

**Individual, Household and Regional
Determinants of Labour Force Attachment in
South Africa: Evidence from the 1997 October
Household Survey**

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Taryn Dinkelman and Farah Pirouz

**Department of Economics
University of the Witwatersrand
Johannesburg**

Abstract:

A narrow unemployment rate of 21.2% and a broad unemployment rate of 36% in 1997 in South Africa indicate a substantial number of working age people who did not work in the last seven days but would accept a job even though they were not actively searching for work. Under the narrow or strict unemployment definition these people would not be counted as part of the labour force. This definition assumes that individuals voluntarily choose to give up searching. In this paper, we consider non-searching unemployment as a degree of labour force participation or attachment that is lower than searching unemployment but higher than being out of the labour force, and try to identify determinants that render a person more likely to be in one of these labour market states. Individual, household, and community level characteristics are taken into account. We also estimate multinomial logit models for jobless African men and women. Using 1997 household survey data, descriptive and econometric analysis finds non-searching individuals to be particularly distinct from those out of the labour force and regional characteristics to play a major role in the experience of joblessness. In particular, high magisterial district unemployment rates appear to discourage active search and coincide with a high proportion of non-searching unemployed in former homeland areas. A final section of the paper discusses the implications of these findings for policy proposals surrounding the unemployment and social security debate in South Africa.

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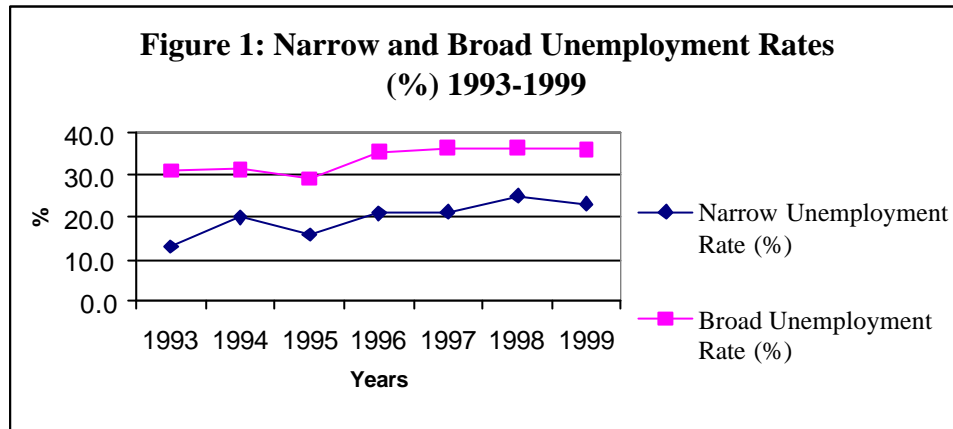
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I. INTRODUCTION

The picture of mass unemployment evident from the 1993 Saldru household survey has perpetuated in subsequent October Household Surveys (OHS) with both narrow and broad unemployment rates climbing every year except for 1995 and 1999 (see Figure 1 below). Strict, or narrow unemployment rates in 1999 are quoted in the range of 23.3%, and 36.2% according to the broad definition, which are only marginally altered from those for 1997 (Stats SA, OHS 1999). The broad definition of the unemployed includes those who are not actively searching but claim they still want work; it includes persons who, under the narrow definition, are not counted as participating in the labour market.



Source: Saldru 1993; OHS 1994-1996; own calculations for 1997-99 using OHS data.

In the current debate, labour market inflexibilities are frequently given part of the blame for the above picture. The particular rigidities which have received most attention are those which restrict the demand side of the market. Excluding the effect of low economic growth rates, the demand for labour is said to be restricted by a host of labour laws which now structure the relationship between workers and employers.

In addressing the unemployment problem, supply-side constraints are at least as important for policy makers to consider. Both low labour force participation (LFP) rates for men and women, and the large gap between strict and broad unemployment suggest that there are obstacles to active participation for many potential workers. These obstacles are probably highest for potential workers who are young, and/or long-term unemployed, as these groups constitute a major share of the broadly unemployed. The question which then arises is: what stops individuals from searching? In the standard definitions of unemployment and the not economically active (NEA) population it is assumed that individuals voluntarily choose to give up searching. These definitions do not admit the possibility of individuals facing barriers to active LFP.

One type of barrier influencing search behaviour is the presence of job search costs - the costs involved in the active search for job information. Various authors note that high local unemployment rates and low probabilities of finding a job may also discourage many working age individuals from active search (see, for example Wittenberg, 1999a), and consequently those who are only broadly unemployed should also be regarded as part of the potential labour force. Search costs and discouragement may even extend to a section of the NEA, thus blurring the line between those in and out of the labour force.

For precisely these reasons, this paper takes the view that several degrees of labour force attachment are more relevant for studying the supply side of the labour market than a restricted focus on the searching unemployed. We try to explain what motivates individuals to 'choose' a particular degree of labour force attachment and what bars them from being in certain states, given individual, household and community level characteristics.¹ In order to do this, we explore differences between individuals reporting different degrees of labour force attachment.

In the next section, we begin by describing how the jobless are divided up into different categories in South Africa, and how these classifications can be understood in a broader labour market picture. To understand the motivations for searching from a position of unemployment, we briefly consider the role of search theory. When search costs and the potential for search success are taken into account, it is also possible to identify the non-searchers as a group distinct from searchers and from non-participants; a distinction relevant for policy-makers.

We then consider the implications of thinking about the states of joblessness in terms of degrees of labour force attachment. Under this alternative conceptual framework, individuals may be described according to how intensively they search, and thus how much labour market information they have access to, as well as according to their desire for work. This would mean that the experience of unemployment would be characterised in a more fluid manner than the dichotomy of searchers and non-participants set up by the search criterion.

In the final part of Section II, previous work conducted on search behaviour in South Africa is reviewed, and points the way to the empirical part of our study.

Section III explores the determinants of states of joblessness from the OHS 1997 and not surprisingly ascertains the predominant influence of gender, age, location and household structure. A profile of the unemployed using this data is followed by a discussion of the explanatory variables used in the econometric estimation. We run multinomial logit models for African men and women to identify the effects of a set of individual, household and regional characteristics on the decision to be in any one of the three reported states of joblessness: searching, non-searching and NEA.

The final Section IV presents some tentative policy conclusions, focussing on what can be done on the supply side of the labour market to reduce the barriers to active LFP and encourage more search activity and thus a stronger form of attachment to the labour market. We also briefly consider one passive and one active labour policy proposal for dealing with those individuals who are not able to be retrained for gainful employment.

¹ We use 'choose' in a qualified sense, acknowledging that individuals face constraints on their objective functions. Given that individuals experience barriers to active participation in the labour market, we try to explain what makes them choose a particular labour market state in order to maximise utility.

II. LABOUR MARKET STATES AND TRANSITIONS - A CONCEPTUAL FRAMEWORK

II.1 Classifying labour market status in South Africa

An extensive discussion has been spun around the decision by Statistics South Africa (Stats SA) in 1998 to adopt the narrow unemployment definition as the official national unemployment statistic (Stats SA, 1998b). This decision is not uncontroversial, since a strict application of this definition would effectively disregard the non-searching unemployed from the labour market; they would be considered non-participants. Such a definition would ignore the possibility that a person's choice of search activities is related to local labour absorption capacities and other labour market characteristics.²

Despite this decision, Stats SA continues to collect and report the narrow and broad unemployment rate (see OHS releases 1998 and 1999). The experience of joblessness in South Africa is therefore currently categorised into (1) searching (narrow) unemployment, (2) searching and non-searching (broad) unemployment and (3) not economically active (NEA). (1) and (2) are based on whether the person took some action to find work in the reference period, which is taken as 4 weeks prior to the interview (Stats SA, 1998a: Figure 1 in Release).³ Stats SA's definitional change has therefore not affected data collection; the decision rather implies that the presentation of labour market statistics now centres on the official, narrow definition. Having an 'official' definition to some extent also suggests that labour market policy is more accurately formulated using this definition.

II.2 Stocks and flows of labour supply

A useful conceptual framework for thinking about different states of labour market participation is in terms of flows between four mutually exclusive labour market states, as presented in Figure 2.⁴ Movements between employment and searching unemployment are indicated by job separation and job acceptance, while individuals may leave employment and directly exit the labour force when they retire or quit. The flows (and their consequent states) which are of interest in this paper are those labelled 'motivated', 'discouraged', 'drop-outs', 'entrants' and 'disheartened', which together describe the different experiences of unemployment.

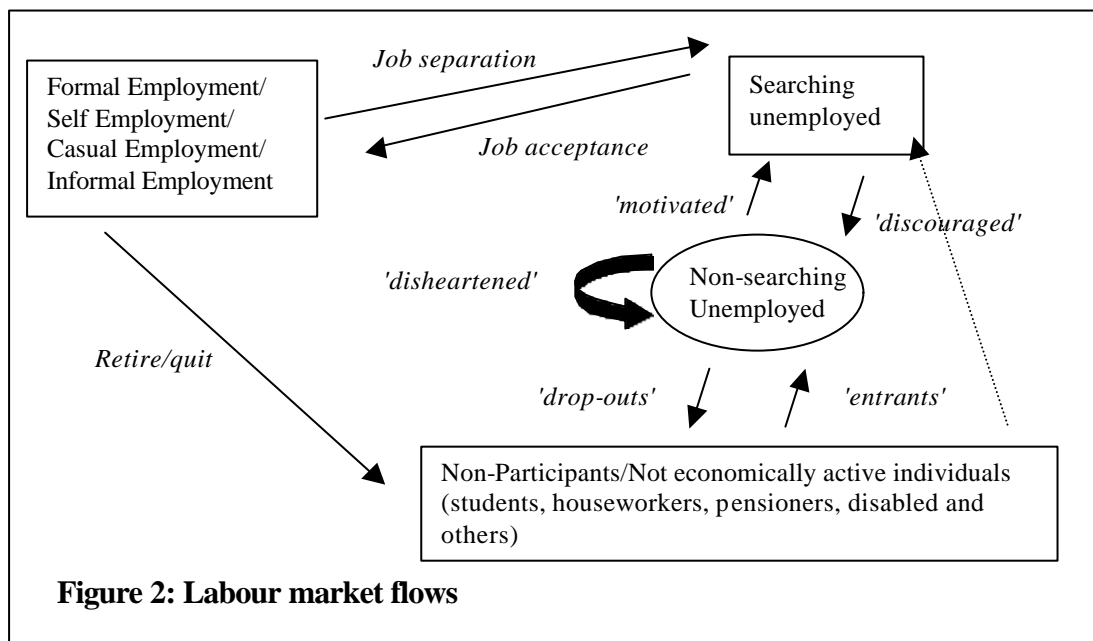
'Entrants' would include predominantly high-school and tertiary-education leavers entering the job market in a state of passive or active unemployment, although houseworkers re-

² The International Labour Organisation (ILO) recognises that the decision to stop searching may be affected by labour market conditions and suggests that the criterion of seeking work in the strict unemployment definition may be relaxed in circumstances "where the labour market is largely unorganised or of limited scope, where labour absorption is, at the time, inadequate or where the labour force is largely self-employed" (ILO, 1982, paragraph 10(2)).

