Are Searching and Non-searching Unemployment Distinct States when Unemployment is High? The Case of South Africa

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Broadly and narrowly measured unemployment rates differ very markedly in certain countries, and the measure chosen to be the 'official' unemployment rate affects perceptions about the extent of the problem. The appropriate measure of the unemployment rate depends on whether jobless persons who say they want work but who are not actively searching should be regarded as part of the labour force. This paper examines whether the non-searching-unemployed state is distinct from the searching-unemployed state in a developing country - South Africa - where the broad unemployment rate and the gap between the broad and narrow rates are both very high. It asks whether lack of job-search among jobless persons claiming to want work is an outcome of tastes or of constraints. It finds evidence in support of adopting the broad definition.

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1. Introduction

Unemployment has economic costs: it reduces economic well-being, lowers output, and erodes human capital. It also has social costs: it leads to social exclusion and deterioration in family life, and it fosters grievance and cynicism which may be responsible for the supposed link between unemployment and crime. These costs are the reason why low unemployment is normally a high-priority policy objective in most societies.

National unemployment statistics perform several functions: they are useful in highlighting the extent of labour under-utilisation in the economy; they are employed in economic models to predict the movement of key macroeconomic variables; they are monitored by governments to inform fiscal and monetary policy; disaggregated unemployment statistics are often used in funding formulas to target the allocation of public funds in government programmes such as regional assistance, youth training, and public works.

While a range of measures of unemployment is possible, two rates - the broad and the narrow - are most frequently considered. The narrowly defined unemployed are jobless persons who looked for work in a given time period, typically the week or month prior to the inquiry. The broadly defined unemployed are the narrow unemployed plus those who wanted work but did not look for it in the reference period[1]. The issue is whether the difference between the broad and the narrow measures comprises persons who are in or out of the labour force.

The usefulness of the particular measure of unemployment (broad or narrow) varies from country to country, depending on the costs and benefits of job-search in the labour market. Which measure is chosen by a government as the pre-eminent indicator will presumably depend on how well the measure performs its various internal functions. However, by this criterion, different measures may be chosen by different countries, and another function of unemployment statistics - namely international comparability of labour and economic conditions - is thereby undermined.

The International Labour Organisation (ILO) has recommended that, for the sake of objectivity and international comparability, the narrow measure of unemployment be adopted[2]. However, the ILO recognises that the broader concept may be more appropriate in countries or situations "where the conventional means of seeking work are of limited relevance, 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, 1995, p 407).

There are two possible interpretations of the lack of job-search among persons claiming to be unemployed. One is what we shall call the 'taste for unemployment' hypothesis and the other is the 'discouraged worker' hypothesis. The taste for unemployment hypothesis runs as follows: given the possibility of redistribution within the household, higher household income may lower search effort among its unemployed members. The larger intra-household transfers to unemployed persons in high-income households can produce an income effect since increased income permits individuals to consume more leisure. Alternatively, if high-income households support their poorer members according to need, there can be an incentive to remain needy and a disincentive to do job-search. Under the taste for unemployment interpretation, it may be justifiable to exclude non-searching persons from the count of the unemployed.

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[1]The narrow unemployment rate excludes non-searching workers from both the numerator and the denominator. It is thus the ratio of narrowly unemployed persons to persons who either worked or looked for work in the past week. The broad unemployment rate includes non-searching workers in both the numerator and denominator.

[2] The narrow definition is more objective because it involves no judgements about a person's relative need for work or personal circumstances. For a list of countries by measure of unemployment used, see StatsSA (1998a, p 69).

The alternative interpretation of low search effort posits that job-search is hampered by impediments such as poverty, cost of search, long duration of unemployment, and adverse local economic conditions. At high unemployment rates, unemployed persons may stop actively searching for work because they are discouraged by the high prevailing rate of unemployment or the long duration of their own unemployment. The perception that their probability of finding work is low depresses the perceived benefit-cost ratio of job-search. In other words, at high unemployment rates, the narrow measure may be endogenous in that the number actively seeking work itself depends upon the broad unemployment rate. In these circumstances, it may be misleading to use the job-search test for identifying the unemployed.

