

**RELEVANCE OF THE TODARO MODEL IN EXPLAINING BLACK MIGRATION
TO AND WITHIN THE DURBAN FUNCTIONAL REGION**

by

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Preface

Until recently it was fashionable to describe Durban as one of the fastest growing cities in the world. For those who held this view, the proliferation of informal settlements in and around the city pointed to massive rural-urban in-migration from the rural areas. Migration, itself, it was conceived, was typically the outcome of a direct move from the rural areas, whereby the migrant simply arrived in the city and took to squatting on any available land he or she could find.

In actuality, while research has pointed out that substantial rural-urban in-migration is indeed a feature of the urban landscape, little light has been shed on the extent and nature of such migration. The aim of this dissertation is therefore to elucidate on these two features of the migration phenomenon. Through the application of the Todaro model of migration it is hoped that an understanding of the driving force behind migration to and within the Durban Functional Region could also be achieved.

This work is entirely original and has not been submitted in any form to another university. Where use has been made of the work of others it is duly acknowledged in the text. Any faults remain my own.

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INTRODUCTION

With 60 per cent of its population residing in informal settlements and just under one half of its labour force without formal employment (DBSA, 1993:11), the Durban Functional Region (DFR) displays a socio-economic profile more akin to cities of lower middle income countries than to those of the upper middle income nations to which South Africa's level of development has been assigned (World Bank, 1993). That the DFR is defined by conditions synonymous with the underdeveloped world is attributable to the fact that it is experiencing rapid urban population growth. *apartheid* According to census figures, the DFR's 1991 population of 2 895 632 represented an increase of more than a third over that of 1980 (Population Census Report, 03-01-02). At current growth rates, the Development Bank (1993:5) expect the region's population to soar to 4,315 million by the year 2000. *1991*

One of the questions that this dissertation seeks to answer is what is behind this rapid urban growth. Is rural-urban migration the principal contributor to the DFR's population growth or can the region's burgeoning population be ascribed to natural increase? And, if rural-urban migration is indeed the major factor behind the massive in-migration what then is the underlying motive behind such migration? *1991*

The Urban Foundation (1993:3) sees rapid urban growth in the developing world as the outcome of four trends. Firstly, the overall growth in urban population has not been reflected in a decline in the rural population. Secondly, and as a consequence of the first trend, urban population growth is principally the result of natural increase. Notwithstanding rural-urban migration's relatively smaller contribution to total population growth, the absolute numbers of persons involved are nonetheless substantial. Thirdly, because urban populations are growing faster than rural populations, significant rural-urban migration is also taking place. Fourthly, at the spatial level this increase in urban population is not evenly distributed.

To these four trends a number of scholars have added a fifth: that rural-urban

migration is taking place in spite of high rates of urban unemployment and underemployment (Oberai and Singh, 1983; Jamal and Weeks, 1988). Whatever the major forces behind these five trends are, the outcome is that the developing world will undergo a major demographic shift from its essentially rural nature to a predominantly urban character over the next quarter-century (Urban Foundation, 1993:3).

All of these trends, barring the claim that urban growth is primarily a result of natural increase, are reflected in a number of empirical studies conducted in the DFR (See Cross, et al. 1992a, b; 1993a, b, in press; Todes and Smit, 1993). That natural increase is the major contributor to urban growth is, however, by no means clear. Although population census figures put in-migration at only 21.6 per cent of the DFR's total population growth over the period 1980-1991 (Population Census Report, 03-01-02), these figures fail to take into account the natural increase of migrants. To assess the extent of its contribution to urban growth a brief examination of migration literature is in order.

At the theoretical level, arguments as to the primary causes of urban growth are divided into two distinct schools of thought. In broad agreement with the above four trends is the first school of thought, led by Davis (1965) and the United Nations (1980), which argue that the rapid growth of the developing world is indeed primarily due to natural increase rather than rural-urban migration. This view is however criticised by the second school of thought, led by Todaro (1979:11), which believes that such a view fails to recognise that the age selectivity of migrants is such that the recorded high natural increase is, in fact, largely attributable to the locational choice and high fertility of migrants.

Rogers (1982:504) contradicts both schools when he points out that there can be no simple unequivocal answer to the issue. Rather, at different periods during a country's urbanisation transition, urban population may grow primarily in response to net urban in-migration, or, at other times, as a result of urban natural increase.

Regardless of the strength of the arguments of the two schools, at the empirical level, the clear identification of causes of urban growth across developing countries is complicated by a number of factors which make generalisations difficult. Firstly, different dynamics apply in different cities and in different countries. Hence with migration rates being influenced by a host of factors, the combination of which may well be unique to each country, a full assessment of the causes and consequences of urbanisation and migration demands an in-depth study of the experience of each country (Goldstein, 1983:10).

A second consideration undermining any attempt to make generalisations is that the developing world includes a great diversity of countries with varying levels of development. As the United Nations (1980:33) explain

migration from the rural areas in developing countries appears to be closely related to the level and rate of economic development of a country, contrary to the chaotic and unstructured appearance that is sometimes suggested at a national level.

A third consideration is that different definitions exist as to what constitutes urban populations across countries. In developing countries, Clark, et al. (1983:3) found that there had been a fudging of the classical distinction between 'rural' and 'urban' as a result of processes such as urban agriculture or the 'urbanisation' of rural areas close to core areas.

In spite of the difficulty of determining the exact extent of rural-urban migration in the developing world it is possible to draw certain conclusions about the migration process itself. Specifically, migration in most areas of the world is fundamentally a reasonably stable process. As Nattrass (1976:4) puts it

individuals usually migrate with their families from one area to another, where they resettle and the wage earners seek new occupations.

Migrations of this type normally lead to a lengthy stay in the host area and, in many instances, to the permanent resettlements of the in-migrants.

There are exceptions, however. In Africa, stability has not characterised migration streams. Largely as a consequence of historical factors, migration has taken on a particularly unstable form. Migration streams are either oscillatory, where the migrants move back and forth between a rural and an urban home - Hobart Houghton (1960)'s 'men of two worlds'; or circulatory, where the typical migrant constantly relocates to take advantage of better opportunities at different locations within an urban area (Cross, et al. 1993c, in press:2).

South Africa, itself, typifies the unstable nature of migration. Mabin (1988, 1989), for example, argues that his analysis of rural, informal urban and 'semi-urban' households suggests that migratory patterns in South Africa are circular, in which the act of migration involves, and is determined by the maintenance of a variety of urban and rural bases. Cross, et al. (1993c, in press:60) go even further when they argue that the existing evidence of migration into the informal settlements of the DFR point to such a complex, differentiated process that neither circular nor oscillating migration can be readily discerned.

In contrast to the differing opinion as to the form that migration takes in South Africa, there is greater unanimity on the motivations behind migration. According to the findings of most studies it is the economic rationale for migration which primarily underlies the intention of the migrant to move (Nattrass, 1976; George, 1990). This is confirmed by most studies conducted worldwide. As Gilbert and Gugler (1992:66) note, the conclusion of a substantial body of research accumulated over the last three decades is overwhelmingly that most people migrate for economic reasons. Usually it is better prospects in the urban sector which are cited as the main motive for moving, and, more specifically, analyses of migration streams between regions which reflect a correspondence to income differentials between those regions (Schultz, 1980; Gilbert and Gugler, 1992).

The above issues as to the extent of rural-urban migration, the form and nature of that migration and the motivations behind migration are the fundamental issues addressed by this dissertation. It is argued however that black migration to and within the informal settlements of the DFR cannot be properly understood unless examined in terms of an appropriate theoretical framework. The view of the author is that the Todaro model provides such a framework.

For Todaro the decision to migrate is based largely on rational economic calculations by the potential migrant where migration is argued to proceed in response to rural-urban differences in expected rather than actual earnings. Expected earnings are the actual earnings that an individual can hope to attain discounted by his or her probability of securing formal employment. With this assumption Todaro could clearly explain why migration persisted in the face of open unemployment and underemployment in urban areas.

Using the Todaro model as a fundamental basis on which to analyse and understand migration, the central hypothesis of this dissertation is that black migration to and within the informal settlements of the DFR is a process whereby individuals migrate in the hope of securing high-paying formal urban employment. In accordance with Todaro's hypothesis it is argued that the underlying impetus behind the migrant's decision to move is a comparison of income levels at the area of origin with that at the intended destination, taking into account the probability of securing formal employment.

However, given the dearth of job opportunities it is argued that migration is unlikely to simply entail a one-step move from the rural sector to the urban sector and the attainment of formal sector employment. More likely, migration is a process which might involve a spell in the informal sector until the migrant is able to secure formal employment. This process approach undertaken by migrants is seen to be a function of many variables, inter alia, the availability of jobs, violence and the hospitality of the urban sector to the newly arrived migrants. All these factors serve either to inhibit or accelerate the migrant's chances of securing formal employment.

CONTENT OF THE DISSERTATION

The aim of this dissertation is to determine the relevance of the Todaro model of migration in explaining black migration to and within the DFR. The dissertation is divided into 5 chapters.

Chapter 1 introduces migration theory to the reader. It includes an analysis on the definition of migration, a brief examination of the various disciplinary approaches to the study of migration and a review of those migration theories which have greatly contributed to an understanding of the migration phenomenon. Each theory is critically examined in order to determine its contribution to today's comprehension of the migration phenomenon.

Chapter 2 provides a detailed analysis of the Todaro model of migration. Modifications and a critique of the model are also given.

Chapter 3 aims to equip the reader with an understanding of the impact that the institutional environment has had on black migration in South Africa. To achieve this goal, two investigations are needed. One, an examination of the institutional framework within which black migration to and within the DFR has taken place; and, two, an analysis of the nature that migration has taken.

Chapter 4 details the findings of two studies which form the empirical basis on which the hypotheses of this dissertation are tested. The two studies were those conducted by the Rural and Urban Studies Unit (RUSU) of the University of Natal in the informal settlements of the Durban Functional Region and by the KwaZulu Finance Corporation (KFC) in the rural areas of KwaZulu.

Chapter 5 concludes this dissertation by determining the relevance of the Todaro model in explaining black migration to and within the DFR.

The main conclusion of this dissertation is that the Todaro model has relevance in explaining black migration into the DFR. More specifically, it is the finding of this study that the explanatory variable of the Todaro model, i.e. income differentials discounted for the probability of securing employment, provides a clear incentive for rural-urban migration. This is complemented by qualitative information which confirms that migrants do in fact move to seek formal employment in the urban sector, although less so than was the case before 1986.

The Todaro model seemingly holds little relevance when it comes to explaining intra-urban migration within the informal settlements, however. Migration, it appears, is undertaken more as the result of a desire to avoid violence or to seek land to settle on, than the outcome of decision-making to find formal employment. Yet this fact is, in itself, insufficient to discount the relevance of the Todaro model. Recent intra-urban migrants are amongst the highest paid and employed of all informal settlement residents. In terms of the Todaro hypothesis these migrants have therefore largely achieved their goal of securing high-paying formal employment. Unfortunately, information to corroborate this conjecture was not available. In its absence the relevance of Todaro in explaining intra-urban migration must therefore remain unanswered.

The unavailability of pertinent qualitative data also leaves unanswered the claim that migration constitutes a process whereby individuals participate in informal sector activity until they are able to secure formal employment. This conclusion is arrived at despite the finding that significant numbers of migrants are involved in informal sector activity. What served to counterbalance this fact, however, was data which indicates that migrants do not use the informal sector as a "stepping stone" to formal sector employment. Nearly one third of job-seeking migrants who had moved directly from the rural areas to the urban areas since 1986 preferred to remain unemployed rather than find informal sector work.

CHAPTER 1: INTRODUCTION TO MIGRATION THEORY

1.1 Introduction

The formulation of migration theories is a questionable practice... However, it is the purpose of all science to develop increasingly broad theories which explain facts as they happen within any discipline (Bouvier, et al. 1976:24)

Theoretical explanations of rural-urban migration have a long history and go back at least to the 1880s with Ravenstein's 'laws of migration'. It was however not until the appearance of the Lewis model in 1954 that the process of rural-urban labour transfer was incorporated as an integral element in an economic model of development. With its focus on economic development, the Lewis-Fei-Ranis model was to become the received "general theory" of the development process in "labour surplus" developing countries through the late 1950's and 1960's (Todaro, 1976:21). Other models which were to have a great impact on the development of migration theory before the appearance of the Todaro model in 1969 were those of Sjaastad (1962) and Lee (1966). Both of these theories provided impetus to the study of migration and still remain the starting points for contemporary migration analysis.

The aim of this chapter is to construct a theoretical foundation to underpin the detailed analysis of the Todaro model provided in Chapter 3 and the empirical findings described in Chapter 5. Essentially, building this foundation demands an understanding of what exactly is meant by migration, an awareness of the different frameworks within which migration has been examined and a knowledge of the different theories that have contributed to today's understanding of the migration phenomenon. The aim of this chapter is therefore to provide an operational definition of migration which can be used in Chapter 5, a brief examination of the various disciplinary approaches to migration and a historical review of migration theory.

1.2 Definition of migration

In the form of a simple concept, Wood and White (1980:3) note that any definition of migration is straightforward whereas in operational terms it is likely to be both complex and only partial. Although it is possible to define migration simply as a permanent or semi-permanent change in residence, this designation places no restriction on the distance of the move, makes no distinction as to whether the move is voluntary or involuntary or whether it takes place within the borders of a country or between countries (Lee, 1966:49).

Operational definitions, explain Kosinski and Prothero (1975:1), demand that both temporal and locational criteria are more specifically defined. This is because of the need to exclude short-term visitors who are, according to Nelson (1975:722), not appropriately classified as migrants and to discount transitory and immediately reversed flows such as business journeys, holiday movements or pilgrimages (Wood and White, 1980:4).

Notwithstanding the distinction between the conceptual and operational definitions of migration, there are three elements common to all migrations - an area of origin which the mover leaves and where he is therefore counted as an out-migrant, an area of destination or place of in-migration, and a period over which migration is measured. For Speare (1983:21), one of the major sources of variation amongst migration studies is the units defined as the areas of origin and destination, where these can vary from neighbourhoods to national states.

In addition to the prerequisite of distinguishing between conceptual and operational definitions of migration, Wood and White (1980:3) highlight the need to draw a distinction between the concept of migration and mobility in any definitional analysis of migration. Whereas mobility encompasses all territorial movements, both temporary and permanent over various distances, migration is more narrow and involves a permanent change of residence (Kosinski and Prothero, 1975:1).

The above analysis illustrates that there is no one single operational definition of migration. In the absence of any universal definition of migration, one has to be constructed. For the purposes of this dissertation rural-urban migration is therefore defined as the permanent move from the rural areas of South Africa and its neighbouring states to the urban informal settlements of the Durban Functional Region (DFR) while intra-urban migration is any permanent move within the informal settlements of the DFR (As will be seen below, the empirical data upon which this dissertation is based suggests that most migration takes place within the boundaries of KwaZulu/Natal). Urban areas are defined as proclaimed towns, those built-up areas contained within the formal town boundaries and surrounding the Durban Central Business District and the immediate Pinetown conurbation as well as those peri-urban areas which have close links with urban sector (Graaf, 1987:47-48; Cross, et al. 1993c, in press:64). Rural areas are those areas with populations of less than 5000 people (Graaf, 1987:47-48).

1.3 Disciplinary approaches to the study of migration

Migration is a field of study of significance to many academic disciplines, including those of economics, sociology, psychology, demography, anthropology and history as well as geography. The relevance of migration to these disciplines is explained by Wood and White (1980:42), who see the task of all social sciences as being to

...explain diversity, whether it be economic well-being, in social or cultural structures...or in the spatial distribution of various forms of human organization or activity.

Notwithstanding its importance to most academic disciplines, the study of migration has traditionally been the preoccupation of sociologists more than of any other discipline (Bilsborrow, et al. 1984:14). Economists, it has been noted, for the most part preferred to ignore problems of internal migration and unemployment while operating within the confines of traditional neoclassical two-sector models, with their

automatic price adjustment mechanisms, allocative efficiency and full employment implications. This was lamentable given that a better understanding of rural-urban migration and its relationship to relative economic opportunities was central to any analysis of Third World employment problems.

Largely to blame for the failure of economists to broaden the scope of their studies was their emphasis on limited aspects of the migration phenomenon. Whereas sociologists adopted an eclectic approach to the study of migration, incorporating demographic, geographic, social-psychological, economic and attitudinal factors in their analysis, the economist largely focused on the explanations of individual choice behaviour, paying attention only to aggregate factors which influenced migration (Bilsborrow, et al. 1984:14). In some ways this restricted focus did have its advantages. Whereas the sociologists' approach was useful in that it provided a more comprehensive analysis of migration, its very eclecticism, highlights Goldstein (1976:423), prevented the development of a coherent theory of migration.

Todaro (1976:19) identified a further weakness of the sociologist's approach when he noted that by not specifying the inter-relationships between dependent and independent variables within the context of a rigorous theoretical framework most "non-economic" social science models offered little practical policy guidance for decision-makers in developing nations. In seeking practical policy guidance, one inevitably had to turn to the economist's formulation of the migration problem and to econometric methods for evaluating the quantitative significance of alternative explanatory variables. However, in retrospect this advantage appeared to Bilsborrow, et al. (1984:15) to have been exaggerated because of the exclusion of non-economic variables and the failure to analyse migration at the individual or household level - the level at which migration decisions are usually made.

In more recent times there has been an acknowledgement of the need to move towards a multi-disciplinary approach to the study of migration. The usual disciplinary boundaries, it has been noted, are too rigid and impede an understanding of the migration process. Reflecting this awareness is the increasing

likelihood of economists to draw on sociological information in reaching estimates of urban real incomes. Also, in terms of empirical economic analysis, detailed data is now being sought on household incomes in both urban and rural areas, meaning that information is being solicited on incomes and transfer payments by migrant status, occupation, employment status, education, age, sex etc - or, as Knight (1972:225) adds, by all the socio-economic characteristics which distinguish migrants and non-migrants.

Wood and White (1980:1) take the issue further when they argue the study of migration is not only multi-disciplinary but also, in its widest sense, inter-disciplinary. Kosinski and Prothero (1973:1) agree, believing that the development of migration studies owes much to interdisciplinary efforts, with it being impossible to draw distinct lines between the different contributions. Support for this view has also come from Bilsborrow, et al. (1984:21) who see the increasing focus of economists on micro-level analysis, the growing preoccupation of geographers on economic variables and the increasing interest of sociologists in questions of policy relevance as leading to greater recognition of the need for interdisciplinary approaches in the future.

Regardless from which ever academic discipline migration is examined, Wood and White (1980:1) believe that there is only a limited range of questions relevant in explaining migration, although the different disciplinary approaches are concerned with different questions. These questions are: why does migration occur?; who migrates?; what are the patterns of origins and destinations and of the flows between them?; what are the effects of migration on the communities of origin; and what are the effects of migration on the communities of destination?

Since migration is an important form of resource redistribution Wood and White (1980:1) see the economist as being interested in why people migrate and what are the effects of migration on the areas of origin and destination. Sociologists, on the other hand, are seen as only being interested in the latter questions since these deal with inter-relationships between the emigrant and his own or other social groups.

1.4 Historical review of migration theories

1.4.1 Ravenstein's 'laws of migration'

One pioneer to attempt a theoretical explanation for migration was Ravenstein (1885, 1889). Ravenstein used data from more than twenty countries to derive a set of 'laws of migration' which appeared to him to guide all migratory movements. These 'laws' were summarised in the form of six basic propositions.

Firstly, the migrant's choice of destination was regulated by distance, with the rate of migration between two points being inversely related to the distance between those points. Migrants who travel long distances, Ravenstein (1885:199) noted, generally go by preference to one of the great centres of commerce and industry.

Secondly, migration was seen to proceed by stages, with migrants from the rural areas tending to move first to nearby towns and then towards large cities. Although Ravenstein (1889:286) admitted that there arose exceptional wants as also exceptional opportunities

...under normal conditions the migratory movement will be a gradual one; it will proceed step by step, and will be transmitted from province to province.

Thirdly, each current of migration produced a compensating counter-current (Ravenstein, 1885:48). Although rural-urban migration may dominate the over-all "current" or stream of migration, there would always be a counterstream of reverse urban-rural migration so that the "net" migration between two points was always less than "gross" migration between these two points.

Fourthly, Ravenstein observed that there existed different propensities to migrate between urban and rural residents. In particular, urban residents were argued to be

less migratory than rural residents (Ravenstein, 1885:199). As a consequence, net internal migration streams normally have a rural-urban bias.

Fifthly, although a majority of short-journey migrants were females, it was males which comprised the majority of international migrants. Also, migrants were usually adults with families who rarely migrated over long distances.

Sixthly, migration increased with the improvement in transport and communications network and with any expansion of trade and industry. As Ravenstein (1889:288) pointed out

Wherever I was able to make a comparison I found that an increase in the means of locomotion and a development of manufactures and commerce have led to an increase of migration.

Lastly, and most importantly, was the predominance of the economic motive for migration. So explained Ravenstein (1889:286)

Bad or oppressive laws, heavy taxation...and even compulsion...all have produced and are still producing currents of migration, but none of these currents can compare in volume with that which arises from the desire inherent in most men to "better" themselves in material respects.

Critique of Ravenstein's 'laws of migration'

Ravenstein's work was, at the time of its publication, heralded as ground-breaking in that it represented the first attempt to describe migration in terms of the demographic, social, economic and geographic characteristics of the migration flow. Today, however, its shortcomings reduce it to but a minor role in any study of migration.

A major shortcoming, according to Wood and White (1980:35), was that the universality of Ravenstein's statements differed from 'law' to 'law'. Although most migrations do tend to occur over short distances, the length of the average migration has increased with the introduction of the car, ship, aeroplane, etc. (simply because the number of very-long distance moves increase markedly), and the volume of migration does therefore increase with the development of industry and commerce, the relationship is not linear but rather takes the form of an attenuated S-shaped curve over time.

Continuing with this criticism, Wood and White (1980:35) maintain that Ravenstein's emphasis on rural-urban migration is clearly specific to a period and place of rapid urbanization. As soon as two-thirds to three-quarters of a country's population were categorised as urban then migration changes to a predominantly urban-rural or intra-urban character.

Kubat (1976:10) takes the criticism of Ravenstein's 'laws' further, believing that the attempt by Ravenstein to formulate 'laws of migration' from 'the observed regularities of human migrations' simply produced idiographic statements depicting a life-cycle response to population pressures in the countryside. This was not to discount their importance, however

since an idiographic statement within a single cultural matrix does have the validity of a natural law and thus, by extension, is very useful for policy formulation.

Also at the fundamental level, Wood and White (1980:36) note that since Ravenstein's statements are inductive in origin they have a use which is restricted by the context in which they are made. However, this weakness, according to Wood and White (1980:36), is negated

by the general validity of certain of Ravenstein's observations being demonstrated from a consideration of why migration occurs at all

and the fact that many empirical studies continue to demonstrate the applicability of the 'laws' for societies as different as the Soviet Union and Malaysia.

Despite the criticisms which have been levelled against Ravenstein, Bilsborrow, et al. (1984:15) report that the basic 'laws of migration' have been systematised and expanded. They also note that the basic tenets of the 'model' such as the importance of the economic motive in the migration decision, the negative influence of distance and the existence of a process of step migration have been supported by empirical evidence. Overall, it has been acknowledged that Ravenstein's 'laws of migration' have been of great stimulus to researchers because, as White and Woods (1980:35-36) put it

they are simple and, on the face of it, eminently reasonable statements about migration streams, who migrates, where they come from and go to.

1.4.2 Lee's theory of migration

Lee (1966) built on Ravenstein's laws of migration in order to develop a general schematic framework for analysing the volume of migration, the development of "streams" and counterstreams" and the characteristics of migrants.

For Lee (1966:49) migration was defined simply as a permanent or semi-permanent change of residence, whereby every act of migration, no matter how short, easy or difficult, involved an origin, a destination and an intervening set of obstacles. In any decision to migrate the individual was assumed to take into account a number of factors, which could be summarised into four categories. They are the factors associated with the area of origin, those associated with the destination region, the intervening obstacles and personal factors.

In every area it was assumed that there operated countless factors which served to hold people to the area, to make them indifferent to the area or to repel them away from that area. Diagrammatically, these are shown as +, 0 and - signs in Figure 1.4.2. The sets of neutral, attractive and repellant factors are defined differently at both the origin and destination for different individuals. For example, whereas an educational programme might be seen as attractive to someone who does not have an education it usually is seen as neutral for someone that does, or as even negative in the case where local school taxes are levied on all residents of an area.

Although these sets of factors are differently defined for each potential migrant, it was nevertheless possible to distinguish general sets of factors towards which most individuals tend to react in the same way. For example higher wages, more job opportunities and better amenities are generally attractive to all people.

The objective for Lee was to identify all factors which impact upon the decision-making process and then to quantify their influences on different classes of people. Before this could be achieved it first had to be realised that there were important differences between the factors associated with the areas of origin and destination. One such difference was that people residing in their areas of origin possessed better knowledge of the precise outcome of origin factors than they did for those in their potential destination. Also, coupled with the fact that knowledge of the area of destination was seldom accurate was the added problem that some of the advantages and disadvantages of the destination area could only be perceived by those living there. Consequently, uncertainty, expectations and risks become an important element in the migration process, as do the "perceptions" of destination factors.

Although origin and destination factors adjusted for different personality traits went some way towards providing an explanation for migration, Lee noted that they are not sufficient. What was needed was the introduction of the concept of intervening obstacles between all origin and destination points. Intervening obstacles were

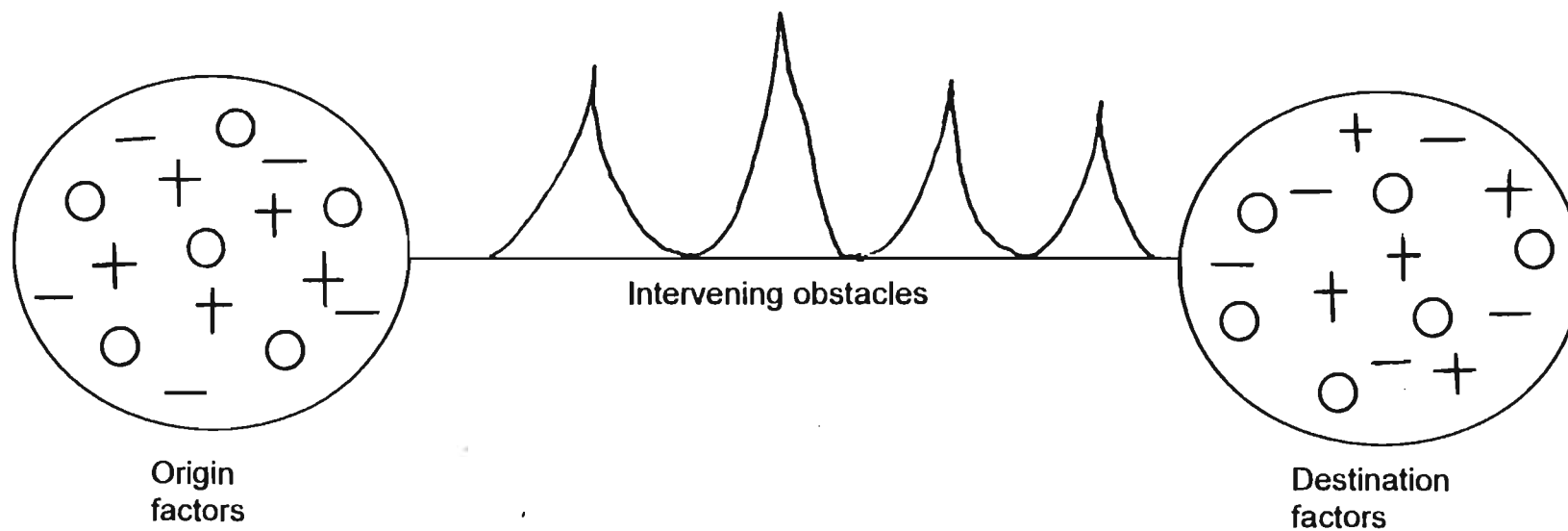


Figure 1.4.2. Origin and Destination Factors and Intervening Obstacles in Migration.

Source: Lee (1966:50).

those obstacles which limited migration to individuals with the ability to surmount them. Although some obstacles, such as distance and transport costs, are easily overcome, others such as control over population movements and restrictive immigration laws could prove insurmountable. As with the origin and destination factors, the intervening obstacles tended to have differing influences on different individuals. What may be a minor obstacle to one potential migrant may in fact be a major obstacle for another.

In addition to the origin and destination factors and intervening obstacles, Lee believed that there are also personal factors which affect individual thresholds and serve to either assist or impede migration. Lee stressed that it is not so much the actual factors at origin and destination but the perception of these factors which leads to migration. Personal sensitivities, intelligence and awareness of conditions elsewhere are all assumed to enter into the evaluation of the situation at origin and knowledge of the area of destination depends on personal contacts or on sources of information which are not universally available.

This conceptualisation of migration as involving a set of origin and destination, a set of intervening and a series of personal factors provided for Lee a framework within which it was possible for him to formulate a series of hypotheses about the volume of migration, the development of stream and counterstream and the characteristics of migrants (Lee, 1966:52).

The volume of migration in a given territory was hypothesized as varying directly with the degree of diversity of areas included in that area. It is also assumed to vary directly with the diversity of people and inversely with the difficulty of surmounting the intervening obstacles. In the absence of curbs on migration, both the volume and rates of migration were assumed to increase over time.

In regard to streams and counterstreams, Lee postulated that migration tended to occur within well defined streams. Also, for every stream there was a counterstream. One reason for this was that migrants often discovered that their

perceptions did not accord with reality. A further hypothesis was that the magnitude of the net stream (i.e. stream minus counterstream) was directly related to the preponderance of minus factors at origin.

In terms of the migrants themselves, migration was assumed to be selective process with different migrants responding to different stimuli. Also, migrants responding to the "attractive" factors of the destination area tended to be positively selected, while those responding to repellant factors of the origin area were negatively selected. Furthermore, the degree of positive selection was assumed to increase with the difficulty of the intervening obstacles.

Critique of Lee's theory of migration

A major achievement of the Lee model of migration was that it provided what could be described as the most attractive and concise "general", non-rigorous framework for analysing the internal migration process (Todaro, 1976:15). With this framework, inform Kosinski and Prothero (1975:10), Lee helped refocus the study of migration from its purely descriptive emphasis to an analytical approach.

Other scholars are more guarded about the achievements of the Lee model. By defining migration very broadly, Bouvier, et al. (1976:25) felt that Lee derived self-evident propositions and merely deduced a number of conclusions with regard to the volume of migration, the development of streams and counterstreams and the characteristics of migration. Todaro (1976:19) perceived that the merits of Lee's framework were overshadowed by its limited value for policy analysis. And, Chang (1981:308) regarded the failure to specify the functional relationships of the different factors as limiting the practical use of the model.

Todaro (1976:19) also criticised Lee's 'model' on the grounds that no mention was made as to the quantitative importance of different factors to different groups of people, no attempt was made to assess the constraining strength of intervening

obstacles, and no insight was given into the possible "trade-offs" between conflicting factors nor the range of possible migration responses to alternatives in the magnitude and/or the sign of the different factors.

Bilsborrow, et al. (1984:16) served to deflect much of this criticism when he cautioned that Lee's 'model' should not be seen as a theory as such but a conceptual framework for classifying factors in the decision to migrate. Viewed in this light, Lee's framework helped the migration scholar to identify which factors to consider in any analysis of migration and how to view each factor (Chang, 1981:308).

Despite the above criticisms, Lee's theory is nonetheless seen by many theorists as being of great importance in any study of migration. As Bilsborrow, et al. (1984:16) point out, Lee's approach is incorporated in a broad range studies, particularly those which deal with migrant selectivity and push-pull factors. Also, note Chang (1981:308), quite a substantial number of studies at the micro-level have been indirectly inspired by Lee's conception of intervening factors.

1.4.3 The Lewis model of economic development

The Lewis model is based on a concept of dual economy comprising a subsistence, agricultural sector and a modern industrial sector, where development is the outcome of the reallocation of surplus workers between the two sectors. Hence, migration is viewed as essentially an equilibrating mechanism which, by transferring labour from labour-surplus to labour-deficit areas, eventually brings about equality between the agricultural and industrial sectors.

An important caveat was provided by Lewis when he noted that while his analysis assumed the availability of surplus labour, this could not be taken as a universal condition. Consequently, the model was confined to those countries whose

population were so large, in relation to capital and natural resources, that there existed large sectors of the economy where the marginal productivity of labour was negligible, zero or negative (Lewis, 1954:141).

In the Lewis model the majority of unproductive labour force was to be found in the agricultural sector, where part of the labour force could be withdrawn without a reduction in total output - or, as Arrighi (1970:197) put it - without causing a reduction greater than the amount of means of subsistence customarily allocated to them. This assumption of surplus labour in agriculture, inform Johnston and Mellor (1961:568), was contingent on the fact that in densely populated countries a considerable proportion of the rural labour force may provide an increment to production less than the requirements for its own subsistence.