³ The (ILO) makes provision for this differentiation by stating that "countries adopting the standard definition of unemployment may identify persons not classified as unemployed who were available for work but not seeking work during the reference period and classify them separately (ie as a sub-category) under the population not currently active." (ILO, 1982, paragraph 12(2)). This however, still puts non-searchers in the non-participation category.

⁴ The flows approach to thinking about unemployment is prevalent in search theory (Devine and Kiefer, 1991:6). Our discussion of this framework is based on Wittenberg (1999b).

entering the labour force would also qualify as 'entrants'.⁵ 'Drop-outs' are those who choose to remove themselves from the labour force entirely. The 'motivated' are individuals who move from non-searching to searching unemployment. Their status becomes active within the labour force. 'Disheartened workers' are theoretically distinguished from 'discouraged' workers in that the latter choose to stop searching after a period of unsuccessful search, whereas the former have never moved out of passive unemployment because of the perception that search activities will fail. They have never been encouraged to search. A high level of local unemployment is likely to generate both types of behaviours. Wittenberg (1999b: 4) notes that discouragement is less likely the result of personal experience than of community experience - "entire groups of young people might convince each other that there are no jobs to be had". These young people would be the 'disheartened' in Figure 2, while those ceasing search activities on the basis of personal failure coupled with a lack of search opportunities particularly in remote rural areas, would remain the 'discouraged'.⁶



From Figure 2, it is possible to see how the basic definitional dissection of the unemployed fits into a broader picture of a labour market. To understand what factors determine which state a jobless individual will be in, and whether the individual will move between states, it is necessary to turn to the theory of search in the labour market.

II.3 Insights from the theory of search

In the theoretical model of competitive labour markets, where workers and employers do not have perfect information about potential job and wage offers, there is an economic incentive for individuals to collect labour market information on available opportunities, even though this collection (search) is costly. Search becomes a form of investment, which continues for

⁵ The solid arrow from non-participants to non-searchers shows the movement of entrants from the NEA pool to the non-searching unemployment pool; while the broken arrow shows the movement directly into active searching employment. This is one indication that the movement from one state to another may not be an ordered movement.

⁶ It is important to note that demand-side factors play an important role in the extent of supply-side search, through the effect on the probability of being offered a job. However, we do not focus on demand-side rigidities acting as barriers to search-success in this paper.

as long as the marginal benefits of the investment outweigh the marginal costs (see for example Devine and Kiefer, 1991: ch 2; Lippman and McCall, 1976; Mortensen, 1986).

Job search theory describes the activities of the frictionally unemployed and their decisions to be in any particular labour market state - working, searching or NEA - in a less than perfectly informed world.⁷ Unemployed individuals are assumed to be rational utility maximisers, making income-leisure choices based on a number of factors: the actual offered wage rate, which also represents the opportunity cost of leisure, the probability of locating other job offers, the benefits of further search - more leisure, continued unemployment benefits, the possibility of a better wage offer - and the costs of search activities, which are assumed to increase the longer the duration of search. The decision rule used by the worker usually takes the form of comparison of a wage offer to some reservation wage, which depends on both the characteristics and the preferences of the individual. If the wage offer exceeds the reservation wage, the worker accepts the job; otherwise search is continued (see for example Devine and Kiefer, 1991: ch 2; Lippman and McCall, 1976; Mortensen, 1986)⁸. Search unemployment has thus been characterised as "unemployment resulting from the rational rejection of available wage offers by unemployed workers in favour of further search for more lucrative offers" (Albrecht and Axell, 1984: 824).

In terms of Figure 2, this theoretical form of search unemployment would consider only those searching for jobs to be legitimately unemployed. The non-searchers would be incorporated with the non-labour force participants category and the search criterion would be used to distinguish between voluntary unemployment and voluntary exit from the labour force (Lippman and McCall, 1976). This is what would be achieved if StatsSA maintained its new official definition of unemployment as the only measure of joblessness.

There are two problems with using the search criterion in this way. Firstly, it does not allow for the identification of the involuntarily unemployed, and secondly, those individuals who cease all search activity in the face of no job offers are classified as NEA of their own volition. The 1980s theoretical debates around the involuntariness of unemployment dealt with the first problem, by acknowledging that not all forms of unemployment are voluntary (see for example Standing (1983, 1981)). Extensions to search theory have developed to deal with the second problem: that of discouraged workers who have given up search but who would work if they were offered positions.

II.4 Search costs, potential for search success and labour market status

An individual's search strategy is the result of a marginal benefit/cost analysis, as described in the previous section. To the extent that the relevant costs and benefits depend on the environment in which search takes place, the decision to search will be endogenous. This means that capabilities possessed by an unemployed individual, as well as labour market conditions facing an individual, will influence the decision to search or to stop searching. In an environment of mass unemployment, it may be a rational strategy to not search, if the chances of locating a job offer are low, and if the relative costs involved in undertaking search are high. For this reason, a discouraged or disheartened non-searching worker may not

⁷ Job search theory also describes search activities of employers on the demand side of the labour market; however, this is not the focus of our paper.

⁸ Sapsford and Tzannatos (1993) describe an alternative decision rule: the worker decides before searching what the optimal number of wage offers to sample will be (a fixed sample size model). However, sequential search models seem to be more prevalent in the literature.

be displaying a preference for being NEA. This individual may be willing to work, but simply does not consider search a worthwhile investment strategy.

The net benefits of search are likely to be low when individuals are not able to access the correct type or quality of labour market information to ensure successful search. Information barriers in the labour market are generated through the individual characteristics of an unemployed person, as well as their household and community or regional characteristics. As an example: in South Africa, the costs of search facing a second-language English speaker living in rural KwaZulu-Natal in a household with no access to a telephone or regular newspapers, and with no other employed relatives are presumably very high. Add to this the reduced probability of this individual finding a job without matric or tertiary qualification and with no prior work experience; then the choice of non-search or the onset of discouragement may indeed be rational.

Search costs set up by barriers of language, lack of communication and transport infrastructure and remoteness, as well as limited chances of finding a job arising from age, lack of education and relevant skills and the absence of an insider contact in the labour force all act to segment the labour market. These types of rigidities are clearly difficult to quantify. However, they are crucial for describing how individuals come to be categorised as searching unemployed, non-searching unemployed or out of the labour force; changes in these rigidities faced by individuals would also go some way towards explaining labour supply flows. In the second part of this paper, we use some of these search costs and indicators of potential search success to explain individuals' self-reported labour market status.

The search costs approach to understanding unemployment has enabled labour economists to consider the non-searching unemployed as legitimately part of the labour market, and thus relevant for analysis. It is in the empirical distinction between the narrow (actively searching) unemployed and the broad (passively non-searching) unemployed that this extension to job search theory has been operationalised.

II.5 An alternative perspective: degrees of labour force attachment

Since the non-searchers are also important for understanding the complexities of the labour market, we could consider Figure 2 from another angle. Instead of movements between the three states of joblessness - searching, non-searching and non-participants - it is possible to think about these states and the intermediate phases as a continuum of labour force attachments.⁹

We define labour force attachment as the degree of active participation by the jobless in the labour market.¹⁰ This participation is observable both in search activities, and in the expressed willingness to work (even by individuals who are not searching). The type and quality of labour market information that is available to the jobless individual also demarcate degrees of labour force attachment. Especially in an environment of mass unemployment, better information about potential job and wage offers indicates a stronger attachment to the labour market because it increases the ability of the jobless individual to locate a suitable job match.

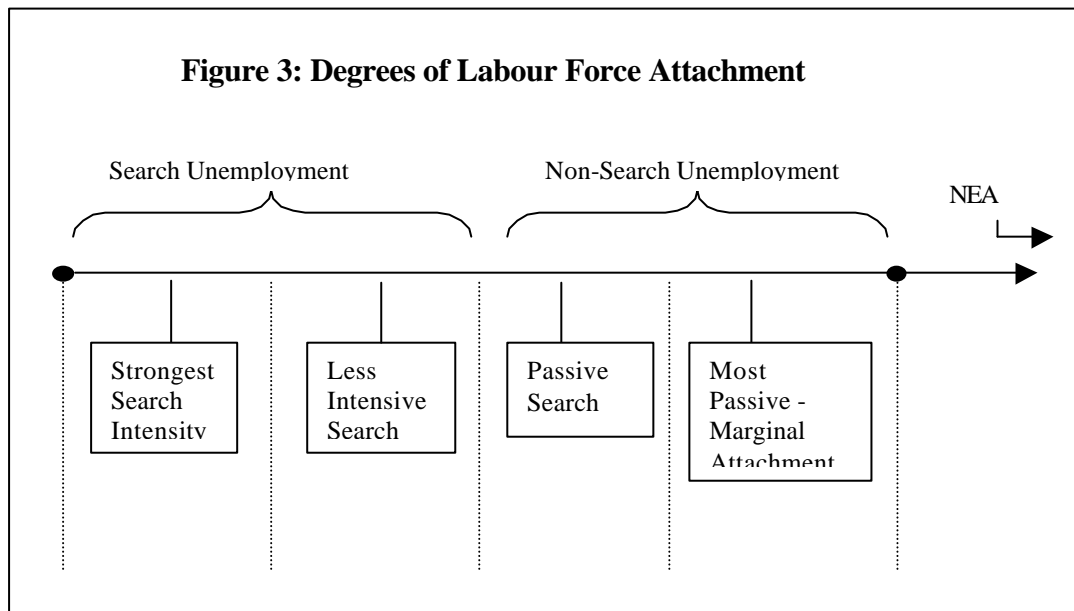
⁹ A dynamic analysis would be required to look at movements between states.