Much has been written about the treatment of the non-searching unemployed in national unemployment statistics. Referring to the US labour market, Finegan (1978) argues against the use of a job-seeking test in the definition of unemployment on the grounds that workers who want to work, are available for work, and would actively seek work if jobs were more plentiful, are part of the labour supply. He views them as discouraged workers whose unemployment causes losses for society and for themselves that are no different from the output forgone and income lost through unemployment involving search. A substantial literature confirms the discouraged worker effect for various groups of workers, *i.e.* finds that adverse economic conditions such as high unemployment and low vacancy rates generally tend to reduce the number of active job-searchers (Ondeck, 1978 for the USA; Kuch and Sharir, 1982 for Canada; Tachibanaki, 1991 for Japan; Blundell, Ham, and Meghir, 1998 for the UK).

In this paper we examine the appropriate concept of unemployment by asking whether and to what extent 'searching' (alternatively, 'active') and non-searching (alternatively, 'passive') unemployed worker states are distinct from each other[3]. If the two groups were indistinguishable, the broad definition would be appropriate as there would be no basis for excluding non-searching jobless persons who want work. We pose this question with reference to South Africa - a country in which unemployment rates are very high and in which the phenomenon of non-searching unemployment is important, *i.e.* the discrepancy between the narrow and broad unemployment rates is very large. To our knowledge, this is the first study addressing this issue in the context of a developing country[4].

We exploit rich household survey data collected by the South African Labour and Development Research Unit in 1993 (SALDRU93) and by Statistics South Africa in 1994 in its October Household Survey (OHS94)[5]. The OHS94 is a nationally representative survey covering 33,000 households across 1,010 clusters in 266 districts. The SALDRU93 survey is also nationally representative and is patterned on the World Bank's Living Standards Measurement Study surveys. It yielded a dataset covering about 9000 households across 360 clusters.

We use the data in several ways. Section 2 considers the reasons why there might be a lack of active job-search among South Africans claiming to want work While we cannot examine the transition into employment from the searching and non-searching states - our data are cross-

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[3] One strand of the literature examines whether the out-of-labour force (OLF) state is behaviourally distinct from the unemployed state (Clark and Summers, 1979; Flinn and Heckman, 1983; Gonul, 1992). This literature estimates transition probabilities into employment from the OLF and unemployed states for various groups of workers and finds mixed evidence for the US.

[4] We could not find any published or discussion papers in ECONLIT on the subject of non-searching unemployment for developing countries (although there is a literature on the underemployment or 'disguised unemployment' of the employed). However, an early, brief discussion is to be found in Sabot (1977).

[5] More information about these surveys can be obtained from SALDRU (1994) and CSS (1995).

section - we devise several other tests of distinctness. We compare the incidence of poverty as between the searching and non-searching unemployed and examine the determinants of job-search in order to adjudicate between the view that lack of search is governed by tastes and the view that it is governed by constraints (Section 3). We also compare perceived quality of life as between the searching and non-searching unemployed, inquiring whether non-searchers are less unhappy than searchers (Section 4). Lastly, we examine the effect of different measures of local unemployment rates on wages (Section 5). Section 6 concludes.

2. Unemployment in South Africa

According to Statistics South Africa, South Africa had an unemployment rate in 1997 of 23% or 38%, depending on whether the narrow or broad definition is used (Table 1). Although 23% is high enough, the upper estimate of 38% is extremely high by international standards. The table also shows that non-searching unemployment is high and increased steadily between 1994 and 1997[6]. Moreover there is evidence of very long mean unemployment duration for a high proportion of the jobless in South Africa, suggesting depth as well as breadth. For example, in 1997, 37% of the narrowly defined unemployed had been out of work for more than 3 years and another 30% had been unemployed for between 1 and 3 years.

Table 1
Unemployment Rates in South Africa, 1993-1997 (%)

	Source	Broad definition	Narrow definition	Difference
1993	SALDRU	31.2	13.0	18.2
1994	OHS	31.5	20.0	11.5
1995	OHS	29.2	16.9	12.3
1996	OHS	35.6	21.0	14.6
1997	OHS	37.6	22.9	14.7

Source: Authors' own calculations from SALDRU data; OHS figures are from StatsSA (1998a, p3).
Note: The large difference in narrow unemployment rates between the SALDRU and OHS sources is due to the fact that the SALDRU survey used a reference period - for search - of one week whereas the OHS surveys use a reference period of four weeks[7].

In 1998, Statistics South Africa adopted the narrow measure as the 'official' definition of unemployment (StatsSA, 1998, p1). This reversed its earlier decision of 1993 - based on extensive consultation - to use the broad measure as the official definition. The main reason given for preferring the narrow definition was that this measure was in line with the main ILO definition, which is used by more than 80 percent of countries (page1)[8]. A subordinate argument was that the broad definition introduces "more subjectivity into the measure of the unemployment rate, and instability in tracking trends, as it is more difficult to distinguish what constitutes 'wanting' a job than to say whether someone has engaged in definite actions to find one" (StatsSA, 1998a, p63).