The price of labour in labour surplus economies is assumed by Lewis to be a wage at the subsistence level. Since the model operates within the classical framework, the supply of labour is "unlimited" so long as the supply of labour at this price exceeds the demand (Lewis, 1954:142). Consequently, it is possible to develop new industries or expand on old industries without limit at the existing wage.

Whereas the subsistence, agriculture sector is assumed to be characterised by disguised unemployment, the capitalist sector is typified by full employment. The capitalist sector is defined as that part of the economy which makes use of reproducible capital and where capitalists reinvest the full amount of their profit. In the subsistence sector, where the marginal productivity of labour is very low, near zero or even negative, workers are paid a wage that equals the cost of their subsistence. In the capitalist sector, on the other hand, wages are maintained at a much higher level than the average agriculture wage in order to compensate for the higher costs of living in urban areas and for the psychic and monetary costs of migration.

The Lewis model assumes further that it is possible to subdivide both the capitalist and subsistence sector. During the early stages of development there exists in the

modern sector a few highly capitalized industries which are surrounded by "masses of old style traders"; and, likewise, in the agricultural sector, "few highly capitalized plantations surrounded by a sea of peasants" (Lewis, 1954:147). During this early stage of development, capital and technology are highly concentrated in a few points from which they spread outwards. Although the capitalised sector can be subdivided it nevertheless remains a single unit due to the effect that competition has in tending to equalise the earnings on capital.

Lewis accepted the flow of capital in an underdeveloped economy was very weak, and that knowledge is one of the scarcest goods. A consequence of knowledge being a scarce commodity was a "lopsided" economy characterised by sectors which suffer both from excessive and scarce investment. As Lewis (1954:148) reported

one therefore finds heavily developed patches of the economy surrounded by economic darkness

In regard to the determination of the wage level, Lewis argued that the wage rate in the capitalist sector is based on the average productivity of workers in the subsistence sector, with a 30 per cent premium added on. This premium is dictated by trade union pressure, social views on minimum subsistence, other institutional forces, the need to compensate the migrant for the higher cost of living in the capitalist sector and to cover the psychological cost of reorienting towards urban life. As Arrighi (1970:197-198) elaborates

Since productivity in the capitalist sector is postulated to be sufficiently high to make the payment of the wage rate consistent with the rate of profit that employers expect in order to undertake production, the capitalist sector is argued to enjoy 'unlimited' supplies of labour in the sense that, at that level of wages, practically everybody in the subsistence sector is prepared to enter into wage employment.

In the Lewis model migration from the subsistence sector leads to an increase in industrial production. This in turn improves the capitalist's profits, and as a result of the reinvestment of profits into the sector, leads to further increases in the demand for labour from the subsistence sector. As these profits are reinvested the marginal productivity curve of labour in industry is shifted outwards and a greater amount of labour is employed. This process continues so long as the reserve army of disguised unemployed, whose supply to the urban industrial sector is assumed to be elastic at the given urban wage, exists in the subsistence sector.

It could continue indefinitely if the population growth rate in the rural sector equals or exceeds the rate of exodus of the rural labour force through migration. On the other hand, it would come to an end eventually if the rate of expansion of demand for labour overtook the rural population growth.

Lewis maintained that once all the surplus labour had been absorbed or, alternatively, if the domestic terms of trade turned against the agricultural sector, capitalists would turn to the international market. By either exporting their profits to areas where a labour surplus exists or by importing that labour surplus, the demand for domestic labour would be reduced with the effect of keeping down the wage rate. The industrial capitalist sector would thus continue to expand and, in time, this development would transform the subsistence sector into a fully fledged capitalist sector.

Critique of the Lewis model

Notwithstanding its relevance in the explaining the economic development of the industrialised world, many scholars have found the Lewis model inappropriate for analysing the causes and consequences of migration in Third World countries (Balan, 1981:53). An examination of the processes at work in the industrialised world, it is argued, reveal that economic development was accompanied by a continuous transfer of economic activity and people from the rural to urban sector,

with new urban opportunities being created and technological progress in agriculture having the effect of reducing the demand for labour in the rural sector. This has not been the case in the undeveloped world, where massive rural-urban migration has led to growing levels of unemployment and underemployment.

For this criticism to be valid it would have to be proved that the development experience of the Third World did not merely point to it undergoing its process of development at a much later stage than that of the industrialised world. As Gaude and Peek (1976:329) point out, unemployment rates in Third World countries are comparable to those during the early stages of economic development of the industrialised countries. This suggests that the development patterns of the two groups of countries were indeed similar.

Largely undermining this view, however, is the total absence of certain crucial aspects of the model from the development experience of the underdeveloped world. As Knight (1978:93) explains, most underdeveloped economies

...face rapid growth of population and labour force, a modern sector accounting for only a minority of employment, and low rates of modern sector growth. Even when modern sector growth is rapid, growth of labour productivity retards the growth of modern sector employment.

Additionally, available data seemed to indicate that the proportion of the labour force engaged in the traditional sector has not substantially declined and that the absolute number of workers residually absorbed into the traditional sector is increasing.

The basis for much criticism of the Lewis model was that many of its assumptions were at variance with reality. Probably the most serious shortcoming was its assumption that "surplus" labour existed in rural areas whereas full employment prevailed in the urban areas. In fact, evidence in less developed countries pointed to the contrary: high levels of unemployment and underemployment in urban areas

but little general surplus labour in rural locations (Todaro, 1976:24). Largely to blame for this, explains Balan (1981:53), was the inability of industrial progress to sufficiently absorb migration and natural population growth of the industrial sector, with the consequence that the net effect of migration has been to transfer unemployment and underemployment from the rural to the urban sector.

A second assumption at variance with reality was the notion of near-zero marginal productivity in agriculture. Evidence seemed to Balan (1981:53) to indicate that the allocation of labour is normally optimal and that a withdrawal of labour would therefore lead to a fall in production unless the yield increasing innovations are simultaneously introduced.

Yet another key assumption of the Lewis model in conflict with reality was the idea that real wages were constant until the point where the supply of rural surplus labour is depleted (Todaro, 1976:25). Reynolds (1969:93) believed that there was no a priori reason to expect real earnings in agriculture to remain constant rather than fall or rise. On the contrary, notes Todaro (1976:25), there has been the propensity for wages to rise significantly over time, both in absolute terms and relative to average rural incomes, even in the face of rising levels of open unemployment. The reasons for this were social and political. Constant wage rates, explains Reynolds (1969:95), would widen profit margins continuously and would prove unacceptable in the political climate of most less developed countries.

Further criticisms of the Lewis model's assumptions are provided by Stavrou (1987:251), who sees the Lewis model as implicitly assuming constant or increasing returns to scale in the industrial sector, which if ceased to exist would end the transfer of surplus labour from the subsistence sector. This assumption ignored the reality that modern capitalist enclaves in the developing world were more likely to encounter diminishing returns which would serve to stem the flow of surplus labour.

In regard to Lewis's assumptions about the transfer of labour from rural to the urban areas, it seemed clear to Ranis and Fei (1961:534) that the agricultural sector would

itself need to grow if the equilibrating mechanism were "not to grind to a premature halt". The sheer size of the agricultural sector as the only major existing industry in many underdeveloped countries underlined its importance as a source of capital for economic growth. When that sector was in fact a casualty of the dynamics of growth the importance and difficulty of the problem of capital accumulation in an underdeveloped country was underscored (Johnston and Mellor, 1961:576-577).

Lewis was also criticised for paying little attention to the effects of scientific and technological progress as a separate factor in the development in both sectors. Scientific and technological progress, it has been noted, impacts upon capital/labour ratios in both sectors, and in so doing, influences the terms of trade to the benefit or the detriment of each sector.

Balan (1981:53) makes a crucial point when he notes that rapid urbanisation is today less correlated with the progress of the industrialized sector than with the low productivity 'informal sector. Migration thus cannot be seen as the transfer of rural surplus labour to more productive employment in the city.

When one considered the above criticisms, it appeared to Todaro (1989:73) that the Lewis-Fei-Ranis model offered limited analytical and policy guidance for understanding Third World employment and migration problems. This was not to depreciate the historic and analytical significance of Lewis' contribution or to devalue his identification of the critical issues of the structural and economic differences between the rural and urban sectors, and the pivotal role played by the process of labour transfer which linked them together.

1.4.4 Sjaastad's human investment theory

Migration research, noted Sjaastad (1962:80), had neglected to determine the influence of migration as an equilibrating mechanism in a developing economy. Although the importance of wage differentials as a determinant of migration was well

recognised, this, according to Kelly and Williamson (1984:29-30)

...hardly justifies the extreme but common assumption in general equilibrium literature that wages are in fact equalized by the process of migration. In fact nominal wage equalization is not observed in the Third World...although the lion's share of the observed nominal wage gaps could be attributed to skill and cost-of-living differences.

The central purpose of Sjaastad's (1962) paper was therefore to develop the "concepts" and "tools" with which to analyse whether migratory flows could efficiently correct income disparities as they emerged (Sjaastad, 1962:80). Thus by viewing migration as a mechanism to promote efficient resource allocation and a phenomenon which demanded resources, Sjaastad placed his model firmly in a resource allocation framework. Within such a framework the primary objective was to determine the return to investment which arose from migration.

Sjaastad saw migration as posing two questions for the economist. The first dealt with the direction and magnitude of the response of migrants to income differentials over space. The second related to how effectively migration brought about an equalisation of inter-regional earnings of comparable labour. Studies which considered the first question, noted Sjaastad (1962:82), centred on net migration between different geographical areas. Usually a correlation between income or earnings and migration was discovered, with high earnings being associated with net in-migration and low earnings with net out-migration. However, many qualifications were made and the observed relationship was usually small and weak.

The use of either net or gross migration as a mechanism for removing income differentials was dependent on the nature of earnings in specific regions. Where low earnings typified all or most industries in a particular area, net out-migration was required. Such migration should result in an increase in the wage rate relative to the case where out-migration is absent.

Yet, in the situation where some industries in an area pay higher wages than elsewhere, and where it was difficult for unqualified workers who leave the low-wage industries to become qualified for employment in high-wage industries, in-migration should also occur. This diversification among high - and low-wage industries would almost certainly weaken the expected relationship between average earnings levels and net migration, even though low average earnings could be expected to lead to net out-migration.

Sjaastad (1962:83) believed that while studies of net migration had partially revealed the workings of the labour market, all that was said was that net migration took place in the expected direction. What was needed was further research on the effectiveness of migration as an equilibrating mechanism. Several approaches could be taken. A basic approach would be to contrast gross migration rates with variations in earnings over time. Such an approach, while requiring numerous compositional corrections, would nevertheless leave the question unanswered as to the level of equalization which should result from a given amount of migration. What is more, further changes in the economic forces which originally generated the earnings differentials could counter any impact of migration.

Analytically, a preferable alternative for Sjaastad was to view the problem strictly as one of resource allocation. This required that migration be treated as an investment which improved the productivity of human resources. By treating migration in such a manner, a measure was created to test the effectiveness of migration as a mechanism to reduce earnings differentials over space. This measure was, itself, the rate of return on resources allocated to migration. Although such an approach demanded the identification and measurement of the costs as well as the returns to migration, it did provide for a meaningful comparison between migration and other mechanisms for promoting a better resource allocation.

In terms of this further step, the private costs of migration could be classified into pecuniary and non-pecuniary costs. The money costs were the "out-of-pocket"

expenses of movement, which included expenditure on food, lodging and the costs of transportation. The non-money costs, on the other hand, involved those earnings forgone in changing jobs and all other "psychic" costs incurred in switching environment.

Sjaastad argued that since money costs included only expenditure incurred in act of migrating, the magnitude of these costs could not account for the large earnings differentials which had been reported in surveys. Non-money considerations involved in migration were more significant and probably of greater importance than money costs. As regards these considerations, part of the earnings forgone in changing jobs were a function of the distance of migration. Also, the time needed to secure a new job was influenced by the level of unemployment.

Psychic costs were assumed to be a second form of non-money costs, were more difficult to quantify and were defined in terms of the reluctance of individuals to leave familiar surroundings, family and friends behind in their decision to migrate. Sjaastad held the view that psychic costs should be treated differently from the other costs of migration since they did not represent real resource costs whereas the other costs did.

Psychic costs were rather of the nature of lost consumer (or producer) surplus on the part of the migrant. Given the earnings levels at all other places, there existed a minimum earning level at the migrant's place of residence which made him indifferent as to whether to migrate or not. For any higher earnings at his place of residence, the individual collected a surplus in the sense that part of his earnings could be taxed away and that taxation would deter him from migrating. The maximum amount that could be taken away without leading to migration was the value of the surplus.

As regards returns to migration, money returns for the individual consisted of a positive or negative increment to his real earnings stream which arose from movement to another place. Such an increment could come from a change in

nominal earnings, a change in the costs of employment, a change in prices, or a combination of all three. This broad definition was designed to encompass both the returns resulting from earnings differentials between areas and returns accruing to the migrant as a consumer. These returns were net gains and a non-money component, which could be either positive or negative, was assumed to reflect the individual's preference for one place as against another. An additional assumption was the existence of pure consumption, whereby the return to pure consumption was regarded as the satisfaction or dissatisfaction the migrant acquired in the course of his travel.

As with psychic costs of migration, the non-money returns arising from migration could equally be ignored since they represented consumption which had a zero cost of production. In terms of the money returns to migration, Sjaastad (1962:87) warned that

...it is not sufficient simply to compare labour earnings over space and assume that any observed differences arise from disequilibrium in the labour market.

As previous research indicated, occupational composition explained a significant portion of earnings differentials among different regions. Furthermore, factors such as age and sex determined earnings within an occupation. However, as Sjaastad (1962:87) explained

assuming occupational, age and sex to be the important compositional variables affecting earnings, first estimates of the return to migration is the difference in earnings within occupations, ages, and sexes, and between places.

These estimates would however be underestimates since they did not consider possible disequilibrium between as well as within occupations and because a change in occupation may necessitate migration. Thus a more appropriate option

for the migrant may be among rather than within occupations.

In the case where occupational upgrading led to an improvement in migration returns, the estimation of the return to migration was far more complex. In this case the human capital concept was relevant, whereby migration, training and experience were investments in the human agent. Concomitant with such an approach was the view that such investments are subject to depreciation and deterioration from both a physical and economic point of view.

The profitability of additional investment by the migrant was assumed by Sjaastad to depend on the age of the individual. While the youth would typically have made a substantial investment in formal education, only small investment could be expected in training and experience. For older people the opposite was true. Basically, the younger the individual the longer his life expectancy and the higher the present value of returns to additional investment.

As a consequence of the age-income relation within an occupation being at least partially due to accumulated experience, older individuals entering a given occupation even after minimal training could expect to secure lower earnings than other individuals of a similar age yet well experienced in that occupation. This provided the answer as to why comparisons across occupational group but within age groups resulted in an exaggerated rate of return to migration alone. In this case the return is ascribed to both the migration investment and the investment in on-the-job training, as well as costs of pre-employment training. The return to migration itself was preceded by an explanation of the age-earnings relation in order that earnings reflecting equal experience could be compared.

One consequence of the conclusion that additional investment was needed to make migration worthwhile was that doubt was cast on the idea that comparisons could be made of earnings levels and if discovered, the conclusion that migration could not lead to an efficient allocation of labour resources. As Sjaastad (1962:88) explained

It is clearly possible that the migration mechanism could be working extremely well in the sense that the marginal return to additional migration is not "high", but that substantial differentials in earnings may persist.

The inability of migration to bring about an efficient allocation of resources so that "comparable factors" received comparable returns was rather due to the fact that factors could not in fact be compared since they had different occupational histories.

The costs and benefits of migration were not confined to migrants alone. Migration typically involved costs and rewards to non-migrants as well as migrants. Although divergences between social costs and returns which arose from externalities were difficult to deal with analytically, the same could not be said for those that result from market imperfections and institutional factors. Sjaastad was interested in latter. According to the Sjaastad analysis of the private costs and returns of migration voluntary migration was placed in the general framework of a competitive economy satisfying the minimal requirements permitting an optimal allocation of resources (Sjaastad, 1962:91). Further features were that wages could be freely determined and there should be no barriers to labour and the other inputs mobility. However, the fact that wages were freely determined and equalled marginal product could not prevent the market structure from causing private returns to differ from social returns. For example differences in the relation between wages and retained earnings in different areas would cause such an occurrence.

Criticisms of Sjaastad's Human Investment Theory

Oberai and Singh (1983:27-28) found it puzzling that while Sjaastad incorporated monetary and as well as non-monetary costs and benefits in determining net returns to migration he included only money costs and non-psychic benefits in his calculations. They noted also that Sjaastad assumed that in deciding to migrate, individuals tend to maximise their net real life-span incomes and have an idea of

what their life-span income streams would be in the present place of residence as well as in the destination area and of the costs involved in migration. This assumed that the individual was assured of a high-paying job on arrival in the destination region, which was not the case in developing countries where high urban unemployment rates meant that the migrant had to include in his decision to migrate an assessment of the chances of obtaining an urban sector job. It was left up to Todaro to take the probability of securing employment into account in a theoretical framework.

Providing support for Sjaastad's model was Bowles (1970:361) who saw the human investment approach to migration as believable on both common-sense grounds (since it is founded on a plausible behavioural model) and at an empirical level. In his study of net migration out of the United States South, Bowles found that the pattern of geographical mobility of workers could be seen as the outcome of decision-making made within a general investment framework. In particular, net out-migration rates correlated with those population subgroups which stood to benefit from moving.

1.5 Summary

This chapter aimed to provide a theoretical foundation to underpin the detailed analysis of the Todaro model and the empirical findings which follow. Since no one single definition of migration existed owing to the complexity of the phenomenon, one had to be constructed. Rural-urban migration was defined as the permanent move from the rural areas of South Africa and its neighbouring states to the urban informal settlements of the Durban Functional Region (DFR) while intra-urban migration was any permanent move made within the informal settlements of the DFR.

The brief examination of the various disciplinary approaches to the study of migration indicated that migration is a field of study of significance to many academic disciplines. After examining the merits of adopting different disciplinary

approaches to the migration, it was concluded that migration is a phenomenon requiring multi-disciplinary, or, according to some scholars, inter-disciplinary study.

The historical review of migration theories included that of Ravenstein (1885, 1889), who, it was noted, derived a set of 'laws of migration' which were summarised in the form of six basic propositions. A short critique of Ravenstein's 'laws of migration' disclosed however that their universality varied from 'law' to 'law' and that Ravenstein's emphasis on rural-urban migration was specific to a period and place of rapid urbanization.

Lee (1966), building on Ravenstein's work, developed a general schematic framework into which a variety of spatial movements could be placed. A critique of Lee's schema reflected differing views as to its relevance, amongst them the belief that Lee provided an appealing and concise "general", non-rigorous framework for analysing internal migration and others which argued that Lee derived self-evident propositions and merely deduced a number of conclusions.

The Lewis (1954) model of economic development, on the other hand, was based on a concept of a dual economy comprising a subsistence, agricultural sector and a modern industrial sector, where development is the outcome of a reallocation of surplus workers between these two sectors. Migration, itself, was essentially an equilibrating mechanism which would eventually bring about equality between these two sectors. The basis for much criticism of the Lewis model was that many of its assumptions were at variance with reality.

Sjaastad (1962), in contrast, presented a human investment theory of migration where the decision to migrate represented an investment decision involving both monetary and non-monetary costs and returns distributed over time. Criticism of Sjaastad's theory related to its inconsistent treatment of costs and benefits and the failure to include in the migration decision an assessment of the chances of obtaining an urban sector job.

CHAPTER 2: THE TODARO MODEL OF MIGRATION

2.1 Introduction

Before the appearance of the Todaro model in 1969, internal migration was viewed by policy-makers in the developing world in a favourable light. Migration, as portrayed by the Lewis (1954) model, was the equilibrating mechanism which transferred surplus workers from the agricultural sector to the growing urban centres of labour demand. This attitude however changed in the late 1960s, when it became evident that rural-urban migration, far from bringing about growth and employment, exceeded rates of job creation and greatly surpassed the capacity of both industry and urban social services to absorb this labour effectively. Nowhere were these conditions more apparent than in post-independence Africa, where widening rural-urban income gaps coupled with nascent efforts at industrialisation greatly accelerated the urbanisation process (Lecaillon and Germidis, 1976:28).

Hence from being seen as a beneficial process to solve problems of growing urban labour demand in the 1950s, migration was viewed in the late 1960s as the major contributing factor to the ubiquitous phenomenon of urban surplus labour. This transformation in opinion greatly undermined the validity of the Lewis model and created a "gap" in migration theory which Todaro attempted to fill by developing a model of migration which aimed to explain the paradox of accelerated rural-urban migration in the face of growing urban unemployment (Todaro, 1976:364).

This chapter provides a descriptive exposition of the Todaro model of migration and the modified Harris-Todaro (1970) model. A detailed critique of both models is also attempted. For the purposes of this chapter the sources accessed were those of Todaro's 1969 article and later papers where they have aided in an understanding of the model.

2.2 The Todaro model of migration

The basic Todaro (1969) model was formulated for two reasons. Firstly, to provide an economic behavioral model of rural-urban migration which, in Todaro's opinion, realistically modified and extended the simple wage differential approach (Todaro, 1969:138-139). This was achieved through the acceptance that urban unemployment and underemployment affected the migrant's chances of finding an urban job. It was this "probability" of securing formal employment which acted as the equilibrating mechanism on urban unemployment rates.

Secondly, to incorporate this probabilistic approach into a model of the determinants of urban labour demand and supply in order to estimate the equilibrium proportion of the urban labour force that remained unabsorbed by the modern industrial economy. A further aim of the model was to provide a handy framework to assess the implications of alternative policies devised to tackle unemployment.

The basic Todaro model started from that assumption that rural-urban migration was essentially an economic phenomenon, which for the individual migrant was a rational decision despite high levels of unemployment in the urban sector. The decision to migrate was a outcome of privately rational economic calculations of relative benefits and costs, of which most were financial in nature although some were also psychological. A schematic framework which shows the various factors impacting upon the decision to migrate is shown in Fig 2.2.

The basic behavioral assumption which underpinned the Todaro model was that migration took place on the basis of an implicit, "expected" income maximisation objective. In accordance with this assumption the individual migrant was argued to choose from the various labour-market opportunities that existed between the rural and urban sectors the one opportunity which maximised his "expected" gains from migration. The decision to migrate thus occurred in response to urban-rural differences in the "expected" rather than actual earnings (Todaro, 1989:278).

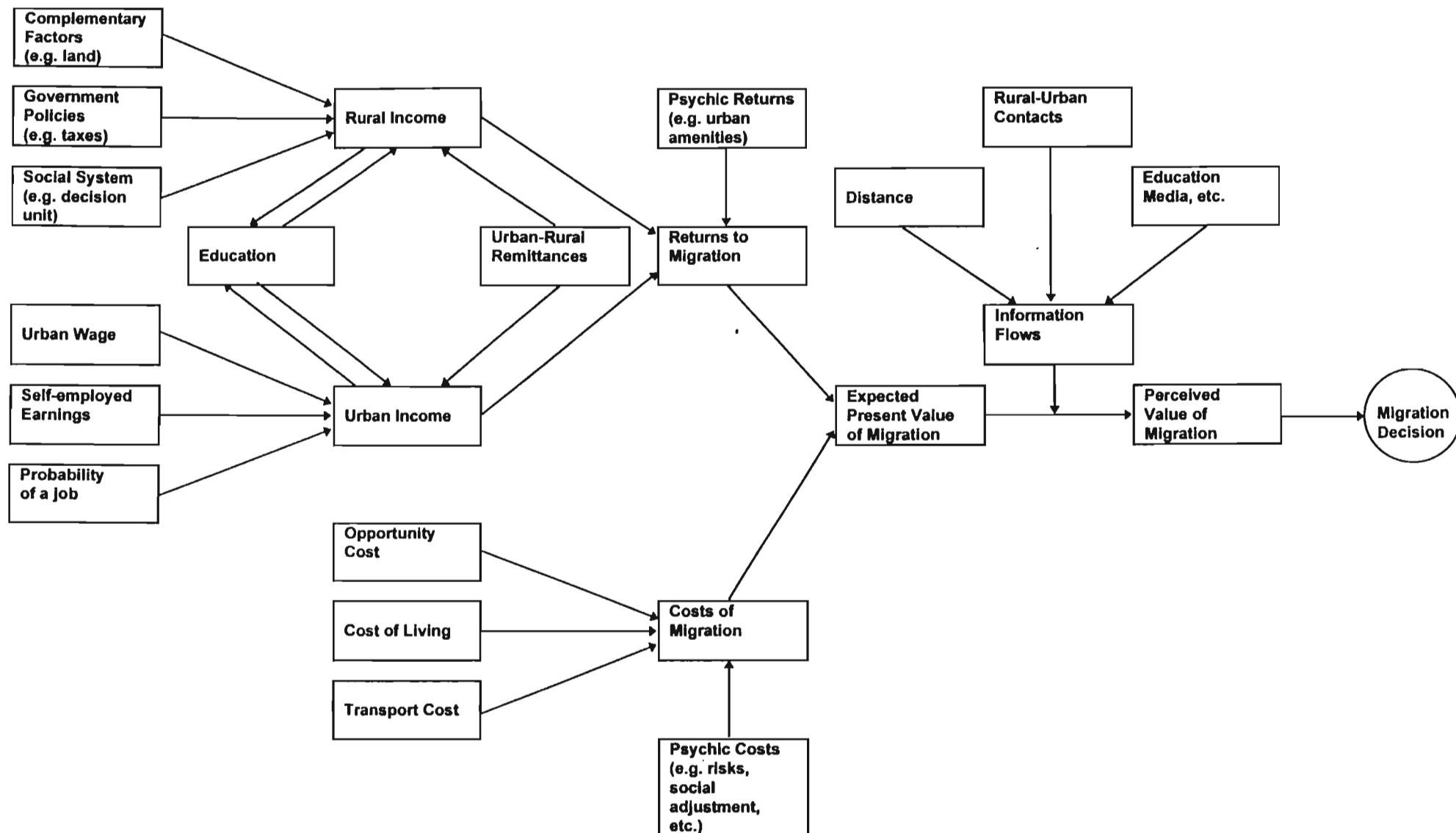


Fig. 2.2. **A Framework for the Analysis of the Decision to Migrate.**

Source: Todaro (1980:366)

In essence, therefore, Todaro assumed that members of the labour force, both actual and potential, compared their "expected" incomes for a given time horizon in the urban sector with the prevailing average rural incomes and migrated if the former exceeds the latter. Todaro (1989:279) illustrates this choice with the following example

Suppose the average unskilled or semi-skilled rural worker has a choice between being a farm labourer (or working his own land) for an annual real income of, say, 50 units or migrating to the city where a worker with his skill or educational background can obtain wage employment yielding an annual real income of 100 units.

Todaro notes that in this case the typical labour transfer model would predict that migration would occur since it placed exclusive emphasis on the urban-rural income differential as the determinant of the decision to migrate and little or no attention to possibility that the migrant would actually secure formal employment in the city. Explaining the failure of these models to take into account the probability of the potential migrant actually finding formal employment was the fact that these models were developed largely in the context of advanced industrial economies where full or near-full employment in urban areas was common.

Within the labour transfer model framework it could be expected that modern sector entrants would be "absorbed" into the gainfully employed at the prevailing urban real wage (Todaro, 1969:139). The decision to migrate could therefore be predicated solely on securing the highest-paying job whenever it becomes available, all other factors held constant. Migration would then lead to a reduction in wage differentials both in areas of out-migration where they rise and in-migration where they fall.

It was clear to Todaro that such an analysis was unrealistic in developing countries, where surplus urban labour existed, and where recent in-migrants could not expect to secure high-paying jobs upon arrival in the urban areas. In fact, it was more likely that upon entering the urban labour market many migrants would either become

totally unemployed or would seek casual part-time employment in the urban traditional sector. As a consequence, the rural-urban migrant in effect balanced the probabilities and risks of being unemployed or underemployed in the city for a certain period of time against the favourable urban real wage differential. As Todaro (1989:280) explains

The fact that a typical migrant can expect to earn twice the annual real income in an urban area than in a rural environment may be of little consequence if the actual probability of his securing the higher paying job within, say, one-year period is one chance in five. Thus the actual probability of his being successful...is 20 per cent and therefore his expected urban income for the one year period is in fact 20 units and not the 100 units that an urban worker in a full employment environment would expect to receive.

Taking into account the more likely probability that the migrant would not secure a formal sector job on arrival in the urban sector, the decision to migrate must then be based on a "permanent income" calculation, which is explained as follows. If initially the migrant envisioned a low probability of securing a formal job but expected this probability to improve with time, the decision to migrate would still be rational even though expected urban income during the initial period or periods could be lower than expected rural income. In fact, it is economically justified as long as the present value of the net stream of expected urban income over the migrant's planning horizon exceeded that of the expected rural income. In making this assumption, the underlying behavioral model was therefore formulated more in the spirit of permanent income theories than wage differential theories (Todaro, 1976:40).

Distinguishing the Todaro model from the competitive model was its assumption that it was the migration process itself which acted as an equilibrating force between urban and rural incomes and not wage adjustments. With urban wages assumed to be inflexible downward, rural and urban "expected" incomes could be equalized

only by falling urban job probabilities which resulted from increased urban unemployment. In defining expected urban income in terms of both wages and employment probabilities, it was not only possible but likely to have continued migration in spite of high levels of urban unemployment (Todaro, 1976:367).

2.3 Modifications of the basic Todaro model

2.3.1 The Harris-Todaro model

In their 1970 paper Harris and Todaro modified the basic Todaro (1969) model in order to introduce elements of reality into Todaro's depiction of the migration process which were either assumed away or not taken explicitly into account. Although modifications were made, the basic features of the Todaro model remained intact.

Harris and Todaro "utilized" and extended the basic framework of the 1969 model in order to provide a two-sector internal trade model of migration and employment which paid attention to the impact of migration on rural incomes, urban and rural output and total social welfare. Unlike the earlier Todaro model which was exclusively concerned with the formulation of a positive theory of urban unemployment in developing countries, the Harris-Todaro model attempted to examine the migration process in context of aggregate and intersectoral welfare considerations. More specifically, it was concerned with addressing the welfare needs of the rural sector and the broader issues of economic policy.

Although the Harris-Todaro model made important assumptions in contravention with the neo-classical determination of prices and wages, it nevertheless represented a simple extension of traditional two-sector neoclassical trade models. Consequently, the model assumed variable proportions agricultural and manufacturing production technologies for the rural and urban sectors, neoclassical behavioral rules for the determination of levels of factor use and output in each sector, and a traditional trade-theory mechanism for determining the terms of trade between agricultural and

manufactured goods.

Importantly, however, the Harris-Todaro (1970) model differed from both the Lewis (1954) and Jorgenson (1961) models in that it departed from the original two-sector model of rural-urban and overall economic growth by accepting the existence of a politically and institutionally determined minimum urban wage, at levels substantially higher than agricultural earnings (Harris and Todaro, 1970:126). On a more fundamental level, therefore, the Harris and Todaro model represented a divergence from the full employment, flexible wage price models of economic behaviour. Increases in real wages were therefore less the result of market forces than of economically irrational factors, such as strong trade unions and government policies to gain working-class support (Horowitz, 1974:670).

The Harris-Todaro model was formulated for four reasons. Firstly, to illustrate that in the presence of a high politically-determined minimum wage, continued rural-urban migration is economically rational despite high levels of urban unemployment. Secondly, to show that welfare improvement does not necessarily emanate from the economists's standard prescription of creating urban jobs through the use of "shadow prices", implemented through wage subsidies or direct government hiring. Thirdly, to measure the welfare considerations of different policies associated with various back-to-the-land programs when it is accepted that full wage flexibility is politically unworkable. In this regard, Harris and Todaro (1970:127) saw the need to place special focus on the impact of migration on the welfare of the rural sector as a whole which necessitated intersectoral compensation requirements. Fourthly, to show that without flexible wages, an optimal policy would include both partial wage subsidies (or direct government employment) and proposals to contain unchecked migration.

The Harris-Todaro model incorporated a permanent urban and a rural sector, which were distinguished from the viewpoint of production and incomes. Accordingly, it was assumed that the rural sector specialised in the production of agricultural goods, part of which were traded to the urban sector in return for manufactured

goods. This sector had the option of using all available labour to produce agricultural goods, some of which were traded for urban manufactured goods, or using only part of its labour to produce food while "exporting", the remaining labour to the urban sector, through migration, in return for wages paid in the form of manufactured goods.

Harris and Todaro therefore assumed that the typical migrant retained his ties to the rural sector. What is more, the income that the migrant earned was considered, from a sectoral welfare standpoint, to accrue to the rural sector. This assumption, notes Todaro (1980:372), was more specific to most African countries than to the continents of Asia or Latin America, where migrant ties to the rural sector were weaker.

These assumptions about intersectoral linkages, although needed to assess the welfare and distributional consequences of migration, were nonetheless superfluous in demonstrating the private rationality of continued migration in the face of rising urban unemployment. The crucial assumption for this proposition was the hypothesis that rural-urban migration would occur so long as the "expected" urban real income at the margin exceeded real agricultural product.

