURVEY SAMPLE

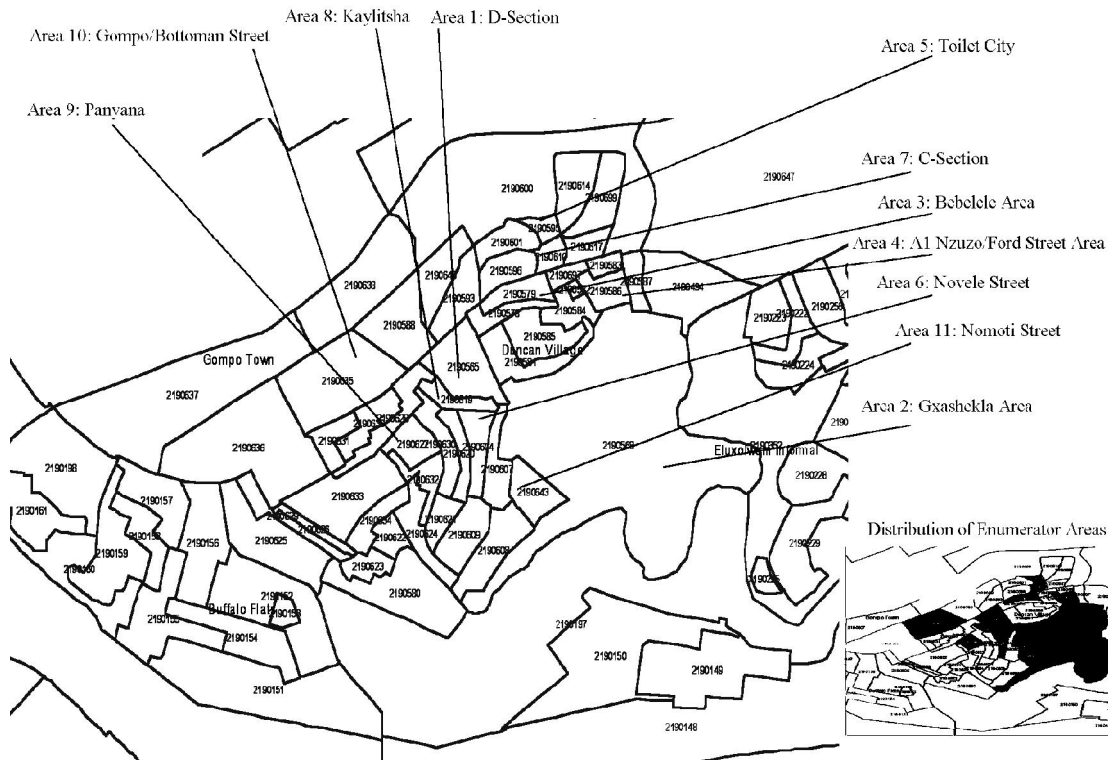
Area	Enumerator Areas	Number of Households	Sampling Interval	Cumulative Total ^b	Probability Of Selection ^c	Household Weight ^d
1	2190565	240	428 ^a	608	0.001	1000
2	2190568*	67	1357	1392	0.001	1000
3	2190579	118	2286	2347	0.001	1000
4	2190586	72	3215	3240	0.001	1000
5	2190595	113	4144	4236	0.001	1000
6	2190604*	147	5073	5132	0.001	1000
7	2190610	96	6002	6032	0.001	1000
8	2190619	110	6931	7024	0.001	1000
9	2190627	105	7860	7922	0.001	1000
10	2190635	142	8789	8883	0.001	1000
11	2190643*	108	9718	9803	0.001	1000

Source: Calculations determined by author from Census 1996 data.

Notes: * Three out of the eleven enumeration areas did not have available maps. The survey opted to select the closest possible Enumerator Area to the selected area that did have an available map. The areas with a * represent the areas that substituted for the areas without maps.

- a) Enumeration Area 219065 had a cumulative total of greater than 428, and was thus the first selected Enumeration Area.
- b) The cumulative totals are calculated as per Table A.1).
- c) The probability of selection is calculated by multiplying the number of households selected from each Enumeration Area (in our case 11) by the reciprocal of the sampling interval (in our case 1/929). The figures are used in the calculation of the equations in Section A.4.2) below.
- d) The household weight is calculated in section A.4.2) below.

FIGURE A.1) MAP OF DUNCAN VILLAGE SHOWING THE GEOGRAPHIC DISTRIBUTION OF SELECTED ENUMERATION AREAS TO BE SURVEYED



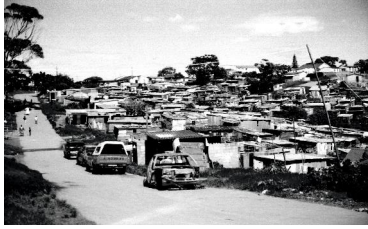
Source: 1996 Population Census Enumeration Areas (Statistics South Africa: Bisho).
Own labels based from Duncan Village street names.

Enumeration Areas can be loosely defined as neighbourhoods that are classified according to area and housing type.¹⁰ The following photographs in Figure A.3 were taken of each of the Enumeration Areas to illustrate. Note that the area names labelled under the photographs are the names used by local residents or alternatively they are the street names on which the photographs were shot.