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[6] It is possible to compare the extent of the broad-narrow unemployment rate gap across a few countries for which both rates are available. Between 1983 and 1993, on average, the gap in the UK, Netherlands, Canada, Australia, USA, Italy, Sweden, and Japan was 2.4, 3.0, 3.2, 3.8, 3.3, 7.9, 3.9 and 4.9 percentage points respectively (Sorrentino, 1995). In Tanzania in 1971, the gap was 4 percentage points, the broad and narrow rates being 12% and 8% respectively (Sabot, 1977).

[7] According to the 1996 Census, the unemployment rate in 1996 was 33.9%, counting as unemployed all jobless persons who wanted a job and were looking for work. While this would seem to correspond to the narrow definition, no reference period was specified for the job-search in the census question and, thus, StatsSA describe this rate as the broad unemployment rate (Erasmus, 1999).

[8] The decision may have been influenced by an ILO report on South Africa (Standing, Sender, and Weeks, 1996, p104) which cautioned against the broad definition on the ground that including persons who did not actively look for work can exaggerate the size of the labour force.

StatsSA documents now give more information about the narrow than the broad unemployment rate and present the narrow rate more prominently[9]. The elevation of the narrow measure to the status of official definition can affect perceptions about the extent of unemployment in South Africa[10].

The very high unemployment has naturally generated a debate about its reliability. The issue that we concentrate on in this paper is whether workers who are not actively seeking work should be regarded as unemployed. But other reasons have been suggested for over-estimation of unemployment. For instance, an ILO report (Standing, Sender and Weeks, 1996) expresses reservations about the unemployment estimates from the SALDRU93 and OHS94 data, citing underestimation of employment of people living in mining hostels etc. as a reason for the over-estimation of the unemployment rate. Schlemmer and Levitz (1998) argue that the unemployment rate in official statistics may be over-estimated because it includes some persons who are involved in informal work. However, Bhorat (1999) finds that the OHS uses a "careful selection process and detailed set of 'hurdle' questions" to determine whether a person should be regarded as unemployed by the broad definition[11]. The high degree of consistency between the unemployment rate estimate from the OHS 1994 and the SALDRU survey 1993 further suggests that the estimates are trustworthy (Klasen and Woolard, 1999; Nattrass, 2000, p156-61). Indeed, Barker (1999, p60) suggests bias in the opposite direction, believing that the broad rate of unemployment in South Africa would have been even higher were it not for abnormally low labour force participation rates owing to withdrawal from the labour force, even to the extent of not wanting to work[12].

We consider four major reasons why there might be a lack of active job-search among South Africans claiming to want work: discouragement about the prospects of finding work owing to the high prevailing local unemployment rate or the long duration of one's own

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[9] For example, in the main chapter on unemployment (Chapter 3) in StatsSA (1998a), only the national unemployment rate is given by both the broad and narrow measures. All other rates, such as those for different social groups (by gender, race, education, age, and location) are each given by the narrow measure only, though the last chapter (chapter 8, p66) does present a single table of broad unemployment rates by gender and location. The view that the broad definition has been downgraded is also supported by the fact that in StatsSA(1998b) only the narrow unemployment rates for different social groups are presented in the main text and the corresponding broad rates are relegated to appendices.

[10] When summary statistics are published about important social and economic indicators for the country, the official unemployment rate is often the only one quoted. For example, see the South African Reserve Bank's web page 'Economic and Financial Data for South Africa', February 2000, http://www.resbank.co.za/Economics/zaflink1.html#2.

[11] For example, the OHS of 1994 first asks about a person's main activity during the past seven days, with the options 'unemployed but looking for work' and 'not working, not looking for work'. From these, it excludes those who did some work (formal or informal) for pay, profit, or family gain during the past year and those who may not have worked in the past week but who had a job or enterprise or an attachment to a job or enterprise such as a business, farm, etc. Further, it excludes those who may not desire to work by asking 'if a suitable job is offered to (name), will (name) accept it?'. It then excludes persons who - though they may desire work - cannot be regarded as genuine work force participants such as housewives, students, and disabled persons. Finally, it asks a 'sweeper' question about how the unemployed labour force participants supported themselves, in order to determine their access to income. The first option in the question was 'did odd jobs during the past week'. Those who answered in the affirmative to this option were excluded from the list of the unemployed.