For analytical purposes, Harris and Todaro assumed further that the total urban labour force comprised of a permanent urban proletariat, which lacks rural ties, and the available supply of rural migrants. A periodic random job selection process existed whenever job seekers exceed the number of available. Consequently, the urban wage was defined as equal to the fixed minimum wage, expressed in terms of manufactured goods, multiplied by the proportion of the urban labour force actually employed. To complete the model, the producers in both sectors were assumed to engage in competitive behaviour and the price of the agricultural, defined in terms of manufactured goods, was assumed to be determined directly by the relative quantity of the two goods produced.

The Harris-Todaro model had important implications for development policy.

Although the standard policy prescription to the problem of an institutionally determined wage that is higher than the equilibrium level was to hire labour at a shadow wage and/or grant a payroll subsidy to private firms that equated private costs with the shadow wage, there was, Harris and Todaro (1970:132) noted, the problem of setting that wage. That is not all, however. Additionally, there were also the ramifications of such a scheme when the institutional wage would continue to be paid to the employed. The Harris and Todaro model is argued by its authors to shed light on these two issues.

The appropriate shadow wage in the static framework was the opportunity cost of labour hired by the industrial sector. In such a framework, the hiring of labour until its marginal product in industry was equated with the shadow wage as well as the marginal product in agriculture, would result in the marginal productivity of labour being equal in both sectors and, in so doing, satisfy a necessary condition for an optimal allocation of resources.

Such a condition assumed a positive marginal product in agriculture and sufficient factor mobility to ensure the full employment of labour. Since there existed urban unemployment, however, it could be said that a pool of labour could be tapped without reducing output. The appropriate shadow wage for urban labour was therefore likely to be lower than the marginal product in agriculture, this being so even though agricultural labour was fully employed at peak seasons. Such would be the case if the urban and rural labour forces were separate non-competing groups.

The essence of the Harris-Todaro model was however that the industrial and agricultural sectors are connected through the process of labour migration. Thus if additional jobs were created in the industrial sector at the minimum wage the expected wage would rise and rural-urban migration would ensue. In this case the opportunity cost of an industrial worker would exceed the marginal product of an agricultural worker. Thus, in the Harris-Todaro model, by paying the minimum wage to additional industrial workers rural-urban migration would ensue. Consequently,

by implementing an employment policy based on a shadow-wage, a significant impact would be made on the level of agricultural output and on urban unemployment.

While the theory of shadow pricing suggested that with an appropriate wage subsidy the optimum position on the production possibilities frontier of the economy could be achieved, in the context of Harris-Todaro model this was unattainable. Although the implementation of a shadow wage policy would be to increase production of the manufactured good, the creation of an additional job at the minimum wage would induce additional migration. In so doing agricultural output would fall.

From the model it was clear that the more responsive migration is to industrial employment, the higher was the social cost of industrialization and the smaller was the optimal amount of subsidy. Although the creation of an additional job in the urban sector led to a reduction in agricultural output through induced migration, additional employment could be generated in the agricultural sector without reducing manufacturing output.

Because the Harris-Todaro model implied different opportunity costs of labour for the two sectors, whereby the creation of an additional job in the urban area led to a reduction in agricultural output through induced migration while additional employment was generated in the agricultural sector without a reduction in manufacturing output, Harris and Todaro argued that if this phenomenon is not taken into account, investment was likely to favour urban projects.

With the alternative policy of dealing with urban unemployment by restricting migration from the rural areas, the aggregate welfare of the economy would be improved provided "lump-sum" compensation was made. Substantial compensation to the rural sector was needed if it was not to be adversely affected by eliminating the opportunity for free migration. In the case of migration restriction the permanent urban labour force could find themselves better off by being fully employed at the high minimum wage while also paying less for food.

The additional earnings of each unit of labour exported by the rural sector would however be offset by lower total labour exports and lower agricultural prices (as a result of greater production of the agricultural good). Whether this in fact took place depended on the specific parameters of the economy. If the price elasticity of demand for the agricultural good was sufficiently high, the rural sector could be made better off by restricting migration in the absence of compensation, although as Harris and Todaro (1970:137) noted, this seemed very unlikely.

Although the Harris-Todaro model showed that either a limited wage-subsidy or a migration-restriction policy could improve welfare, it was clear that neither policy was capable of moving the economy to its optimum position achieved with competitive wage determination. The wage level policy option was unable to rectify the situation since the wage determined both the level of employment in the industrial sector and the allocation of labour between the urban and rural sectors. While a subsidy altered the effective wage for determination of industrial employment, there would be migration and unemployment as long as the wages actually accruing to workers exceeded agricultural earnings.

Although the restriction of rural-urban migration prevented the minimum wage from having its effect on unemployment, it did not lead to an increase in industrial employment. It therefore followed that if the optimum position was to be achieved a combination of both instruments was needed. In order to reach that optimum point a wage subsidy was needed such that industrial employment would increase to the extent that with full employment the marginal product of labour would be equal in both agriculture and manufacturing. The subsidy itself would be positive and equal to the difference between the minimum wage and marginal productivity. In this case individuals would still benefit from migration, yet the point would not be attainable unless migration was restricted.

2.4 A critique of the Todaro model

It has been widely acknowledged amongst migration scholars that Todaro provided an invaluable contribution to an understanding of migration in less developing countries. That contribution, in essence, was to clearly explain - through the assumption that migrants do not respond to actual earnings differentials but to expected earnings differentials - why migration persisted in the face of open unemployment and underemployment in urban areas. Though simple, this hypothesis marked an important advance on the mechanism of labour transfer assumed by the Lewis and other labour transfer models.

Probably the most significant achievement of the Todaro model was its contribution to a reexamination of strategies aimed at alleviating chronic urban unemployment in the developing world. Willis (1976:395), in particular, believed that it was Todaro's model which was responsible for the transformation in official attitudes towards the desirability of rural-to-urban migration and policies aimed at creating urban job opportunities. Arguing from a different ideological perspective, Peek (1975:67) acknowledged that it was Todaro's arguments which led to the conviction that unchecked migration was inimical to capitalist expansion. The benefits of a cheap supply of urban labour, the Todaro model highlighted, were too easily outweighed by the costs of an increasingly expensive urban infrastructure and by the political threat of growing unemployment.

Todaro's contribution to migration theory is however best explained by Fields (1980:390) who noted that before the appearance of the Todaro model, a widely held view was that urban unemployment in poor countries could be effectively dealt with by state efforts to create more urban jobs. The achievement of Todaro was to show the futility of this kind of strategy, which would merely serve to accelerate rural-to-urban migration and exacerbate rather than ameliorate urban unemployment. As Todaro, himself, explained (1969:147)

As long as the urban income differential continued to rise

sufficiently fast to offset any sustained increase in the rate of job creation, then, even in spite of the long-run stabilizing effect of a lower probability of successfully finding modern sector employment, the lure of relatively higher permanent incomes will continue to attract a steady stream of migrants into the urban sector.

For Todaro, the answer to solving urban unemployment lay in rural development - a strategy which Fields (1980:390) noted is now widely accepted.

Notwithstanding its theoretical justification for contemporary government policies, the Todaro model has increasingly come in for criticism. Objections to the model can be grouped into three broad areas: Radical school opposition to the Neoclassical foundations on which the Todaro model was based; criticism of the model's assumptions and the mis-specification of variables; and, disapproval of Todaro's analysis of African labour markets. The following critique of the Todaro model will examine each of these three areas of criticism in turn and will attempt to determine their validity.

2.4.1 Radical school criticisms of the Todaro model

The study of migration has essentially been conducted from two theoretical perspectives: the Modernisation or Neoclassical school of thought, on the one hand; and the Radical or Dependency school of thought, on the other. The former see underdevelopment as emanating from poor resource allocation due to incorrect pricing policies and excessive state intervention by Third World governments, whereas the latter see underdevelopment in terms of international and domestic power relationships, institutional and structural economic rigidities and a resulting proliferation of dual economies and dual societies both within and among nations (Todaro, 1989:63,83).

Also, whereas the Neoclassical theorists see the path of development as delivering countries into a state of relative equality in the distribution of wealth after a period

of inequality, the Radical theorists foresee that inequality would be maintained since such conditions were in fact needed for capitalist expansion (Theron and Graaff, 1987:2).

Before examining the merits of the Radical criticisms of Todaro model and the neoclassical framework to which it belongs, it should be remembered that both schools of thought view the process of development from entirely different perspectives. From a Popperian point of view it is therefore not logically possible to either prove or falsify either, or, as a consequence, to choose between them (Theron and Graaff, 1987:1).

Migration, for the Radical theorists, does not occur in response to differentials in real or expected income levels, as postulated by Todaro, but as a result of economic and political forces appropriating the means of production (Peek, 1975:64). As Dewar, et al. (1982:4) highlight, Radical theorists find it

impossible to see the form and causes of migration independently of its spatial and historical context or of the specific form of capital accumulation and the broader class struggle occurring between social classes and between different factions within social classes.

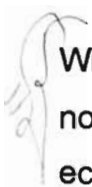
At a spatial level, the core-periphery model is used to explain the exploitative relations which are assumed to exist between core and periphery areas and which give rise to migration. Unequal relations between the core and periphery arise out of a process of underdevelopment at the periphery, which provides the 'mechanism' for generating migration (Haarhoff, 1984:55).

For Amin (1974:93) migration is, however, not just the result of unequal development but also a factor in causing unequal development, reproducing the same conditions and contributing to their aggravation. A consequence of therefore being unable to separate the causes of migration from their consequences was to render the evaluation of the effects of migration in terms of 'cost-benefits' analysis 'deceptive'.

Todaro (1980:363) - while obviously in disagreement with the Radical critique of his model - was nonetheless in broad agreement with their opinion of migration an element in unequal development when he argued that migration in excess of new job opportunities was both a symptom of - and a factor contributing to - Third World underdevelopment. Fields (1980:393) believed, however, that this was by no means certain. Whereas the former certainly held true, the same could not be said for the latter. Evidence was both speculative and inconclusive.

More intrinsically, Amin (1974:91) saw the weaknesses of the Todaro model as attributable to its 'functionalist' method of approach. For Amin, the fact that the functions that men fulfilled depended on the 'system' and changed to adapt to the needs of the 'system', made it necessary from the outset to analyse the 'system', determine its rules and needs before examining how men conform to it. Hence, by the 'functionalist method' taking as its point of departure the scrutiny of motivations, Amin (1974:91-92) believes that

it is precluded from seeing the essential facts which lie behind individual motivations. The method obliges one to stay within the framework of the system, because people base their decisions...on the reality of the limited alternatives that the system offers them.



With limited choices available to the migrant the crucial consideration, was therefore not the evidence of the divergence of potential incomes, but changes in the socio-economic organization of the rural sector which precipitated migration. A comparative cost-benefit analysis, conducted at the micro-level of the migrant, had no significance, and in fact only gave the appearance of objective rationality to a 'choice' of the migrant which in fact did not exist.

This view was however challenged by Theron and Graaff (1987:16) who see it as seriously underestimating the knowledgeability and power of individual actors. Not only is there considerable space for decision-making, but it must be regarded as

rational decision-making. Rationality, as Chan (1981:312) notes, simply means that individuals act consistently to achieve a set of objectives within the limits of a given socio-cultural framework.

Even were one to take Amin's argument that migration can be reduced to "push" and "pull" effects, this still leaves the question of definition unanswered. As Theron and Graaff (1987:26) enquire

At which point are circumstances so desperate that no choices remain but to migrate?...And for which reasons would migration then occur before that point has been reached? Is migration the only survival tactic open to rural dwellers?

For the neoclassicist, these questions can be answered. Since the decision to migrate is based on rationality the individual seeks to increase his utility or welfare subject to the socio-economic constraints he faces. As a consequence migration is the choice of the destination where the differences between benefits and costs are the greatest.

Yet, the Radical school would counter that such conventional treatment of the migration decision is purely tautological, with the Todaro model with its expected income hypothesis, in particular, being a good example of this tautology (Amin, 1974:90; Peek, 1975:64). As Amin (1974:90) explained

Assuming that the individuals are situated in a defined temporal horizon which constitutes the framework of their calculations and that they have a sense of future depreciations, which permits them to compare future costs and benefits, Todaro believes that the behaviour of potential migrants can be predicted. But the model does not teach us anything we know. It is evident that the migrants, being rational, would be heading towards the areas where they have a better chance of success.

With the central thesis of the model being based on the neo-classical premise of utility maximisation, the Todaro's thesis is therefore implied in the axiom on which it is based and is therefore rendered tautological (Peek, 1975:64). In fact, as Godfrey (1973:77) notes, the probabilistic framework's definition of the decision-maker as an "economic man" is an even narrower concept, for not only does the individual act consistently at different points in time, but also maximises the discounted present value of all income streams, irrespective of factors other than income which might affect his welfare. Although these criticisms are largely directed at the basic Todaro model, it is interesting to note Berry's (1987:209) views that the extended Harris-Todaro model provided an interpretation of labour market functioning substantially different from the neoclassical model, which under some circumstances, implied that urban job creation exacerbated unemployment and was economically inefficient.

A consequence of the fundamental weaknesses of neoclassical approach, according to Amin (1974:90), was that the Todaro's model had explanatory power only if two conditions were present. Firstly, the cause of migration which Todaro considered and attempted to quantify was in fact the basic cause; and, secondly, the ascertained differences of income were independent of the migration itself and that they exist a priori (because of 'natural' distribution of unequal 'factors'). With this fundamental weaknesses taken into account, the Todaro model was therefore limited to determining the concomitance of the three phenomena of a divergence of urban-rural incomes, urban unemployment and rural-urban migration. But even then it still could not be presumed that migration was a consequence of the divergence of urban-rural income taken into account the probability of finding a job. Nor, for that matter, could it be argued that unemployment was the end result of the level of urban remuneration.

Theron and Graaff (1987:15) however see the Todaro model as largely unaffected by Radical criticism since it operated on a different level to that of Radical theory. Whereas radical theory operated at the macro-level - where only general statements are made about the migration process and where an indirect attempt is made to

understand the decision to migrate (Oberai and Bilsborrow, 1984:20) - Todaro was concerned with individual decision-making. Notwithstanding these differences, Theron and Graaff (1987:15) believe that the Todaro model is quite compatible with Radical theory and can be accommodated within that framework.

2.4.2 Criticisms of Todaro's assumptions

Criticisms of the Todaro model's assumptions can be grouped into four broad categories: the view that many assumptions are at variance with reality and that insufficient attention has been paid to others, the exclusion of important variables and mis-specification of others. This section will examine important criticisms from each of these four categories and then attempt to determine their validity.

In his 1969 model Todaro extended and modified the simple wage-differential approach to fit emerging evidence from the Third World. Yet, the idea that migration proceeds in response to income differentials has been criticised as being simplistic. Not only does this explanation of migration underplay other non-economic variables (Oberai and Singh, 1983:29), it rarely took account of economic differentiation among urban and rural populations, which Jamal and Weeks (1988:272) note, was the key to making it relevant to migration. By abstracting from the structural aspects of the economy, moreover, these models fail to identify that income differentials are not the cause of migration but a symptom of rural-urban disparities associated with an inequitable allocation of resources, inequalitarian land ownership system and inappropriate technology (Oberai and Singh, 1983:29).

This latter point is taken up by Bilsborrow, et al. (1984:17) who see the need to draw a distinction between the broad socio-economic structural factors and the specific mechanisms, such as unemployment and wage differentials, through which structural factors operate. In drawing this distinction, it is possible to throw light on the role that development policies and socio-economic factors play as the underlying determinants of shifts in population distribution.

Todaro's premise that it is the individual rather than the family which comprises the migration decision-making unit in the developing world has also attracted widespread attention. In the real world Gilbert and Gugler (1982:54) note that:

Potential migrants do not weigh their decision in isolation, rather, they are members of groups, such as family, local community, classmates, which involve patterns of behaviour which are modified over time as experience dictates. Even when individuals migrate alone, others are involved in implementing the move, in adapting to the urban environment, and in securing a foothold in the urban economy.

This view was corroborated by Dasgupta (1982:5) who discovered that the decision to migrate is often part of a family strategy to diversify and supplement family earnings, with migration typically financed from the family fund. Fundamentally, since migration by the individual could be the outcome of rational optimising behaviour by other family members, the focus of migration research therefore shifts from the premise of individual independence to mutual interdependence (Stark, 1991:3)

The Todaro assumption that a periodic random job selection process takes place whenever the number of available jobs is exceeded by the number of job seekers has come in for much criticism. In accordance with this assumption Todaro accepted that all urban jobs are reallocated on a periodic and random basis, and that the recently arrived migrant has the wherewithal to survive until he was able to secure formal employment (Gugler, 1976:193). In reality it has been argued that the access to jobs which become available vary, not according to some random process, but according to education and training, work experience, urban experience, sex, age, ethnic group and/or religion. Taking this reality into account, Gugler (1976:194) suggests that a more relevant measure would be the ratio of jobs which become available over a given period of time to the number of job seekers.

In assuming that a job lottery took place, Willis (1980:397) notes that Todaro in essence believed that no economic or political actor had managed to gain sufficient control of the disposition of rights to modern sector jobs to be able to capture the profits from such rights. While it was indeed rare to find organised markets in job rights, other job allocations mechanisms such as nepotism, bribery, union entry fees were commonly found in less developed countries.

A further criticism of the Todaro model was that inadequate attention had been paid to assumptions which were integral to the model. Willis (1980:396) believed that Todaro paid little attention to the empirical validity and theoretical justification of the two crucial assumptions of an exogenous (or downwardly rigid) modern sector and probabilistic job rationing which were responsible for the conclusion that privately rational decisions to migrate produced social losses through urban unemployment or underemployment. In particular, while Todaro argued that real urban wages were inflexible downward in the Third World, no proof was provided of this. Nor did Todaro detail the sources of wage rigidity or specify the industries or skill categories for which rigidity held. Willis, while not questioning the validity of rigid wages, simply felt that the empirical test of the Todaro model and discussions of its policy implications could have benefitted substantially from a more careful and precise consideration of these issues.

Todaro has also been criticised for not explicitly taking into account the question of risk avoidance. Even given that the Todaro hypothesis offered a long-planning-horizon explanation, Stark (1991:39) notes that

the higher short-run variability in earnings as a source of direct disutility and the way variability in alternative rural earnings and in future urban earnings must figure in migrants' calculations is beyond the grasp of the expected-income hypothesis.

While this might indeed be the case, de Jong and Fawcett (1981:26) warn that risk taking as a personality characteristic should not be conceptualised as a motive for

migration, but instead could facilitate the actualising of economic returns and social mobility through the migration process.

Whichever way risk taking was conceptualised, Stark and Levhari (1982) showed that risk avoidance is a major explanatory variable in rural-urban migration decisions. This applied equally when the decision-making unit was the individual or the family. For the individual, entry into the high-paying sector was risky in that employment was not assured. Seeking work in the informal sector also had its risk which was the unstableness of employment due to fluctuating economic conditions. Nonetheless, after the high initial risk period, the risks of achieving formal employment did diminish over time and were probably relatively lower than that associated with agricultural production.

In addition to the above criticisms the Todaro model has come under fire for excluding other variables, in particular the important variable of educational change. This seemed to be all the more inexplicable in the light of the consistent finding of a positive correlation between educational attainment and migration. Typical of this was Barnum and Sabot's (1977:110) observation that educational selectivity was a frequently observed characteristic of migrant streams and, in Africa, had been linked to the growth of chronic urban unemployment.

In defence of the Todaro model, while it is true that a number of these criticisms are clearly valid, in no way did they detract from the fundamental contribution that the model provided to an understanding of migration in less developed countries. In regards to the first criticism - that it is simplistic to view migration simply in terms of income differentials - the usefulness of models which explain migration in such terms have been corroborated by the substantial body of research which show that migration does corresponded to income differentials between regions (Beals, et al., 1967; Sahota, 1968; Gilbert and Gugler, 1992). Furthermore, both the sophisticated models of Fields (1982) and Schultz (1982) have lent support to this hypothesis. In his study, Fields (1982:558) found that migration patterns in Colombia were consistent with the view that migration were the result of large rural-urban income

differentials. For Venezuela, Schultz found that the same conclusion held across all four educational groups studied, although the migration responsiveness towards the differentials did vary.

Despite the empirical validity of income differentials as a determinant of migration, the criticism remains that migration should not be examined solely in such terms and that additional variables need to be taken into account. Yet, as Stark (1991:87) cautions, it is one thing to argue for the inclusion of new variables, such as 'relative deprivation', and quite another to actually incorporate them into a testable framework. When an old approach such as 'relative deprivation' was applied to a new field of study such as migration the findings could only be exploratory and illustrative.

Notwithstanding the merits of explaining migration in terms of income differentials, there is doubt as to whether the Todaro model can in fact be classed as an 'income differential' model after all. Certainly, with its assumptions of an institutionally determined wage in manufacturing the implications of the modified Harris-Todaro model differed considerably from the orthodox wage differential model on whose basis Corden and Findlay (1975:59) note the arguments for subsidising labour in manufacturing or using the shadow wage below the actual wage were developed.

Bilsborrow, et al. (1984:17) go further in distancing the Todaro model from the 'income differential approach', believing the Todaro model to be basically an extension of the human capital approach of Sjaastad (1962), where the decision to migrate is seen as an investment decision involving an evaluation of the individual's expected costs and returns expected to accrue from migration over time. More revealing, however, was Todaro's (1976:140) admission that with the individual's migration decision being based on a "permanent income" calculation, the underlying behavioral model was formulated more in the spirit of permanent income theories than wage differential theories.

Nonetheless, in any strict interpretation the Todaro model is seen to belong to the

"income differential" class of models. But even then there are qualifications. Although Todaro did place primary emphasis on the economic motivations for migration, he did not neglect non-economic factors. Both economic and non-economic factors were seen to underlie the decision to migrate (Todaro, 1973:43).

The issue as to whether it is the individual or the family unit which migrates is important not only in determining the validity of the Todaro model but also in terms of its implications for empirical analysis. At a conceptual level, DaVanzo (1981:112) outlines the possibilities when migration is undertaken by the family. In the case where the family moves together, a family member's migration decision would be motivated by the expected returns and costs to the whole family, rather than just to the member, who could have otherwise made a different decision. In reality, however, migration is less clearly defined. As Jamal and Weeks (1988:289-290) explain

When it is realised that it is not the whole family that moves but rather the adult male children, the migration equation becomes...not a comparison of average incomes but of marginal incomes - the net addition to family income from the adult son working in town versus his working on the farm.

Available evidence suggests that even this assumption is presumptuous. The supply price of labour has been found to vary according to numerous factors, amongst them the nature of returns to labour, work conditions on the farm, the motivation under which production is undertaken and how the product is ultimately distributed. As Knight (1972:205) explains

in conditions of constant returns to labour on the farm, marginal product equals average product (and therefore income) per worker, which - being greater than average income per head - is therefore (the migrants') supply price. If the migrant is the only worker in the family, his marginal product is equal to total farm income, which is

therefore his supply price.

Even then this holds only under conditions where income is maximised and shared equally. In the case where sons and daughters receive less than the average family income per capita the supply price is less than income per capita. And if the migrant is concerned only with maximising his own income, his supply price is equal to the share of income he would receive if he remained on the farm, irrespective of his contribution to production. The implication here is that the use of the household as the unit of analysis should not alter the findings provided that, as Knight (1972:205-206) argues, an appropriate supply price of labour is used.

Providing support for Todaro's assumption that the urban labour market approximated a lottery were Gilbert and Gugler (1982:57) who noted that such an assumption was perfectly justifiable in the context of Tropical African countries during the 1950s and 1960s. In a period of transition, explain these authors, the hiring process within a major skill category may be quite haphazard, approaching the nature of a lottery, which was the case for unskilled labour in Tropical Africa around the time of independence. In retrospect, however, Gilbert and Gugler (1992:58) did admit that the development of such hiring practices occurred in extraordinary conditions. Usually labour turnover in the Third World was low, job creation slow, and recruitment anything but random. Soon after independence the situation in Tropical Africa came to increasingly reflect this pattern.

At the theoretical level, the question as to the nature of urban labour markets has, in the years following the appearance of the Todaro model, received much attention. A generally accepted view of rural-urban migration is that urban markets are fragmented, with different categories of people enjoying differential access to earning opportunities. Access to employment is seen as less the result of a random process than as a consequence of education and training, patronage and gender.

Although it can indeed be argued that the assumption of complete information is unrealistic, Oberai and Singh (1983)'s last criticism is partly countered by the

findings of numerous studies which confirm that as a result of undertaking previous visits to the city, potential migrants are in large measure able to make informed decisions on whether to migrate or not. As Gilbert and Gugler (1982:54) explain:

Many villagers have opportunities to listen to the accounts of migrants who return briefly or to stay. Some visit kin or friends in the city before making the move. They thus have a measure of information about urban conditions before making a decision.

In regard to the contention that he excluded a specific educational variable in his original model, Todaro argued in his 1971 paper that education could be incorporated into his framework without defining it as a separate variable on the grounds that the propensity to migrate, the average urban income earned by a migrant and the probability of securing urban formal employment are all higher, the higher the level of educational achievement. Whether this sufficed or not, cautioned Godfrey (1973:71), depended on whether education had an impact on migration quite apart from its influence on expected income. If true, then Todaro's correlation failed to explain changes in the rate of migration over time.

Although Todaro (1980:387) suggests that education did exert a non-economic independent effect by altering the individual's overall utility function, this could not be said with any degree of certainty. For Godfrey (1973:70-71), on the other hand, such a direct relationship between education and migration existed only if the so-called 'white collar hypothesis' held true. According to this hypothesis educated people migrated because they have been taught to despise their rural environment and to aspire towards urban white-collar jobs. Yet, in rejecting this hypothesis, this still did not entitle one to conclude that education had an influence on migration decisions only via its effect on expected earnings and the chance of getting a modern sector job. As Godfrey (1973:71) explains

If this were so, educational expansion would have little effect on the volume of migration but would primarily affect its composition -

leading to an increase in the proportion of educated to total migrants. The fact of having been to school may, indeed, be more important than what is taught there, as far as the school's influence on migration is concerned. Attitudes are shaped primarily outside not inside schools, and the explosive increase in private demand for education in most African countries may be largely due to economic aspirations.

Beals, et al. (1967:486) found no evidence to suggest that education led to migration except in so far as it increased income potential and lessened the individual's aversion to cultural and social adjustments. Knight (1972:224) confirmed this finding, arguing that evidence, although inconclusive, suggested that education improved the individual's economic benefit from migration, enhancing both the probability of finding urban sector employment and the earnings which would accrue. However, taking into account the strength of differing opinions, one is forced to conclude, as Barnum and Sabot (1977:110) did, that the impact of education's influence on the decision to migrate remained open to question.

2.4.3 Criticisms of Todaro's analysis of labour markets in Less Developed Countries

A third area in which the Todaro model has come under fire is its explanation of labour markets in Less Developed Countries (LDCs). Three broad criticisms have been levelled against the Todaro model. Firstly, it has been argued that Todaro's assumption of open unemployment was not a valid analytical concept in the context of African countries. Secondly, the model was inadequate in that it failed to explain the functioning of labour markets in LDCs. Thirdly, the model failed to distinguish between the wage structure in the modern urban sector and that of the informal sector, or indeed, explicitly took this latter sector into account. Each of these criticisms are examined in turn.

Todaro's basic model and its extensions viewed the labour market in LDCs as

distributed between a relatively small modern sector and a larger "traditional" or informal sector. Wages in the modern sector were assumed to be set by non-market forces such as collective bargaining, whereas in the "traditional" sector they were determined competitively. A consequence of a dearth of job opportunities meant that newly arrived migrants were absorbed in the "traditional sector" while they sought formal employment in the modern sector. However, by simply assuming that minimum wage regulation existed in the urban sector, the Todaro model did not lend itself to an explanation of wage formation in less developed countries but rather an analysis of unemployment and migration.

In spite of the fact that the Harris-Todaro model is viewed as specific to the Third World, it has been noted by a number of scholars that its view of the functioning of labour markets was rooted in industrialised world labour market concepts which were then misapplied in LDCs. In particular, the rate of open unemployment was identified as an inaccurate gauge of employment access and opportunities. A wealth of literature indicated, furthermore, that it was by no means certain that unemployment was a valid analytical concept in the context of African countries (Jamal and Weeks, 1988:272).

Two fundamental aspects differentiated labour markets in developed countries from those of LDCs. Unlike in the developed world, vast opportunities for self employment and casual labour exist in the urban sector in LDCs. Also, whereas informal activity incomes in LDCs are usually far below those of the modern sector but not dissimilar to incomes earned in the rural areas, this was contrasted with the low levels of income of the unemployed in the developed world.

Thus with the vast majority of workers employed at the same level in LDCs, Weeks (1973:63) believed that it was wrong to define the employment norm in terms of the conditions enjoyed by a tiny minority of the labour force. Also, in the absence of studies recording the number of hours spent on self-employment, it was mere speculation that "underemployment" was prevalent in the sense of part-time involuntary idleness.

Empirical work in developing countries has however provided support for the Todaro's model conception of labour markets. Research undertaken by Turnham (1970:51) revealed that open unemployment did in fact exist, although it was confined to specific groups. This preference for open unemployment reflected a conscious decision to wait for the 'right' job, which took into account an awareness of past trends in wage increases in 'modern' sector employment and wage differentials between formal and 'informal' sector employment. For Turnham this explanation had further merit in that it threw light on the otherwise baffling conclusions of Herrick (1965) and others that migrants, especially amongst the younger age groups, tended to reflect lower rates of unemployment than native born workers.

Jamal and Weeks (1988:289) however take the criticism of the Todaro model further, arguing that it was never correct to divide African labour markets into neat categories such as rural/urban, formal/informal since

Most workers have always straddled both the rural and urban sector ("circulatory migration") and the formal and informal sector ("moonlighting"). And now, as a result of the deepening economic crisis, that kind of "doubling" has become more the rule than the exception.

In addressing this criticism it is worthwhile to review the comments raised by Fields (1980) in his critique of the Todaro model. According to Fields (1980:391) the expected-income hypothesis of the Todaro model can be viewed in two ways: as a literal representation of the functioning of labour markets in less developed countries or as the central characteristic of a suitably embellished model. Willis (1980:395) subscribed to the former interpretation, arguing that the spatial aspects of the model were unimportant. The key feature which distinguished sectors in the Todaro model was simply the assumption that wage rates were fixed exogenously in one sector and were free to fluctuate with supply and demand in the other sector. The spatial aspects of the model were thus secondary considerations.

Serving to support this view was the work of Mincer (1976) who used a similar model to Todaro to analyse the employment and unemployment effects of minimum wage laws in the United States. In Mincer's model the "covered" and "uncovered" sectors were defined according to statute rather than spatially, as in the case of the Todaro model. Although Mincer (1976:91) found that an increase in the minimum wage precipitated an exodus from the covered sector, while policies designed to raise modern sector wages above the competitive level in the Todaro model led to urban migration, it was possible that both arguments could be correct. The explanation for this conflicting finding lay in the existence of labour demand in the covered sector, which was probably more a characteristic of the covered sector in developing countries than in the United States.

With this analysis in mind, the issue at stake in determining the predictive power of the Todaro model lay less in the correct delineation of labour markets in LDCs than as to whether migration was the primary equilibrating force in these labour markets, as Harris-Todaro postulated. Were intersectoral labour transfers to continue until there was equality between the expected urban wage and the rural wage, then there were valid grounds for the rejection of the Todaro hypothesis.

By examining the gap between unemployment rates in LDCs and the rates predicted by a literal interpretation of the Harris-Todaro model, Fields (1975) tried to show that the disparity could be reconciled within an augmented Harris-Todaro framework. Fields (1975:186) came to the conclusion that appropriate extensions permitted the retention of the Harris and Todaro notion that migration between geographical areas was the primary equilibrating force in the labour markets of LDCs. The Harris-Todaro model could thus be interpreted as incomplete rather than incorrect.

Connell, et al. (1976:10) see the lack of predictive power of models based on Todaro's hypothesis as attributable to their failure to distinguish between the wage structure in the modern urban sector and that of the "traditional" urban or informal sector. For Todaro the urban "traditional" sector was assumed to passively accept all workers who used the sector as a 'stepping stone' to formal employment.

However, wages did not fall with the flood of workers entering this sector. Nor, as Kelly and Williamson (1984:185) highlighted, were labour demand conditions in this sector important since unemployed workers could always be absorbed by the sector at a fixed wage (zero). It was this assumption which was primarily to blame for Todaro's prediction that increasing wages led to a rise in the urban labour force - a prediction which was at odds with the labour economists' conventional wisdom.

Godfrey (1973:70) took the argument further, arguing that there was a need also to respecify the assumption that the migrant set his sights on securing formal sector work and that employment in the urban "traditional" sector, was implicitly regarded as akin to open unemployment. To the extent that recently arrived migrants used the informal sector as a safety net until they were able to secure formal employment, it could be argued that net migration was determined by activity in the informal sector as well as to earnings and employment possibilities in the modern sector. With this in mind, it followed therefore that there was a need to substitute the 'modern sector' factor for an 'expected urban income from whatever source' variable.