¹⁰ This definition is based on that of Jones and Riddell (1999).

Different degrees of labour force attachment are illustrated in Figure 3. Searchers have the strongest attachment while non-searchers are more marginally attached. Within these groups, there may be different degrees of search intensity which will give rise to different degrees of labour market information - for example, there could be more and less active search methods (sending out job applications versus waiting at an employment bureau), and more and less active types of non-search (for example, relying on family and friends for job information versus not using any labour market contacts).

In an environment of mass unemployment, non-searchers with contacts within the labour force may even have a closer attachment to the labour market than some actively searching individuals, because of the information channel, which is presumably opened up by the labour market contact.

It is possible to think of this continuum extending to include a portion of the NEA: among the group of non-participants, individuals of working age who are studying or training have a stronger link to the labour market through their educational institutions, than others who are not pursuing further qualifications. As a second example, housewives may be more willing to work if there are no other employed individuals in the household.



The implication of adopting a degrees of labour force attachment approach to the experience of unemployment is that all forms of labour market attachment become relevant for labour market analysis. Furthermore, the lines between the different groups of unemployed become less clear-cut; a heavy-handed application of the search criterion to dividing up the jobless misses the fluidity characterising this segment of the labour market. These less absolute boundaries do however make it more difficult to identify distinguishing features of pools of unemployed people.

In a paper investigating the appropriate definitions of unemployment and non-participation, Jones and Riddell (1999) state that "diversity in the degree of labour force attachment presents a challenge for measurement" (Jones and Riddell, 1999: 149). Jones and Riddell suggest that one way in which it may be possible to think about degrees of labour force attachment may be to consider different search intensities with reference to search methods.

They use data on search methods and information about transitions between labour market states in Canada to make two interesting and relevant points for our discussion. Firstly, they find that the marginally-attached unemployed, which include individuals waiting for replies to job requests and individuals who are discouraged, are more similar to the searching unemployed than the NEA. Transition rates into employment for searchers and non-searchers are more closely related than for non-searchers and non-participants. Secondly, they find that passive and active unemployment are nonetheless distinct states (Jones and Riddell, 1999: 153). Both of these findings would suggest that there is merit in counting the non-searching unemployed as part of the labour force, while maintaining the distinction between the more and less attached.

The OHS questionnaire lists search methods that are in line with the ILO's categorisation of the recent period in order to qualify as narrowly unemployed. Individuals must have:

- waited or registered at employment agency or trade union;
- enquired at workplaces and other possible employers;
- placed or answered advertisements;
- sought assistance from relatives or friends;
- looked for land, building, or equipment or applied for permit to start their own business or farming;
- sought or underwent training;
- or waited at street side (Stats SA, 1997: Question 3.33).

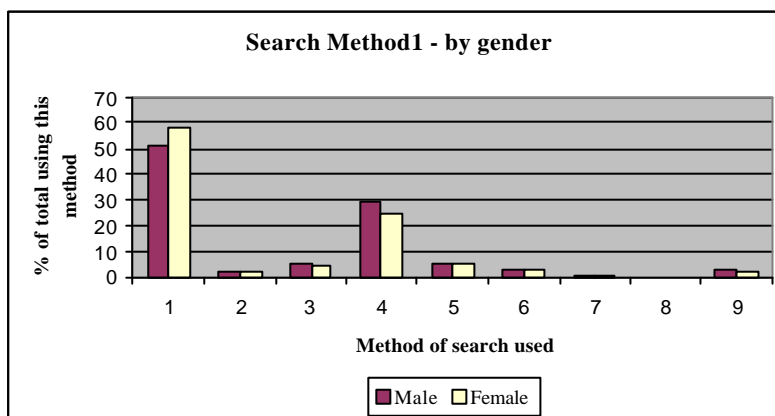
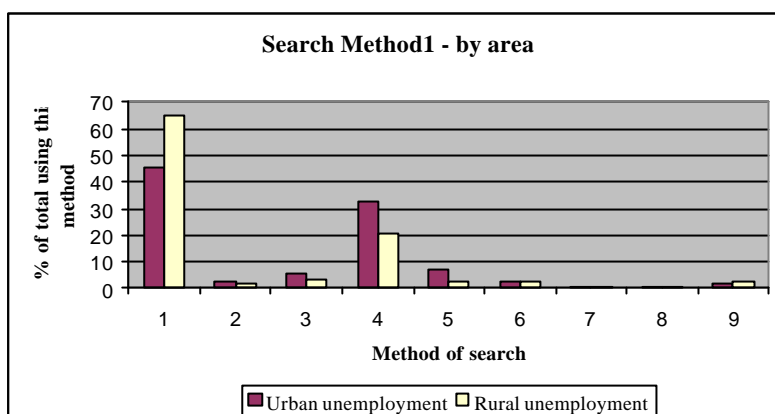
These options can be interpreted as representing various search effort levels or intensities. Some of them represent particularly active efforts to find formal employment (approaching employment agencies), while others might lead to more informal or casual employment (waiting on the side of the road). Although the question does not specifically include a 'passive' search option such as using a social network, this alternative might be seen as relevant, given that South African employers seem to gather information on prospective employees in informal ways. In terms of job search theory, all the search methods can also be distinguished on the basis of the type of labour market information that they yield for the unemployed person.

It would be interesting to try to replicate the results of Jones and Riddell (1999) for South Africa. However, in order to track the transitions between these states as described in Figure 2, it is necessary to have detailed longitudinal information on the same set of individuals, which does not exist for the South African labour market.¹¹ Furthermore, the existing data on search methods is not reliable enough to undertake such a classification of labour force attachments. Part of this is due to the survey instrument. The question on search methods in the OHS asks what the person has done in the past four weeks to find a job and lists 'Nothing but still want work' at the first position, 'Sought assistance from relatives or friends' (sixth) and 'Waited at street side' last. Furthermore, the question does not explicitly invite more than one answer to this question, although three were allowed (ranked from most to least important search method). The assessment of a search activity in this case very much depends on the actual questioning of the interviewer, whether all options are read out before answers

¹¹ As far as we are aware, the only panel data which exists is the 1998 follow-up survey to Saldru 1993, which was conducted in KwaZulu-Natal (the KwaZulu Natal Income Dynamics Study).

are recorded and whether the interviewer prompts the respondent.¹² The particular common search method of 'looking at ads' is also not explicitly listed and other omitted passive methods one can think of are 'waiting for recall' and 'waiting for replies from employers'.

A further problem is that the vast majority of searchers are recorded to be using the same method. In Figures 4a and 4b, it is clear that queuing at a workplace is the predominant mode of search for both men and women, across rural and urban areas, and that the majority of broadly unemployed individuals desire jobs but are not searching at all.



Figures 4a and 4b: Primary search method by area and gender

1=not searching but wants a job; 2=not searching because waiting for job to start; 3=waited/registered at employment agency/trade union; 4=queued at workplace; 5=placed/answered advertisements; 6=family help; 7=looked into self employment; 8=sought/underwent training; 9=waited at side of street.

Source: Own calculations from OHS 1997.

Despite these difficulties, the fact that some individuals in the South African labour market do search, and that such a large proportion of the broadly unemployed are observed to be not searching, demands attention. Two notable papers have devoted some attention to the issue of

¹² It is also possible that unemployed individuals already categorised themselves as non-searching unemployed ('Not working, not looking for work') in the earlier Question 3.1. where they are asked about their activity in the last 7 days. Our unemployment definition re-categorises these people as unemployed if they later stated that they are available for work within a week and also reported active job search methods. A possible variance of answers to the search mode is also suggested by Jones and Riddell (1999) who similarly remark that the division between searchers and non-searchers is sensitive to survey design and respondents' circumstances.

how to describe and model the choice of search or non-search activity in South Africa. Their main findings are discussed in the next section.

II.6 Search behaviour in South Africa

Kingdon and Knight (2000) discuss the appropriate concept of unemployment for South Africa by examining to what extent searching and non-searching unemployment states are distinct from each other. In particular, they examine the validity of a luxury unemployment hypothesis compared to the discouraged worker hypothesis for the non-searching unemployed in South Africa. Their evidence convincingly rejects a "taste for unemployment" among the non-searching unemployed and instead suggests that lack of job search is an outcome of constraints. Those constraints relate to lack of funding for job search among the poor and the high cost of job search in remote locations (Kingdon and Knight, 2000: 11). Furthermore, high local unemployment rates appear to discourage job search efforts. The conclusion that Kingdon and Knight reach is that the appropriate concept of unemployment in South Africa is the broad unemployment rate, rather than the narrow rate.

Although they show that the non-searching unemployed are 'involuntarily' in their predicament, they do not emphasise the continued relevance of separate categories for searchers and non-searchers. The fact that some individuals classify themselves as searching, while other consider themselves to be non-searching suggests that there may be some distinctions between these groups which could be relevant for policy analysis. In short, it might be necessary to set up alternative policy interventions to deal with the searching and the non-searching unemployed, if they are distinct enough sets of people. We try to deal with this issue in Section III of the paper.

In another empirical paper looking at the experience of unemployment, Wittenberg (1999a) analyses job search behaviour without concentrating solely on the unemployment rate, broad or narrow. The paper uses semi-parametric techniques to explore the determinants of which individuals end up in which of four categories: employed, unemployed on the strict definition, unemployed on the expanded definition only (i.e. the non-searching unemployed), and NEA. His paper contributes two points to the discussion around job search behaviour in South Africa. Firstly, he suggests that it is useful to look at different degrees of labour force attachment, rather than concentrate on the employment/searching unemployment distinction:

"...a concern with the relationship between employment and unemployment only obscures the fact that the decision to search becomes dependent on the prevailing levels of unemployment. A broader consideration of labour market participation therefore seems called for" (Wittenberg, 1999a: 47).