[12] The Central Statistical Office (as it was then called) states that the labour force participation rate has been declining steadily every year from 1970 to 1995 (CSS, 1996). Standing, Sender, and Weeks (1996, p58) disagree, believing that the "precipitous decline in black labour force participation is incredible, almost certainly indicating unmeasured economic activity". However, there is a substantial international literature which suggests that a significant number of people drop out of the labour force when economic conditions are bad, e.g. when unemployment and redundancy rates are high and vacancy rates are low (Tachibanaki, 1991; Blundell, Ham and Meghir, 1998).

unemployment; recruitment methods of employers; consequent job-search methods of persons wanting work; and the cost of job-search.

The view that the low probability of finding work is an important reason for lack of search is supported by StatsSA's 1997 Special Retrospective Survey of Employment and Unemployment (SRS). This shows that the main reasons given by the unemployed for having stopped searching are a loss of hope of finding work (33%), a lack of jobs in the areas in which they live (25%), and a lack of money for transport to look for work (18%). StatsSA recognises the role of discouragement in job-search when it says (1998a, p12) that in situations where unemployed people know that there are very few, if any, jobs available, they may feel that the financial and other costs of work-seeking are not worthwhile. These words describe rather well the situation of large parts of South Africa. For example, in the former 'homeland' areas where labour absorption is low (roughly one in two labour force participants is unemployed in the broad sense), the likelihood of finding a job is remote and the costs of job-search by travelling to towns are high.

Another reason for lack of active job-search is the recruitment methods used by employers. For example, a 1995 survey of employers showed that 41% of firms relied on friends and relatives of existing workers for their recruitment (Standing, Sender, and Weeks, 1996, p338). A good deal of unskilled labour recruitment in South Africa has traditionally been *via* employers arriving in the rural areas by truck to recruit people on the spot. The main way for Africans living in the former 'homeland' areas to secure employment is to wait, either for word of a job from an employed relative or friend living in the non-homeland parts or for recruiters to visit. Accordingly, job-search may be passive rather than active.

In both the SALDRU and October Household Surveys, the question about method of job-search lists 'through friends and relatives' as a valid method of job-search. However, in both surveys the question about the *method* of job-search comes after the question about *whether* a person did any job-search in the past week/4 weeks. Since people who are waiting to be called by employed relatives or friends (or indeed people waiting for recruiting lorries to arrive) would not know whether such waiting would constitute a valid form of job-search in the eyes of the enumerator, they may well say 'no' to the question asking whether they engaged in any job-search in the relevant period. Indeed, according to the Special Retrospective Survey of Employment and Unemployment of 1997, the main method that people had in mind regarding seeking work "turns out to be a rather stringent criterion. It involved going in person to workplaces and asking for work. 72% of unemployed people who had looked for work four weeks prior to the interview had taken this step…" (StatsSA, 1998a, p13). The ordering of questions may therefore have excluded from the searching unemployed people who were nevertheless doing their best to find work.

Finally, cost of search is likely to be a serious impediment among the poor in remote areas. Wilson and Ramphele (1989) document case studies of rural unemployed persons, and show that the transport and other costs of job-search are often prohibitive for them. For uneducated people living in remote areas, active search in areas where employment exists involves travelling to these places because their lack of education rules out job-search via newspapers.

3. The determinants of job-search

Descriptive statistics from SALDRU93 data can be used to test some of the above hypotheses, *i.e.* to examine the extent to which lack of search among some unemployed persons is explained by their greater discouragement, higher costs of search, and poverty. Compared with

the actively searching unemployed, do the non-searching unemployed face more discouragement about the prospects of finding jobs? Do they face higher costs of job-search? Are they poorer?

Table 2 shows that the non-searching unemployed are likely to face greater discouragement about the prospects of finding work as they live in clusters where the unemployment rate is higher. They are also considerably poorer than their searching counterparts and have much inferior living conditions: for example, both mean and median per capita household income and expenditure are about 30% lower for the non-searching unemployed; 49% of the passive unemployed but only 38% of the active unemployed are in households where per capita income is below the international poverty line of $1 a day; and the non-searching unemployed have much inferior access to facilities such as water, flush toilet, and electricity. Moreover, compared with the searching unemployed, the non-searching unemployed tend to live in communities that are more remote, i.e. that are less well endowed with tarred roads and with various facilities such as bank, post-office, shops, etc. Column 3 reports the t-statistic for the null hypothesis that the means of the two groups are equal. In almost every case the test strongly rejects equality of the means for the two groups (critical value of t at the 1% level is 2.33). The Appendix Table 1 shows that the non-searching unemployed are, on average, the most deprived among all economic activity groups.