2.5 Relevance of the Todaro model in explaining migration in Less Developed Countries

Taking into consideration the complex nature of migration in Less Developed Countries it would seem logical to dismiss theories which explained migration in terms of single variables, such as income differentials, as inadequate. Yet this view fails to take cognisance of the most important requirement of model building which is to explain phenomena in as simple terms as possible. Empirically, while it is true that the exclusion of variables can impair the findings of a model, it is the opposite which holds true for the theoretical perspective. In this case the gain in insight derived from the simplicity of the model usually outweighs any loss in accuracy emanating from the exclusion of complicating variables (Barnum, 1975:780). It is within this context that the Todaro model of migration is viewed.

The fact that rural-urban migration in LDCs is today continuing in spite of high and rising levels of urban unemployment and poverty points to the Todaro model's current relevance as a useful construct in explaining migration. At a theoretical level, the redirection of attention of a number of recent studies (Heady, 1981; Foster, 1981; Schultz, 1982; Sah and Stiglitz, 1983) to the model serves to confirm this.

Yet, any analysis which attempted to determine the relevance of the Todaro model in explaining migration in LDCs would need to acknowledge that the model was formulated to explain migration in Tropical Africa during the late 1960s - a world very different to today. One consequence of a rapidly changing environment has been the transformation of research on migration over the past few years. Stark (1991:23) highlights aspects of this transformation which, inter alia, include an expansion of variables which are seen to have an impact on migration decision-making, the identification of new linkages between migration as a distinct labour market phenomenon and other labour market phenomena, and a new emphasis on the role of wider social entities and interactions within them in conditioning migration behaviour.

With these developments it would seem that the Todaro model is too simplistic a model to explain complex phenomenon that is migration in LDCs today. This view is repudiated by Stark (1991:23) who explains that recent empirical work has reaffirmed the usefulness of the well-established models of migration and has continued to test simple microeconomic models of migration which assumed that locational decisions are made primarily by individuals or households comparing their income opportunities at alternative locations.

The empirical validity of any model is however far from a seal of approval. As Fields (1980:392) cautioned, empirical studies differed greatly in conceptual clarity, data suitability, statistical method and sophistication in interpreting the findings. Added to this was the fact that the reliability of many studies were reduced by small samples and poor measurement of relevant variables (Yap, 1975:2), and, as Kelly

and Williamson (1984:6-7) highlight, by the failure to take adequate cognisance of all factors which impact upon the decision to migrate. Everything taken into account, it could then be concluded that evidence either in support or in contradiction of a theory is weaker than is usually argued to be the case.

In terms of the Todaro model itself, Fields (1980:392) believed that if one accepted that economic factors primarily determined migration, there was still the question as to which economic variables were important and how they were to be specified. The correct choice and specification of variables made a great difference to the explanatory power of the model. Furthermore, at the empirical level, there was uncertainty as to what was regarded as an appropriate test of the Todaro model. As Fields (1980:392) questioned

Does statistical significance of an unemployment rate variable in a migration function constitute sufficient supporting evidence? Or does verification of the theory demand more, such as observing the same elasticity of migration with respect to employment probability as with respect to the wage rate?

Fields believed that these questions were not answered in Todaro's analysis. This shortcoming coupled with the mis-specification of variables, the failure to account for non-economic factors, to disaggregate the rural source area or to assess absolute levels of income limited the predictive power of the Todaro model and were to blame for the contradictory evidence as to the impact of relative rural-urban differentials on migration rates. Whereas Beals, Levy and Moses in Ghana (1967) and Carvajal and Geithman (1974) for Costa Rica have lent support to Todaro's thesis, studies conducted by Mabogunje (1970) in Nigeria and Godfrey (1973) in Ghana in Kenya seemed to rebut it. Other studies which throw doubt on the Todaro model are those by Fishlow (1972), whose study on Brazil, and Bellante (1979), whose work on the American South, suggest that observed nominal wage gaps are in large part a reflection of skill, age, sex and occupational differentials rather than regional gaps per se.

With growing evidence accumulated against the Todaro model, it has been argued that the conventional wisdom generated by the Todaro model during the 1970s simply did not hold up to empirical scrutiny. Todaro (1980:373), himself, tended to agree with this view, arguing that for purposes of empirical or econometric estimation further modification and extensions of his model were needed.

The weaknesses of the Todaro model were however not of a sufficient nature to prevent the model from becoming the theoretical framework which underpinned Third World development policies during the decade which followed its appearance. Interestingly, White (1989:5) believes that it was Todaro's assumption of economic rationality and the policy formulations of models emphasizing the agglomeration economies that large cities provide, which was to blame for the failure of policy-makers in the Third World to deal with high levels of rural-urban migration. Rapid migration, it was argued, would be short-lived since it would lead to a deterioration in the urban quality of life. Also, since urbanisation stimulated the demand for food, rural wages would rise, a tendency towards equilibrium would appear and an orderly transition to a Western-style, urban-industrial economy in Africa would be promoted.

Today widespread poverty in LDCs attest to the fact that no such process took place. Partly to blame was of course the weaknesses of the models themselves. Of crucial importance in this regard was the omission of exogenous variables and the under-estimation of important endogenous processes. In terms of the latter, Gilbert and Gugler (1992:54-55) note that

Throughout the Third World industrial development occurred most rapidly in the largest cities and encouraged the accentuation of metropolitan and primate city development. The tendency to concentration was both cause and effect of other centralisation processes and of the efforts to promote rapid economic growth.

'Urban bias' policies, both theorists and Third-World policy-makers failed to foresee, would by making it cheap to import food, cause the decline of the agricultural sector

and the precipitation of further in-migration.

Whether Todaro can be blamed for providing the justification for a hands-off approach to rapid rural-urban migration is by no means clear. What is certain is that it was Todaro who highlighted the folly of policies aimed at tackling urban unemployment by emphasizing urban job creation at the expense of rural development. Before the Todaro model made its appearance, it was widely believed that urban unemployment in poor countries could be alleviated or even eliminated by governments channelling enough resources and incentives to create more urban jobs. Through his expected-income analysis, Todaro showed the futility of this kind of strategy, pointing out that more urban jobs would merely serve to accelerate rural-to-urban migration and exacerbate rather than ameliorate urban unemployment.

The rationale underlying Todaro's hypothesis could be clearly discerned from an examination of the rural sector in most LDCs. In these countries rural poverty, which was manifested in low agricultural incomes and productivity and underemployment, served to push many migrants out of the rural areas towards areas with greater employment opportunities. Where migrants moved usually corresponded to the existence of income differentials between regions (Gilbert and Gugler, 1982; Fields, 1982). As Gilbert and Gugler (1982:56) explain

Great masses of rural people are potentially mobile. And they appreciate the gap between rural and urban standards of living...Although the days when migrants found work in town for the asking are long gone, substantial numbers nevertheless continue to come to face widespread unemployment and underemployment.

It was precisely in providing an explanation of this apparently paradoxical relationship of accelerated rural-urban migration in the context of continuously rising urban unemployment that the Todaro (1969) model gained prominence. With its simple but powerful explanation of urban unemployment in less developed countries (LDCs) the Todaro hypothesis quickly became a key premise in Third World models

of urban labour markets.

However, the preeminence enjoyed by the Todaro model over the next decade never could mask its shortcomings, which some scholars believed confined it to but a limited role in explaining migration in LDCs. Whatever relevance the Todaro model did have, was seen to diminish still further with the fundamental transformation of African labour markets as a result of the oil-shocks precipitated economic crises of the 1970s. With the developed industrial countries plunged into recession by the sudden rise in oil prices, a sharp cut back in the demand for the primary products of African countries to dramatic falls in both formal employment and income and an equally profound shift in the relationship between town and countryside.

The transformed character of most African economies, noted Jamal and Weeks (1988:273), greatly undermined the Todaro model's ability to explain urban labour markets and necessitated a revised view of African labour markets which would need to take in a number of trends. These trends included, inter alia, a fall in real wages of urban workers which removed their status as an 'aristocracy of labour'; a significant reduction of the security and stability of formal sector employment; the shrinking of employment opportunities for unskilled workers in relation to other skill categories; the blurring - and even breaking down - of the distinction between the formal and informal sector and a concomitant disappearance in the differences in incomes between the two sectors; the narrowing - and even inversion - of the income gap between urban wage earners and the rural population; and following on from these trends, the deterioration of the overall distribution of income in most countries. The end result, note Jamal and Weeks (1988:274) is the conclusion that

Increasingly, sub-Saharan countries are characterised not by a split between the privileged urbanites and the disadvantaged farmers but by a split between rich and poor, the latter including wage earners, informal sector operators and small peasants.

The effect of these trends has, despite the narrowing of rural-urban income differentials, been even greater migration; a transformation of the dynamics of income distribution between urban and rural areas, where the primary dynamic distributional relationship was now between rich and poor within both the urban and rural sectors; and interactive rural-urban survival strategies on the part of the poor whose precise nature is unclear.

Broadly, these survival strategies could be described as taking on the form of oscillatory migration between city and countryside and circular migration within cities. These developments, believe Mabin (1990:312), make it no longer true to talk of migration as involving a transition process from rural to permanent urban residence, as Todaro and other orthodox models assumed. The Todaro model was thus limited to looking at the initial decision whether or not to migrate (Godfrey, 1973:74)

It can be argued however that this analysis portrays the Todaro model in too narrow a light. At a broad level the basic premise underlying the Todaro model is that an individual migrates in the expectation of becoming better off through his/her action. Consequently, through an appropriate definition of the expected benefits and costs, this general model can apply to any form of migration found in developing countries (Goldstein, 1978 in Da Vanzo, 1981:92).

At the empirical level Mabin's observations are also open to question. Whereas Mabin (1990:314) views the core of a large body of literature as endeavouring to come to terms with the persistence of circular migration between and within the cities and the countryside, Gilbert and Gugler (1992:83) regard circular migration as the exception throughout the Third World. Because widespread urban unemployment meant that finding work took time and was largely the outcome of chance, circular migration was for most migrants no longer a viable option. Similarly, Barnum and Sabot (1977:112) note that higher urban wages and the stabilisation of the labour force provided a strong incentive for those migrants who were successful in finding urban jobs to remain in town for the remainder of their working lives.

The question then is if Mabin is right, how does one reconcile his arguments within the Todaro framework? The answer may lie in the risk-taking behaviour of migrants. With Todaro's explanation for migration contingent on a positive income differential between rural and urban areas, one could assume that the absence of income differentials would rule out migration for the rational individual. Yet this does not admit to the possibility that individuals undertake risks when they decide to migrate.

With the assumption of risk-taking, rural-urban migration can be rational decision even though urban expected income might be below that of rural income (Stark, 1991:54). The rationale here is that the small chance of reaping the high reward of securing a formal job might be all that is needed to trigger off the decision to move. With the failure to secure formal employment the migrant might then be forced to return to the rural areas, only to return at a later date.

2.6 Relevance of the Todaro model in explaining migration in South Africa

Jamal and Weeks provide a basis for a re-examination of labour markets in sub-Saharan Africa which takes into account the fundamental transformation of African labour markets emanating from oil-shocks precipitated economic crises of the 1970s. This analysis pointed to the limited relevance of the Todaro model in explaining rural-urban migration in LDCs.

An even cursory glance at labour market conditions in South Africa shows a very different picture of urban labour markets to those elsewhere in the continent. Far from South Africa matching developments in the rest of the continent there remain significant disparities in living standards between the formal urban townships and informal settlements and the rural areas, even despite massive rural-urban migration which is currently taking place. Indeed, it is the view of this dissertation that conditions in South African urban labour markets largely match those which prevailed in Tropical Africa at the time that Todaro formulated his model.

Todaro formulated his model to address the problem of massive and growing unemployment in African cities after independence. The massive increase in rural-urban migration had been to blame for widespread unemployment. Whereas 'African industrialisation' failed to produce job opportunities in line with the rate of output growth, urban unemployment was also the consequence of the failure of the prevailing wage structure to bring about a balance of labour supply and demand in the modern sector of the economy. With urban wages set at levels substantially greater than that for agriculture, it was profitable for individuals to migrate to cities and take their chances with unemployment in the hopes of earning much greater income (Johnson, 1971:21).

An examination of conditions existing in South Africa today bears a resemblance to those which have just been described. Like Tropical Africa of the 1950s and 1960s, South Africa is today undergoing a fundamental political and social transition. Although socio-economic change in Tropical Africa took the form of a struggle against colonial rule while that in South Africa took the form of a fight against white minority rule, the dynamics inherent to each struggle and its resulting impact on migration are similar. As with the struggle against apartheid, the struggle for independence in sub-Saharan Africa was characterised by political pressure exerted through a national coalition of various groups differentiated by region, ethnicity or class (Jamal and Weeks, 1988:271). Although glaring differences existed between these groups, they were obscured by the vast disparities between privileged Europeans and impoverished Africans.

After independence the civil service, universities and the private economy were all "Africanised". Although salary scales were compressed in a few countries, overall the difference in earnings of common labourer and professionals and managers remained large. With the absence of landed elites in some countries, those earning high incomes were therefore concentrated in the major cities, ensuring, as Jamal and Weeks (1988:271) argue, that

...the great income differences passed as a colonial legacy changed from an African/European-Asian dichotomy to an urban/rural one.

Similarly, as a result of the reform process which formally got under way in February 1990 with the then President de Klerk's decision to abolish apartheid, attention in South Africa is moving away from the black/white income-disparity dichotomy towards the urban/rural income-disparity dichotomy. As in the case of Tropical Africa, policies of affirmative action are precipitating the gradual "Africanisation" of the civil service, universities and the private economy.

Since trade unions had played a prominent role in the campaign for independence in Tropical Africa, their status was that of a vocal interest group. After independence, this was transformed into demands for higher wages. Consequently, through their efforts urban wages rose substantially in many African countries. After independence many countries embarked upon policies of import substitution and large-scale public works programmes which had the effect of boosting job opportunities, especially in the urban areas. But along with the growth in urban employment came a dramatic increase in rural-urban migration, one of the consequences of which was a rise in the rate of urban unemployment (Gilbert and Gugler, 1982:57).

The effects of the policies of post-colonial governments served to exacerbate the stark differences between urban and rural areas which already existed. As Jamal and Weeks (1988:272) describe, sub-Saharan countries became divided into a privileged modern sector where urban elites and wage earners benefitted from high incomes, government services and political influence, a vast undifferentiated rural sector of poverty, and in between, an 'informal sector' of urban informal residents living in squalor around the cities and attracted to cities by the prospect of high wages.

Whereas the rise in African wages in Tropical Africa came only after independence, in South Africa wages have been steadily rising for some time. The causes for

these wage rises can be attributed to both market and institutional factors, with the former operating in the post war period up until the legalisation of black trade unions in 1979, from whence trade union pressure has been instrumental in setting modern sector wage rates (Hofmeyer, 1990:140-141).

A brief examination of the labour market in South Africa sheds light on this. After the Second World War the South African economy experienced strong and sustained economic growth. Manufacturing, in particular, enjoyed booming conditions with the result that a shortage of both skilled and unskilled labour developed. Because of the scarcity of, especially, white artisans, Africans were increasingly drawn into skilled employment, often despite fierce opposition from white trade unions. Notwithstanding this improving occupational mobility, Posel (1991:155) notes that the overwhelming majority of Africans employed in manufacturing remained unskilled workers.

The vigorous growth of the South African economy served to drive up wages during the 1960s. Although Hofmeyer (1990:134-135) notes that the mining sector was able to attract unlimited supplies of foreign labour, and therefore able to resist the pressure for higher wages, this changed over time. The shortage of labour, at first managed by the recruiting net being spread ever further beyond the borders of South Africa, finally precipitated the decision in 1971 to increase the local component of the mining workforce by raising wages. The result was that the black South African workers' component of total miners nearly trebled between 1974 and 1982 (Lipton, 1986:122).

The effect of the growing demand for black labour by both the mining and industrial sectors was the breaking down of the segmentation of the labour market and the forced raising of wages by commercial agriculture. Additionally, as Hofmeyer (1990:139-140) explains, the long period of sustained growth produced severe strains on the economy which forced a reappraisal by employers, management and the state in regard to questions of black advancement, education and unionisation. The end result was a fundamental change in the institutional environment governing

black employment. The effects were an increasingly educated black labour force, black penetration up the occupational ladder, the increasing unification of the labour market and a rapid growth of black unionization and labour militancy.

The Durban strikes of 1973/74, in particular, were significant in that they heralded the rebirth of the black trade union movement and growing demands for wage rises (Maller, 1986:318). The mid-1970s however brought about a reversal in performance of the South African economy and a turnaround in labour market conditions. With unemployment rising rapidly mines were once again able to recruit South African labour according to their needs. In agriculture wages stagnated with the gap between the agricultural sector and the industrial sector growing until the onset of the post-1984 recession (Hofmeyer, 1990:145). Overall, the modern sector employment failed to keep pace with population growth. Whereas the labour force grew by an estimated 1.5 million during the period 1980-1986, only 150 000 new jobs were created during the same period (Cassim, 1986:542).

Despite the low levels of economic growth average black wage levels continued to rise, albeit at a slower rate. Contributing to this upward momentum were the improvement in both educational levels and in upward movement through the occupational structure of black workers, the closing of sectoral wage gaps and the increase in remuneration paid to women (Hofmeyer, 1990:138-139). It was however the efforts of trade unions which had by this time become increasingly instrumental in determining wage and working conditions of the modern sector work force.

Whereas blacks were barred from belonging to legally recognised trade unions, with the passage of the Industrial Conciliation Amendment Act (subsequently named the Labour Relations Act) in 1979 this changed. Going hand in hand with the unions' concerted efforts to improve working conditions was their broader strategy of waging war against apartheid. As Innes (1992:343) explains

...During the latter part of this period the state attempted to smash the UDF, MDM and their allies, forcing the unions to become more directly engaged

politically and to become vehicles for black political aspirations. Not only were unions drawn into confronting the apartheid state, but they also confronted white-owned business which was perceived to be in alliance with the state.

The result of this was the intensification of trade union activity, characterised especially by a high level of industrial action. Illustrating this was the fact that over a period of just five years from 1986 to 1990, South Africa lost more man-days to industrial action than over the whole of the preceding 75 years (Nupen, 1991:95). Revealingly, these high levels of worker action were taking place during a period of low economic growth, characterised by rising levels of unemployment. What can therefore be concluded is that while market forces were arguably the major determinant of black wages before 1975, it has been institutional forces, and in particular trade union pressure, which has subsequently been behind wage rises in a large part of the modern sector of the economy.

After the unbanning of the African National Congress in February 1990, the role of the trade union movement changed fundamentally. As Innes (1992:342) reflects

The union movement, which had earlier fulfilled a leadership role in the political struggles against apartheid, now conceded that position to the unbanned political organisations. Unions then began carving out new areas of involvement.

Along with the new era of cooperation brought about by the momentous political changes of 1990 was the dawning of a new era of constructive relationships between employers and unions. However, the protracted period of conflict had already taken its toll in terms of rising unemployment levels. Militant trade unionism, combined with economic recession, sanctions, and inappropriate government policies had already led to factory closures, disinvestment by foreign multinationals and the replacement of labour with capital, with the result that few job opportunities were created during the 1980s. The end result has been the creation of a tiny urban

elite which has benefitted from rising real wage in excess of productivity improvements and a vast body of job seekers who are involuntarily unemployed or forced to eke out a living in the burgeoning informal economy. It was the mirror image of these conditions which enabled Todaro to formulate his model of rural-urban migration.

2.7 Summary

The basic Todaro (1969) model was formulated to explain the apparently paradoxical situation of accelerated rural-urban migration in the context of continuously rising urban unemployment. Migration, itself, was the outcome of rational economic calculations by potential migrants who moved in response to rural-urban differences in "expected earnings", where expected earnings were the actual earnings discounted by probability of securing formal employment.

The basic Todaro model was modified by Harris and Todaro (1970), who evaluated the welfare effects of alternative urban employment policies and highlighted the importance of urban wage determination, commodity pricing policies and rural development programs on relative output levels, the terms of trade and intersectoral labour allocation between sectors as a result of induced migration. Crucially, the model demonstrated that urban job creation could actually exacerbate urban unemployment and illustrated the conditions under which constraints on migration could in fact reduce the level of rural welfare.

In a detailed critique of the Todaro model, it was noted that the model provided an invaluable contribution to an understanding of migration in Less Developed Countries and in fact still yields the theoretical justification for government policies today - a fact which has not exempted it from criticism, much of which, it was discovered, was misplaced.

An examination of the relevance of the Todaro model in explaining migration in LDCs noted that recent empirical work had reaffirmed the usefulness of the

established models of migration and continued to test microeconomic models of migration along the lines of Todaro. Yet, the transformed character of African economies brought about by the oil-shocks' precipitated economic crises of the 1970s, it was argued, greatly undermined the Todaro model's ability to explain urban labour markets. Since sub-Saharan countries are increasingly characterised not by a split between privileged urbanites and disadvantaged farmers but by a division between rich and poor, where the latter are forced into oscillatory and circular migration to survive, it was no longer true to talk of migration as a transition process from rural to permanent urban residence. In this way the Todaro model was limited to looking at the initial decision whether or not to migrate.

The counterclaim however was that this analysis portrayed the Todaro model in too narrow a light. At a broad level the basic premise underlying the model is that an individual migrated in the expectation of becoming better off through his/her action, making it possible, through an appropriate definition of the expected benefits and costs, to apply this general model to any form of migration found in developing countries.

An examination of the relevance of the Todaro model in explaining migration in South Africa focused on the nature of urban labour markets, which displayed striking similarities to those which prevailed in Tropical Africa at the time that Todaro formulated his model. A brief examination of the labour market in South Africa shed light on this. During the 1980s it was noted that unions had been able to extract wage increases in excess of productivity improvements, which, coupled with economic recession, sanctions, and inappropriate government policies all served to impede the ability of the economy to create new job opportunities. The end result was the creation of a tiny urban elite and a vast body of job seekers who were involuntarily unemployed or forced to eke out a living in the burgeoning informal economy. It was the almost mirror image of these conditions which Todaro set out to analyse in his model of rural-urban migration.

CHAPTER 3: TOWARDS AN UNDERSTANDING OF BLACK MIGRATION TO AND WITHIN THE DURBAN FUNCTIONAL REGION (DFR)

3.1 Introduction

Largely determining the nature and form of black migration in South Africa has been the statutory framework pertaining to black mobility. For the most part of the Twentieth century State efforts have been directed at preventing large-scale black urbanisation. South Africa's cities, as Gilomee and Schlemmer (1985:2) remind the reader, were set aside for white people. Black South Africans were viewed as "temporary sojourners", were allowed in the urban areas on sufferance and only for long as they served the needs of the white man - as was stated in the report of the Transvaal Local Government Commission in 1922.

A consequence of legislation shaped by colonialism and, later apartheid ideology, has been that the levels of urbanisation of blacks are today far lower than those of other population groups. Table 3.1 shows the levels of urbanisation across South Africa's different population groups.

Table 3.1: Levels of urbanisation amongst South Africa's population groups

Population Group	Percentage Levels of Urbanisation					
	1936	1946	1960	1970	1980	1991
African	19	24	32	33	38	47
Asian	70	73	83	87	91	96
Coloured	58	63	68	74	77	83
White	68	76	84	87	89	91
Average	34	39	47	48	53	60

Source: 1936-1980. South African Statistics. Pretoria: Government Printer
1991. Population Census. Pretoria: Central Statistical Service

As can be seen from Table 3.1, while an overwhelming majority of non-blacks were enumerated as residing permanently in urban areas when the last Population Census was undertaken in 1991, barely half of the black population is urbanised. Significantly, however, black urbanisation has accelerated since the abolition of Influx Control legislation in the mid-1980s.

For Nattrass (1983:8) the disparity in urbanisation levels between South Africa's different population groups reflects less of a differing response to the forces of economic growth than to the institutional and social frameworks within which those responses were made. Indeed, such was the constraining force of these two frameworks that Maasdorp and Humpreys (1975:7) were able to assert that black population growth and housing in South African cities could be understood only in the context of the migrant labour system and the legal framework affecting urban areas.

It is clear that an understanding of black migration in South Africa demands an examination of the institutional framework within which migration decisions were made. This chapter therefore provides a detailed analysis of the institutional framework within which black migration has taken place both in KwaZulu/Natal and South Africa as a whole. To assess the impact of this institutional framework an examination of the nature of black migration to - and within - the DFR is provided.

3.2 Institutional framework within which black migration into and within the DFR has taken place.

Haarhoff (1984:57) identifies three key issues around which the history of black migration in the KwaZulu/Natal region is centred. They are the conflict over land, the demand for labour to supply growing industry and the apartheid-inspired 'homeland development' policies. It is in regard to the first of these issues that the origins of the black urbanisation process in KwaZulu/Natal are found.

In 1824 a small settlement of English traders was established at Port Natal. Zulu king Shaka welcomed the early settlers and ceded to them a major part of what was later to become the Colony of Natal. From 1838, however, parts of that land were coercively appropriated by Boer trekkers colonizing Natal. This led to increasing conflict between Boer and Zulu over the rights to the occupation of land, an ensuing occupation of Port Natal by a British contingent in December 1838 to reestablish order and once that aim had been achieved, withdrawal a year later. In order to prevent Boer raids into eastern Pondoland a second British occupation of Port Natal was undertaken in May 1842. Conflict ensued between the Boers and the British, with the British eventually taking control of Natal in July of the same year.

A priority of the new colonial administration was to devise a policy for governing the Colony's large African population. A year later the British Commissioner in Natal, Henry Cloete, therefore proposed the delimitation of six rural "locations" or reserves for the exclusive occupation of the black population of the region. These locations were then demarcated in the mid-1800s by Theophilus Shepstone, who aimed to restrict the settlement of blacks in those areas set aside for white farming and to allow blacks to farm unhampered on their "own" land (Stavrou, 1987:26). Shepstone's proposals which were generally aimed at protecting the African population were however in conflict with those of the settlers who desired to exploit them as cheap labour (Brookes and Webb, 1965:56-57). Davies (1991:72) largely expressed the views of the latter when he argued that the role of the reserves was

... to articulate future colonial labour needs with the traditional, redistributive economy in which labour could be stored and reproduced at little cost to the colony. Viewed purely as a potential labour force, the African population was not expected to gain access to or control over the essential means of production or to economic and political mobility in colonial space.

With Britain's annexation of the Zulu kingdom in 1887 following the defeat of the Zulu nation at the battle of Ulundi the reserves system was extended to Zululand.

Platzky and Walker (1985:78) recount that twenty-one scattered reserves, which amounted to no more than three-fifths of the former Zulu domain, were set aside for African occupation. All remaining land was either made available for white settlement or proclaimed as state land.

The decimation of the Zulu kingdom and subsequent redistribution of land to white farmers lead to increasing population pressures on the land earmarked for the reserves. Yet in spite of severe overcrowding and the barren nature of much of the land set aside for African occupation, it has been noted by a number of commentators that the indigenous economy of the reserves was viable. In the absence of significant push forces operating within the reserves and any desire on the part of African men to "labour regularly for wages" (Brookes and Webb, 1965:81), the authorities were forced to import indentured Indian labour in order to satisfy the growing demand for labour. This measure underscored Maasdorp and Humpreys' (1975:5) view that the catalyst for black urbanisation in South Africa came not from the overcrowded and deteriorating conditions in the reserves but from the development of the mining industry from 1870 onwards and the growth of secondary industry which resulted from World War 1.

Radical theorists, while agreeing with Maasdorp and Humpreys' identification of mining industry growth as the early impetus for rural-urban migration, saw such migration as less the result of market forces - as Maasdorp and Humpreys would argue - than by means of compulsion. With the discovery of diamonds in 1867 and gold in 1886 the South African economy was rapidly transformed from its predominantly agrarian base into one with an industrial character within a short period of time. This change brought about the need for black labour, which was sought from both the 'white' and 'black' rural sectors.

Since labour was also needed for the farming sector, however, the mines were forced to entice rural blacks with incentives (Stavrou, 1987:27-28). This resulted in a shortage of labour, which compelled the British and Boer - and, later, the South African government - to enact a host of legislation to force people off the land. Such

legislation began with the Glen Gray Act of 1884 and culminated with the Native Land Act of 1913.

The Glen Grey Act was particularly effective in forcing farmers into wage labour. By dividing the land of a region into 4 morgen holdings, the Act reduced the carrying capacity of black farming land, with the result that those who were surplus to the needs of owner had no alternative but to vacate the land (Lacey, 1981:15). The effects of Glen Grey Act were later compounded by the 1913 Land Act which Davenport (1989:259) reports was

aimed specifically to get rid of those features of African land ownership and share cropping which white farmers found undesirable, and at the same time to increase the size of the African reserves for the more convenient recruiting of labour for the mines.

The effect that such coercive legislation had on the nature of black migration has been detailed by Nattrass (1976:84), who notes that overcrowding in the reserves, coupled with the poor quality of the land set aside for black settlement and an ever increasing tax burden, forced growing numbers of Africans to seek work in the mining and industrial areas. With statutory controls firmly in place to prevent any permanent settlement of black labourers in the urban centres a system of oscillating black migration developed.

Nattrass (1976:85) believed that since the nature of oscillatory migration benefitted the entrepreneur by regulating labour supplies, by maintaining fixed wage rates and justifying the payment of low wages, it was actively encouraged and enthusiastically supported by South African legislators. What was not encouraged, however, was the permanent settlement of black migrants in the cities, which was prevented through an array of influx control measures. These measures, as draconian as they were, nonetheless failed to curb the ever increasing permanent African presence in the cities.

In Durban, the Municipality's response to the urbanisation of blacks was to implement a series of measures aimed at the control of black migration and settlement. They included registration regulations to control the inflow of togt labour (the Togg Law of 1874), a pass system (Acts of 1884 and 1888) and the building of hostels and barracks specifically for togt labourers (Swanson, 1976:165; Davies, 1991:76). With the passing of Location Acts of 1902 and 1905 further legislative measures were enacted which were aimed at regulating and controlling black urban settlement. In 1910 a separate Native Administration Department was set up to regulate African urbanisation.

This administrative structure, along with the Native Administration Fund which financed housing developments out profits arising from the municipality's monopoly over the brewing and sale of traditional beer (provisions of the Native Beer Act of 1908), became known as the 'Durban System'. It was this system which was used as a model in the formulation of the Native (Urban Areas) Act of 1923 (Swanson, 1976:175) and which, by regulating black residency in the inner core of the city, laid the basis for later patterns of uncontrolled settlement on Durban's periphery (Davies, 1991:76-77).

Over this period Durban's authorities held the view that the city's African population was essentially migratory and that the private licensed compounds were sufficient to cater for the demands for African accommodation. They were therefore slow in setting up locations for African residency. However, once it was realised that a large percentage of Durban's African population were more or less permanent residents of the town the togt system was gradually abandoned as the basis for the control of Durban's African population and was replaced with a more general location policy (Minnaar, 1992:6). With the enactment of the Native Beer Act of 1908, which was to fund the establishment of locations, the togt system was finally relegated to a subsidiary role in the control of the influx of Africans into the urban areas (Swanson, 1976:174)

Nationwide the process of the demarcation of reserves was refined and formalized

with the enactment of the 1913 Natives Land Act. This Act laid down the principle of territorial segregation by setting aside the existing African reserves for African occupation and by prohibiting Africans from buying or leasing land outside of these reserves (Platzky and Walker, 1985:83). The effects of the Act were that land for the African population became more inaccessible, opportunities for purchasing land were severely curtailed and a large number of African tenants were evicted from white-owned farms.

The options open to Africans affected by this act were limited to finding refuge in the reserves, or to seeking work on African-owned farms or in the 'white' towns. As Minnaar (1992:2) explains,

this movement increased the pressure on available resources and led to many of the dispossessed seeking a new life in the urban areas. There was a consequent migration to urban areas of black families seeking a means to survive since they could no longer remain on land that could not support them or to which they were denied the right of occupation.

In Durban, the Baumannville township was opened in 1916 in order to accommodate African families. Apart from this township no other housing was set aside for Africans until the erection of Lamont in 1934. The Somtseu barracks were built at the same time as the Baumannville development but were shunned by Africans who preferred to live in backrooms, stables or barracks provided by their employees or to rent rooms from Indian 'rackrenters'. (Minnaar, 1992:7).

The result of the widespread attempt by Africans to seek informal residency on Indian-owned land in the city, on Durban's periphery and in white residential areas was that the questions of vagrancy, nuisance, crime, health and disorder became hotly debated public issues. After growing complaints by the public the Durban town council finally enacted a series of bye-laws in 1916 which compelled blacks to reside in hostels, barracks and locations established within the Durban borough. As

Minnaar (1992:7) explains

these bye-laws formed the basis of Durban's regulations for the management of locations in future years. The principal of compulsion and concomitant removal were already well established in the authorities' dealings with the African urban population even before the 1920s.