In making this point, the influence of the search environment on the search decision is recognised.

While it is essential to realise that the search decision is determined within the context of mass unemployment, it may be difficult to find a single interpretation which explains the endogeneity. There are potentially several parts to the problem. Non-searchers may have given up active search because of repeated failure and true discouragement, or because there is a lack of resources to finance search activities which are expensive, or simply because of a cohort effect (i.e. an entire peer group may stop searching, which may make individuals more

reluctant to choose an active labour market status).¹³ Furthermore, while households may restructure in order to support the unemployed (Klasen and Woolard, 1998: 5-6), there is also the possibility that the jobless living in households with shared income pools are reluctant to search for jobs precisely because any income they earn will be shared. Thus, non-search is reinforced by particular household structures which have developed to deal with the effects of mass unemployment.

In trying to pick apart these different strands, it is necessary to look at how an individual's search behaviour is influenced by personal characteristics, features of the household in which the jobless person lives, and the area in which the person resides. Wittenberg (1999a: 2) considers some of these characteristics and finds that after age 40 more of the working age population moves out of the labour force, but that the patterns of searching and non-searching unemployment do not seem to vary much with age. Furthermore, the search activities of all individuals within a household matter for determining search status of members, and the location of the unemployed in urban or rural areas influences the propensity to search.

A number of characteristics thus impact on the motivation of the unemployed worker to search or not search. The notion that some of these features are created by the environment of labour surplus indicates that search activities are not an adequate marker for delimiting the legitimately unemployed from those out of the labour force in South Africa. We have to question why such large sections of the unemployed are not searching, because the non-searching have not chosen their status from a position of luxury (the Kingdon and Knight argument). We also have to question to what extent the passively unemployed are passive, because the line between those NEA and those who are only broadly unemployed is more fluid than official measures would suggest (the Wittenberg argument).

The sense that we get from the empirical work conducted on South Africa so far is that in the broad category of jobless individuals, there is a heterogeneity of search behaviour that cannot be captured or understood by focussing on narrow unemployment only; nor for that matter, broad unemployment only. This heterogeneity has implications both for how movements between labour force states are perceived, and for how labour market policy is formulated.

II.7 Analysing labour force attachment and labour market status with cross sectional data

Although we do not have accurate data on search methods, we do have extensive cross-sectional information on individuals in each of the three measured states of joblessness: active and passive unemployment and the NEA. Considering a survey in one particular year can still shed some light on the determinants of the decision to be in any one of the three non-working states; to be at one discrete point on the line in Figure 3. The advantage of such an approach is that fairly detailed individual, household and community level characteristics can be used to describe how searchers, non-searchers and the NEA are different from each other, and to model the likelihood of an individual being in any one of the states of interest. In the absence of reliable data on passive search activities or an indication of a person's desire to

¹³ Discouragement affects the "suppliers" of labour; however, failed search may be the result of rigidities on the demand side of the labour market. For example, the presence of a minimum wage set above the marginal product of unskilled workers would deter firms from hiring these types of people; thus the unskilled unemployed may become discouraged from search because of a low probability of being successful in their endeavours.

work, the limitation is obviously that the proposed continuum of labour force attachments remains fairly crude.

III. SEARCHERS, NON-SEARCHERS AND NON-LABOUR FORCE PARTICIPANTS: EVIDENCE FROM OHS 1997

The empirical section of the paper uses household survey data from Statistics South Africa's October Household Survey (OHS) in 1997. The OHS is an annual survey gathering responses to a range of individual and household questions from about 30 000 households across South Africa.¹⁴ The data on labour market status and activities is thus fairly detailed, and using census-based weights, the sample can be used to describe the incidence of unemployment.

III.1 A profile of unemployment

Unemployment is a diverse experience in South Africa; it has a gendered, racial, spatial and age-related bias. Much of the labour market analysis in South Africa seeks to untangle the structure of unemployment and employment across demographic strata defined by gender, age, race and location in South Africa. Such a differentiated approach has proven useful in explaining the incidence of unemployment.¹⁵

In Tables 1 to 4 (Appendix 1), narrow and broad unemployment rates have been calculated for the entire country, for men and women separately, and for Africans separately.¹⁶ Additionally, non-searchers have been expressed as a proportion of the total unemployed, and as a proportion of the total labour force. Finally, narrow and broad LFP rates were added.¹⁷

All of the usual categories for disaggregating the unemployed have been used. The area variable is slightly different from the common urban/rural and homeland/non-homeland distinction. The rural/urban areas have been reclassified into either former urban South Africa, former rural South Africa (which would constitute mainly white farming land), former urban homeland and "Self Governing Territory" (SGT) and former rural homeland and SGT. This area variable therefore captures distinctions in unemployment rates between

¹⁴ The sample of households has varied each year: the 1996 OHS only covered 16000 households and the 1998 OHS covered 20000 households. In 1999, there were again 30000 households.

¹⁵ See, for example Klasen and Woolard (1999), Fallon and Lucas (1998), Chandra and Schaefer (1998) and Simkins (1996).

¹⁶ In defining labour force participation and unemployment in the OHS we have generally followed the steps set out by Klasen and Woolard (1999). Most importantly, the working age range is restricted to 16 to 64 instead of the 15 years and older used in the Stats SA calculations. Other important deviations relate to re-classification on the basis of responses at the end of the questionnaire section that might differ from an earlier categorisation. Amongst these are e.g. persons who, at the end of the section, describe themselves as students, housewives, disabled or retired, 'prefers not to work'; they are re-classified as being outside the labour force. Persons who reported to be casually employed but worked fewer than five hours in the past week and would like to work more are counted as unemployed. Listing all amendments would be too exhaustive here, and did not affect a large number of people. While we did not employ all changes suggested by Klasen and Woolard the unemployment and labour force participation rates generated with our definition do not alter the picture and are believed to be consistent with their calculations. We also note the insufficient coverage of mineworkers and hostels in the OHS 1997. The OHS 1999 has sought to include this group.

¹⁷ Narrow labour force participation is the total working age population in employment or strict unemployment; broad LFP is narrow LFP plus the non-searchers.

former labour reserves and other areas of the country reserved for whites, as well as rural/urban differences within each of these regions.¹⁸

The profile of searchers, non-searchers and non-labour force participants which emerges from the tables is quite dramatic. The gap between the broad and narrow unemployment rates is substantial at 14.8%. This gap widens when the analysis is done for former rural homelands (24.6%) and in the four poorest provinces: North West (19.5%), Northern Province (19.6%), KwaZulu-Natal (19.7%) and the Eastern Cape (22.6%). These provinces are possibly also capturing the former homeland effect, as they are the areas with the greatest concentration of formerly independent homelands and SGT's.

Low LFP rates, found especially in the former homelands and SGT's, are correlated with extremely high rural unemployment rates on the broad definition. So, just over 4 out of every 10 people in the working age population in rural former homelands and SGT's consider themselves to be in the labour market; of these, almost 6 out of 10 are broadly unemployed with almost 4 of these unemployed not searching. The situation does not improve markedly in urban areas - LFP rates are higher, at about 65% in urban old RSA, but non-searchers are still 41.7% of the unemployed in these areas. On average across the country, more than one in two unemployed individuals are not searching actively.

Klasen and Woolard (1998), Wittenberg (1999a) and Kingdon and Knight (2000) argue that the decision to participate in the labour force is influenced by conditions in the labour market, just as the decision to stop searching is. Indeed, low LFP rates and high passive unemployment rates would suggest that there is widespread discouragement among the working age population in rural areas especially, causing individuals to drop out of the labour force, or remain only marginally attached. The lack of active participation is of concern in itself; however the fact that the picture of the spatial distribution of non-searching unemployment has remained largely unaltered since 1993/94 suggests that despite the removal of legal impediments to individual mobility, rural areas remain as pools of unutilised labour, in rural labour markets which appear non-existent.¹⁹

As a further indication of the spatial spread of unemployment across the country, broad unemployment rates for each magisterial district have been calculated using the 1996 Census.²⁰ The dramatic concentration of high unemployment in rural former homelands and SGT's can be seen most clearly on the map in Appendix 2.²¹

Racially, unemployment is more likely to be a predicament for Africans in the working age population. The narrow/broad unemployment rate gap is again large, at 17.6%, suggesting that Africans have the largest pool of passively unemployed people. This is confirmed by noting that non-searchers are about one quarter of the entire African labour force. Africans

¹⁸ We collapse these distinctions later in our table of explanatory variables, since the proportion of urban former homelands out of the total former homeland area is small.

¹⁹ See Klasen and Woolard (1998); Wittenberg (1999a) and Kingdon and Knight (2000) for work on earlier OHS's which gives a similar spatial scenario to the 1997 OHS.

²⁰ The 1997 OHS covers almost every magisterial district (329 out of 354). Omissions include 1 magisterial district in the Western Cape, 12 in Eastern Cape, 8 in Free State, 3 in KwaZulu-Natal and 1 in Mpumalanga.

²¹ It is questionable as to whether disaggregation of the national labour market at the magisterial district level is far enough - some districts may cover more than one homogenous labour market, in which case an alternative measure of local unemployment rates is necessary. However, unemployment rates calculated by enumerator area may tend towards the other extreme of being too narrow to define a local labour market.

also have the lowest LFP rates. In the Eastern Cape, less than 40% of working age Africans are in the labour force.

Unemployment rates for women are higher than for men, despite a lower LFP rate, possibly due to domestic and/or agricultural responsibilities. About 45% of all participating women are broadly unemployed (compared to 30% of all men), and of these, over half are not searching for work, but would take a job if offered.