Table 3 presents unemployment rates by household income decile. It shows a remarkably close relationship between household per capita income and unemployment. The narrow unemployment rate is 41% in the poorest income decile and becomes monotonically smaller as one moves to higher income deciles, being only 1.2% in the richest decile. The row percentage figures in the first column show that, while the searching unemployed are 4.5 times as likely to be in the lowest per capita income decile as the employed (31.2 divided by 6.8), the non-searching unemployed are 6.5 times as likely to be so (28.2/4.4).

This picture of lower income and greater deprivation among the passive than the active unemployed suggests that their lack of search effort is not due to an income effect of living in well-off households: they do not choose to be unemployed. In general, the non-searchers are more deprived than the searchers, and thus have the greater incentive to secure employment. Moreover, their location in areas of higher unemployment suggests that they face greater discouragement about the prospects of finding jobs, and their greater concentration in remote areas suggests that the costs of job-search are greater for them.

The validity of the factors identified above as hindering search can be tested by modelling the job-search decision in a multivariate framework. It can be hypothesised that unemployed job-search depends on the perceived benefits and costs. The perceived benefits may depend on local economic conditions and the characteristics of the worker such as education, skill, and unemployment duration. There are opportunity costs of search, which may be related to the worker's gender, household composition, and household income and wealth, as well as direct costs, which may depend on the worker's labour market links, locality, and remoteness. We fit a binary logit model of search among the unemployed, using the SALDRU93 dataset rather than the OHS94 since the former has much better community-level information and also has household income data available. However, it does not have information on duration of unemployment.

Table 2
Sample of Unemployed Persons: Type of Unemployment and Socio-economic Outcomes, SALDRU93 data

	Non-searching unemployed	Searching unemployed	t-statistic for the test of the null hypothesis that the two means are equal
Unemployment rate			
- Cluster unemployment rate	0.493	0.417	-12.01
- Household unemployment rate	0.763	0.727	-4.45
Per capita household income:			
(Rand/month) - mean	162.541	232.234	5.37
- median	96.673	133.125	
Per capita household expenditure:			
(Rand/month) - mean	190.887	282.079	8.35
- median	136.017	184.069	
Other indicators:			
Below int'national poverty line $1/d	0.485	0.381	-6.48
Number of assets	2.931	3.619	9.28
Years of education	6.793	7.595	6.75
African	0.953	0.796	-13.53
Household size	7.228	6.554	-5.56
Living conditions:			
Lives in a house/part of house	0.473	0.561	5.38
Number of hh members per room	1.965	1.906	-1.41
Home is owned	0.773	0.705	-4.61
Dwelling has corrugated iron roof	0.681	0.571	-6.92
Piped water within or tap in yard	0.363	0.571	12.88
Has to fetch water daily	0.603	0.395	-12.91
Distance to water (meters)	305.931	170.513	-7.14
Dwelling has flush toilet	0.269	0.461	12.11
Dwelling has electricity connection	0.302	0.451	9.33
Community characteristics:			
Urban	0.352	0.599	15.39
Homeland	0.667	0.431	-14.69
Distance to facilities from home	111.096	74.124	-8.79
Community has tarred roads	0.100	0.236	10.65
Community roads impassable at certain times of year	0.563	0.402	-9.91
N	2775	1379	
Percentage of the total labour force	20.8%	10.4%	

Notes: Apart from 'years of education', all the non-community variables above are coded at the household level in the dataset. For the purposes of this table, however, we have assigned the value of the household variable to each individual member of the household, then taken the sub-sample of unemployed persons only and averaged the variables across individuals. Similarly, the community variables are assigned to each individual living in that community before averaging across unemployed individuals. The very high *household* unemployment rate indicates that unemployed people are likely to live in households where other members are unemployed as well.