At the countrywide level, intensified efforts to curb the growing influx of African migrants into white cities were matched by a growing demand for African labour, which arose out of the industrial development spurred on by the First World War, the adoption of a policy of tariff protection for local industries in 1925 and by the war-production needs of World War Two (Doxey, 1961:68). Going hand in hand with the need for a stable and increasingly skilled workforce was the requirement of an established, permanent African population in the urban areas.

In 1923 the enactment of the Natives (Urban Areas) Act extended the principle of racial separation in urban areas, in a similar manner in which the 1913 Land Act restricted African access to land in the rural areas (Nattrass, 1983:12). As Davenport (1991:7) explains, the act empowered local authorities to set aside land for African occupation in defined locations, while preventing whites from acquiring or occupying property in those locations. It also stopped those Africans who were unexempted from residing outside of them.

In Durban large numbers of both Indians and Africans settled just beyond the city's boundaries in order to escape the control envisaged by the Natives Act (Minnaar, 1992:8). In so doing they could live within close proximity of urban life but outside of municipal control. This freedom was however short-lived. With the extension of the Municipality Boundaries in 1933 when five "Added Areas" totalling nearly 35 000 acres were incorporated into the Durban borough (Katzen, 1961:1), those informal settlements in formerly peri-urban areas were at a stroke of a pen brought to Durban's periphery. The Durban Town Council were thus left with the difficult

problem of having to deal with uncontrolled informal settlements on the city's borders.

Ways of tackling this predicament were sought through legislative means. Through an amendment to the Natives (Urban Areas) Act in 1930 the Durban Municipal Police were given the power to increase their efforts to expel Africans from the areas proclaimed under the act (Maylam, 1985:53). However, with the power to evict from proclaimed areas came the responsibility, in terms of the earlier 1923 Act, to provide alternative accommodation. In order to satisfy these requirements Maasdorp and Humphreys (1975:13) note that Durban launched an African housing programme and in 1930 bought approximately 3000 acres from the Clairwood Estate for conversion into a residential area for Africans.

In 1934 these measures were augmented by the opening of a 'native village' on approximately 174 hectares in Umlazi. This new location, named Lamont in 1935, remained the only residential area for Africans in Durban until the opening of Chesterville in 1943 (Minnaar, 1992:11). In the interregnum hostels were built in order to provide for the ever-growing African urban population. Mens hostels were built in Dalton Road in 1934, the Point during the same year, Somsteu Road in 1938 and at Jacobs in 1939, while women's hostels were constructed in Grey Street in 1936 and at Jacobs in 1939 (Maasdorp and Humphreys, 1975:13)

Minnaar (1992:11) notes that both the new housing development at Lamont and the erection of hostels were inadequate to cater for the ever-increasing demands for African accommodation. With the failure of official efforts to address the problem of accommodation, the African population increasingly sought informal solutions. The result was that visible and large-scale concentrations of squatters appeared for the first time. One of the most rapidly growing settlements was that situated at Cato Manor Farm where a 1932 municipal survey enumerated over 400 squatter shacks (Minnaar, 1992:11).

The expansion of the manufacturing industry from the mid-1930s and war-production

demands of the Second World War period resulted in the substantial growth in Durban's population as its labour needs increased. Maasdorp and Humphreys (1975:14-15) estimated that Cato Manor's African population of 2 500 in 1936 grew to 17 000 by 1943 and 27 000 in 1948. Yet, not only was there a significant increase in the magnitude of the migration streams, but also a change in its composition. Migration flows came to be increasingly comprised of women. Indicative of this latter trend was the drop in the ratio of men to women residents from the 6,6 males for every female in Durban area in 1921 to the 3,4 in 1936, the 2,1 in 1951, 1.5 in 1960 and only 1,2 in 1970 (Maasdorp and Humphreys, 1975:10). The implication of this trend was that, not only was Durban's black population growing at a rapid rate, it was also increasingly more stable with less of a migrant labour component.

The flood of Africans into Durban predictably exacerbated the African accommodation crisis - a problem facing the local authorities nationwide. In order to address the growing demands for more land to be set aside for blacks, the South African Government therefore enacted the Black Land and Trust Act of 1936. This act, in addition to setting aside additional land for black occupation, also established the South African Development Trust, whose aim it was to acquire additional land for release to African people on individual title (Davies et al., 1991:1). However, with the worsening poverty in the Reserves and the rapid growth of industrial activity during the war period, rural-urban migration continued unabated, exacerbating still further the housing and land shortages.

The completion of the Chesterville Location in 1946 did little to address the African accommodation crisis. The result was the growth of large sprawling informal settlements on the outskirts of Durban (Maasdorp and Humphreys, 1975:14). At this period in time, the influx of in-migrants was controlled by the Natives (Urban Areas) Consolidation Act of 1945, which deemed that blacks could not remain in any urban area without permission for longer than 72 hours, and that permits, once given, would expire after a fortnight (Tomlinson Commission, 1955:93).

Simon (1992:29) puts the legislative framework governing black migration into perspective when he points out that up until at least the 1950s controls enforced on the black population were no different from those of the other African colonial cities. This changed with the advent of National Party rule in 1948. For the National Party government the solution of the 'urban Native problem' was one of its first priorities (Posel, 1991:20). Hence soon after coming to power the Nationalists set about implementing a policy which would incorporate the total reorganisation of urban areas to enforce racial segregation and the strengthening of influx controls in order to stop migration from feeding into the cities' black population.

The intensified efforts of the National Party Government to restrict black in-migration to the cities however flew in the face of the findings of numerous Commissions and Committees over the period 1939-1947 which all concluded that the movement of Africans to the towns on a permanent basis was inevitable (Nattrass, 1983:13). The Native Laws Commission (the Fagan Commission) of 1948, in particular, was critical of the perpetuation of the migrant labour system and advocated a policy of encouraging the establishment of stable family units in urban areas (Doxey, 1961:94). These recommendations were however rejected by the National Party Government. Instead further restrictions were placed on black movement to urban areas in terms of the Nationalist-inspired, 1922 Stallard Commission, which concluded that only the white population had the right to permanent residence in the towns (Nattrass, 1983:13).

In a series of legislative measures the newly-elected Nationalist government set about enforcing a policy of separate development. In 1950 the Group Areas Act was enacted, which was to enforce residential segregation between the different population groups. In accordance with the dictates of this Act large scale removals of people living outside of their designated population group area were needed which then got under way from the mid-1950s. In 1952 the Native (Urban Areas) Amendment Act of 1952 defined those Africans who would be eligible to work in specified areas (Platzky and Walker, 1985:104-105). Conditions set out in Section 10(1) of the Act determined the entry and residence rights of work seekers which,

as Nattrass (1983:10) put it, had the effect of permanently institutionalising the migrant labour system. The Amendment Act also prevented Africans from obtaining land in the urban areas on a freehold title basis.

In order to regulate the flow of labour from farms to the cities, rural labour bureaux were set up across the country. These labour bureaux assessed the labour needs of rural districts and regulated the movement of potential African migrants accordingly (Gilomee and Schlemmer, 1985:2). Posel (1991:21) saw the strategy of regulating the size and composition of the urban population as

grounded in a clear ideological and administrative division, between the 'detrribalized' core of the urban African population and other city-dwellers who were still 'tribalized', retaining a permanent base in a rural area'.

Those classified as 'detrribalised' were to be accepted as being fully urbanized and therefore entitled to make the city their permanent home, whereas for the others the city was to be 'temporary base for the purposes of taking up employment', with the unemployed amongst them liable to be expelled back to their areas of origin were there any need to eradicate any urban labour surplus. This strategy to widen differentiation between 'insiders' and 'outsiders' was later embodied in a report of the Riekert Commission. As Lemon (1991:19) explains

The former would be free to change jobs within the Administration Board area within which their 'section 10' rights were held without recourse to labour bureaux, and would be able to transfer those rights to other areas, taking their families with them, subject to the availability (as judged by the officials) of jobs and housing.

Over time labour bureaux efforts to control the flow of workers into the urban labour market proved to be a complete failure as employers simply ignored its requirements. Also largely ineffective was the further tightening of influx control

regulations as Africans "bypassed" or "ignored" them, and moved "illegally" into urban areas. Those migrating to the urban area had, owing to the shortage of formal accommodation, little option other than to move into shack settlements.

A consequence of the rapid influx of migrants was that shack settlements burgeoned on the outer periphery of Durban's boundaries. In addition to the emergency camp set up to house urbanising blacks at Cato Manor, other major informal settlements came to be located in and around Durban. These were found to the south of Durban near to Umlazi, on the Indian freehold land in Released Area 33 north of KwaMashu, at Mariannhill and in the outer-periphery freehold formal township of Clermont (Cross, et al., 1993:17).

After numerous attempts at trying to solve the African housing problem came to naught, the Durban City Council turned to the new Prevention of Illegal Squatting Act of 1951 (Minnaar, 1992; 18). This Act empowered the city council to erect an Emergency camp within the city boundaries in order to provide temporary accommodation for those affected by any attempt to clear the city of any shack settlements and backyard structures. On 5 December 1952 the council received the go ahead to proceed with the erection of the Cato Manor Emergency Camp (Edwards, 1982:32,35). This signalled the onset of the Durban City Council's efforts to control the growth of informal settlements through the gradual attenuation of shacks in the Emergency Camp sections of squatter settlements (Minnaar, 1992:18). Those shack dwellers affected were resettled in new formal townships, one of which was Kwamashu, north of Durban. With the enactment of the Group Areas Act and other coercive laws during the early part of the 1950s, this process of slum clearance and resettlement was accelerated.

Despite increasingly stringent measures to halt migration to the cities, African urbanisation continued unabated. By 1960, the urban African population comprised 31 per cent of the total African population, up from 27.9 per cent of 1951 and the 24.3 per cent of 1946 (Republic of South Africa, 1980:32). With the failure to control African in-migration to the cities, Posel (1991:27) noted that

The architects of apartheid now denied that there was, or ever had been, a 'detrribalized' community in the urban areas. This change of tack swiftly overturned the basis of the state's existing influx control policy. State ideologues now stressed that all Africans were thoroughly 'tribalized' at heart, and therefore spiritually and culturally anchored in ethnically defined 'homelands'.

This thinking formed the foundation of Nationalist Government's policy of separate development which was then given statutory teeth with the Bantu Authorities Act of 1951. With the passing of this Act, tribal and regional areas were established within the borders of South Africa, with the intention being that each territory would become a homeland for each African nation where they could then practice their own self-rule. However, along with these rights came the exclusion of political rights for blacks outside of their homelands.

In order for separate development to work, Maylam (1986:167) notes that economic independence had to accompany self-government. It was this very objective which lay behind the call by the Tomlinson Commission in 1955 for a massive job creation programme in the reserves in order to curb the flow of Africans into white urban areas. The reader is reminded however that the intention was not to stop African migration entirely but merely to limit it in accordance with urban labour requirements. As Haarhoff (1984:74) explains

...the location of Africans in urban communities was intended to occur within the boundaries of the various homelands, preferably in close proximity to existing towns and cities in 'White' South Africa which could continue to draw on African labour.

To enable the State to relocate to the homelands those Africans not entitled to work in an urban area, Maylam (1986:181) notes that two mechanisms were adopted. One was to demolish those African townships in white urban areas and have their occupants removed to new townships in homeland border areas from where

Africans could commute to their place of work. A second was to simply redraw boundaries in order to place existing townships within the homelands. Thus, in 1977 Durban's KwaMashu township was at the stroke of a pen incorporated into KwaZulu.

The Nationalist Government's policy of separate development, in addition to greatly impacting upon African urbanisation and urban settlement, was also to profoundly alter the pattern of African population settlement and distribution in non-urban areas. Core components of the grand policy of separate development included, inter alia, homeland development complemented by an industrial decentralisation policy, restrictions on the movement of homeland residents coupled with restraints on black housing provision in the white urban areas, the use of the Group Areas Act and other legislation in order to curtail black settlement, and the forced removals policy, the Land Acts and homeland consolidation policies all of which combined to exclude black ownership and occupation from the 87 per cent of South Africa's land surface area which was set aside for white population by the Land Act of 1913.

In accordance with the policies of homeland consolidation and development, "black spot" clearances and forced removals and resettlement, vast numbers of Africans residing in "white" areas were forcibly removed to the homelands. The effect of such policies was that between 1960 and 1982 a total of 745 000 blacks were removed from Natal and dumped into KwaZulu (Platzky and Walker, 1985:10). To keep blacks away from the "white cities" growth points were established, first on land bordering the homelands and later in the homelands themselves. Such development would lead to an increase in the numbers and types of black settlements in non-metropolitan areas. The form that these settlements would take would include black formal townships which were set up adjacent to "white" towns, black towns in the national and nominally independent states, the formation of large numbers of mining - and industrial compounds and of compounds at power stations and other establishments.

Although these settlement forms are usually classified as urban, they occurred largely outside of the major metropolitan areas itself, and therefore represented a

movement away from dispersed rural settlement toward closer settlement in rural areas (Cilliers and Raubenheimer, 1983:4). Consequently, black urbanisation has, in addition to the continued metropolitanisation, thus consisted also of a change from non-urban to urban-type settlement outside of metropolitan areas.

In the "white" areas of South Africa black urban growth would take place in the segregated townships in the metropolitan areas and small towns, in the backyard shacks in these townships, in the informal settlements in and around the formal townships, in free standing informal settlements on vacant urban and peri-urban land, and in the 'illegal' residence in the white suburbs.

With blacks being prevented from entering the white urban areas until the abolition of Influx Controls in 1986, those who were forced to leave the white farms because of drought, eviction, or the mechanisation of agriculture had no choice but to move into the homelands and re-establish themselves either in the new settlement towns which were set up or in the already overcrowded rural areas (Nattrass, 1983:17). The effect of the constant influx into the homelands was that the formally planned and properly serviced residential areas became completely eclipsed by the informal, non-rural population concentrations (Mabin, 1991:39). Since neither the towns nor the rural areas could provide work opportunities for those who were resettled, the breadwinner was forced to enter the migrant workforce and seek work in the urban areas (Nattrass, 1983:17).

Two further acts gave effect to the National Party Government's policy of separate development. The Promotion of Black Self-Government Act of 1959 statutorily divided the reserves into eight ethnic territorial authorities and abolished Black representation in the South African Parliament and the Bantu Homelands Constitution Act of 1971 empowered the National Party Government to grant independence to any homeland which chose self-rule. With the establishment of the KwaZulu Legislative Assembly (KLA) in 1972, the initial step towards self-rule for KwaZulu was taken. This was meant by the National Party Government as a precursor to the independence of KwaZulu.

The KLA took over control of all the African reserve areas in Natal. In Durban the responsibility for those urban African areas not falling within KZ was assumed in 1973 by the Port Natal Administration Board. With the KwaZulu Homeland being situated close to the "white" cities of Natal, the refusal of the KwaZulu government to enforce influx control legislation and the presence of 'released land', black migration continued despite the efforts of the South African Government to enforce apartheid legislation. The fact that it was difficult to obtain legal urban status and therefore access to formal urban employment, also did not deter migration. As Cross, et al. (1993c:18) indicate, the flourishing informal economic sector on the urban periphery provided migrants with the wherewithal to survive.

When it became obvious to the National Party Government that it could not stem the flood of migration to the white cities it attempted to redirect black migration through policies encouraging the decentralisation of industry to border areas and African homelands. This decentralisation policy was complemented by the Physical Planning Act of 1968 which prevented further industrial expansion in declared (mainly urban) areas.

The legislative framework also made it possible for the state to remove Africans from the so-called 'black spots' in white rural areas and have them resettled in black rural villages. Thus the late 1960s and early 1970s were characterised by a dramatic increase in the forced removal of Africans from designated 'black spots' all over Natal and the resettlement in black rural villages (Minnaar, 1992:20). Since these high density villages had little or no economic vitality of their own, breadwinners of resettled families had little choice but to migrate to the urban areas, often without their families because of the restrictions of the Black (Urban Areas) Act (Nattrass, 1983:14)

It was this lack of choice which provides the explanation why draconian influx controls legislation, while serving to 'contain' or 'displace' black migration streams to the cities, could not stop them entirely. By the time Influx Control legislation had been repealed in 1986, Cross, et al. (1993c, in press:60) report that a vast majority

of the total informal population was already resident in the Durban area. With the repeal of Influx Control legislation, all that took place was the decompression of the overcrowded formal townships in the homeland of KwaZulu, as families set about erecting their own shacks on any vacant land or in the informal settlements which were burgeoning in and around the major towns and cities.

The seeds of the decision to repeal influx controls however went back to the mid-1970s. At this time, and particularly after the Soweto uprising of 1976, Bernstein (1989:96) noted that the rigid Verwoerdian approach to black urbanisation had already begun to slowly disintegrate and to be replaced by a hesitant acceptance of the permanence of black people in the "white areas" of South Africa. Although the 1979 Riekert report reaffirmed the need for bureaucratic control over black mobility, the 1980s would see a slow, but nevertheless fundamental change in the government's approach to the question of African permanent residence in urban areas.

In 1984 legislation was passed which enabled Africans to take up 99 year leases on urban land. In 1985, the state adopted the regional planning framework as the basis of a new strategy of urbanisation and local government. These measures led to the introduction of a new system of control and movement in the country. The intention was to prevent low paid, unskilled Africans from residing in the urban areas by making it difficult for them to pay for urban accommodation and amenities (Christensen, 1988:24). The measures distinguished between Africans from 'independent bantustans' and those who are entitled to reside in South Africa. The former had passports and incurred movement and residential control similar to those in the past, whereas for the latter, there was greater freedom over movement and residence (Hindson, 1987:90)

The final recognition of the inevitability and desirability of the black urbanisation process came with the Government's 1986 White Paper on Urbanisation. The passing, during the same year, of the Abolition of Influx Control Act gave legislative effect to the intentions of this White paper. As Bernstein (1989:97) indicates, the

abolition of influx control meant that black South Africans were no longer divided by law into urban "insiders" and rural "outsiders", that it was possible, in principle at least, for families and dependents to join the breadwinner in the city and that migrant workers and commuters were able to gain notional access with other workers to economic opportunities.

Notwithstanding the fundamental break with Verwoerdian apartheid philosophy embodied by tabling of the White paper and the repeal of influx controls, Cross, et al. (1993c:19) noted that the final recognition of black urban permanency also heralded the birth of new approach of 'orderly urbanisation' which still attempted to control migration, although less coercively. Thus while the Free Settlements Areas Act was passed in 1988 which enabled the declaration of open areas on the recommendation of the Free Settlement Board, the legislative amendments to the Prevention of Illegal Squatting Act of 1988 strengthened the elements of coercion and prohibition in the 1951 Act. Also, while the Amendment Bill strengthened the recognition of the importance of informal settlement and its contribution to the national housing stock, it failed to introduce an effective, comprehensive national approach to informal housing (Bernstein, 1989a:21).

During the 1980s floods, drought, and deteriorating economic conditions all served to swell the exodus from the rural areas and exacerbate the chronic housing crisis found in all major urban centres. The failure of the state to address black housing needs led to varied informal efforts to combat the shortages by the migrants themselves, amongst them the large-scale overcrowding in township houses, the erection of backyard shacks, the use of garages and outbuildings as dwelling units, the occupation of formal accommodation in 'white' group areas, dense occupation of backyards of white-owned houses and informal settlement on land in or near townships and on peri-urban and vacant urban land (Bernstein, 1989a:18).

Further proof of legislative reform was provided by the scrapping of the Reservation of Separate Amenities Act in 1990 and the abolition of the Group Areas Act in 1991. The Less Formal Townships Establishment Bill, passed in July of the same year,

aimed to provide for shortened procedures for the designation, provision and development of land and the establishment of townships for informal settlement (Republic of South Africa, Government Gazette No 13343-13381). The Bill also made provision for tribes to settle on land communally. In this instance, land would be controlled by indigenous law until the tribes themselves decided to take up freehold tenure.

Despite the reforms of the mid-Eighties, however, state efforts were still directed at the demolition of informal settlements. Crossroads and KTC in the Cape, Wielers Farm in the PWV, Red Location in Port Elizabeth and Oukasie near Brits all fell victim to the bulldozer. In the Durban area it was the Port Natal Administration Board (PNAB) which set about the demolition of shacks in an effort to control escalating squatting. With the completion of the Inanda Dam in 1982 and the forced resettlement of the people affected by the filling of the dam, many of these people merely moved closer to KwaMashu and squatted on vacant land (Minnaar, 1992:22). The Inanda Newtown site-and-service Scheme, which allocated surveyed sites and provided rudimentary services coupled with the freedom to erect informal structures, was devised in an effort to accommodate the squatters. This scheme, notes Cross, et al. (1993c, in press:19), typified the National Party Government's idea of 'orderly urbanisation'. Since 1990, however, African urbanisation has been anything but 'orderly', with growing reports of uncontrolled squatting on vacant land, spontaneous refugee movements and land invasions by squatters.

3.3 Nature of black migration to and within the Durban Functional Region

Black migration to and within the Durban Functional Region (DFR) has, largely as a result of number of characteristics peculiar to the region, taken on a character of its own. Whereas the source of black migration was often distant in other parts of the country, for Durban it was always on its door-step. As a result of Durban being bordered by the homeland of KwaZulu greater potential freedom of settlement was afforded those hoping to secure employment close to the city. It was this freedom

which provided Durban's peri-urban settlers with a larger number of alternatives than their counterparts elsewhere and increased the likelihood of them being residentially more mobile. Indeed, it could be argued that it is this very fact which might explain why the DFR, although still receiving high levels of rural-urban migration feeding into its informal population, still has movement within the DFR accounting for an equal or greater share of total urban migration (Cross, et al. 1993c, in press:7).

Although the preceding analysis has indicated that the statutory environment was largely ineffective in halting rural-urban migration, legislation was nonetheless instrumental in determining the form that migration was to take. With rigid controls placed on the rural-urban migration, black urbanisation into the DFR would by necessity have to take on a staged approach. For the Development Bank of Southern African (1993:6) three such stages can be discerned. The first stage was the rapid migration into the DFR in the 1970s and early 1980s. This migration occurred just inside KwaZulu's borders and took the form of the growth of informal settlements. Reflecting the magnitude of this rapid migration was the fact that whereas the Black population in the Durban area grew by 7.2 per cent during the 1970s, less than 3 percentage points were accounted for by natural increase while the remainder by migration (Mountain, 1979:4).

With the lifting of influx control legislation in 1986 came the next mass movement in the DFR, whereby migrants relocated themselves around Durban's core. In addition to the development of new informal settlements, new informal dwellings were built on open spaces of land both within and on the fringes of formal townships. Since 1990 blacks have moved into formerly white areas and new informal dwellings have been built on serviced stands in the backyards of existing formal township houses. Black urbanisation has therefore taken the form of densification and "infill" within existing formal Black townships and informal areas. George (1990:7) notes that the densification of townships has proceeded to such an extent that, barring a few insignificant areas, all formal townships have backyard informal dwellings, where the walls of formal and informal houses are back to back on the same formal serviced stand.

In order to understand just why this process has developed an examination of the statutory environment is again in order. Before the scrapping of influx control legislation in 1986, urbanising people were more easily able to gain access to employment opportunities in Durban by staying in those KwaZulu areas that lie on the periphery of the DFR since there was less policing of these areas.

With the reluctance of the KwaZulu Government to implement the government's influx control measures in the homeland areas uncontrolled and unstructured settlement occurred largely on land falling within the KwaZulu homeland bordering on the Durban Borough areas. Indicative of this was the fact that 86 per cent of the informal settlement population of the Durban metropolitan region were located in KwaZulu in 1979 (Haarhoff, 1985:76). The actual siting of these settlements was usually adjacent to formal areas in order to make use of their networks, resources and infrastructure.

By settling on KwaZulu land, Minnaar (1992:25) notes also that blacks were not deemed to be squatting per se. If a migrant needed land to set up his shack, legally all that he needed to do was to gain the permission of a local induna or chief. That is not to say, however, that land was freely available. As George (1990:5) explains, many tribal leaders were reluctant to allow unauthorised dwellings to develop on their land because the settlers usually failed to give the appropriate respect to local traditions and norms.

A further factor contributing to the reluctance of tribal leaders to allow informal settlement on their land was the fear that if the land were designated for urban settlement and upgrading, there was the possibility that the tribe could eventually lose its land to formal urban development. The extent to which traditional leaders have been able to control settlement on tribal land can be discerned from George's (1990:8) finding that since 1987 there had been no new dense informal areas on tribal land, although densification did take place across all land ownership types.

The control of land has however not been the sole prerogative of the traditional

leaders. On freehold land, Cross, et al. (1992a:45-46) found that migration into the informal settlements of the DFR were greatly influenced by the form of voluntary associations operating in that settlement. Indeed, the extent of control was such that civic and residents associations were found to 'manage' the process of in-migration into their communities. Typically, priority in the allocation of plots and houses was given to 'insiders'.

That migration has been largely determined by land ownership is clear from Minnaar's (1992:25) argument that the emphasis of much of the urbanising process around Durban during the 1980s revolved around the control of land, or of the means of access to land. Corroborating this view is Bekker (1991:37) who argues that it was possible to hypothesize that a predictable relationship existed between the circulation of migrants and the form of tenure arrangements found in different settlements. Those migrants who become tenants in DFR freehold areas could be more inclined than other migrants to maintain their earlier home on a permanent basis.

Such 'residential arrangements' highlights the question as to the form that migration to and within the DFR has taken. In his 1989 paper, May (1989:60) declared that with little or no restrictions on permanent rural-urban migration and increasing poverty in rural areas, it was no longer true to infer that the decision to migrate was temporary and oscillating, as had been the case before the repeal of Influx Control legislation in 1986. Rather, there existed push forces from the rural areas which were strong enough to induce the prospective migrant to abandon his/her home and to relocate with at least part of the family into an urban area, or more likely, to its fringe.

It was from this fringe that the employed could commute to work, the unemployed could actively seek work and the informally employed could gain access to markets. Additionally, since employment opportunities were virtually non-existent in the rural areas there were few economic forces which served to pull migrants back to the rural areas. And, since burgeoning informal settlements provided a convenient and

cheap home for migrants, the attraction of the cities was even stronger.

Yet, this view failed to take cognisance of the strong urban push forces which could be attributed to the legacies of apartheid. As Mabin (1991:42) points out

Fundamental to the growth of informal settlements is usually the question of finding places to live. The kinds of households which find informal residence the best option...would seem in very many cases to be those involved in patterns of circular migration, maintaining a variety of urban and rural bases.

In a later paper, May (1993b:13) admitted that the nature of migration had undergone significant change with regard to both the time span of migration and the nature of linkages between the migrant and the "home". Longer term migration, he noted, had been supplanted by daily or weekly commuting, movement between rural and urban had evolved beyond simple oscillation between the rural home and the urban work place and that entrance into urban settlements appeared to be a far more complex process than had been previously thought.

The idea that households adopt clearly identifiable patterns of migration is also challenged by Cross, et al. (1993c, in press:60), who see the existing evidence of migration into the informal settlements as taking on such a complex, differentiated process that neither circular nor oscillating migration can be readily discerned. Their argument is that overall migration may instead be opportunistic, whereby the individual migrant or household takes up openings as s/he discovers them on the way.

It can argued however that this view is based on the false premise that the motives for migration can be extrapolated from the nature and form that migration has taken in the DFR. It simply does not follow that migration is opportunistic because no clear or distinguishable pattern can be discerned. In fact, that migration streams

take on a complex and differentiated process has less to do with opportunism than with the numerous factors impacting upon the mobility of migrants.

As this dissertation will show, the migrating households' mobility has been influenced by a number of factors, *inter alia*, social, economic and political factors, family networks, and constrained choice and coercion. In terms of the latter two, a key factor impinging upon black movement has been the high levels of violence which characterise the DFR. Although more than a few commentators see much of the violence as being attributable to the conflict between the opposing African National Congress-Alliance/Inkatha Freedom Party political factions, it has generally been accepted that no one single factor is to blame and that the cause of violence is complex, multi-causal and the result of the interaction of a number of contributory factors. In particular, the stresses associated with rapid urbanisation has been seen to provide a catalyst for violence (Todes and Smit, 1993:1). As Morris and Hindson (1992:157) point out

Rapid urbanisation has led to a reallocation of population towards the cities and massively increased pressure on urban social resources. It has sparked off a struggle for space, a struggle over land and residential resources. This struggle has led to the mobilisation of communities along new lines based on emerging social divisions. The divisions that provide the basis for mobilisation are (at various times and in differing places) race, class, age, language, ethnic origin.

Hence, that the factors impacting upon black mobility are numerous and complex does not necessarily make migration decisions opportunistic; it simply means that there are more obstacles for the migrant to overcome in any strategy to achieve his/her goals. It is argued therefore that an understanding of migration in the DFR lies less in examining the actual movements of migrants than in determining the perceptions and intentions behind migration.

While failing to provide a deterministic insight into the reasons for migration Cross,

et al. (1993c, in press:11) do nevertheless provide a fundamental basis for a better understanding of the process of migration with their finding that

...people moving into the informal areas usually arrive after a number of earlier moves, which have brought them closer to the urban core and incrementally put them in touch with the information needed to successfully locate an informal site. These earlier moves often involve tenancy of different kinds, and draw attention to the information processes involved in the movement of population into the shack areas.

3.4 Summary

From the above analysis it is clear that the legislative environment has been instrumental in determining black urbanisation and settlement in South Africa. This was manifested in the difference in the urbanisation rates of the black majority against those of the other race groups. The legislative framework had its impact on black migration in two areas. Firstly, while legislation did not prevent large-scale black urbanisation, it nevertheless 'contained' it, or, as later consensus had it, 'displaced' it. Secondly, the statutory framework increased the cost of urbanisation to would be rural-urban migrants.

Essentially, it was reported that the history of black migration in the KwaZulu/Natal region could be examined around the three key issues of the conflict over land, the demand for labour to supply growing industry and the apartheid-inspired 'homeland development' policies. As regards the nature of black migration itself, it was noted that migration to and within the Durban Functional Region (DFR) had, largely as a result of number of characteristics peculiar to the region, taken on a character of its own. The fact that the source of black migration was on Durban's doorstep had afforded migrants greater potential freedom of settlement. It was this freedom which provided Durban's peri-urban settlers with a greater number of alternatives and

increased the likelihood of them being residentially more mobile.

With rigid controls placed on the rural-urban migration, black urbanisation into the DFR took on a staged approach. Three such stages were discerned, the first of which was the rapid migration into the DFR in the 1970s and early 1980s to just within KwaZulu's borders so as to escape the constraints of Influx Controls. With the lifting of influx control legislation in 1986 migrants relocated themselves in informal settlements around Durban's core. Since 1990 black urbanisation has taken the form of densification and "infill" within existing formal Black townships and informal areas.

As regards the question as to the form that migration has taken in recent years, there was differing opinion. Although May (1989) initially believed that the lifting of influx control restrictions coupled with increasing poverty in rural areas would lead permanent rural-urban migration, this view was modified in a later paper. Mabin (1991) maintained that strong urban push forces forced households to engage in patterns of circular migration, while maintaining a variety of urban and rural bases. Cross, et al. (1993c), on the other hand, went further, believing that migration took on such a complex, differentiated process that neither circular nor oscillating migration could be discerned. Rather, migration was opportunistic, whereby households took up openings as they discovered them on the way.

CHAPTER 4: BLACK MIGRATION TO AND WITHIN THE INFORMAL SETTLEMENTS OF THE DURBAN FUNCTIONAL REGION (DFR)

4.1 Introduction

Black migration to and within the informal settlements of the Durban Functional Region (DFR) is a complex, differentiated phenomenon. Using data gleaned from two empirical studies conducted in the rural areas of KwaZulu and the informal settlements of the DFR, the intention of this chapter is to provide an understanding of this phenomenon. The two studies in question are those conducted by the Rural and Urban Studies Unit (RUSU) of the University of Natal and KwaZulu Finance Corporation (KFC). To arrive at the findings which are presented below, data from each of these two studies was compiled in raw form on computer, which then required further manipulation.

In terms of the objectives of the two studies, the RUSU study aimed to identify and analyse demographic changes taking place in the four sub-regions of the DFR and to locate these changes in relation to wider demographic trends and migration flows. The KFC study, on the other hand, gathered information on income and expenditure in KwaZulu for later use in business viability studies in the region. In regard to the areas covered, the KFC survey was conducted amongst households in all 26 Magisterial Districts of KwaZulu. The RUSU survey, on the other hand, comprises the aggregated information from four urbanisation studies conducted by the Rural-Urban Studies Unit (1992a, b; 1993a, b in press) in the DFR.

The sample areas of the RUSU survey were chosen to cover the entire spectrum of informal settlements in terms of type and recency of settlement, degree of urbanisation and nature of migration dynamics. Spatially, twenty areas of the DFR's western, northern, central and southern informal regions were surveyed which were broken down into 15 shack settlements and 5 township samples which contained informal populations. In terms of the type of settlements, the sample areas covered the freestanding shack settlements, townships which are part of them, and tenant

populations which are lodged in township rental accommodation.