Both broad and narrow unemployment rates decline over age cohorts, being the largest in the 16-25 year age group. Although we cannot interpret this as an ageing effect from a single cross section, the pattern is borne out in Wittenberg's (1999b) investigation of three consecutive cross sectional surveys. The suggestion there is that as the working age population grows older, more individuals leave the labour force through retirement or become so discouraged from search failure that they drop out completely. Unemployment rates decline with age, possibly because the demotivated unemployed (particularly women) classify themselves as out of the labour force, and also because more individuals are being absorbed into employment once leaving the youth category.

For the youth, presumably straight out of school in the age group 16-25 years, the unemployment rates on both the strict and narrow definitions are frighteningly high. For young women, unemployment rates between the 16-20 and 21-25 year range fall more slowly than for men. So, either women are hired more slowly than men, or men choose to opt out of the labour force before women do. Non-searchers as a percentage of the total unemployed fall over ages 16 to 30 for women and over ages 16 to 25 for men, and then start to rise for all the remaining age groups. For those individuals who are passively unemployed even in the youngest age groups, it is plausible that they have never searched. They would not be categorised as discouraged work seekers on the basis of Figure 2, but rather as disheartened.

From Tables 1-4, the story emerging is that some sections of the population are more likely to be unemployed than employed; some sections are more likely to be non-searching than searching; and many of these sections are also less likely to be in the labour force in the first instance. Non-searchers are more probably female, African, young, and living in rural areas than searchers; non-labour force participants are even more likely to have these personal characteristics. While categorisation within any one of these groups increases the chances of an individual being a passive labour force participant, a combination of these features is likely to increase the effect. For example, about 67% of female unemployment in rural ex-homelands is non-searching (Table 2); 60% of male unemployment in the Eastern Cape is non-searching (Table 3); and half of all unemployed African men are non-searching (Table 4); while almost one in five African men in the total labour force is passively unemployed (Table 1).

Persons with these characteristics are also likely to have the worst access to information in the labour market and the weakest contacts - informal information networks of employed relatives and friends. Thus they may be destined to remain marginally attached to the labour force; without better labour market information, many of them are unlikely to be absorbed into the working population, even if job creation improves. The additional fact that the picture has not changed substantially between 1993 and 1997 should be a warning that if policy is not based on a recognition of this diversity, but instead on only the strict definition of unemployment, those who are most disadvantaged will continue to be marginalised.

III.2 Sample Data Description and Econometric Method

For the purpose of econometric analysis a person's labour market status is considered as the outcome of a selection process between four distinct states: employed, unemployed and searching (narrowly unemployed), not searching but still wanting work (only the broadly unemployed), and not searching and not wanting work (out-of-the labour force).²²

The sample is restricted to the working age population (16 to 64 years). Table 5 (Appendix 1) presents the averages of plausible explanatory variables used in a multivariate analysis. These variables will possibly have an effect on the probability of being in one of four states. They are first used to describe differences between individuals in each of the four labour market states.

Included as explanatory variables are specific characteristics that are typically found in the South African literature. Among the individual characteristics age, population group, education level, whether the person ever worked before and household headship are considered. Household characteristics are comprised of the average household size, per capita household income from work, from other sources such as pensions, and from migrant workers' remittances, per capita household expenditure and the average number of children under 16 years of age living in the household. In addition some variables are used to reflect informal connections to the labour market, such as the average number of employed household members, the average number of migrant workers per household, and telephone access. Finally, three regional indicators are considered: the broad unemployment rate in the magisterial district where the individual is residing, whether the district is classified as urban or rural and whether it belongs to a former homeland or SGT. Table 5 thus depicts the average man or woman who is employed, searching unemployed, non-searching unemployed or out of the labour force. For those variables that take on a value of either 0 or 1 the Figures in Table 5 tell us the proportions of, e.g. Africans in each labour market category or of men/women with a certain education level.

An exploratory analysis of the sample data offers several noteworthy points. The average age of the employed is late thirties (between 36 and 38 years). Given the population structure of South Africa, this appears quite high.²³ The mean age of the rest of the working age population in the other three states of joblessness in the sample ranges from 28-32 years. Age is often interpreted as a proxy for experience. If this is the case, then the older average age of the employed suggests that these individuals have some labour market advantage over younger job seekers.

Africans in the sample consistently make up larger proportions of the jobless compared to their stake in the employed category. The high incidence of unemployment amongst Africans has already been observed in the disaggregated unemployment statistics presented in the previous section.

²² Although the alternatives can be interpreted to reflect various degrees of labour force attachment they are not considered as being ordered. Additionally, this list is not exhaustive. There are obviously individuals who search while in employment; they do not concern us here.

²³ The age structure of the population was considered using Census 1996. The majority of the population was observed to be in the age groups below 30 years. Of the working age population the 16-30 year old group is larger than the 30-50 year old group.

Another pattern emerges with regard to education levels over the two unemployment states: more than sixty percent of searching unemployed attained secondary level schooling and beyond. Education levels indeed drop off for the non-searching unemployed with 50% of men in this category and 48% of women having less than secondary education. This confirms the findings of Wittenberg (1999a: 31) that better educated individuals have a higher propensity to search, possibly reflecting the higher probability of finding a job with some education.

Large pockets of the unemployed have never worked before; however, more of the non-searchers have never worked before than the searchers. This suggests that previous work may be one factor encouraging active search; previous experience with employment may establish links in the labour market, which can be exploited as search channels. Individuals who have never been employed therefore have a lower degree of labour force attachment; they may be even further disadvantaged in available labour market opportunities.

Those without jobs are more likely to be in larger households, and in poorer households, concentrated in rural former homeland areas. Searchers live with other searchers, while non-searchers live with other non-searchers, suggesting that search strategy is often conditioned by household structure. The tendency of the unemployed to 'cluster' in households has also been observed in Wittenberg (1999a:38) who points out that this 'clustering' might even extend to wider neighbourhoods. Table 5 further indicates that those with jobs are more likely to live in smaller households and employed men are more likely to be heads of households.

Household structure may however be subject to an alternative explanation; indeed, the composition of a household may be an outcome of search behaviour, rather than a determinant of such behaviour. Klasen and Woolard (1999) find strong evidence that coping strategies of the unemployed often result in restructuring of households as the unemployed remain in or move back to households where they can share in some form of income. While the employed live in households with fewer dependants, it is possible that tracking these households over time would show that the unemployed migrate to these sources of income; in which case the employed might end up having a larger number of dependants.

What is possible to see from a cross-sectional snapshot is that high rural unemployment may in part be due to these household formation processes. Since the state old age pension constitutes the most important source of non-wage income in South Africa and the elderly mainly live in rural areas where basic living expenses are also cheaper, it is not surprising to see large sections of the non-searching unemployed located in these rural areas. As Klasen and Woolard suggest:

“The one [unemployed individual] with bleaker job prospects, better access to resources in rural areas (pensions, land, etc), little connections in urban areas and deterred by the high cost of urban living, and possibly less motivation remains in rural areas or goes to rural areas to attach themselves to a household of parents and relatives. He then does not engage in search activities and thus ends up among the broad unemployed” (Klasen and Woolard 1998:24)

This effect is more prominent when considering the level of remittances to individuals living in migrant worker households. Remittances are higher for those who do not search than for individuals who do search, regardless of gender and household size. It also makes sense that higher levels of passive unemployment are observed in remote rural areas since migrants are predominantly from these areas.

On the other hand, it must be borne in mind that the level of remittances is generally low and volatile. A more likely story as to why the unemployed are not searching in these households is because non-searchers rely on migrant members of the household - those who have a job or seek a job somewhere else - to supply them with information on job opportunities. This may be the least costly 'method' of search in an environment of mass unemployment. In that sense, unemployed individuals who have access to migrant workers and their information might have a stronger degree of labour force attachment than similar individuals without migrant workers in their households.

We would have liked to use several measures of remoteness, to proxy for the notion of search costs. To a large extent, the area variable probably does this. Rural former homelands are presumably the most distant from centres of information about jobs, and are also lacking in communication and other community facilities. We included one example of a modern labour market link: the telephone, which is then also a proxy for electricity; a certain level of income, and a generally wealthier household. Over 40% of the employed in the OHS sample have access to either a landline or a mobile phone; less than 20% of the searching unemployed have this facility; not quite 13% of the non-searching unemployed have access; while 20% of the non economically active have access. These figures illustrate that over 80% of the unemployed have no convenient way of contacting or being contacted by prospective employers.

In the characterisation of searching and non-searching unemployed and non-labour force participants using 1997 data, the above discussion confirms a number of observations and suggestions that have been made in work on earlier data sets, particularly the detailed 1993 Project on Living Standards Measurements (Saldu). Firstly, non-searchers tend to have fewer qualities presumably desired by employers: with less labour market experience and lower levels of education; their employment prospects are worse than those of the searching unemployed. Secondly, massively high unemployment in the former homeland areas has persisted through to 1997 and can be interpreted as a sign of little policy impact in rural labour markets, which still appear virtually non-existent. Thirdly, there is strong evidence of discouragement across large sections of the labour force, for which there are few links back into the active labour force.

III.3 Estimation Results

To examine the statistical significance and magnitude of proposed variables in determining the labour market status of a jobless person, we estimate a multinomial logit model. As evident from Table 5 and the above discussion, the values of a number of explanatory variables are not independent of the employment status and the wage associated with it. For this reason, the employed are excluded from the estimation. Also for the remaining three states of joblessness, a number of plausible sounding explanatory variables can be seen as outcomes of the labour market status, rather than as its exogenous determinants. Under this consideration, the labour market status of other household members (in particular the number of employed persons in the household), and whether the person is head of the household or not are left out.

As discussed in the text and apparent in the map, dramatically high magisterial district unemployment rates are predominant in the former homelands. In the given sample, 8045 working age individuals were living in magisterial districts (MDs) with a broad unemployment rate of over 70%; 94% of them reside in former homelands or self governing

territories. Similarly, 86% of MD's with a broad unemployment rate of over 50% are former homeland or SGT areas. None of these areas has a broad unemployment rate that is below the national average of 37%. In fact, the only ex-homeland MD with an unemployment rate below 40% in the population census is Namakgale in the Northern Province. Since the highest broad MD unemployment rates are concentrated in former homeland/SGT areas, only the broad MD unemployment rate is used as a 'regional indicator'.