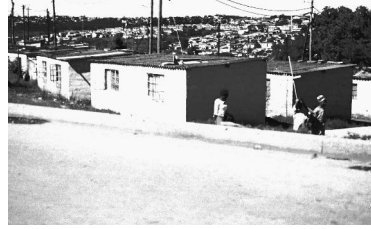
¹⁰ It was noted in the survey that the environment is somewhat generally controlled for using the PPS sampling technique. There is consensus about many issues and struggles at the community (and more so at the Enumeration Area level). For example, when residents were asked: “What is the state of the local community in terms of government services?” – 66% responded with degrees of negativity, 21% said it was “just satisfactory”, 4% “did not know”, and 8% responded with degrees of positivism.

FIGURE A.2)

PHOTOGRAPHS OF EACH OF THE SELECTED ENUMERATION
AREAS TO BE SURVEYED



Area 1: D-Section



Area 2: Gxashekla Area



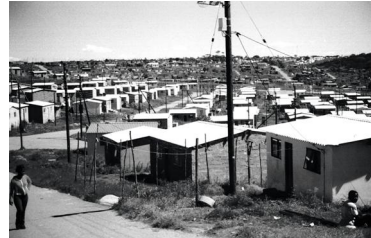
Area 3: Bebelele Area



Area 4: A1 Nzuzo/Ford Street Area



Area 5: Toilet City



Area 6: Novele Street



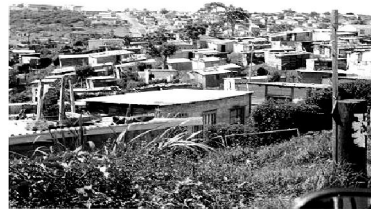
Area 7: C-Section



Area 8: Kayelitsha



Area 9: Panyana



Area 10: Gompo/Bottoman Street



Area 11: Nomoti Street

Source: Author's Collection (taken on 12/01/04)

A.4.2 Second stage of sampling: Selecting the households

The households were selected using the systematic sampling technique with a random start. Each Enumeration Area utilised a sample interval that was calculated by dividing the number of households in each Enumeration Area (using 1996 Population Census Data) by 14 (the number of households that needed to be surveyed from each area). According to 1996 Population Census Data, 72% of dwellings in Duncan Village are considered 'informal'. These dwellings often don't correspond to municipal demarcations. Furthermore, the use of aerial orthophotographs was limited in that the photos were taken as far back as 1990. Given the vast political and subsequent human-geographic changes since the democratisation of South Africa; the photos were only used for general guideline purposes. Households were surveyed according to the sample interval for the Enumeration Area always starting in the most North East corner. Fortunately none of the selected Enumeration Areas corresponded to hostels. Other surveys of this nature encountered problems with surveying hostels (see Crankshaw *et al.*, 2001:170). The issue of non-response from households was avoided by using a questionnaire that allowed for proxy answers from a single member of the household. Few return visits were made and the enumerators reported zero non-responses.¹¹

¹¹ Contrary to other surveys in other economic fields (however not excluding labour economics), the Duncan Village 2004 enumerators reported that information was forthcoming from the majority of respondents. There is a general conception in economic surveys that people will choose "don't know" if it is an available option (Arrow *et al.*, 1993:11). The fact that there were zero recorded non-responses from households (i.e. not one households turned down the opportunity to be surveyed) bares testament to the accommodating nature of the general public in Duncan Village regarding the survey

TABLE A.3) SUMMARY STATISTICS FROM DUNCAN VILLAGE 2004 SURVEY

Total number of Households	15778
Total number of Enumeration Areas	211
Total number of Enumeration Areas with Maps	152
Total number of Enumeration Areas selected	11
Number of household selected from each Enumeration Area	14
Total number of households visited	160
Total number of individuals surveyed - All Ages	579
Total number of individuals surveyed – 15 years and older	433
Total number of face-to-face interviews with active searchers	180

Source: Calculations determined by author from Census 1996 data and Duncan Village 2004 survey data.

The probability of selecting a household in the Duncan Village area was calculated as a product of the probabilities at each selection stage. Each stage of clustering is therefore multiplied to calculate the overall probability.

Let p_1 = the first stage probability for the i -th Enumeration Area.

Let p_2 = the second stage probability for the household.

The overall probability is therefore calculated as:

$$F_i = p_1 \cdot p_2 \quad (1)$$

The second stage probability for the household is then:

$$p_2 = b/N_i \quad (2)$$

Where:

b = the fixed number of households selected for all Enumeration Areas

N_i = the number of households listed in the i -th Enumerator Area

Substituting in (1):

$$F_i = p_{1i}/N_i \quad (3)$$

If Enumerator Areas are selected with probability proportional to size N_i then:

$$p_{1i} = k.N_i \quad (4)$$

Where k is a constant represented by the reciprocal of the sampling interval I . Where:

$$I = N/m$$

Where:

N = total number of households in the population

m = number of selected clusters

Substituting into (3):

$$F_i = bk = \text{constant} \quad (5)$$

The overall probability is then a constant throughout and is termed “self-weighting” (Crankshaw *et al.*, 2001:172). The formula (5) shows that the overall probability of a household being selected should be equal to the number of households selected from a specific Enumeration Area. In this case, 11 divided by the reciprocal of the sampling interval $1/929$, gives us an overall probability of 0.001. This represents the likelihood of any one household being selected for the sample. The workings are checked by applying the formula (1) to each of the selected Enumeration Areas, the results of which show a constant probability that are presented in the second last column in Table A.2. These figures are calculated by taking the reciprocal of the overall probability ($1/0.001$) to give a figure of 1000 (indicating that each household in the area represents 1000 other households in the population).

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