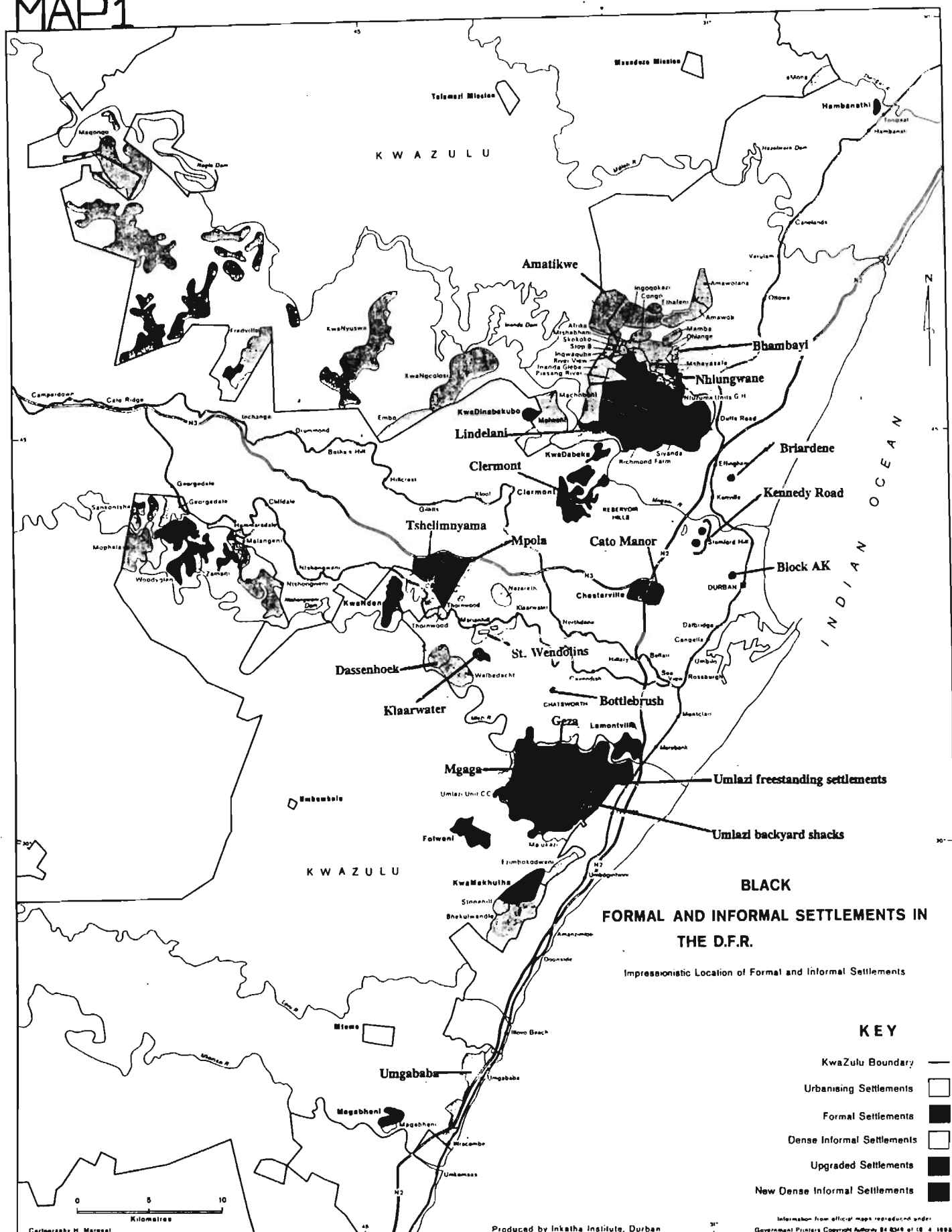
Given that the KFC study includes household data from all 26 magisterial districts of KwaZulu, chosen to minimise sampling error, and that the RUSU study covers the entire spectrum of informal settlements in terms of type and recency of settlement, degree of urbanisation and nature of migration dynamics in all four important sub-regions of the DFR, it can be argued that both studies are largely representative of the populations that they aim to portray (For a more detailed account of the methodology of the two studies refer to Appendix One).

Given the magnitude and complexity of black migration, the focus of this chapter is confined to an examination of rural-urban migration into the informal settlements of the DFR and intra-urban migration within these settlements (See Map 1). On an analytical level, the delineation and explanation of these migration streams requires that they are examined in terms of both rural-urban and intra-urban migrants and that information on the demographic characteristics of these categories of migrants and on their motivations behind migration is obtained.

Taking into consideration the complexity of the migration process, however, the rural-urban and intra-urban categories of migrants are, in themselves, inadequate. In order to adequately represent the intricacies of the migration streams greater cognisance needs to be taken of the recency of migration and the process adopted by migrants. To satisfy this requirement the informal population of the DFR is thus broken down into the following categories: non-migrants; direct recent rural-urban migrants, direct established rural-urban migrants; indirect recent rural-urban migrants; indirect established rural-urban migrants; recent intra-urban migrants and established intra-urban migrants.

The assumptions underpinning these categories are as follows. A rural-urban migrant is any migrant who has made a move from a rural to an urban area and an intra-urban migrant is any migrant who has moved only within the urban area. A direct migrant is any migrant who has in their last move, moved from a rural to an

MAP 1



BLACK FORMAL AND INFORMAL SETTLEMENTS IN THE D.F.R.

Impressionistic Location of Formal and Informal Settlements

KEY

- KwaZulu Boundary
- Urbanising Settlements
- Formal Settlements
- Dense Informal Settlements
- Upgraded Settlements
- New Dense Informal Settlements

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1. FORMAL SETTLEMENTS:

Areas which both visually and legally are formally planned laid-out residential settlements. These areas have surveyed and serviced sites; at least basic facilities and infrastructure and open spaces. Included in this map are informal dwellings in the backyards of surveyed formal sites in formal settlement areas.

2. UPGRADED SETTLEMENTS:

Originally non-conventional, spontaneous informal settlements; which through the intervention of the urban management system, have received legal recognition and resource allocation for the infrastructure, facilities and services to be upgraded and formalised over time. This process has taken place since the mid 1980's. Residents upgrade their own houses over time. The once informal settlement takes on a more formal planned appearance after upgrading has taken place.

3. DENSE INFORMAL SETTLEMENTS:

Unplanned, spontaneous and unauthorised settlements both in terms of tribal and South African law. These areas have non-conventional, informal housing on unsurveyed sites. High density, few open spaces and few gardens are further characteristics of these areas. This category refers to dense informal settlements that were established both pre and in 1986.

4. NEW DENSE INFORMAL SETTLEMENTS:

The definition for 'Dense Informal' applies to this category. In terms of this map, areas are classified as "new", if they have been established since 1986.

5. URBANISING SETTLEMENTS:

Settlements that are in the state of transition rural/urban lifestyle. This is assessed according to a number of criteria: - the level of subsistence farming; the extent to which people in the community depend on urban areas for their work and shopping requirements; and the values and aspirations of the people living in that settlement.

Cartography M. Margot

Produced by Inkatha Institute, Durban

urban area and an indirect migrant is any migrant whose last move was intra-urban, but who has previously moved from a rural to an urban area. A recent migrant is any migrant who has entered their present area since 1986 and an established migrant is any migrant who has entered their present area before 1986.

For the purposes of this dissertation, the focus is placed on recent direct rural-urban and intra-urban migrants. However, an understanding of the dynamic nature of the migration process can be gained by contrasting these categories of migrants against their more established counterparts. Also, by comparing these migrant categories against those individuals who have not moved at all one is able to determine the distinguishing features of the migration phenomenon.

At the spatial level, an adequate representation of the DFR's informal population is achieved by identifying four different types of informal settlements. Formal townships refer to those areas proclaimed as official residences for black workers in terms of the Group Areas Act of 1951. (The township of Klaarwater should however be distinguished from the other formal townships on the grounds that it forms an integral part of the informal settlement complex of Mariannhill). Formal infill indicate those areas of vacant land in and around the outskirts of formal townships which have received informal settlement. Backyard shacks refer to those informal structures which share the same site as a formal structure in a formal township. Freestanding settlements are those informal settlements which are independent of formal townships.

In order to determine whether the Todaro hypothesis adequately explains migration to and within the DFR, information on migration patterns, the attitudes and demographic profiles of migrants is needed. To actually test whether the hypothesis holds, the mean levels of incomes in the rural areas will be compared with those of the informal townships of the DFR since it is argued that it is the incomes of these areas which the rural-urban in-migrant hopes to attain. Likewise, a test of the hypothesis will also demand a comparison of the migrating unit's chances of

securing formal employment (which, for the purposes of this dissertation, is given by the percentage level of full-time formal employment in each respective sector) in the rural areas against that of the urban areas. The migrating unit is then assumed to move if its potential income in the informal townships of the DFR, taking into account the probability of securing formal employment, exceeds that of the rural areas, in the case of rural-urban migration, or that of the other informal settlements, in the case of intra-urban migration.

Taking cognisance of the findings of previous studies (Cross, et al. 1992a, b; 1993a, b, in press), however, it is assumed that it is not the individual but the household which is the migrating unit. Accordingly, it is the mean incomes of households in rural areas which are compared with those of households in the informal settlements of the DFR, in the case of rural-urban migration, and the comparison of mean household incomes at the areas of origin and destination, in the case of intra-urban migration.

A comparison of income differentials taking into account the probability of migrants securing formal employment provides but a prerequisite for applying the Todaro model to the migration phenomenon. A full determination of the relevance of the Todaro model demands further analysis which focuses on the migration streams themselves, and in particular, on the nature of migration streams and the characteristics and the intentions behind migration. Ultimately, the analysis would need to determine whether the central hypothesis of this dissertation holds, i.e., whether in fact black migration to and within the informal settlements of the DFR constitutes a process whereby individuals migrate in the hope of securing high-paying formal urban employment.

4.2 Rural-urban and intra-urban income and employment differentials

In order for the Todaro model to explain black migration into the informal settlements of the DFR two requirements need to be met. Firstly, it would need to be demonstrated by using income differentials that migrants expectations would be orientated away from the rural areas and towards the urban areas of the region. More specifically, income differentials between the rural and urban areas would need to be of a level sufficiently high enough to both entice migrants to leave their familiar surroundings and to compensate them for the possible extended period of unemployment or underemployment in the informal sector of the urban area. In the instance of intra-urban migration income differentials between settlements would need to be sufficiently high to entice movement between those settlements.

Secondly, it would need to be shown that the probability of securing urban formal employment is of a sufficiently high level to make migration worthwhile. These two prerequisites are shown in Tables 4.2.1(a), 4.2.1(b), 4.2.1(c) and 4.2.2.

Table 4.2.1(a): Summary Statistics of Monthly Household Incomes by Settlement Type, June 1992 (Rands)

Income Indicators	Rural (1)	Urban Settlement Type (2)			
		Formal Town	Formal Infill	Backyard Shacks	Free-stand
Mean	854	904	848	961	920
Median	560	843	800	853	723
Std Dev	1047	496	657	608	831

Source: (1) KFC Income and Expenditure survey data
(2) RUSU survey data

Table 4.2.1(b): Summary Statistics of Monthly Per Capita Household Incomes by Settlement Type, June 1992 (Rands)

Income Indicators	Rural (1)	Urban Settlement Type (2)			
		Formal Town	Formal Infill	Backyard Shacks	Free-stand
Mean	137	352	225	285	242
Median	85	246	185	196	173
Std Dev	178	270	245	208	239

Source: (1) KFC Income and Expenditure survey data
(2) RUSU survey data

Table 4.2.1 (c): Summary Statistics of Household Sizes by Settlement Type, June 1992 (Rands)

Household Size Indicators	Rural (1)	Urban Settlement Type (2)				
		Formal Town	Formal Infill	Backyard Shacks	Free-stand	Overall
Mean	7.2	3.5	4.8	3.8	4.8	4.6
Median	7.0	3.0	4.0	3.5	4.0	4.0
Std Dev	3.2	2.0	3.0	1.9	2.7	2.7

Source: (1) KFC Income and Expenditure survey data
(2) RUSU survey data

Table 4.2.1(a) indicates that significant household income differentials exist between the rural areas of KwaZulu and the informal settlements of the DFR and within the different types of informal settlements. The mean total income for rural households of only R854, is somewhat less than that for formal townships (R904), freestanding settlements (R920) and backyard shacks (R961). Only the mean total household income for formal infill settlement types (R848) is less than that for rural areas.

Likewise, per capita incomes of rural houses are significantly less than those of the

urban informal settlement types (Table 4.2.1(b)). More specifically, the mean per capita income of rural households (R137) is substantially less than that for formal infill areas (R225), freestanding settlements (R242), backyard shacks (R285), and formal townships (R352). Partly explaining these disparities is the significantly larger size of rural households (Table 4.2.1(c)). The mean household size of rural households, 7.2 members per household, is significantly higher than that for formal infill areas (4.8), freestanding settlements (4.8) or backyard shacks (3.8) and more than double that for formal townships (3.5).

One criticism of empirical research conducted in the Third World has been that it rarely took cost of living differentials into account. Since the cost of living in urban areas is usually higher than in rural areas, nominal wage differentials tend to overstate the advantage of city life. But when cost of living differentials are considered, the nominal wage gap in many cases disappears. One way to determine whether this holds true for this study is to compare household expenditure levels for the rural areas of KwaZulu against those of the urban informal settlement areas of the DFR. Data for this purpose is obtained by using the March 1992 Household Subsistence Level (HSL) weights for low income households in urban areas and the May 1992 weights for rural areas as calculated by Potgeiter (1992; Personal Communication).

As Table 4.2.1(d) shows, the mean monthly expenditure level for a given 5 member low income rural household is R564.70 and that for an urban household is R657.70. In regard to each component of total monthly household expenditure, rural adult men spend R85.00 on food, R27.60 on clothing and R7.30 on fuel, lighting, washing and cleansing as opposed to the R82.30, R29.90 and R2.10, respectively disbursed by their urban counterparts. Adult women in rural areas spend R77.70 on food, R22.90 on clothing and R7.30 on fuel, light, washing and cleansing as against the R71.10, R25.70 and R2.10, respectively spent by adult urban women. Rural children between the ages of 1 to 6, expend R58.10 on food, R9.00 on clothing and R7.30 on fuel, lighting, washing and cleansing in contrast to the R50.50, R9.70, R2.10, respectively consumed by urban children of the same age.

Table 4.2.1(d): Monthly Primary Household Subsistence Levels for low income households in rural and urban areas, 1992 (Rands)

Age and Sex	Food		Clothing		Fuel, Light, Wash, Cleansing		Total	
	Rural (1)	Urban (2)	Rural	Urban	Rural	Urban	Rural	Urban
Child, 1-6 yrs	58.1	50.5	9.0	9.7	7.3	2.1	74.4	62.3
Child, 7-10 yrs	76.4	65.2	12.0	12.9	7.3	2.1	95.7	80.1
Child, 11-14 yrs	80.3	76.5	17.9	19.3	7.3	2.1	105.5	97.9
Men, >15 yrs	85.0	82.3	27.6	29.9	7.3	2.1	119.9	114.2
Women, >15 yrs	77.7	71.1	22.9	25.7	7.3	2.1	107.9	98.9
Household as a whole							51.3	107.3
Sub Total							554.7	560.7
Rent							---	19.5
Transport							10.0	77.5
Household Subsistence level							564.7	657.7

Source: (1) Potgeiter (1992)
(2) Potgeiter: Personal Communication

It is clear from the above figures - and also for those of children between the ages of 7-10 and 11-14 - that, with the exception of clothing, rural expenditures are higher than urban disbursements. Yet, cancelling out this advantage are the higher sums spent by urban households on rent, transport and expenditure attributable to the household as a whole. Before one can conclude that urban expenditures are of a level likely to discourage rural-urban migration, the composition of families of each of both urban and rural areas should be considered. For the DFR, a breakdown of the mean household size of 5 (rounded up from 4.6 in Table 4.2.1(c)) shows a family structure of 1 adult male, 1 adult female and 3 children, two of whose ages fall between 1-6 and one between 7-10 (See Figure 4.2.1). For the rural areas of KwaZulu the mean household size of 7 (rounded down from 7.2 in Table 4.2.1(c)) is broken down into 2 adult males, 2 adult females and 3 children, one of whose age is between 1-6, one between 7-10 and one between 11-14 (See Figure 4.2.2).

Taking the composition of families into account, the mean monthly expenditure level for the mean rural household becomes R792.50 and that for urban household only R622.30. To make a meaningful comparison of these figures, however, the mean per capita expenditure level of rural and urban households needs to be calculated. Using a simple per capita calculation of these figures gives a mean rural per capita expenditure level of R113.21 and a mean urban per capita expenditure level of R103.72. The conclusion derived from this is that while mean per capita household expenditure levels are higher in urban areas, the magnitude of rural-urban income differentials is such that rural-urban migration is unlikely to be discouraged.

Table 4.2.2 (below) indicates, *inter alia*, the probability of migrants securing formal employment, which is reflected in the percentage of both the rural and informal settlement populations who are employed full-time in a formal capacity. Only 27 per cent of adult (i.e. 15 years or older) rural inhabitants are employed full-time in formal employment. This is in contrast to the 30.7 per cent of all freestanding settlers, the 42.5 per cent of formal township inhabitants, the 29.2 per cent of formal infill residents and the 39.4 percent of backyard shack occupants.

FIGURE 4.2.1: AGE/GENDER PROFILE OF DFR INFORMAL SETTLEMENT POPULATION

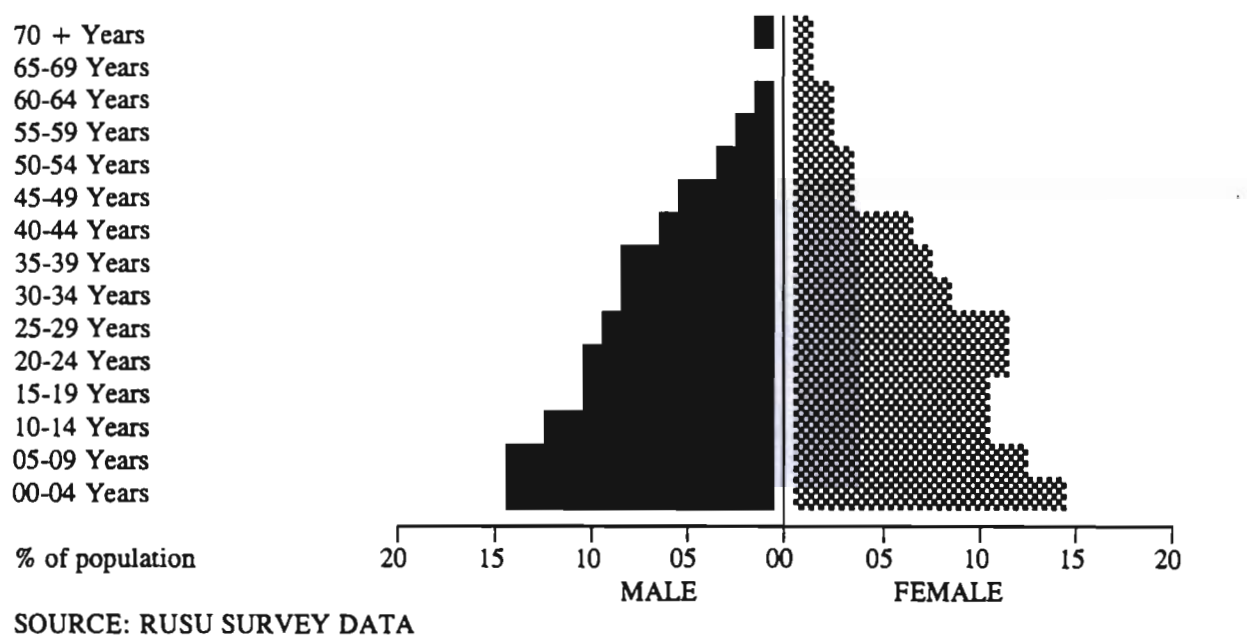


FIGURE 4.2.2: AGE/GENDER PROFILE OF RURAL KWAZULU POPULATION

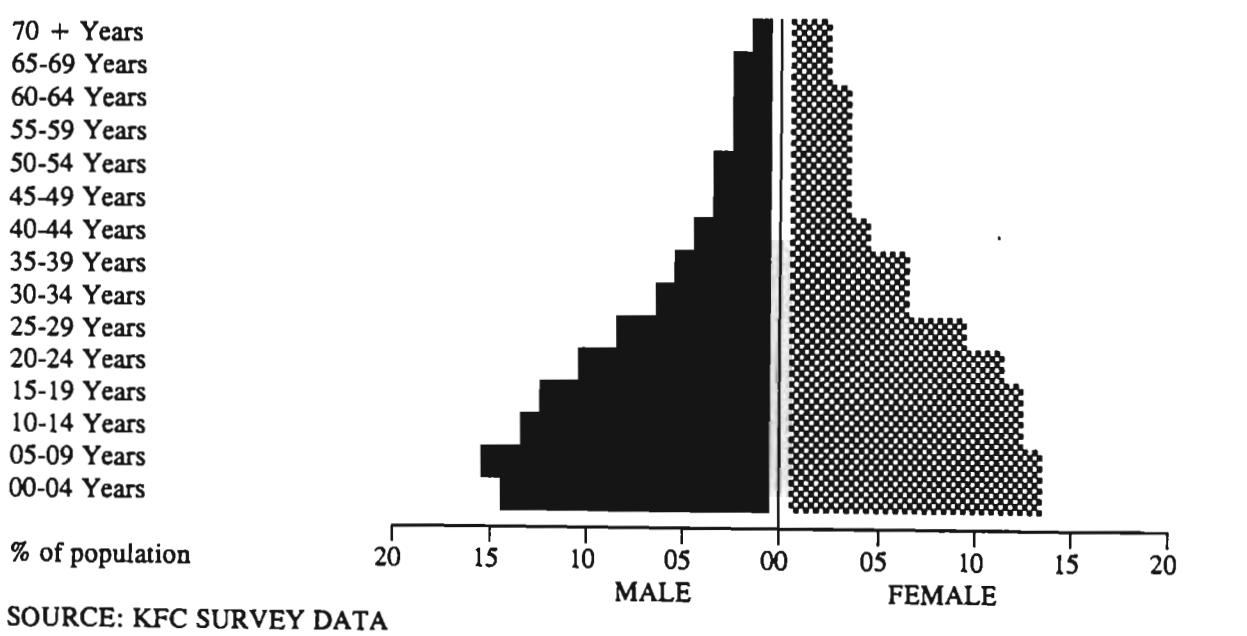


Table 4.2.2: Vocational Status of Rural/Urban Populations by Settlement Type, 1991-2 (column percentages) (Percentages rounded off: do not add up to 100 per cent)

Vocational Status	Rural (1)	Urban Settlement Type (2)			
		Formal Town	Formal Infill	Backyard Shacks	Free-stand
Scholar/Student	20.2	15.0	17.4	18.2	13.5
Unemployed-Not Seeking	6.7	3.3	6.1	3.0	5.4
Pensioner	9.9	2.6	2.4	3.0	3.7
Unemployed-Seeking	21.0	14.4	17.9	6.1	23.8
Housewife	9.2	5.2	11.3	9.1	7.3
Informal-Full-time	3.0	12.4	7.1	12.1	9.4
Informal-Part-time	---	1.3	0.8	---	1.7
Formal-Full-time	27.0	42.5	29.2	39.4	30.7
Formal-Part-time	2.9	0.7	6.6	3.0	3.3
N	14 647	153	380	33	1 743

Source: (1) KFC Income and Expenditure survey data
(2) RUSU survey data

It can clearly be seen from Tables 4.2.1(a), 4.2.1(b) and 4.2.1(c) that rural inhabitants can improve their total household income by migrating either into the formal townships, the freestanding settlements or the backyard shacks of the informal settlements of the DFR. In regard to intra-urban migration, residents of the formal infill areas could improve their total household income by moving into either the formal townships, the freestanding settlements, or the backyard shacks. Residents of formal townships could improve their total household income by migrating either into the freestanding settlements or the backyard shacks. Freestanding residents could do likewise by moving into backyard shacks.

In regard to per capita household incomes, a similar picture holds. The differences are that rural-urban migrants could improve their per capita income prospects by also moving into formal infill areas; amongst intra-urban migrants, residents of backyard shacks could do likewise by moving into the formal townships (and not vice versa, as was the case with total household income); and, in addition to moving into the backyard shacks, residents of freestanding settlements could improve their per capita household incomes by moving into the formal townships.

Table 4.2.2 indicates that rural inhabitants could enhance their chances of securing full-time formal employment by migrating into any of the four different types of informal settlements of the DFR. In regard to intra-urban migration, residents of the formal infill areas could better their employment prospects by migrating into either of the freestanding settlements, backyard shacks or the formal townships; freestanding residents could improve their job possibilities by moving into backyard shacks and formal townships and occupants of backyard shacks could do likewise by migrating into the formal townships.

Thus in line with the dictates of the Todaro hypothesis, one would expect that, purely on the basis of a comparison of both mean household and per capita incomes and the probability of securing formal employment, that migration would occur from the rural areas into the formal townships, backyard shacks and freestanding areas of the informal settlements, given that migrant households could improve their household income and their probability of securing formal employment in these settlements. Migration into the formal infill areas would be less substantial given that the mean household income of formal infill residents is less than that of the rural areas and the probability of securing employment in these areas barely an improvement. Nonetheless, the significant difference in per capita income between these two areas should still make these settlements attractive to potential migrants

In regard to intra-urban migration, one would expect that, on the basis of a comparison of per capita household incomes, movement would take place from the formal infill areas, freestanding settlements and backyard shacks into the formal

townships. One would also expect movement from the formal infill areas into the freestanding settlements and migration from formal infill areas and freestanding settlements into the backyard shacks.

With these income differentials as large as they are, and with the prospect of securing formal employment improved with both rural-urban and intra-urban migration, it can be argued that the necessary preconditions for the use of the Todaro model to explain migration to and within the DFR is in place. What is now needed is an examination of migration flows and the intentions behind migration in order to determine whether they in fact accord with these expectations.

4.3 Nature of black migration to and within the DFR

Table 4.3.1 (below) shows the patterns of migration which are taking place within to and within the DFR. From the table it can be seen that 87.7 per cent of those respondents whose last house was in a rural area moved into the freestanding settlements of the DFR, 7.4 per cent into a formal infill residence, 4.1 percent into the formal townships and less than one per cent into backyard shacks.

Amongst intra-urban migrants, nearly 90 per cent of those respondents whose last house was in a freestanding settlement are presently residing in the same or another freestanding settlement, only 6.6 per cent in a formal infill settlement and less than 4 per cent in a formal township. For those respondents whose last house was in a backyard shack, just over half are presently residing in a freestanding settlement, nearly one third in formal infill settlements, 11 per cent in a formal township and just under 5 per cent in the same or other backyard shacks.

From the above analysis it is clear that the nature of migration flows to and within the DFR do not concur with that expected were migrants to move in accordance with the Todaro hypothesis. However one possible explanation could lie in the fact that migrants are not differentiated according to the recency and the nature of their movements. In particular, it needs to be noted that economic conditions in both

Table 4.3.1: Black Migration to and within the DFR, 1991-2 (column percentages) (Percentages rounded off: do not add up to 100 per cent)

Present Home	Last Residence					
	Rural (1)	Urban (2)				
		Formal Town	Formal Infill	Back yard	Free-stand	Overall
Formal Town	4.1	13.3	18.2	11.0	3.9	8.5
Formal Infill	7.4	20.0	15.9	32.9	6.6	16.0
Back-yard	0.8	---	4.5	4.9	---	1.5
Free-stand	87.7	66.7	61.4	51.2	89.5	73.9
N	243	195	44	164	152	798

Source: (1) KFC Income and Expenditure survey data
(2) RUSU survey data

rural and urban areas change over time. These changes influence the magnitude of income differentials and consequently, if Todaro's hypothesis holds true, the extent of migration. Also, migration into the DFR has been both of a direct and indirect nature. Direct rural-urban migration involves a single move and thus an fixed intention to move. Indirect migration, on the other hand, entails two or more moves and a possible change in motive for migration with each subsequent move. These two considerations will need to be incorporated in any analysis of migration to and within the DFR.

4.4 Profile of DFR black informal settlement population

Table 4.4.1 shows the profile of the DFR black informal population. From the table it can be seen that close on two thirds of the informal settlement population of the DFR originated from rural areas. Of these rural-urban migrants, 12.9 per cent have recently arrived directly from the rural areas, while 31.2 per cent are indirect

migrants in that they have moved from the rural areas since 1986 but have since moved within an urban area. Of those rural-urban migrants who are established in the urban sector, 14.3 per cent had directly arrived from a rural area while 5.7 per cent were indirect migrants in that their last place of residence was in an urban area.

Table 4.4.1: Breakdown of DFR Informal Population, 1991-2 (Percentages rounded off: do not add up to 100 per cent)

Category of resident			Percentage
Non-migrants			19.3
Rural-urban migrants			64.1
	Direct-recent	12.9	
	Indirect recent	31.2	
	Direct established	14.3	
	Indirect established	5.7	
Intra-urban migrants			16.5
	Recent intra-urban	11.6	
	Established intra-urban	4.9	
N			957

Source: RUSU survey data

The great difference between the recent indirect rural-urban migrants and their established counterparts points to high levels of population mobility over the past few years - especially given that one would expect the established migrants to have moved a greater number of times over the longer period that they have lived in the urban sector. Indeed, as Table 4.4.2 shows, up to 88.3 per cent of those migrants who moved directly from a rural area to the urban sector before 1986 have not moved since, as against the nearly 28 per cent for recent direct in-migrants and the only 8 per cent of recent indirect in-migrants.

Table 4.4.2: Number of times respondents moved since lifting of influx control, 1991-2 (column percentages)
 (Percentages rounded off: do not add up to 100 per cent)

No of times	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establish Rural-Urban	Indirect Establish Rural-Urban	Recent Intra-urban	Establish Intra-urban	Overall
Not Moved	100	27.6	8.0	88.3	69.1	11.7	80.9	46.7
Once	---	60.2	56.2	10.9	12.7	62.2	17.0	36.1
Twice	---	8.9	25.1	0.7	9.1	18.0	---	11.8
3 to 7 times	---	3.3	10.7	---	9.1	8.1	2.1	5.3
N	185	123	299	137	55	111	47	957

Source: RUSU survey data

From Table 4.4.1 it can also be seen that almost one in five of the informal settlement population are non-migrants. These are respondents who were born in an urban area and have not moved from their place of birth. Of the further 16.5 per cent of the informal population who originate from the urban sector, 11.6 per cent have moved within the informal settlements since 1986, while 4.9 per cent have moved to their present place of residence before 1986.

In order to determine whether the central hypothesis of this dissertation holds, each category of migrant should now be examined and the nature of his or her movement detailed in the context of income and employment differentials which exist between the different settlement types.

4.5 Nature of black migration according to the profile of migrants

Table 4.5.1 shows that 87.4 per cent of direct recent rural-urban migrants moved into the freestanding settlements, 6.7 percent into the formal infill settlements and 5.9 per cent into the formal townships. This is contrasted with the 91.8 per cent of their established counterparts who had moved into a freestanding settlement, the 4.5 per cent who had moved into a formal infill settlement, the 2.7 per cent who had moved into a formal township and the less than one per cent who had moved into backyard shack accommodation.

The migration profile for recent indirect rural-urban migrants is more complex (Table 4.5.2). Of those recent indirect rural-urban migrants whose last house was in an informal settlement, up to 94.6 per cent are residing in the same or another informal settlement, only 5.4 per cent in a formal infill settlement and none in either the formal townships or the backyard shacks. For this category of migrants whose last house was in a backyard shack, 47 per cent moved into a freestanding settlement, 41 per cent into a formal infill settlement, 7 per cent into the formal townships and only 5 per cent have remained in their backyard shack or have moved into other backyard accommodation.

Table 4.5.1: Direct rural-urban migration by recent/established residents, 1991-92 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

	Settlement Type	Last Residence	
		Rural	
		Recent	Established
P r e s e n t H o m e	Formal Township	5.9	2.7
	Formal Infill	6.7	4.5
	Backyard Formal	---	0.9
	Free-standing	87.4	91.8
	N	119	110

Source: RUSU survey data

Table 4.5.2: Indirect rural-urban migration by recent/established residents, 1991-92 (column percentages)
 (Percentages rounded off: do not add up to 100 per cent)

	Settlement Type	Last Residence							
		Formal Township		Formal Infill		Backyard Formal		Freestanding	
		Rec	Est	Rec	Est	Rec	Est	Rec	Est
P r e s e n t H o m e	Formal Township	10.9	---	21.7	---	7.0	---	---	16.7
	Formal Infill	27.2	7.1	21.7	---	41.0	41.7	5.4	8.3
	Backyard Formal	---	---	4.3	---	5.0	---	---	---
	Freestanding	62.0	92.9	52.2	100	47	58.3	94.6	75
	N	92	28	23	2	100	12	74	12

Source: RUSU survey data

For established indirect rural-urban migrants, the migration profile is somewhat different. Three quarters of those respondents whose last house was in a freestanding settlement are found in the same or another freestanding settlement, 16.3 per cent reside in the formal townships and 8.3 per cent in the formal infill settlements. Of those established indirect rural-urban migrants whose last house was in the backyard shack, 58.3 per cent now reside in a freestanding settlement and 41.7 per cent in a formal infill area. Interestingly, up to 92.9 per cent of those respondents whose last house was in a formal township reside in a freestanding settlement, whilst 7.1 per cent are to be found in a formal infill area.