The likelihood of being in one of three labour market states is estimated separately for African women and men as it is postulated that their labour market behaviour is subject to different determinants.

Tables 6 and 7 below report the results of the multinomial logit estimation: Coefficients on the explanatory variables and their significance.²⁴

Table 6: Estimation Results: African Men – OHS1997

LABOUR MARKET STATE (relative to out of the labour force)	Searching		Non-Searching		Joint Test	
	Coeff.	Std.Err.	Coeff.	Std.Err.	F-statistic	p- value
Individual Characteristics						
Age	.557**	.016	.545**	.015	.35	.556
Age square	-.007**	.000	-.007**	.000	.68	.411
Years of Educ up to Std 1	.162**	.036	.114**	.031	1.36	.244
Years of Educ up to Std 5	-.039	.031	-.074*	.030	2.08	.150
Years of Educ up to Std 9	-.107**	.024	-.16*	.024	2.92	.088
Matric	1.017**	.095	.963*	.095	.02	.892
Years of Higher Education	-.021	.098	-.373**	.121	4.21*	.040
Household Characteristics						
Household size	-.008	.019	.415*	.017	2.46	.117
No. of children < 16 in household	-.064*	.029	-.073**	.028	.09	.767
Per capita hhold income from work	-.001**	.000	-.001**	.000	.35	.552
Per capita other household income	-.003**	.001	-.002**	.001	.67	.413
Migrant worker	-.147**	.049	-.057	.038	3.69*	.050
Telephone	-.200	.102	-.166	.108	.02	.884
Regional Characteristics						
Urban – Rural	-.275**	.091	.214*	.089	21.05**	.000
Broad MD unemp rate	-.687**	.261	-.062	.243	7.22**	.007
Cons	-9.89**	.305	-10.083**	.291		
N	2770		2984			

** and * indicate significance at the 1 and 5 percent level respectively. The joint test is a test of whether coefficients are different across categories. Out of the labour force is the base category. The effect of education has been estimated using linear splines.

Using education splines in the estimation allows for different coefficients on primary, senior primary and secondary education, matric (senior certificate), and higher education.

From joint test results on whether coefficients are zero across all categories (not reported here) it is clear that searching and non-searching individuals are distinct from people not in the labour force. The similarity of most of the coefficients for the two states, however, suggests that a distinction between searching and non searching unemployed is difficult on the basis of their individual and household characteristics, in particular for African men.²⁵

²⁴ A Hausman test has been performed to examine whether independence of irrelevant alternatives does hold. The given data does not reject this assumption underlying the multinomial logit model.

²⁵ We also tested whether all coefficients are equal across the two unemployment states; this was strongly rejected.

Table 7: Estimation Results: African Women – OHS1997

LABOUR MARKET STATE (relative to out of the labour force)	Searching		Non-Searching		Joint Test	
	Coeff.	Std.Err.	Coeff.	Std.Err.	F-statistic	p- value
Individual Characteristics						
Age	.0543**	.015	.454**	.012	27.62**	.000
Age square	-.008**	.000	-.006**	.000	22.57**	.000
Years of Educ up to Std 1	.094**	.028	.054**	.021	1.89**	.169
Years of Educ up to Std 5	.051	.028	-.013	.022	4.85*	.028
Years of Educ up to Std 9	-.094**	.021	-.136**	.018	2.99	.084
Matric	1.025**	.077	.861**	.074	15.97**	.000
Years of Higher Education	.053	.079	-.397**	.112	15.94**	.000
Household Characteristics						
Household size	.080**	.014	.052**	.013	2.05	.152
No. of children < 16 in household	-.069**	.022	-.053**	.020	.37	.543
Per capita hhold income from work	-.000**	.0001	-.001**	.000	1.06	.303
Per capita other household income	-.001*	.001	-.001**	.000	5.81*	.016
Migrant worker	-.178**	.043	-.063*	.033	.51	.477
Telephone	-.367**	.083	-.294**	.086	12.34**	.000
Regional Characteristics						
Urban – Rural	-.692**	.079	-.267**	.065	21.57**	.000
Broad MD unemployment rate	-1.075**	.225	-.088	.176	16.23**	.000
Cons	-9.998**	.291	-8.26**	.233		
N	3594		4897			

** and * indicate significance at the 1 and 5 percent level respectively. The joint test is a test of whether coefficients are different across categories. Out of the labour force is the base category. The effect of education has been estimated using linear splines.

The similarity of many of the coefficients indicates that those variables can not explain the move from non searching to searching (or vice versa). For African men, it is the coefficients on the regional characteristics - whether the person resides in an urban or rural area and the broad magisterial district unemployment rate - that differ markedly and seem to influence search behaviour. This reinforces the earlier picture of a primarily spatial segmentation of the jobless in South Africa. The division between searching and non-searching appears to be somewhat stronger for women. For African women in the sample, we find that age, experience (proxied by age square), education (except secondary education), presence of a migrant worker, as well as the regional characteristics can help explaining searching and non searching unemployed status.

The magnitude and direction of the estimated coefficients in the multinomial logit cannot readily be interpreted.²⁶ Therefore, Tables 8 and 9 demonstrate how changes in the respective variables in the model affect the probability of being in a particular labour market state holding all other characteristics constant. We calculate changes in probabilities that are attributable solely to the variation of a single characteristic. We do so by setting the variable to a fixed value for all observations (e.g. area = 0, rural), predict labour market outcomes and then repeat the predictions for a second value (area = 1, urban) of the same variable. These changes are then expressed as proportions of the baseline probability for each jobless labour market state. The baseline predicted probability in fact is the actual proportion of African men and women in each of the defined states as summarised in Table 5 for the entire working age population in the OHS 1997 sample.

²⁶ See Greene (1993), p. 666.

Table 8: Predicting the effects of changes in explanatory variables - African men

LABOUR MARKET STATE AFRICAN MEN	Searching	Non-Searching	Out of Labour Force
Base Probability	.235	.208	.557
One year of school up to Std 1	.066	.045	-.045
One year of school up to Std 5	-.005	-.046	.019
One year of school up to Std. 9	-.031	-.082	.043
Matric	.459	.360	-.328
One year of training/tertiary education	.106	-.262	.053
Household size (6 vs 4 members)	.013	.067	-.031
Children < 16 in household (4 vs 2)	-.060	-.077	.056
Hhold income from work (*)	-.017	-.029	.02
Other hhold income (*)	-.038	-.031	.027
Migrant worker (1 vs 0)	-.082	.002	.034
Telephone access (1 vs 0)	-.090	-.060	.060
Area: urban vs rural	.243	-.235	-.012
Broad MD unempl. rate (30% vs 60%)	.132	-.046	-.038

(*) We have calculated the effect of a doubling of mean household income from work and mean other income respectively.

Table 9: Predicting the effects of changes in explanatory variables - African women

LABOUR MARKET STATE AFRICAN WOMEN	Searching	Non-Searching	Out of Labour Force
Base Probability	.136	.185	.680
One year of school up to Std 1	.052	.028	-.018
One year of school up to Std 5	.046	-.022	-.003
One year of school up to Std. 9	-.046	-.078	.032
Matric	.783	.380	-.176
One year of training/tertiary education	.175	-.230	.029
Household size (6 vs 4 members)	.078	.050	-.029
Children < 16 in hhold (4 vs 2)	-.094	-.050	.032
Hhold income from work (*)	-.048	-.067	.028
Other hhold income (*)	-.020	-.019	.009
Migrant worker (1 vs 0)	-.145	.021	.031
Telephone Access (1 vs 0)	-.247	-.140	.087
Area: urban vs rural	.433	.085	-.109
Broad MD unempl. Rate (30% vs 60%)	.285	-.050	-.043

(*) We have calculated the effect of a doubling of mean household income from work and mean other income respectively.

Both, men and women are clearly more likely to be searching unemployed when living in an urban area with lower unemployment rates. Considering the effect of education, the senior certificate (matric) has the single largest positive effect on inducing people to participate in the labour force and tertiary education is most likely to drive men and women into active search. The positive effect of education and location on active labour force participation, i.e. searching comes out stronger in magnitude for women than for men in the predictions.

We could conclude that as the probability of finding employment rises, i.e. with education and lower regional unemployment rates, people are encouraged to search.

IV. POLICY & CONCLUSIONS

IV.1 On the demand side

Clearly, a large part of the solution to the unemployment problem is to create more jobs. How this demand for labour by the private sector is meant to be boosted is not the subject of this paper. However, our analysis would suggest that any job creation strategy should be based on the differentiated profile of the unemployed; policies encouraging the creation of jobs for the youth, for women and for individuals in rural areas are likely to have the greatest impact on unemployment, if they succeed.

IV.2 On the supply side

Section II identified various rigidities on the supply side of the labour market; barriers which prevent the jobless from participating actively in the labour force. Some of these barriers include the costs of searching, while others reflect the low probability of being successful in searching. These barriers emanate from individual, household and regional characteristics of an unemployed person.

Two policy suggestions emerge from this story. Firstly, it may be possible to increase the degree of labour force attachment of a substantial portion of the unemployed by decreasing search costs. This may involve improving transport facilities between remote and urban areas, installing communications infrastructure in rural areas, and creating local centres of labour market information. If information about job and wage offers is less costly to acquire, then potentially more individuals will search actively.

The problem with this strategy is that even with lower search costs, if the probability of finding a job is still very low, there may be no increase in the incentive to search. In this case, the unemployment problem rebounds to the issue of how to boost the demand for labour.

A second policy intervention, which is almost too obvious to state in the South African context, is the importance of improving the qualities of potential workers through skills upgrading and retraining.

The national initiative to upgrade skills in this country is focussed on the Skills Development Act of 1998. This Act seems to provide supply-side support and retraining for those who already have jobs. The employment and skills development expenditures made by the Department of Labour are funded both by government and by a Skills Development Levy on firms; these resources are channelled predominantly into sector education and training authorities (SETAs), which focus on skills upgrading projects for the already employed. A smaller percentage of resources is allocated to training initiatives for the unemployed. Of the R1.4 billion expected from the skills levy in 2000/2001, only R280 million (20%) is earmarked for the National Skills Fund, which incorporates training projects for the jobless (Dept of Finance, 2000: 228). Thus, the spending focus is not on making the unemployed more employable, but rather on increasing the value added of existing workers. This disadvantage of being unemployed is probably also worsened for those of non-searching status; they potentially have fewer links into any training programmes which do materialise.