Table 3
Relationship Between Unemployment and Income, by Type of Unemployment, SALDRU93 data

	Per capita household monthly income decile										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
Searching-unemployed and employed people:											
Unemployment rate	0.413	0.208	0.204	0.164	0.132	0.090	0.051	0.041	0.016	0.012	0.133
Searching Unemployed											
N	418	209	206	162	136	89	52	41	16	12	1341
Row %	31.2	15.6	15.4	12.1	10.1	6.6	3.9	3.1	1.2	0.9	
Column %	41.3	20.8	20.4	16.4	13.2	9.0	5.1	4.1	1.6	1.2	
Employed											
N	595	798	803	825	896	902	977	967	997	996	8756
Row %	6.8	9.1	9.2	9.4	10.2	10.3	11.2	11.0	11.4	11.4	
Column %	58.7	79.3	79.6	83.6	86.8	91.0	95.0	95.9	98.4	98.8	
N	1013	1007	1009	987	1032	991	1029	1008	1013	1008	10097
Non-searching-unemployed and employed people:											
Unemployment rate	0.668	0.492	0.374	0.290	0.218	0.153	0.103	0.046	0.017	0.007	0.237
Non-searching Unemployed											
N	767	562	430	333	251	175	118	53	19	8	2716
Row %	28.2	20.7	15.8	12.3	9.2	6.4	4.3	2.0	0.7	0.3	
Column %	66.8	49.2	37.4	29.0	21.8	15.3	10.3	4.6	1.7	0.7	
Employed											
N	381	580	719	815	899	972	1026	1098	1127	1139	8756
Row %	4.4	6.6	8.2	9.3	10.3	11.1	11.7	12.5	12.9	13.0	
Column %	33.2	50.8	62.6	71.0	78.2	84.7	89.7	95.4	98.3	99.3	
N	1148	1142	1149	1148	1150	1147	1144	1151	1146	1147	11472

Table 4 suggests that the coefficients on the human capital variables correspond to the likely benefits of job-search in the sense that characteristics that are associated with low unemployment are also the characteristics that encourage search. For example, it is not surprising that the probability of search increases with education level, given that the probability of employment increases with education level in South Africa (see Kingdon and Knight, 1999a). The probability of search increases with age but at a decreasing rate, reaching its maximum at age 33 years.

The results in Table 4 confirm several of our priors. The cost of job-search is proxied by indicators of remoteness of the community such as the community's distance to various facilities (disfaci), whether the community has some roads that become impassable at certain times of the year (impass), and its being situated in a homeland area. Each of these variables has a negative effect on the chances of being an active searcher, and two out of the three are statistically significant in the pooled regression. Household income or wealth might have two opposing effects on the probability of job-search. One is an income effect, whereby additional income reduces the chances of search; the other is a search-financing effect, *i.e.* money is needed for job-search. Which effect is greater in the South African context is an empirical question. Poverty is measured by a dummy variable indicating that the individual lives in a household which belongs to the poorest income quartile (pciq1). Wealth is measured by house ownership. Poverty reduces the likelihood of job-search almost significantly at the 10% level and wealth increases the likelihood at the 1% level among Africans and at nearly the 10% level among the whole sample. If the income effect were dominant we would expect household poverty to increase, and wealth to reduce, the propensity to search. However, the fact that poverty is associated with lower search favours the search-financing effect[13]. This seems to support the constraints interpretation rather than the tastes interpretation of non-searching unemployment.

Discouragement about the chances of finding work is captured by the prevailing cluster unemployment rate. This has a large negative and significant coefficient, i.e. the greater the local unemployment rate, the less likely are unemployed persons actively to look for work. This is similar to the result in many studies for other countries that higher local unemployment rates are associated with lower search intensity, *i.e.* with fewer hours of search (Devine and Kiefer, 1991: p213). Finally, there is some evidence that the greater the labour market links of the unemployed person (numemp, hamember), the lower is the probability of active job-search. This substantiates our earlier suggestion that employers' practices of recruitment via relatives of existing workers encourages passive searching/waiting. The alternative interpretation - that these variables represent income - is implausible as we have controlled for income and wealth.

The evidence of Table 4 suggests that persons least likely to search are those in poverty (who are unable to fund job-search), those living in high unemployment areas (who have become discouraged), and those living in remote areas (for whom the cost of job-search is high). It suggests that lack of job-search is not the outcome of tastes but an indication of constraints.

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[13] It is striking that poverty has a nearly significant effect even though the model controls for variables that determine poverty, such as education and employment. When an alternative specification was tried using household monthly income rather than a poverty dummy, the income variable had a significant positive coefficient at the 10% level (t=1.8), again favouring a search-finance interpretation. The relationship between poverty and search is likely to be complicated and the relationship may not be causal. For instance, it is possible that poverty is endogenous in so far as unobserved variables such as motivation or attitude to work affect both poverty and the decision to search. The method of instrumentation commonly used to correct for endogeneity bias arising from simultaneity or reverse causation does not help when the source of endogeneity is some unobserved influence on both poverty and search. For unobserved influences that might both lower search effort and increase the likelihood of poverty, the direction of the endogeneity bias is likely to be upward, i.e. the poverty coefficient picks up the effect of poor motivation.