In the case of recent intra-urban migrants (Table 4.5.3), whereas 86.2 per cent of those respondents whose last house was in a freestanding settlement are now residing in the same or another freestanding settlement, only 6.9 per cent are residing either in a formal infill area or a formal township. Of those respondents whose last house was in a backyard shack only 10 per cent remain in that shack or have moved to another shack, the same percentage have moved into a formal township, 56.7 per cent have moved into a freestanding settlement and 23.3 per cent now reside in a formal infill area. Two thirds of those respondents whose last house was in a formal township have now moved to a freestanding settlement, 16.2 per cent have remained in the same township or have changed townships, or have moved to a formal infill area.

For established intra-urban migrants, all of those respondents whose last house was in freestanding settlement or in a formal infill area have moved to the same type of settlement or have remained in the same settlement. Of those respondents whose last house was in a backyard shack, 71.4 per cent are now residing in a freestanding settlement, 14.3 per cent in a formal township and the same number in a formal infill area. Of those respondents whose last house was in a formal township, 76.9 per cent have found a home in a freestanding settlement, 15.4 per cent in a formal township and 7.7 per cent in a formal infill area.

Table 4.5.3: Intra-urban migration by recent/established residents, 1991-2 (column percentages)

	Settlement Type	Last Residence							
		Formal Township		Formal Infill		Backyard Formal		Freestanding	
		Rec	Est	Rec	Est	Rec	Est	Rec	Est
P r e s e n t H o m e	Formal Township	16.2	15.4	11.1	---	10.0	14.3	6.9	---
	Formal Infill	16.2	7.7	11.1	---	23.3	14.3	6.9	---
	Backyard Formal	---	---	11.1	---	10.0	---	---	---
	Freestanding	67.6	76.9	66.7	100	56.7	71.4	86.2	100
	N	37	13	9	3	30	7	29	5

Source: RUSU survey data

From the above tables it is clear that income differentials discounted for the probability of finding formal sector employment do not wholly explain black migration to and within the DFR. Although it was expected that direct recent rural-urban migrants would move into the freestanding settlements of the DFR, the magnitude of the migration was surprising. A clear and sometimes overwhelming majority of all categories of migrants moved into this settlement type. Also throwing doubt on the ability of Todaro hypothesis to explain rural-urban migration is the fact that while mean per capita income levels and employment levels were the highest in formal townships only 5.9 per cent of recent direct rural-urban migrants moved into these areas.

In regard to recent indirect rural-urban and intra-urban migrants both show very high levels of in-migration to freestanding settlements. Table 4.5.2 indicates that up to 62 per cent of indirect rural-urban migrants whose last home was in a formal township, 52.2 per cent of former formal infill residents and 47 per cent of backyard shack occupants moved into a freestanding settlement. Nearly 95 per cent of freestanding settlement residents moved into another or remained in the same freestanding settlement.

Again little recent indirect rural-urban in-migration into formal townships took place. Only 21.7 per cent of migrants whose last house was in the formal infill areas, 7.0 per cent of former backyard formal occupants and no freestanding settlement residents moved into formal townships. 10.9 per cent of formal township residents moved into another or remained in the same formal township. Recent intra-urban migration into freestanding settlements show similar trends (Table 4.5.3). Only 11.1 per cent of former residents of formal infill areas, 10 per cent of backyard shack occupants and 6.9 per cent of freestanding settlement residents moved into a formal township. 16.2 per cent of formal township residents moved into another or remained in the same formal township.

If the Todaro hypothesis provided a clear explanation of intra-urban migration within the DFR, one would have also expected that there would be significant inflows

into the backyard shacks and not away from these settlement types as has been the case. Clearly then, factors other than income and employment differentials are impacting on the nature of migration streams into and within the DFR. Providing an indication of these factors is the vast differences in incomes and employment amongst the various categories of informal settlement residents, as shown in Tables 4.5.4, 4.5.5, 4.5.6, 4.7.1(a) and 4.7.2. To help explain these differences what is now needed is to examine the demographic profiles of migrants and the motivations behind migration.

4.6 Demographic profile of migrants

The vast body of research on migration indicates that migrants do not typically represent a random sample of the overall population of an area but are selected according to their demographic characteristics (See Connell, et al. 1976; Todaro, 1980). Migration "selectivity" is thus defined as those demographic traits which differentiate migrants from stayers at the place of origin. Migration "differentials", on the other hand, refer to those demographic characteristics which distinguish migrants from the natives at the place of destination (Bouvier, et al. 1976:26).

For analytical purposes, migration selectivity in this study is determined by comparing demographic information of the adult rural population with that of the entire informal settlement population of the DFR. The respondent could not be used as the point of comparison since it merely represented those individuals who were at home when the survey was undertaken (See Appendix One). Its choice would have thus created an artificial profile of the informal settlement population.

Using the entire informal population as a point of comparison is however methodologically problematic. In order for the entire DFR informal settlement population to accurately reflect migration selectivity, migrant household members would need to move together. This is however a realistic assumption in the case of DFR migration (See Appendix One).

Table 4.5.4: Summary statistics of monthly household incomes by migrant types, June 1992 (Rands)

Income Indicators	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Established Rural-Urban	Indirect Established Rural-Urban	Recent Intra-urban	Established Intra-urban
Mean	1202	870	789	981	953	1083	1290
Median	910	700	670	797	859	864	1010
Std dev	1060	783	621	807	688	916	1120
N	185	123	299	137	55	111	47

Source: RUSU survey data

Table 4.5.5: Summary statistics of monthly per capita household incomes by migrant types, June 1992 (Rands)

Income Indicators	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Established Rural-Urban	Indirect Established Rural-Urban	Recent Intra-urban	Established Intra-urban
Mean	214	239	246	204	212	305	226
Median	159	193	188	137	171	240	170
Std dev	190	196	244	213	227	245	193
N	185	123	299	137	55	111	47

Source: RUSU survey data

Table 4.5.6: Summary statistics of household sizes by migrant types, 1991-2

Income Indicators	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Established Rural-Urban	Indirect Established Rural-Urban	Recent Intra-urban	Established Intra-urban
Mean	6.1	4.4	4.2	5.8	5.8	4.2	6.1
Median	6.0	4.0	4.0	6.0	6.0	4.0	6.0
Std dev	2.5	2.6	2.7	2.6	3.0	2.2	2.4
N	185	123	299	137	55	111	47

Source: RUSU survey data

4.6.1 Age

Direct recent rural-urban migration into the informal settlements of the DFR appears to be selective of younger individuals. Up to 61.8 percent of direct recent rural-urban migrants were between the ages of 15 and 34 and only 6 per cent are 55 years or older, as compared to the 61.3 per cent and 14.2 per cent for adult rural residents (Table 4.6.1).

It should be noted, moreover, that "recent" migrants refer to those individuals who have moved into the DFR since 1986. An unknown percentage of migrants have thus resided in urban areas for up to 6 years. Taking this consideration into account increases the age selectivity of migration.

In regard to migration differentials, direct recent rural-urban migrants do not appear to be younger than the population of their destination. Specifically, 61.8 per cent of direct recent rural urban migrants were aged between 15 and 34 and 6.0 per cent were 55 years and above as against the 62.9 per cent and 7.8 per cent for all informal inhabitants. Again it should be noted that the broad definition given to "recent" diminishes the appearance that migration is selective of younger individuals.

Whereas direct recent rural-urban migration appeared to be undertaken by young individuals, recent intra-urban migration is even more selective in terms of age. Of those adult individuals who have undertaken intra-urban migration since 1986, up to 71.6 per cent were between the ages of 15 and 34 and only 4.7 per cent older than 54, as compared to the 62.9 and 7.8 per cent for all informal settlement residents, respectively.

4.6.2 Gender

There appears to be no difference between the gender profiles of the overall DFR

Table 4.6.1: Age distribution of rural/urban populations by migrant types, 1991-2 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

Age cohort	Rural (1)	Urban (2)							
		Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
15-24	37.3	37.4	37.1	32.1	32.1	38.7	33.8	38.8	35.0
25-34	24.0	27.3	24.7	27.8	28.8	24.0	37.8	22.9	27.9
35-44	15.2	15.6	21.0	24.1	15.9	17.2	15.9	18.6	18.7
45-54	9.4	10.4	11.2	10.8	12.7	10.3	7.8	9.6	10.6
55-64	8.0	5.8	3.7	2.9	7.3	8.3	3.0	4.3	4.9
65+	6.2	3.5	2.3	2.4	3.2	1.5	1.7	5.9	2.9
N	14 647	799	348	789	496	204	296	188	3 120

Source: (1) KFC survey data
(2) RUSU survey data

informal settlement population (45:55) and that of the rural areas of KwaZulu (45:55) (Table 4.6.2). In both cases there is a clear predominance of women in the sample. One possible reason for this the under-counting of males due to their working elsewhere.

In agreement with the empirical findings of studies conducted in Africa (Connell, et al. 1976; Todaro, 1980), direct recent rural-urban migration streams appear to be selective of male migrants. In particular, whereas the gender breakdown for the rural areas of KwaZulu is 45:55, for direct recent rural-urban migrants it is 49:51.

What strikes one from Table 4.6.2 is the low masculinity (male/female) ratios for informal settlement residents of urban origin. The masculinity ratio for non-migrants is only 75 per cent and is as low as 69 per cent for established intra-urban migrants. These ratios are far lower than the 95 per cent ratio for the African population as a whole as enumerated by the 1991 census (Report No. 03-01-22). This suggests an outflow of male migrants from the DFR's informal settlements over time.

4.6.3 Marital Status

Table 4.6.3 indicates that a significantly lower number of direct recent rural-urban migrants are single (42.8 per cent) than is the case for the informal settlement population as a whole (50.9). The disparity is however only partly matched by a larger proportion of married individuals (30.2 per cent as against the 27.6 per cent informal settlement average). Rather, a much higher percent of direct recent rural-urban migrants were living together (18.1 per cent) than was the average for all informal settlers (12.3 per cent).

The marital status profile for indirect-recent rural-urban migrants shows that 42.2 per cent of these migrants are single, only 26.2 per cent are married and up to 22.0 per cent were living together. A similar marital status profile exists amongst recent intra-

Table 4.6.2: Gender breakdown of rural/urban populations by migrant types, 1991-2 (column percentages)

Gender	Rural (1)	Urban (2)							
		Non- migrants	Direct Recent Rural- Urban	Indirect Recent Rural- Urban	Direct Establ Rural- Urban	Indirect Establ Rural- Urban	Recent Intra- urban	Establ Intra- urban	Overall
Male	44.6	42.8	48.6	44.0	44.2	48.0	46.3	41.0	44.5
Female	55.4	57.2	51.4	56.0	55.8	52.0	53.7	59.0	55.5
N	14 647	799	348	789	496	204	296	188	3 120

Source: (1) KFC survey data
(2) RUSU survey data

Table 4.6.3: Marital status of informal settlement population by migrant types, 1991-2 (column percentages)
 (Percentages rounded off: do not add up to 100 per cent)

Marital status	Urban							
	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
Single	58.9	42.8	42.2	55.8	57.4	42.5	61.2	50.9
Married	31.3	30.2	26.2	27.0	23.0	26.9	21.3	27.6
Divorced	1.3	0.6	0.9	0.8	1.5	0.3	---	0.9
Widowed	4.5	1.7	3.8	5.8	3.9	2.4	8.5	4.2
Separated	0.4	1.1	0.9	0.6	0.5	0.3	0.5	0.6
Deserted	0.1	---	0.9	0.2	---	0.3	0.5	0.4
In process marriage	1.6	5.5	3.1	2.4	2.0	6.1	2.7	3.0
Live together	1.8	18.1	22.0	7.3	11.8	21.1	5.3	12.3
N	799	348	786	496	204	294	188	3 115

Source: RUSU survey data

urban migrants - 42.5 per cent are single, 26.9 per cent are married and an equally high 21.1 per cent live together. The low levels of marriage and the high numbers of individuals living together points to the unsettled nature of these migrants, which is further reflected in the high levels of mobility of these two migrant categories in Table 4.4.2.

Given that one would expect a correlation between marriage and residential permanency it is surprising to find that the established informal settlement residents display the highest proportion of single individuals in their populations. Up to 61.2 per cent of established intra-urban migrants and 57.4 per cent of indirect established rural-urban migrants were single. Largely explaining these findings, however, are the larger household sizes of established residents. As Table 4.5.6 indicates, the household sizes for established migrants are larger than for recent migrants.

Information gathered on the marital status of informal settlement residents which was more predictable was the higher proportion of non-migrants who are married (31.3 per cent as against the 27.6 per cent average) and the much lower percentage who are living together (1.8 per cent as against the 12.3 per cent average).

4.6.4 Level of education

Table 4.6.4 indicates that direct recent rural-urban migration is not selective of better educated individuals. Although fewer direct recent rural-urban migrants have no education (14.9 per cent) as compared to the rural population as a whole (22.1 per cent), the opposite is true at the other end of the educational scale - 12.1 per cent of direct recent rural-urban migrants have achieved an education level of Standard 9 and above as against the 18.4 per cent for rural residents.

In terms of the lower percentage of direct recent rural-urban migrants who have no formal education, it is likely that this is attributable to educational status

Table 4.6.4: Educational profile of rural/urban populations by migrant types, 1991-2 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

Level of Education	Rural (1)	Urban (2)							
		Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
None	22.1	5.3	14.9	13.1	9.3	3.9	6.4	6.4	9.0
Creche, Sub a,b	4.6	5.1	4.6	9.3	5.9	4.9	6.1	4.8	6.3
Std 2-5	29.5	27.7	37.4	33.3	33.3	28.9	28.4	24.5	31.0
Std 6-8	25.5	36.2	31.0	33.0	33.3	43.6	34.5	36.7	34.7
Std 9-10	12.7	24.7	9.5	10.6	18.0	16.7	21.6	26.6	17.7
Tertiary	5.7	1.1	2.6	0.8	0.2	2.0	3.0	1.1	1.3
N	14 609	799	348	789	495	204	296	188	3 119

Source: (1) KFC survey data
(2) RUSU survey data

improvements in the urban areas since 1986. As Table 4.7.1(a) indicates, a significant proportion of adult migrants continue with their studies on a full time basis after having migrated to the DFR. However, the true extent to which migrants improve their educational profile after migration is unclear since respondents were not asked whether they undertook studies on a part time basis.

While no clear pattern is discernable in terms of educational selectivity, direct recent rural-urban migrants are clearly less educated than their informal settlement counterparts. Whereas 14.9 per cent of direct recent rural-urban migrants have no education, 56.9 per cent are functionally illiterate (i.e a schooling level of less than 8 years: For a definition of functional illiteracy see Bekker and Mountain (1990)), and 12.1 per cent have an education level of Standard 9 and above, comparable figures for informal settlement residents are 9.0 per cent, 46.3 per cent and 19.0 per cent, respectively. Given the strong correlation between educational attainment, occupation status and income earned one would therefore expect that recent rural-urban migrants to be found in the less skilled, lower paying urban sector jobs.

What is also significant from Table 4.6.4 is the differences in educational attainment between direct recent rural-urban migrants and their established counterparts. The more recent in-migrants tend to be less educated than their more established counterparts, with a functional illiteracy rate of 56.9 per cent as against 48.5 per cent. This serves to confirm the earlier finding that rural-urban migrants attempt to better their educational status once they are in the urban sector.

On the whole the urban born residents are better educated than their rural-origin counterparts. Only 38.1 per cent of non-migrants, 35.7 per cent of established intra-urban migrants and just over 40 per cent of recent intra-urban migrants are functionally illiterate. The same is true for up to 56.9 per cent of direct recent rural-urban migrants, 55.7 per cent of indirect recent rural-urban migrants, 48.5 per cent of direct established rural-urban migrants and 37.7 per cent of indirect established rural-urban migrants.

4.7 Economic activity of migrants

4.7.1 Vocational Status

Generally speaking, the vocational status of adult respondents shows a curious uniformity across the informal population, especially given the sometimes vast differences in age, gender, educational profiles (Table 4.7.1(a)). The only significant differences (i.e. 7 per cent more or less) in employment status were the 25.9 per cent of non-migrants and the 26.1 per cent of established intra-urban migrants who were full-time scholars or students and the 27.8 per cent of direct established rural-urban migrants who were seeking employment. Excluding the 37.8 per cent of recent intra-urban migrants who are formally employed in a full time capacity, the levels of formal employment are substantially uniform across all categories of residents.

It is interesting to note that the chances of rural-urban migrants securing formal employment do not seem to increase with the time spent in the urban sector. Whereas 35.6 per cent of direct recent rural-urban migrants have full-time formal jobs, the same is true for only 29.9 per cent of their more established counterparts. Similarly, the exact same proportion of recent indirect rural-urban migrants have full time jobs as their established counterparts. This conclusion must however be treated with caution as it does not take into account the change in the economic cycle or changes in educational attainment.

A number of interesting observations are made in any comparison of the vocational status of direct recent rural-urban migrants with that of the rural adult population. To be expected is the lower percentage of individuals who are engaged in full time studies. Whereas 16.2 per cent of direct recent rural-urban migrants are full-time scholar/students, the same is true for 20.2 per cent of rural residents. Also expected is the higher percentage of the rural population who are pensioners (9.9 per cent) than is the case for direct recent rural-urban migrants (2.9 per cent). Surprising, however, was the higher proportion of housewives amongst rural-urban migrants

Table 4.7.1(a): Vocational status of rural/urban populations by migrant types, 1991-2 (column percentages)
 (Percentages rounded off: do not add up to 100 per cent)

Vocational Status	Rural (1)	Urban (2)							
		Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
Scholar/student	20.2	25.9	16.2	13.7	17.2	20.3	14.0	26.1	18.8
Unemployed-not seeking	6.7	5.7	6.2	5.4	3.8	6.9	5.2	5.4	5.4
Pensioner	9.9	6.3	2.9	2.9	6.3	3.5	1.7	7.1	4.5
Unemployed-seeking	21.0	18.8	17.6	20.6	27.8	26.7	16.1	18.5	20.8
Housewife	9.2	6.0	10.6	7.6	8.7	6.4	7.3	3.3	7.3
Informal-F/T	3.0	2.9	7.4	10.8	5.1	4.5	10.1	7.1	6.8
Informal-P/T	---	0.3	0.3	2.4	0.2	1.5	3.5	---	1.2
Formal-F/T	27.0	34.1	35.6	29.7	29.9	29.7	37.8	32.6	32.4
Formal-P/T	2.9	0.1	3.2	6.8	1.0	0.5	4.2	---	2.7
N	14 647	794	340	780	494	202	286	184	3 080

Source: (1) KFC survey data
 (2) RUSU survey data

(10.6 per cent) than rural residents (9.2 per cent). One would have expected an increase in labour market participation amongst recent women in-migrants in order to make ends meet.

Of special significance is the finding that the prospect of securing employment for rural-urban migrants is better than that for rural stayers. Whereas 35.6 per cent of direct recent rural-urban migrants are formally employed and 17.6 per cent are seeking employment, only 27 per cent of stayers are formally employed and a higher 21 per cent are seeking employment.

The extent to which migrants engage in informal sector activity has particular significance in determining the relevance of the Todaro model in explaining migration in the DFR. According to Todaro, the informal sector is used by the migrant as a "safety net" until he or she is able to secure formal employment. Table 4.7.1(a) indicates that higher levels of informal activity are undertaken by recent migrants - both rural-urban and intra-urban - than by their established counterparts. Whereas, 10.8 per cent of indirect recent rural-urban migrants and 10.1 per cent of recent intra-urban migrants are engaged in informal activities, the same is true for only 2.9 per cent of non-migrants, 5.1 per cent of direct established rural-urban migrants and 4.5 per cent of indirect established rural-urban migrants.

These figures however do not differentiate on the basis of the different motivations behind migration. A more accurate reflection of the extent to which recent migrants are forced to engage in informal activity is provided by an examination of the employment status of those migrants who moved to the city to find employment. Table 4.7.1(b) indicates that of those recent direct rural-urban migrants who moved to the DFR to seek employment, only 11.5 per cent engaged in full time informal activity. Up to 30.8 per cent of these migrants were unemployed and were seeking employment, which is far higher than that for all direct recent rural-urban migrants. This appears to indicate that many direct recent rural-urban migrants are prepared to remain unemployed rather than engage informal sector activity. The picture is

Table 4.7.1(b): Vocational status of migrants who moved to seek employment, 1991-2 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

Vocational status	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establish Rural-Urban	Indirect Establish Rural-Urban	Recent Intra-urban	Establish Intra-urban
Unemployed -not seeking	---	3.8	---	2.3	---	---	---
Pensioner	---	---	11.1	13.6	---	---	100
Unemployed -seeking	---	30.8	11.1	15.9	---	33.3	---
Housewife	---	11.5	---	15.9	---	33.3	---
Informal - F/T	---	11.5	33.3	11.4	---	33.3	---
Informal - P/T	---	3.8	---	---	---	---	---
Formal - F/T	---	38.5	33.3	36.4	100	---	---
Formal - P/T	---	---	11.1	4.5	---	---	---
N	---	26	18	44	1	3	1

Source: RUSU survey data

somewhat different for recent indirect rural-urban and intra-urban migrants. Up to one third of indirect recent rural-urban migrants and recent intra-urban migrants engaged in full time informal employment. Only 11.1 per cent of indirect recent rural-urban migrants were unemployed and seeking employment.

Also of importance in assessing the ability of the Todaro model to explain migration in the DFR is the educational profile of those migrants who have been able to secure full-time formal employment. The Todaro model was predicated on the assumption that a periodic random job selection process from the total urban labour force occurred whenever the number of available jobs is exceeded by the number of job seekers. It assumed that all urban jobs are reallocated periodically, that such reallocation occurs at random, and that the new arrival can sustain himself until his turn comes. This assumption discounted the importance that education has on the ability of migrants to secure formal employment.

Table 4.7.1(c) shows that amongst recent direct rural-urban migrants, education has had an influence on the individual's ability to secure full-time formal employment. Up to 50 per cent of those migrants who were in full-time employment had an educational level of Standard 6 to 8. An additional 10 per cent were in possession of education of Standard 9 or above. Three quarters of those migrants who were seeking employment were functionally illiterate.

For indirect recent rural-urban migrants the picture is less clear. Although all work seekers were functionally illiterate, two thirds of those who were employed in formal employment on a full-time basis were also only in possession of primary school education. These findings should however be treated with caution on a number of grounds. Firstly, they are based on small sample populations. Secondly, the designation of "recent" is a time period of six years. During this period of time migrants who were initially successful in securing formal employment could have since lost their jobs. Also, the wide scope given to the designation "recent" gives the migrant an extended period to find a formal job. Accordingly, the sample is biased against the validation of the Todaro hypothesis.

Table 4.7.1(c): Employment status by educational level of direct/indirect recent rural-urban migrants who moved to seek employment, 1991-2 (row percentages) (Percentages rounded off: do not add up to 100 per cent)

Employment status	Educational level									
	None		Creche, Sub a,b		Std 2-5		Std 6-8		Std 9-10	
	Direct Recent R-U	Indir Recent R-U	Direct Recent R-U	Indir Recent R-U	Direct Recent R-U	Indir Recent R-U	Direct Recent R-U	Indir Recent R-U	Direct Recent R-U	Indir Recent R-U
Unemployed - not seeking	---	---	---	---	100	---	---	---	---	---
Pensioner	---	100	---	---	---	---	---	---	---	---
Unemployed -seeking	37.5	---	---	50.0	37.5	50.0	25.0	---	---	---
Housewife	---	---	---	---	33.3	---	33.3	---	33.3	---
Informal - F/T	---	16.7	---	---	66.7	50.0	33.3	33.3	---	---
Informal - P/T	---	---	---	---	---	---	100	---	---	---
Formal - F/T	10.0	---	20.0	16.7	10.0	50.0	50.0	16.7	10.0	16.7
Formal - P/T	---	---	---	50.0	---	---	---	50.0	---	---
N	4	3	2	3	8	7	10	4	2	1

Source: RUSU survey data

4.7.2 Income

Table 4.7.2(a) indicates that 62 per cent of direct recent rural-urban migrant households earn R1000 or less a month. This is exceeded only by the 68.4 per cent of indirect recent rural-urban migrant households who earn the same amount of money or less. Better off are households whose respondents are urban born: 54 per cent of recent intra-urban migrant households, 47 per cent of non-migrants and only 43.6 per cent of established intra-urban migrant households earn R1000 a month or less. At the other end of the income scale up to 22.3 per cent of established intra-urban migrant households and just over 16.4 per cent of non-migrant households earn an income level of more than R2500, as against the 9.0 per cent average for all households.

What is also significant about Table 4.7.2(a) is the better income distribution for the established households of the informal settlements. Whereas 62 per cent of direct recent rural-urban migrant households, 68.4 per cent of indirect recent rural-urban migrant households and 54 per cent of recent intra-urban migrants earn R1000 or less, only 59.6 per cent, 58.2 per cent and 43.6 per cent of their established counterparts earn this level of income. Given that the educational profiles of informal residents differ, sometimes markedly, this seems to suggest that informal settler households can expect to improve their income potential over time no matter what the educational profile or source of origin. This fact provides a clear incentive for permanency amongst informal settler households.

The rule that time spent in the informal settlement improves income earned does not apply for individuals. In fact Table 4.7.2(b) shows that the opposite seems to hold. While up to 53.7 per cent of direct recent rural-urban migrants earn no money whatsoever, this is true for nearly 59 per cent of their established counterparts. The same holds for indirect rural-urban and intra-urban migrants. Whereas 47.5 per cent of indirect recent rural-urban migrants and 44.6 per cent of recent intra-urban migrants earn no money whatsoever, up to 62.3 and 56.9 per cent of their

Table 4.7.2(a): Household incomes for rural/urban populations by migrant types, 1991-2 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

Income	Rural (1)	Urban (2)							
		Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
0	1.2	3.3	6.6	4.3	4.8	7.8	1.7	3.2	4.3
1-200	10.9	5.4	3.4	7.9	6.0	6.9	8.4	10.6	6.6
201-400	21.8	10.3	9.5	10.4	10.7	6.4	9.1	5.9	9.6
401-600	17.0	7.3	14.1	14.8	10.3	8.3	10.1	10.6	11.0
601-800	12.3	11.6	15.5	14.4	12.5	12.3	15.9	4.3	12.9
801-1000	9.5	9.1	12.9	16.6	15.3	14.7	8.8	9.0	12.8
1001-1500	13.1	19.0	22.1	17.6	16.1	20.6	20.6	17.0	18.7
1501-2000	5.9	10.6	6.3	10.5	8.5	13.2	8.1	13.8	9.9
2001-2500	3.3	7.0	4.9	2.2	6.0	6.9	7.8	3.2	5.2
2501+	5.0	16.4	4.6	1.3	9.7	2.9	9.5	22.3	9.0
N	3 379	799	348	789	496	204	296	188	3120

Source: (1) KFC survey data
(2) RUSU survey data

Table 4.7.2(b): Individual incomes of rural/urban populations by migrant types, 1991-2 (column percentages)
 (Percentages rounded off: do not add up to 100 per cent)

Income	Rural (1)	Urban (2)							
		Non- migrants	Direct Recent Rural- Urban	Indirect Recent Rural- Urban	Direct Establ Rural- Urban	Indirect Establ Rural- Urban	Recent Intra- urban	Establ Intra- urban	Overall
0	61.8	55.7	53.7	47.5	58.5	62.3	44.6	56.9	53.3
1-200	12.6	9.0	6.0	11.0	4.0	4.4	9.5	5.9	7.9
201-400	14.0	8.5	8.0	12.4	11.9	8.3	9.1	8.0	10.0
401-600	4.6	8.0	11.5	9.0	6.7	6.9	8.4	5.9	8.3
601-800	2.5	6.1	6.9	8.1	6.9	5.4	9.5	6.4	7.1
801-1000	1.5	3.3	7.8	5.8	5.0	4.9	7.1	7.4	5.4
1001+	2.9	9.4	6.0	6.1	7.1	7.8	11.8	9.6	7.9
N	14 619	799	348	789	496	204	296	188	3120

Source: (1) KFC survey data
 (2) RUSU survey data

established counterparts earn likewise. This trend largely holds true for the other income cohorts. For those individuals earning more than R1000, however, there is no clear trend.

It is not unexpected that recent individual migrants would up to a certain point have better income distribution than their more established counterparts. In the case of rural-urban migrants, especially, most if not all, would need to earn income quickly. As Table 4.7.1(a) clearly illustrates they are therefore more likely to engage in the informal sector and/or be more prepared to supplement their wage income with income earned from informal activities.

4.7.3 Nature of employment

All respondents who were employed on a formal basis were questioned about the nature of their jobs. All jobs were then categorised according to the International Standard Classification of Occupations (ISCO). The categories of occupations were service, production, transport, clerical, retail, professional, government and other.

Given that production jobs generally require low levels of education, it is perhaps not surprising that the majority of informal residents (56.3 per cent) are found doing such work (Table 4.7.3). What is surprising is the relatively uniform employment status across all informal settlement residents. This indicates that the jobs open to informal settlers are limited within a narrow range.

Of significance is the relatively high percentage of direct recent rural-urban migrants (8.5 per cent) who are employed in a professional capacity in relation to the average (3.6 per cent). This suggests is that migrants are not only pushed away from the rural areas but are also pulled into the informal settlements.

Table 4.7.3: Nature of employment of rural/urban populations by migrant types, 1991-2 (column percentages)
(Percentages rounded off: do not add up to 100 per cent)

Employment Type	Rural (1)	Urban (2)							
		Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
Service	29.4	17.5	23.8	27.9	26.1	27.1	22.0	20.0	23.4
Production	32.1	63.1	51.5	53.9	56.2	52.5	52.0	60.0	56.3
Transport	9.0	6.2	5.4	3.9	9.8	5.1	7.3	6.7	6.1
Clerical	2.9	6.6	2.3	2.1	2.0	6.8	4.9	5.0	4.0
Retail	6.1	4.4	7.7	7.1	4.6	3.4	5.7	1.7	5.5
Profes'nal	11.9	1.5	8.5	3.6	0.7	5.1	6.5	3.3	3.6
Government	4.1	---	0.8	1.4	0.7	---	0.8	1.7	0.7
Other	4.4 (Agric)	0.7	---	---	---	---	0.8	1.7	0.4
N	3969	274	130	280	153	59	123	60	1079

Source: (1) KFC survey data
(2) RUSU survey data

4.8 Motivations of migrants

In order to determine the motivations behind migration, all respondents were asked to identify from an already drawn up list the two main reasons that forced movement out of the previous area and the two main reasons which attracted them to their present place of residence.

4.8.1 Motivations for migrating from previous residence

In response to the question: "Tell us the two main reasons that forced you and your family out of the previous area", 23.1 per cent of direct recent rural-urban migrants cited reasons which were later collectively termed "life cycle", and which encompassed the desire to build own house, to marry or to live independently (Table 4.8.1). Yet both the need to find employment (21.5 per cent) and to avoid violence (21.5 per cent) also ranked as major motivations for moving. The concern of direct recent rural-urban migrants to find employment is not shared by other informal settlement residents. Other than non-migrants (9.1 per cent) and indirect recent rural-urban migrants (6.0 per cent) the need to find employment was barely even mentioned.

Importantly, the non-migrants' answers in this regard and to the question: "Tell us the two main reasons that attracted you and your family to this particular area instead of another area" should be treated with caution since they are by definition non-movers. The fact that this category of informal settlement resident answered both questions in the first place could indicate one of two things. One, their answer refers to the move made by their parents. Or, two, their answer to the question of their migration history was not truthful. This is a distinct possibility in climate of fear and suspicion which surrounds informal residency in the DFR.