The experience of two Eastern European countries - Poland and Hungary - which have also experienced mass unemployment (in the order of 13.6% and 11.2%) has indicated that the

most successful active labour policy (ALP) involved retraining.²⁷ When the unemployed were able to upgrade skills at local labour offices, they had the greatest probability of finding employment (O'Leary et al, 1998). This is possibly because the program was the most targeted of all the ALP's: local labour offices selected participants and provided skills upgrading for local job vacancies (Kluve et al, 1999; Puhani, 1998; O'Leary 1998).²⁸ Furthermore, the success of these projects was probably guaranteed by a fairly well established skills base. Thus, the positive impact of training the unemployed may not be as strong in countries like South Africa where the skills base is sorely lacking. Any training programmes for the unemployed would have to concentrate efforts on those in possession of some education, while others with no education would need to be incorporated into some part of the schooling system.

There is a remaining policy dilemma concerning what to do with individuals who are not absorbed into employment when the demand for labour increases, or who are unable to improve the set of skills they bring to employers. These people may be termed the unemployable and/or the untrainable.

IV.3 Support for the unemployed

Two schemes have been mooted by policy-makers in the last two years. The first is a passive labour policy - a basic income grant - and is aimed at alleviating poverty amongst the unemployed. Such a grant would need to be targeted at the most disadvantaged potential workers as described in the sections above; suitable mechanisms would need to be in place to disburse the grants particularly in rural areas, where most of the non-searching unemployed, living in poorer households, are clustered. One possible side effect of such a grant might be to increase the number of people choosing a lower degree of labour force attachment - that of NEA. It would be important to prevent a disincentive-to-work effect from emerging out of a basic incomes grant (Le Roux, 1999; Ntenga, 1999).

The second scheme is embodied in the National Public Works Programme, specifically the Community Based Public Works Programme (CBPWP). Under this ALP, a short period of guaranteed employment is offered to groups of unemployed individuals (Department of Public Works, 1998). While the Eastern European programmes of public works did not facilitate the entry of the youth into the labour market or improve the chances of the unemployed being drawn back into employment, it is unclear whether South African public works programmes - established in an environment of mass unemployment and severe lack of human capital - will have a similar stigma effect. (O'Leary et al, 1998: 321).

A further point which may recommend the use of CBPWPs in addressing unemployment is that participation in a project interrupts "an otherwise continuous spell of unemployment" (O'Leary, 1998: 344). Where a large proportion of the unemployed in South Africa have been in this state for longer than a year, the importance of keeping these individuals in touch with the labour market, and maintaining what skills they do have is crucial. Long term unemployment has stigma effects for prospective employees, possibly for good reason. Sen (1997) describes how skills and cognitive abilities depreciate over a period of unemployment:

²⁷ These unemployment rates were increases from 6.3% in Poland and 1% in Hungary (O'Leary et al, 1998: 321).

²⁸ Training courses build on existing skills, or provide new ones. Typical courses are computing, accounting, foreign languages and crafts like tailoring and welding (Puhani, 1998: 1).

"Just as people 'learn by doing', they also 'unlearn' by 'not doing' - by being out of work and out of practice" (Sen, 1997: 161).

Over long periods of unemployment, loss of skills and confidence may then ensure that an individual becomes unemployable. Under these circumstances, ALP's targeted at the youth age group (16-25 years) may help in maintaining the social skills they presumably leave the school system with, until they are able to find gainful employment. These programmes may also assist in building labour market links between employers and employees, and thus increasing the degree of labour force attachment of the worker. It is essential that the skills base this country does have -albeit insufficient- is not further eroded in the persistence of long term unemployment.

IV.4 Conclusions

This paper suggests that an important part of labour market policy should focus on the experience of unemployment on the supply-side of the labour market. Kingdon and Knight (2000) argue that non-searchers are a relevant part of the labour market, and should not be excluded from a definition of the unemployed. Using 1997 data, our econometric analysis again decisively rejects the idea that non-searching individuals are like people out of the labour force. Expanding on this we argue that a single broad unemployment rate does not capture the full range of labour market attachments which individuals may currently experience in South Africa.

While it is difficult to distinguish searching and non-searching unemployment on the basis of individual and household characteristics in the econometric model used, the descriptive analysis found that non-searchers fall more heavily into certain groups - women, youth, and working age individuals in former homelands. Thus, to address the constraints on the most marginalised who have the worst access to labour markets, policy may have to be differentiated for the searching and the non-searching unemployed. Since these two groups of unemployed were distinct in terms of the regional characteristics, this implies that regional variation in policy is necessary; or that any national unemployment strategy should take into account location effects.

Further research in the area of labour force attachments might look at how to differentiate the intensity of search activities or lack thereof. A look at the full set of OHS's 1994-1999 might reveal some changing conditions within the labour market and the status of individuals over time. In a dynamic framework, the analysis can focus on the determinants of successful search behaviour over time, in particular whether this search is associated with migration from a low employment area to a high employment area.

A consideration of the labour market choices of the youth would also be relevant for labour policy. It may be possible to divide the youth non-participants up into two groups: those studying and training, and those not doing anything. The training option might be considered another degree of labour force attachment, which would be stronger than the attachment of the group doing nothing. The questions to ask would then be how to motivate the latter group into active labour market participation and how to guarantee employment to those in training.

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APPENDIX 1**Table 1: Narrow and Broad Unemployment Rates, Searching and Participation**

OHS 1997	Narrow Unemployment Rate %	Broad Unempl. Rate (Searchers and Non-searchers) %	Non-Searchers as % of broad Unemployed	Non-Searchers as % of total Labour Force	LFP rate (narrow) %	LFP rate (broad) %
Total	21.2	36.0	52.1	18.8	47.2	58.1
By Gender						
Male	17.5	29.1	48.6	14.2	57.4	66.8
Female	26.4	44.4	54.9	24.4	37.9	50.2
By Location						
Urban Old RSA	19.1	28.8	41.7	12.0	57.0	64.7
Rural Old RSA	17.0	35.2	62.2	21.9	46.2	59.1
Urban TBVC&SGT	24.2	40.7	53.7	21.9	48.2	61.7
Rural TBVC&SGT	33.6	58.2	63.8	37.1	27.0	43.0
By Race						
African	27.1	44.7	53.9	24.1	42.6	56.1
Coloured	15.2	22.7	38.9	8.8	59.4	65.2
Indian	9.7	12.1	22.0	2.7	56.4	57.9
White	4.0	5.7	30.8	1.8	64.1	65.6
By Province						
Western Cape	11.8	17.7	37.9	6.7	61.1	65.6
Eastern Cape	29.2	51.8	61.6	31.9	31.0	45.6
Northern Cape	18.5	25.6	34.0	8.7	52.4	57.4
Free State	19.2	32.4	50.4	16.3	51.0	60.1
KwaZulu-Natal	22.7	42.4	60.0	25.4	42.1	56.4
North West	21.4	40.9	60.6	24.8	44.4	59.1
Gauteng	21.5	30.8	38.5	11.8	62.2	70.6
Mpumalanga	22.6	34.2	44.1	15.1	46.1	54.3
North. Province	25.8	45.4	58.1	26.4	33.2	45.1
By Age group						
16-20	44.7	63.3	53.2	33.7	10.3	15.5
21-25	36.9	54.0	50.2	27.2	40.3	55.3
26-30	27.1	42.9	50.5	21.6	59.8	76.3
31-35	20.2	34.5	52.0	17.9	65.1	79.2
36-45	14.7	26.9	53.2	14.3	65.9	76.9
46-55	10.7	21.8	57.0	12.4	56.1	64.0
56-64	7.1	16.4	61.0	10.0	30.0	33.2

Source: Own Calculations from OHS 1997

Table 2: Narrow and Broad Unemployment Rates, Searching and Participation, Africans only

OHS 1997	Narrow Unemployment Rate %	Broad Unempl. Rate (Searchers and Non-searchers) %	Non-Searchers as % of broad Unemployed	Non-Searchers as % of total Labour Force	LFP rate (narrow) %	LFP rate (broad) %
By Gender						
Male	10.6	21.3	50.5	18.4	69.1	58.3
Female	10.3	23.7	56.7	30.6	57.5	44.0
By Location						
Urban Old RSA	27.1	39.7	43.4	17.2	76.5	65.3
Rural Old RSA	19.4	39.8	63.5	25.2	71.8	57.3
Urban TBVC&SGT	24.4	40.8	53.3	21.8	75.4	61.9
Rural TBVC&SGT	33.6	58.2	63.7	37.1	58.9	43.0
By Province						
Western Cape	22.3	32	38.7	12.4	69.8	62.1
Eastern Cape	35.3	59.6	63.0	37.4	50.7	36.9
Northern Cape	23.7	31.2	31.8	10.0	55.8	50.7
Free State	22	36.3	50.3	18.2	65.4	55.4
KwaZulu-Natal	28.5	51.4	62.3	31.9	65.6	49.7
North West	23	43.2	60.9	26.2	68.0	53.9
Gauteng	27.8	38.9	39.4	15.3	78.4	68.0
Mpumalanga	25.6	38.4	44.8	17.1	56.3	48.1
North. Province	27	47	58.4	27.3	49.2	38.6
By Age Group						
16-20	61.1	78.9	58.1	45.8	17.1	11.7
21-25	49.6	67.1	51.7	34.7	67.7	50.2
26-30	34.6	52.5	52.2	27.4	95.1	74.6
31-35	24.6	41.3	53.7	22.2	96.7	79.1
36-45	18.8	33.7	54.4	18.3	92.0	77.8
46-55	14.4	29.1	59.0	17.2	76.3	65.1
56-64	9.2	21.7	63.3	13.8	36.9	32.5

Source: Own Calculations from OHS 1997

Table 3: Narrow and Broad Unemployment Rates, Searching and Participation - Women