Table 4
Binary Logit of Job-Search Among Unemployed People, by Race, SALDRU93 data

Variables	All races			Africans only	
	coefficient	t-value		coefficient	t-value
Personal traits:					
age	0.0913	4.03 ***		0.1010	4.16 ***
agesq	-0.0014	-4.36 ***		-0.0015	-4.44 ***
male	0.1942	2.58 ***		0.2022	2.53 ***
married	-0.0274	-0.32		-0.0672	-0.74
head	0.6151	4.97 ***		0.5878	4.47 ***
Education:					
primary	0.2863	2.19 **		0.3017	2.24 **
junior	0.1510	1.11		0.1360	0.96
secondary/higher	0.4130	2.79 ***		0.3555	2.29 **
Training	-0.1976	-0.58		-0.6086	-1.18
Number of dependants	-0.0223	-1.28		-0.0200	-1.10
Income/wealth:					
pciq1	-0.1390	-1.64		-0.1264	-1.41
owns home	0.1425	1.61		0.2331	2.37 ***
Labour-market links					
numemp	-0.0797	-1.74 *		-0.0588	-1.18
hamember	-0.1253	-1.32		-0.1385	-1.41
Region:					
urban	0.0343	0.28		-0.0027	-0.02
Remoteness:					
homeland	-0.2960	-2.25 **		-0.2137	-1.54
disfaci	-0.0012	-3.15 ***		-0.0012	-2.90 ***
impass	-0.1241	-1.50		-0.0752	-0.88
Local unemployment rate	-0.9511	-3.66 ***		-0.8490	-2.99 ***
Constant	-1.4741	-3.38 ***		-1.8154	-3.86 ***
Province dummies		yes			yes
N		4144			3732
Log likelihood		-2316.92			-2058.11
Restricted LogL		-2631.90			-2255.87
Pseudo R^2		0.1197			0.0877

Notes: The base category for education is persons with no education; 'training' takes the value of 1 for individuals who have some form or vocational training or diploma, zero otherwise; 'pciq1' = 1 for individuals who live in a household that belongs to the lowest per capita income quartile, zero otherwise; 'numemp' = number of household members who are employed; 'hamember' = 1 for individuals whose household has a member who was absent for part of the year, zero otherwise. This is a proxy for household has a migrant who is employed; 'disfaci' = distance to facilities. This is the total distance to various facilities such as bank, post-office, market, shops, etc. ; 'impass' = 1 if individual lives in a community where roads become impassable at certain times of the year, zero otherwise. We use the official definitions of 'urban' and 'homeland'. *, **, and *** represent significance at the 10%, 5%, and 1% levels respectively.

4. Unemployment and quality of life

Evidence in Clark and Oswald (1994), Theodossiou (1998), and Di Tella *et. al.* (1998) suggests that the unemployed are substantively and statistically significantly less happy than the employed. This evidence, coming from a range of 12 European countries and from the US, is used to suggest that unemployment must be involuntary because people would not voluntarily choose to be unhappy. Goldsmith, Veum, and Darity (1995) investigate the distinctness of the searching and non-searching unemployment states by examining whether people in these two states are equally psychologically impaired, and find for the U.S. that the two forms of joblessness are effectively indistinguishable.

Given the cross-section nature of the data used in these studies, it is possible to argue that causality may run the opposite way: if the unemployed appear to be less happy than the employed, this could be because unhappy people are less desirable to employers. In other words, well-being status might be the determinant of joblessness rather than its effect. Although this objection is hard to overturn conclusively, Clark and Oswald (1994) cite longitudinal evidence collected by psychologists that sheds doubt on the reverse causality interpretation (see Warr, Jackson, and Banks, 1988). Abstracting from this causality issue, we extend the idea that comparing levels of happiness across individuals can shed light on the nature of their unemployment. We ask: are the non-searching unemployed persons significantly less unhappy than the searching unemployed? If they are, then the alleviation of their unemployment is not such an important policy issue, and this may form the basis for their exclusion from the definition of the unemployed[14].