For direct established rural-urban migrants the need to migrate to find employment in the urban areas was even stronger than for their more recent counterparts. Up

Table 4.8.1: Motivations for moving from last house by migrant type, 1991-2 (column percentages)

Motivation	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
1. Violence	---	21.5	21.5	6.8	3.6	20.7	8.7	16.3
2. Eviction	---	1.7	15.1	3.8	1.8	10.8	15.2	9.2
3. Life cycle	50.0	23.1	34.6	23.3	72.7	31.5	45.7	34.2
4. Physical conditions	---	10.7	29.2	4.5	23.6	34.2	17.4	21.0
5. Strained relations	---	1.7	5.4	3.0	3.6	6.3	4.3	4.2
6. Personal crisis	---	2.5	1.0	4.5	5.5	---	---	1.9
7. Seek employment	9.1	21.5	6.0	33.1	1.8	2.7	2.2	12.1
8. Economic stress	9.1	---	9.7	2.3	3.6	4.5	4.3	5.5
9. Natural disaster	---	0.8	0.3	---	---	0.9	2.2	0.5

Table 4.8.1 (continued): Motivations for moving from last house by migrant type (column percentages)

Motivation	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
10. Other crisis	4.5	14.9	17.4	1.5	5.5	19.8	2.2	12.6
11. Poor access	9.1	19.0	8.1	18.8	10.9	6.3	8.7	11.6
12. No listed push	4.5	7.4	2.0	10.5	5.5	1.8	8.7	5.0
13. Don't know	22.7	---	---	0.8	---	0.9	---	0.9
14. Access to services	---	3.3	0.3	4.5	---	---	---	1.4
N	22	121	298	133	55	111	46	786

Source: RUSU survey data

Legend	
3	Includes migration to live alone, to marry or to build own home
4	Migration to escape overcrowding, etc.
5	A move to avoid neighbours, conflict with community, etc.
6	Includes death in family, divorce, etc
8	A move because of high rent, etc
11	A move to be closer to work, transport
12	No specific reason given for moving from last house

to one in three of these migrants moved to find employment in the urban sector. From Table 4.8.1 it can be seen that the drop in direct rural-urban migrant respondents citing the need to find work in the urban sector is matched by an increase in migration to avoid violence. Whereas only 6.8 per cent of direct established rural-urban mentioned violence as a reason for moving, 21.5 per cent of their recent counterparts cited the same. Indeed, for all recent migrants - both rural-urban and intra-urban - violence seems to be a major factor in their decision to move from their previous residence. This is not so in the case of the established residents.

Just over one third of all respondents moved from their previous residence for life cycle reasons. It is interesting to note that for both direct recent rural-urban migrants (23.1 per cent) and direct established rural-urban migrants, moving for this reason was significantly below this average (34.2 per cent). Also interesting is the fact that recent migrants are less likely than their established counterparts to cite this factor as a reason for moving.

Whereas 23.1 per cent of direct recent rural-urban migrants, 34.6 per cent of indirect recent rural-urban migrants and 31.5 per cent of recent intra-urban migrants mentioned this factor as a reason for moving, this is contrasted with the 72.7 per cent of indirect established rural-urban migrants and the 45.7 per cent of established intra-urban migrants. This coupled with an increase in migration for reasons associated with economic survival pointed to a deterioration in economic conditions and a resultant decline in migration for reasons other than economic necessity.

It is interesting that more than one in three of recent intra-urban migrants cited physical conditions (overcrowding, etc) as the primary reason for moving from their previous address. It is an important reason for moving also for indirect recent rural-urban migrants, as evidenced by the 29.2 per cent of these migrants who cited this as a primary motivation for moving.

4.8.2 Motivations for migrating to present residence

In response to the question: "Tell us the two main reasons that attracted you and your family to this particular area instead of another area", up to 50 per cent of direct established rural-urban migrants and nearly 36 per cent of direct recent rural-urban migrants cited the need to be "close to work" (Table 4.8.2). A further 5.7 per cent of direct recent rural-urban and 2.2 per cent of direct established rural-urban migrants mentioned the need to take advantage of "opportunities for informal business" as the reason behind moving to their present residence.

Moving for economic reasons was however not viewed as important by the other informal settlement residents. Only 14.4 per cent of indirect recent rural-urban migrants, 11.8 per cent of recent intra-urban migrants and 11.4 per cent of non-migrants cited the need to have access to work as a reason for moving to their current residence. The overall average of 21.7 per cent of all respondents is slightly less than the 24.3 per cent of respondents who cited the availability of "free land" as the major reason for pulling them to their present area.

Interestingly, up to 6.4 per cent of indirect recent rural-urban migrants and the same percentage of recent intra-urban migrants cited "opportunity for informal business" as the motivation behind moving to their present residence. This corresponds with the relatively high percentage of these two categories of migrants who engage in informal sector activity. What this seems to indicate is that informal sector activity is not only undertaken by individuals as a last resort but also by those who see it as a source of opportunity and are therefore prepared to migrate to take advantage of the opportunity.

The importance attached by recent migrants of avoiding violence, on the other hand, is clear from the 18.7 per cent of direct recent rural-urban migrants, the 16.4 per cent of indirect recent rural-urban migrants and the 24.5 per cent of recent intra-urban migrants who cited "no violence" as a pull factor in moving to their present area.

Table 4.8.2: Motivations for moving to present residence by migrant type, 1991-2 (column percentages)

Motivation	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
1. No violence	---	18.7	16.4	3.6	1.8	24.5	8.7	11.4
2. Free land	1.6	17.9	44.1	10.9	32.7	31.8	15.2	24.3
3. Available sites	0.5	7.3	8.0	2.9	23.6	11.8	8.7	7.1
4. Available housing	---	0.8	2.0	1.5	9.1	1.8	2.2	1.8
5. Easy entry	0.5	4.9	5.4	2.2	12.7	6.4	2.2	4.3
6. Tenure security	---	0.8	2.3	---	---	2.7	2.2	1.3
7. Affordable	---	4.1	16.7	2.9	5.5	10.0	4.3	7.9
8. Claim to land	42.4	---	---	2.9	---	1.8	2.2	8.9
9. Access to work	11.4	35.8	14.4	50.4	18.2	11.8	15.2	21.7
10. Access to transport	1.6	4.9	6.0	8.0	5.5	8.2	10.9	5.8

Table 4.8.2 (continued): Motivations for moving to present residence by migrant type, 1991-2 (column percentages)

Motivations	Non-migrants	Direct Recent Rural-Urban	Indirect Recent Rural-Urban	Direct Establ Rural-Urban	Indirect Establ Rural-Urban	Recent Intra-urban	Establ Intra-urban	Overall
11. Access to kin	12.5	8.1	4.7	14.6	7.3	9.1	6.5	5.2
12. Physical conditions	16.3	0.8	0.7	5.8	1.8	4.5	6.5	5.2
13. Social conditions	---	12.2	13.0	5.1	12.7	12.7	6.5	8.9
14. Economic opportunity	---	5.7	6.4	2.2	---	6.4	---	3.8
15. Access to services	2.7	1.6	2.3	5.1	3.6	---	---	2.4
16. Don't know	11.4	6.5	1.0	10.2	1.8	0.9	4.3	5.2
17. Only alternative	13.6	6.5	20.7	7.3	7.3	14.5	19.6	14.0
18. Other	12.0	0.8	---	4.4	---	0.9	15.2	3.9
N	184	123	299	137	55	110	46	954

Legend

12: Includes migration because of dislike for living conditions in hostels, etc.

Source: RUSU survey data

The availability of free land was seen as important by both recent and established migrants. Up to 44 per cent of indirect recent rural-urban migrants, 32.7 per cent of indirect established and 31.8 per cent of recent intra-urban migrants saw the availability of free land as the one of two reasons for moving to their present area. This points to a continuing scarcity of land available for informal settlement purposes.

It is significant to note that only 6.5 per cent of direct recent rural-urban migrants cited that their present area was the "only available place" open to them as the reason for moving there. What this implies is that direct recent rural-urban migrants do in fact have a choice as to where they would like to reside. Less fortunate are the indirect recent rural-urban migrants - more than one in five saw their present area of residence as the only option available to them. The extent to which this factor is seen as an important constraint is clear from the fact that it is rated as the second most important factor for moving by these migrants, after the availability of free land.

4.9 Summary

This chapter aimed to provide an understanding of black migration to and within the informal settlements of the Durban Functional Region (DFR). Using the two empirical studies conducted by the Rural and Urban Studies Unit (RUSU) of the University of Natal and KwaZulu Finance Corporation (KFC), the above analysis endeavoured to build the foundation upon which the central hypothesis of this dissertation - that black migration to and within the DFR is a process whereby individuals migrate in the hope of securing high-paying formal urban employment - could be tested.

In order to determine whether the central hypothesis held, two prerequisites had to be met. Firstly, income differentials between rural and urban areas and within

different urban informal settlement types needed to be of a level sufficiently high enough to induce migration. Secondly, the probability of securing formal employment had to be high enough to make migration both to and within the DFR worthwhile. These two conditions were satisfied, along with the no less important requirement that the cost of living differentials between rural and urban areas be of a level unlikely to deter rural-urban migration.

With these prerequisites fulfilled, the next step was to examine migration flows to determine whether in fact they took place in response to income and employment differentials. The examination of migration streams indicated however that the nature of migration flows to and within the DFR did not accord with that expected. One explanation lay in the failure to distinguish migrants according to the recency and the nature of their movements. Migrants were then differentiated further in terms of these two criteria and examined in the context of income and employment differentials. Seven categories of informal settlement residents were delineated.

Examining these categories of informal settlement residents in the context of income and employment differentials, again these findings did not entirely tally with what was expected. In line with the dictates of the Todaro model it was anticipated that significant rural-urban and intra-urban inflows into the backyard shacks would occur and not away from these settlement types, as was the case. Although significant migration inflows into the freestanding settlements were predicted, it was expected that their magnitude would be tempered by the relatively low probability of securing formal employment. With 87.7 per cent of rural-urban migrants and nearly 90 per cent of intra-urban moving into the freestanding settlements of the DFR, it was clear that income differentials discounted by the probability of securing employment could not solely explain the nature of migration streams to and within the DFR. An examination of the demographic profiles of migrants and the motivations behind migration attempted to elucidate on the other factors which were impacting on migration.

Recent rural-urban migration into and intra-urban within the informal settlements of

the DFR, it was discovered, was selective of younger, male individuals but clearly not selective of better educated individuals. As regards marital status, the data indicated that a significantly lower number of direct recent rural-urban migrants were single and a relatively high percentage of all recent migrants living together than was the case for the informal settlement population as a whole. This latter fact coupled with the low levels of marriage pointed to the unsettled nature of migrants, which was earlier confirmed by data showing relatively high mobility amongst these migrant categories.

In terms of the economic profile of the informal settlement population, it was significant that the chances of rural-urban migrants securing formal employment did not appear to increase with the time spent in the urban sector - a conclusion which should be treated with caution since it did not take into account the change in the economic cycle or changes in educational attainment. The importance of the latter was underscored by the fact that for recent direct rural-urban migrants, at least, educational status appeared to impact upon the individual's ability to secure full-time formal employment.

Informal activity, on the other hand, was undertaken more by recent migrants than by their more established counterparts. Differentiating on the basis of the motivations behind engaging in this form of activity, it was discovered that recent direct rural-urban migrants preferred to remain unemployed rather than engage in informal sector activity. The opposite seemed to hold for recent indirect rural-urban and intra-urban migrants, although the findings for the latter were blemished by the small nature of the sample.

In terms of the income distribution of households, indirect recent rural-urban migrants were financially the worst off of all informal settlement residents. Better off were established households and whose respondent was urban born. Given that the educational profiles of informal residents differed, sometimes markedly, this suggested that informal settler households could expect to improve their income potential over time no matter what the educational profile or source of origin. This

fact provided a clear incentive for permanency amongst informal settler households.

Given that most production jobs generally demand low levels of education, it was perhaps not surprising that the majority of informal residents (56.3 per cent) were found doing such work. What was surprising was the relatively uniform employment status across all informal settlement residents, which suggested that the jobs open to informal settlers are limited within a narrow range. This fact did not serve to deter better educated in-migrants, though, which was reflected in the relatively high percentage of direct recent rural-urban migrants who were employed in a professional capacity in relation to the average of all settlement residents, and which suggested that migrants are not only pushed away from the rural areas but are also pulled into the informal settlements.

An examination of the motivations of individuals for migrating from their previous place of residence showed that most important reason cited by direct recent rural-urban migrants were "life cycle" reasons (23.1 per cent). However, both the need to find employment (21.5 per cent) and to avoid violence (21.5 per cent) also ranked high as motivations for moving. The concern of these migrants to find employment was not shared by other informal settlement residents.

For direct established rural-urban migrants the need to migrate to seek employment in the urban areas was even stronger than for their recent counterparts. The drop in direct rural-urban migrant respondents citing the need to find work in the urban sector was matched by an increase in migration to avoid violence. Such has been the impact of violence on the DFR's informal settlements that the need to avoid it was a major factor in the decision-making of all recent migrants. This was not so in the case of the established residents, which indicated the upsurge in violence which has occurred since 1986.

The economic rationale for migration amongst direct rural-urban migrants clearly stood out in the motivations given by respondents for moving to their present residence. Just over half of direct established rural-urban migrants and nearly 36

per cent of direct recent rural-urban migrants cited the need to be close to work. A further 5.7 per cent of direct recent rural-urban and 2.2 per cent of direct established rural-urban migrants mentioned the need to take advantage of economic opportunities as the reason behind moving to their present residence. Again, moving for economic reasons was regarded as unimportant by the other informal settlement residents.

Interestingly, a significant number (6.4 per cent) of both indirect recent rural-urban migrants and recent intra-urban migrants cited "economic opportunity" as the motivation behind moving to their present residence. This corresponds with the relatively high percentage of these two categories of migrants who engage in informal sector activity, indicating that informal sector activity is not only undertaken by individuals as a last resort but also by those who see it as a source of opportunity and are therefore prepared to migrate to take advantage of the opportunity.

Finally, it was significant that only 6.5 per cent of direct recent rural-urban migrants cited that their present area was the only alternative open to them as the reason for moving there. This implied that direct recent rural-urban migrants do in fact have a choice as to where they would like to reside. Less fortunate are the indirect recent rural-urban migrants. More than one in five of these migrants saw their present area of residence as the only option available to them. The extent to which this factor is seen as an important constraint is clear from the fact that it is rated as the second most important factor for moving by these migrants, after the availability of free land.

CHAPTER 5: CONCLUSION: THE RELEVANCE OF THE TODARO MODEL IN EXPLAINING BLACK MIGRATION TO AND WITHIN THE DFR

The aim of this dissertation was to determine the relevance of the Todaro model in explaining black migration to and within the Durban Functional Region. Using the Todaro model as a theoretical framework with which to analyse and understand migration, the central hypothesis of this study was that black migration to and within the informal settlements of the DFR is a process whereby individuals migrate in the hope of securing high-paying formal urban employment.

In accordance with the fundamental principles of the Todaro model it was argued that the underlying impetus behind the migrant's decision to move was a comparison of income levels at the area of origin against those of the intended destination, discounted by the probability of securing formal employment. Furthermore, as the DFR was characterised by high levels of unemployment it was unlikely that migration would simply entail a one-step move from the rural sector to the urban sector and the attainment of formal sector employment. Rather, migration is a process which is likely to involve a spell in the informal sector until the migrant is able to secure formal employment.

Chapters 1, 2 and 3 built a foundation for an empirical analysis of migration which would test the above hypotheses. Integral components were an appropriate definition of migration and an examination of the different disciplinary approaches within which migration could be analysed. Since many of the ideas incorporated in the Todaro model had their genesis in earlier theories, Chapter 1 also included an historical review of migration theories which have been influential in shaping the study of migration.

A detailed analysis of the Todaro model, itself, was provided in Chapter 2, which also included a critique of the model and an examination of its relevance in explaining migration both in the developing world and in South Africa. Of

significance in confirming the suitability of the Todaro model as an analytical tool was the finding that criticisms of Todaro's assumptions, while valid, could not detract from the model's fundamental contribution to an understanding of migration in developing countries.

Also, in regard to the damaging criticism that it was never correct to divide African labour markets into neat rural/urban, formal/informal categories the reader was reminded that the spatial aspects of the model were not important. The key feature which distinguished sectors in the Todaro model was simply that the wage rate was fixed exogenously in one sector and was free to fluctuate with supply and demand in the other sector.

Yet, probably of greater threat to the predictive power of the Todaro model was the transformation of African urban labour markets in the last two decades, which some scholars believed, was so fundamental that a review of the way they were conceptualised was in order. This review needed to acknowledge, *inter alia*, that sub-Saharan countries were increasingly characterised not by a split between privileged urbanites and disadvantaged rural workers, but by a division between rich and poor, where the latter included wage earners, informal sector workers and small peasants. The effect of this transformation was to force the poor to engage in interactive rural-urban survival strategies whose nature approximated that of oscillatory migration between city and countryside and circular migration within cities.

Significantly, the nature of these migration processes directly contradicted Todaro's conception of migration as a transition process from rural to permanent urban residence, giving rise to the contention that the Todaro model was limited to explaining the initial decision of the individual to migrate or not. Yet, this depiction of the Todaro model, it was rightly argued, portrayed it in too narrow a light. At a broad level the basic premise of the model was that an individual migrated in the expectation of becoming better off through his/her action. Through an appropriate definition of expected benefits and costs, the model could therefore be applied to any form of migration found in developing countries.

In contrast to the rest of the continent, an examination of labour markets in South Africa showed that vast disparities in living standards still existed between the urban formal settlements and rural areas, despite the existence of massive rural-urban migration. Largely determining these disparities were the actions of trade unions which had extracted from employers wage increases in excess of productivity improvements. The effect of militant trade unionism combined with the inability of the economy to create new job opportunities was the creation of a tiny urban elite and a vast body of job seekers who were involuntarily unemployed or forced to eke out a living in the burgeoning informal economy. These were typical of conditions in Tropical Africa at the time Todaro formulated his model of rural-urban migration.

Notwithstanding the comparability of labour market conditions in South Africa and Tropical Africa, adversely impacting upon the suitability of the Todaro model in explaining migration in South Africa was the finding of Chapter 3 that the legislative environment had, up until the abolition of influx control legislation, been instrumental in determining black urbanisation and settlement. The implication was that migration was less the outcome of decision-making aimed at income maximisation than the result of constrained choice or even compulsion. Yet, even with the vigorous application of influx controls large-scale black urbanisation occurred. The effect of legislation was thus to 'contain' migration, or as later consensus put it, to 'displace' it. N.S

Largely as a consequence of influx control legislation black urbanisation into the DFR took on a staged approach, where three such stages were discerned. The first stage was the rapid migration into the DFR in the 1970s and early 1980s to just within KwaZulu's borders in order to escape the constraints of influx controls. The lifting of influx control legislation in 1986 ushered in the second stage with migrants relocating themselves in informal settlements around Durban's core. Since 1990 black urbanisation has taken the form of densification and "infill" within existing formal Black townships and informal areas.

In regard to the nature that black migration to and within the DFR has taken in very recent years, there was differing opinion. The repeal of influx control legislation coupled with increasing poverty in the rural areas, some scholars maintained, has led to the permanent urban settlement by rural-urban migrants. This view was however deficient in that it ignored the strong urban push forces which forced households to engage in patterns of circular migration. Yet even this conception of black migration has come under fire by some scholars who go so far as to question whether migration could be conceived as following an identifiable pattern at all. Migration, it is argued, has taken on such a complex, differentiated process that neither circular nor oscillating migration could be discerned. Migration is rather opportunistic, whereby households take up openings as they discover them on the way.

However, such a view of migration, it was noted, is questionable in that it is based on the false premise that the motives for migration can be extrapolated from the nature and form that migration takes. It simply does not follow that migration is opportunistic because no clear or distinguishable pattern can be discerned. On the contrary, that migration streams take on a complex and differentiated process has less to do with opportunism than with the numerous factors impacting upon the mobility of migrants. As this dissertation showed, the migrating household's mobility has been influenced by a number of factors, inter alia, social, economic and political factors, land tenure, family networks, and constrained choice and coercion.

Violence, in particular, has been a key factor which has shaped black movement in the DFR over the past few years. With Todaro's emphasis on the income-maximisation behaviour of migrants, it has been argued that the compulsion inherent in a move to escape violence rendered the Todaro model inappropriate as a theoretical construct to explain migration. This reasoning however failed to take into account the existence of competing opportunities which are available to migrants. Certainly, while violence constrains individuals in making choices which would achieve their goals, it does not prevent them from making that choice entirely. This was clear from the finding that few direct recent rural-urban migrants believed that

their present area was the only alternative open to them.

However not all categories of migrants were unhindered in their choice of destination. More than one in five of indirect recent rural-urban migrants saw their present area of residence as the only option available to them. Significantly, the income data showed that these migrants were the worst off of all informal residents. This fact, coupled with the prominence given to the affordable nature of their present residence and the wish to gain access to work indicated the extent to which the economic rationale for migration was behind these migration streams.

These findings, while indicating an underlying economic motive behind migration, do not reflect on the relevance of the Todaro model as an appropriate theoretical construct to explain migration to and within the DFR. Going some way to achieve this was the fact that the prerequisites for the application of the model were in place. Significant income and employment differentials did exist between the rural areas of KwaZulu and the informal settlements of the DFR and within informal settlements. Cost of living differentials between rural and urban areas were of a level unlikely to deter migration. And, additionally, the fact that direct recent rural-urban migrants were more successful in finding employment than rural residents, indicated that these individuals could not only improve their future income but also their job prospects by migrating to the urban sector.

An examination of actual migration flows showed however that they did not correlate with the income and employment differentials. This was seen as being attributable to the failure to distinguish migrants according to the recency and the nature of their movements. Yet, differentiating migrants further in terms of these two criteria had less than the desired effect. Whereas the Todaro hypothesis would predict that there would be significant rural-urban and intra-urban inflows into backyard shacks, the empirical findings showed that there was movement away from these settlement types. Again, while migration inflows into the freestanding settlements were expected, the magnitude of such migration suggested that other factors were at play.

Certainly impacting on the extent and nature of migration streams were the demographic characteristics of the migrants themselves. An examination of the demographic profiles of migrants and the motivations behind migration indicated the complexity of the migration process. Direct recent rural-urban migration into the informal settlements of the DFR, it was discovered, was selective of younger individuals, exhibited male gender selectivity and were clearly not selective of better educated individuals. The latter had special significance, particularly in regard to its affect on the ability of migrants to secure formal employment.

Yet, the ability to secure urban formal work, assumed Todaro, was dependent on a random job selection process. In defining the probability of obtaining formal employment in such a manner, this assumption therefore discounted the importance that education has on the ability of migrants to secure formal employment. Not surprisingly, a number of studies have found this assumption unrealistic - a conclusion which was repeated by this dissertation. Specifically, the data indicated that for recent direct rural-urban migrants education did indeed have an influence on the individual's ability to secure full-time formal employment, although this was less clear with indirect recent rural-urban migrants. These findings, however, needed to be treated with caution as they were based on small sample populations and the fairly long time period given to the term "recent" biased the sample against the validation of the Todaro hypothesis.

The income and employment status of the urban informal settlement population likewise pointed to the complexity of black migration streams. The vocational status of the informal population, it was noted, was curiously uniform notwithstanding the sometimes vast differences in age, gender, educational profiles of respondents. Surprisingly, the chances of rural-urban migrants securing formal employment did not appear to increase with the time spent in the urban sector. Again, it was said that this conclusion should be treated with caution since it did not take into account any change in the economic cycle or changes in educational attainment over time. The importance of the latter was especially highlighted by the fact that for recent direct rural-urban migrants, at least, educational status appeared to impact upon the

individual's ability to find full-time formal employment.

The ability to secure full-time formal work, as is to be expected, had little bearing on the remuneration derived from that employment. This capacity to find high-paying employment was determined rather by the origin of the respondent and the length of time spent in the informal settlements. Households whose respondents were urban born were better off than those who born in the rural areas. Also, established households were found to have a better income distribution than households who had moved recently. Given that the educational profiles of informal residents differed, sometimes markedly, this suggested that informal settler households could expect to improve their income potential over time no matter what their education level or source of origin were. This fact provides a clear economic incentive for migration into the DFR's informal settlements.

The capacity of individuals to earn high incomes is usually largely determined by the nature of their employment. Given that most production jobs generally demand low levels of education, it was expected that the majority of informal residents were concentrated in this form of economic activity. What was surprising was the relatively uniform employment status across all informal settlement residents. This suggested that the jobs open to informal settlers are limited within a narrow range. This fact alone was insufficient to deter rural-urban migration by better educated individuals, which was manifested in the relatively high percentage of direct recent rural-urban migrants who were employed in a professional capacity in relation to the average of all informal settlement residents, suggesting that migrants are not only pushed away from the rural areas but are also pulled into the informal settlements.

Whereas demographic and employment factors drive or constrain migration, it is the expectations of migrants themselves which lie behind the decision to migrate. Hence, providing a clear indication of the extent to which the Todaro hypothesis explained migration to and within the DFR was an examination of the motivations of individuals for migrating. Of the reasons cited by direct recent rural-urban migrants for moving from their previous residence, life cycle reasons - which

included the desire to live independently or to marry - outranked both the need to find employment and to avoid violence as the most important. This was not the case for their more established counterparts, though: up to one in three of direct established rural-urban migrants moved to find employment in the urban sector.

Explaining the drop in direct rural-urban migrants seeking employment was their greater desire to move to avoid violence. Again, while it appeared that violence had impinged upon the income maximisation objectives of migrants, the extent to which migrants sought out existing economic opportunities was clear from an analysis of the motivations given by respondents for moving to their present residence. Just over half of direct established rural-urban migrants and more than one third of direct recent rural-urban migrants cited the need to be close to work as being the reason for moving to the present area. This was complemented by a less significant desire amongst direct recent rural-urban and direct established rural-urban migrants to take advantage of economic opportunities as a reason behind moving to their present residence.

Of importance, moreover, was the fact that a significant percentage of indirect recent rural-urban migrants and recent intra-urban migrants cited "economic opportunity" as the motivation behind moving to their present residence. This corresponds with the relatively high percentage of these two categories of migrants who engage in informal sector activity. What this appeared to indicate is that informal sector activity is not only undertaken by individuals as a last resort but also by those who see it as a source of opportunity and are therefore prepared to migrate to take advantage of that opportunity.

Each of the above findings have in some way impacted upon the central hypothesis of this dissertation. What is now needed is a short summary to conclude whether, in the face of their often conflicting implications, the central hypotheses of this dissertation still hold.

This dissertation has showed that the Todaro model has relevance in explaining

black rural-urban migration to the DFR. It has found that Todaro's explanatory variables - income differentials discounted by the probability of securing employment - do provide powerful incentives for migration. In particular, significant income differentials exist between rural and urban areas. Also, migrants can improve their chances of finding formal employment by migrating into the urban informal settlements. Crucially, in terms of an examination of the motivations for migration, the significant proportion of direct rural-urban migrants moving to seek employment, the high percentage who cited the need to be close to work as the reason for moving to the present area and the low numbers who believed that their present area was the only one open to them all serve to confirm the central hypothesis of this dissertation that black migration into the informal settlements was the outcome of efforts to secure high-paying formal urban employment.

That migration is a process whereby individuals engage in informal activity until they are able to secure formal employment is less clear. Encouragingly, the data reflected a higher level of informal activity undertaken by recent migrants - both rural-urban and intra-urban - than by their established counterparts, non-migrants or rural stayers. Yet, these figures did not accurately reflect the extent to which recent migrants were forced to engage in informal activity, which was provided by an examination of the employment status of those migrants who moved to the city to find employment.

Of those recent direct rural-urban migrants who moved to the DFR to seek employment, only a relatively small percentage engaged in full time informal activity, whereas nearly one third were unemployed and seeking employment. This suggested that many direct recent rural-urban migrants were prepared to remain unemployed rather than engage in informal sector activity. For indirect recent migrants the opposite was true: up to one third of migrants who moved to seek employment were found to engage in full-time informal activity.

Although these findings go some way to throwing light on the dynamics of informal sector activity, ultimately the unavailability of pertinent qualitative data which

indicates the intention behind informal sector participation leaves unanswered the claim that migration constitutes a process whereby individuals participate in informal sector activity until they are able to secure formal employment.

Likewise, the hypothesis that migration within the DFR reflects the outcome of decision-making aimed at securing high-paying formal employment cannot be confirmed. Ostensibly, recent intra-urban migration within the informal settlements, is undertaken more as the result of a desire to avoid violence or to find land to settle on, than because of any wish to find formal employment. Also, in terms of the reasons given for moving to their present residence, the economic motivation for migration does not feature as important by intra-urban migrants. Nonetheless, these findings do not allow one to conclude that the Todaro model has little or no relevance in explaining intra-urban migration. On the contrary, the fact that recent intra-urban migrants are amongst the highest paid and employed of all informal settlement residents points to their having largely achieved their goal of securing high-paying formal employment. Again, however, the absence of corroborative information makes this a tentative conclusion.

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APPENDIX ONE

Scope of empirical findings

The data used for this dissertation is taken from two studies conducted by the KwaZulu Finance Corporation (KFC) and the Rural-Urban Studies Unit (RUSU) of Centre for Social and Development Studies (CSDS) at the University of Natal.

Study area

The KFC survey was conducted amongst 200 households in each of the 26 Magisterial Districts of KwaZulu. In the RUSU study a total of 1133 households were surveyed. 301 of these households were surveyed in Inanda, 302 in the Mariannhill area, 230 in the Central area and 300 in the Southern region of the DFR. Within each region the following informal settlements were surveyed:

Within Inanda, 74 households were surveyed in the Lindelani settlement, 75 in Amatikwe, 68 in Bhambayi, 84 in Nhlungwane. All settlements within the 4 sub areas of Inanda are freestanding settlements.

Within Mariannhill, 75 households were surveyed in Tshelimnyama, 81 in Mpola, 65 in Dassenhoek, 43 in St Wendolins and 38 in Klaarwater. Other than Klaarwater which is a formal township, all the other areas are freestanding settlements.

Within the Central area, 60 households were found in Cato Manor, 39 in Kennedy Road, 33 in Briardene, 34 in Block AK, 22 in Clermont and 42 in the backyard shacks of Umlazi. Other than the backyard shacks of Umlazi and the formal infill area of Clermont, all other areas are freestanding settlements.

Within the South region, 60 households were found in Bottlebrush, 57 in Umgababa, 57 in Geza, 56 in Mgaga and 70 in the freestanding informal dwellings of Umlazi. Barring the informal settlement of Umgababa, all other areas are formal infill

settlements.

Unit of Analysis

In both surveys the unit of analysis was the household. The household was defined as those individuals/families who shared the same residential facilities and who were dependent on a common income. Unlike the RUSU study, the KFC survey included in the household those family members who lived away from the household (eg. migrants, and scholars residing away from home) but who nevertheless contributed to its total income or drew upon its resources.

It is important to note that information on the migration histories of each household was collected from the household head, where that individual was available. Unfortunately, this approach is inappropriate where household members have different migration histories to that of the household head. Three considerations however point to the acceptability of this approach in the RUSU studies. Firstly, in regard to recent migrants it can safely be assumed that the entire household has moved together. Secondly, migrant families' origins tend as a whole to coincide with that of the household head. Thirdly, qualitative interview data largely confirms the coincidence of the household head's migration history with that of the other household members.

Household Income

In both studies household income was defined as a stream of earnings passing through a pooled household 'kitty'. Information was collected on incomes from wages and transfer payments earned by each household member. With the KFC study, total household income was calculated by summing the wage income of household members living at home and the income remitted by household members who lived away from home, income from pensions and transfers, amounts withdrawn from businesses, both formal and informal, income earned from the sale of agricultural produce, an imputed value of agricultural produce consumed by the

household, and income from a range of other sources including lobola payments, maintenance and compensation payments, etc.

In the case of the RUSU study, total household income was calculated by summing the wage income of household members earned through both formal and informal sources, pensions and grants and other monies including remittances.

Household head

In both the KFC and RUSU studies information was collected from the household head, who is the accepted primary decision-maker of the household. In the case of the RUSU survey, if the household head was absent at the time the survey was undertaken, the household head's spouse or an available adult was interviewed. In the KFC survey the actual respondent was in all instances a responsible adult over the age of 20.

Study periods

The KFC study commenced on 1 June 1992. All field work was conducted during the month of July. In most instances, questions relating to income referred to the month of June 1992.

The four RUSU studies, on the other hand, were conducted over a period of a year and a half. The Mariannhill survey was conducted in January 1991 and the Inanda study in August of that year. In January of 1992 the Central survey was undertaken and later in June of the same year the South study was completed.

In order to make meaningful comparisons of incomes between the two studies and across the RUSU studies all income data were needed to be reduced to a single point in time. Achieving this goal proved problematic in that incomes and prices rose over the duration of the period that the different surveys were undertaken. Adjustments to take into account these changes were therefore required. While it

was difficult to accurately take into account the changes in income, this was not true with the changes in prices. Using the change in the value of the HSL (Household Subsistence Level) as calculated by Potgieter for the University of Port Elizabeth's Institute of Planning Research, a price index was easily constructed. By adjusting incomes by this price index all incomes could then be adjusted to a single point. With HSL for low-income households increasing at a rate of a little under 18 per cent per annum for the two years September 1990 to September 1992, the following price index was constructed: January 1991 - 100 (Mariannhill), August 1991 - 110.85 (Inanda), January 1992 - 116.81 (Central) and June 1992 - 126.13 (South and KFC).

For a more in depth analysis of the methodology used in the KFC and RUSU studies refer to KwaZulu Finance Corporation (1992) and Cross, et al. (1992a, b; 1993a, b in press).

Problems encountered in the manipulation of data

A number of difficulties were encountered in the collation and manipulation of data. Since the RUSU four studies were not conceived as a series, the nature of the information collected differed across surveys. This caused a number of problems, inter alia, the aggregation of the data was difficult and time consuming; in some cases the construction of composite variables has been only marginally satisfactory; and that important questions - particularly those relating to migration - were asked only in the latter two studies.