OHS 1997	Narrow Unemployment Rate %	Broad Unempl. Rate (Searchers and Non-searchers) %	Non-Searchers as % of broad Unemployed	Non-Searchers as % of total Labour Force	LFP rate (narrow) %	LFP rate (broad) %
By Location						
Urban Old RSA	23.8	36	44.3	15.9	47.7	56.7
Rural Old RSA	24.8	48.6	65.1	31.6	33.1	48.4
Urban TBVC&SGT	28.1	46.8	55.5	25.9	42.9	57.9
Rural TBVC&SGT	38.1	64.9	66.8	43.4	21.2	37.4
By Race						
African	33.7	54	56.7	30.6	34.2	49.3
Coloured	18	27	40.5	10.9	49.7	55.8
Indian	11.6	15.1	26.2	4.0	39.6	41.2
White	5.3	7.9	34.7	2.7	51.8	53.3
By Province						
Western Cape	15.5	22.7	37.5	8.5	50.1	54.7
Eastern Cape	32	56.2	63.3	35.6	25.2	39.2
Northern Cape	25.6	34.8	35.8	12.5	41.0	46.9
Free State	26.5	43.6	53.4	23.3	41.1	53.6
KwaZulu-Natal	26.4	49.5	63.4	31.4	34.1	49.7
North West	29	53.1	63.8	33.9	32.4	49.0
Gauteng	26.9	38.8	42.2	16.4	53.8	64.3
Mpumalanga	33.6	48.4	46.0	22.3	34.5	44.4
North. Province	29.6	52.5	62.0	32.6	26.8	39.7
By Age group						
16-20	45.6	65.7	56.3	37.0	9.5	15.1
21-25	41.6	60.9	54.2	33.0	34.0	50.7
26-30	34.3	52.1	52.1	27.1	49.9	68.5
31-35	26.9	44.5	54.3	24.2	53.0	69.9
36-45	19.1	34.6	55.4	19.1	53.5	66.1
46-55	12.7	27.7	62.1	17.2	41.3	49.9
56-64	6.8	19.2	69.4	13.3	17.0	19.6

Table 4: Narrow and Broad Unemployment Rates, Searching and Participation-Men

OHS 1997	Narrow Unemployment Rate %	Broad Unempl. Rate (Searchers and Non-searchers) %	Non-Searchers as % of broad Unemployed	Non-Searchers as % of total Labour Force	LFP rate (narrow) %	LFP rate (broad) %
By Location						
Urban Old RSA	15.7	23.3	38.6	9.0	66.3	72.8
Rural Old RSA	12.4	25.3	58.3	14.8	60.1	70.5
Urban TBVC&SGT	20.5	34.6	51.2	17.7	54.5	66.2
Rural TBVC&SGT	30	51.7	60.1	31.1	34.5	50.1
By Race						
African	22.3	36.7	50.5	18.5	51.8	63.5
Coloured	13	19.2	37.1	7.1	70.1	75.4
Indian	8.6	10.3	18.5	1.9	74.1	75.5
White	3.2	4.2	25.6	1.1	76.9	77.7
By Province						
Western Cape	9.1	13.9	38.3	5.3	72.6	76.7
Eastern Cape	26.8	47.6	59.7	28.4	38.4	53.6
Northern Cape	13.8	19.1	31.8	6.1	64.2	68.3
Free State	14.2	23.6	46.2	10.9	60.8	68.3
KwaZulu-Natal	19.9	40	55.7	20.0	51.5	64.5
North West	16.9	32.1	56.9	18.2	56.6	69.3
Gauteng	17.8	24.6	33.9	8.4	70.0	76.4
Mpumalanga	15.7	24	41.2	9.9	58.2	64.6
North. Province	22.7	38.3	52.7	20.2	41.5	52.0
By Age group						
16-20	44	61	49.9	30.4	11.0	15.8
21-25	33.3	47.8	45.4	21.7	47.2	60.2
26-30	21.5	34.7	48.4	16.8	70.5	84.7
31-35	15.2	25.9	48.6	12.6	78.0	89.2
36-45	11.5	20.7	50.2	10.4	79.3	88.5
46-55	9.4	17.7	51.4	9.1	72.3	79.5
56-64	7.3	15	55.6	8.3	46.8	51.0

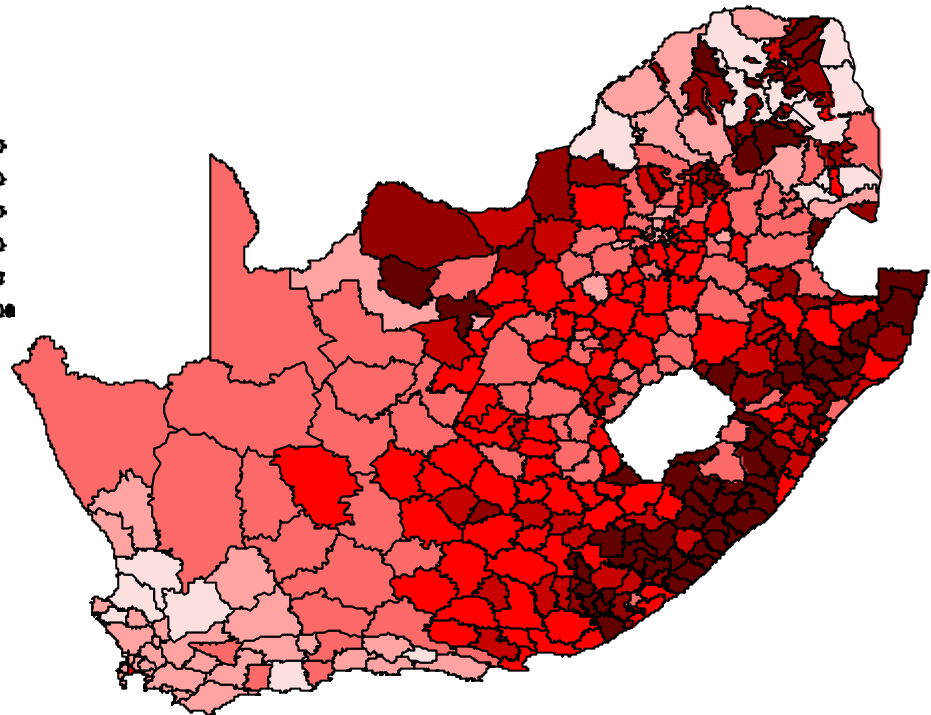
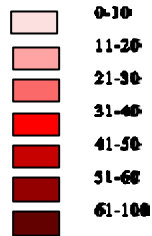
Table 5: Descriptive Statistics for explanatory variables - Average Characteristics

Working Age Population in OHS1997 Sample VARIABLES	EMPLOYED		SEARCHING UNEMPLOYED		NON-SEARCHING UNEMPL.		NON LABOUR MARKET PART.	
	Men	Women	Men	Women	Men	Women	Men	Women
INDIVIDUAL CHARACTERISTICS								
Age	37.70	37.04	31.18	31.12	31.85	32.02	27.81	33.46
African	0.64	0.64	0.85	0.86	0.92	0.93	0.83	0.79
Education								
- None & Primary	0.12	0.11	0.08	0.09	0.14	0.15	0.10	0.16
- Sr Primary	0.24	0.22	0.29	0.26	0.36	0.33	0.26	0.25
- Secondary	0.32	0.32	0.38	0.38	0.33	0.36	0.51	0.46
- Matric (Senior Certificate)	0.20	0.21	0.21	0.24	0.16	0.15	0.10	0.10
- Diploma/Cert.	0.09	0.11	0.03	0.03	0.01	0.01	0.02	0.02
- Tertiary	0.04	0.04	0.01	0.01	0.00	0.00	0.01	0.01
Never worked before	-	-	0.64	0.73	0.76	0.81	0.69	0.72
Household Head	0.71	0.28	0.27	0.16	0.24	0.19	0.20	0.19
HOUSEHOLD CHARACTERISTICS								
HH size	4.91	5.37	6.08	6.40	6.61	6.57	6.40	6.17
Per capita HH income from work	952.11	883.37	176.13	215.47	119.97	141.70	229.18	279.54
Per capita other HH income	11.97	15.61	31.00	22.42	36.15	24.86	38.03	35.01
Per capita remittances	14.09	28.61	41.21	54.93	60.48	78.69	78.39	84.22
Per capita HH expenditures	434.21	407.36	170.79	165.75	126.35	131.31	209.73	236.96
Number of dependants in HH	1.62	1.89	1.83	2.42	2.18	2.70	2.13	2.36
LABOUR MARKET LINKS								
LM status of other HH members								
- employed	1.77	1.95	0.67	0.74	0.57	0.59	0.74	0.74
- searching unemployed	0.20	0.20	1.96	1.86	0.10	0.13	0.25	0.21
- non-searching unemployed	0.20	0.18	0.17	0.11	2.11	1.81	0.31	0.26
- non-labour force participants	1.00	0.98	1.15	1.01	1.31	1.06	2.68	2.35
Migrant members of HH	0.08	0.14	0.23	0.24	0.34	0.38	0.38	0.38
Access to telephones								
- landline	0.33	0.37	0.19	0.19	0.13	0.11	0.21	0.22
- cellular phone	0.12	0.11	0.04	0.04	0.03	0.02	0.05	0.06
REGIONALGEOGRAPHICAL INDICATORS								
Area								
- Urban old RSA	0.62	0.63	0.55	0.56	0.37	0.36	0.44	0.42
- Rural old RSA	0.20	0.16	0.12	0.13	0.16	0.18	0.14	0.16
- Old homeland or Self Gov.Territory	0.18	0.21	0.33	0.31	0.47	0.45	0.43	0.42
Magisterial District unemployment rate (broad)	0.34	0.35	0.43	0.42	0.49	0.48	0.46	0.45
Number of observations	15390	7009	3268	3401	3246	4697	12748	17874

APPENDIX II

Broad Unemployment Rates By Magisterial District - 1996

Broad Unemployment Rates (%)



Source: Calculated from 1996 South African Census
T. Dinksham & F. Pirooz, Sept 2000