The SALDRU survey asked households the question: 'taking everything into account, how satisfied is this household with the way it lives these days?' The five possible responses were 'very satisfied', 'satisfied', 'neither satisfied nor dissatisfied', 'dissatisfied', or 'very dissatisfied'. In order to investigate the impact of non-searching and searching unemployment on perceived quality of life, an ordered probit model was used, with 'very dissatisfied' given the value of 0; 'dissatisfied' 1; 'neither satisfied nor dissatisfied' 2; 'satisfied' 3; and 'very satisfied' 4. Thus, the dependent variable can be interpreted as an index of happiness or of satisfaction with life.

The analysis was carried out using both individual-level data on labour force participants and household-level data, with effectively the same results, though the reported household level results are preferred since the quality-of-life code is available only at the household and not at the individual level[15]. The household searching unemployment rate is the percentage of broad labour force participants aged 16-64 years within the household who are unemployed and searching, and the non-searching unemployment rate is the percentage who are unemployed and not searching[16]. Other variables in the regression are household or cluster variables or aggregated individual variables averaged across all household members (*e.g.* average age of all labour force participant members of the household, percentage of household members with higher education, *etc*). The received literature in this field posits a common structure of happiness across many different countries, i.e.,

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[14]Whereas it is possible that happiness levels may themselves affect people's search decisions, it is not possible to determine the direction of any simultaneity bias *a priori* because there may be both a positive and a negative effect of quality of life (QOL). People who are satisfied may have less incentive to search, leading to a negative effect of QOL on search, but satisfaction with life assists search insofar as it induces optimism, leading to a positive effect of QOL on search. It was not possible to estimate an instrumental variable model of QOL because of the lack of convincing instruments, *i.e.* variables that affect search decisions but not the QOL.

[15] The individual-level results are available from the authors on request.

[16] For example, in a household with three narrow labour force participants where one is jobless but wants work and is not searching, the household non-searching unemployment rate is 33% and the household searching unemployment rate is 0%. Thus, the household unemployment rates takes values such as 0, 0.25, 0.33, 0.40, 0.50, 0.67, 0.75, 0.80, or 1.0 for most households.

the same personal characteristics appear significant in a well-being regression. Evidence from several countries in Di Tella *et. al.*, for example, indicates that unemployment lowers well-being, that more educated persons and persons in higher income quartiles are happier, and that well-being is U-shaped in age. Do these patterns exist in South Africa as well?

Table 5 presents the household-level results. In column 1 unemployment has a negative and highly significant impact on perceived quality of life, controlling for household per capita income and other factors. This is consistent with findings for other societies. The conditional marginal effect of the household broad unemployment rate on the probability of being 'satisfied or very satisfied' is approximately 12 percentage points. Column 4 presents a specification that is identical in every respect to that in column 1 except that now there are two unemployment variables - the household non-searching and searching unemployment rates. It shows that quality of life is about equally affected by each type of unemployment: while the point estimate on the inactive unemployment rate is lower, the difference in the coefficients on active and inactive unemployment is not statistically significant on a Wald test[17]. *Ceteris paribus*, the non-searching unemployed are no happier than the searching unemployed.

Other coefficients in Table 5 show that the structure of perceived quality of life is similar to that found in other countries. Well-being improves with household per capita income, and with home-ownership. However, it is significantly worse for Africans and coloureds compared with whites. Even after standardising for education, unemployment, and household per capita income, African and coloured people report a poorer quality of life than whites. This is not implausible as perceptions of quality-of-life are usually based on wider considerations than income, employment, and education. Presumably rights, freedom, status, *etc*. also shape people's satisfaction with life, and non-whites in South Africa were deprived in these spheres, at least in 1993, the year of the survey. There are important provincial differences in perceived quality of life, probably reflecting provincial differences in unobserved amenities. Cluster crime rate has a surprising positive sign, suggesting that it is capturing the effect of some unobservable factors that exert a positive influence on quality of life, e.g. areas of good amenities attract crime.

The October Household Survey of 1994 also asked some questions about perceived quality of life. They were: (1) 'thinking about your physical safety in your neighbourhood, how safe do you feel living there?'; (2) 'how safe do you feel in your own dwelling?'; (3) 'in winter, how difficult is it to breathe where you live, because of smoke and pollution?'; and (4) 'in the last year, has there ever been a time when you did not have enough money to feed the children in the household?'. Table 6 provides probits of these outcomes, coded from the best quality-of-life outcome to the worst. For example, feels very safe in own dwelling=0; feels rather safe=1; feels rather unsafe=2; and feels very unsafe=3. That is, the dependent variables are coded so as to represent an index of unhappiness or misery. Given the ordinal nature of the coding of the first three outcomes, the ordered probit model is used for the analysis. The fourth outcome is dichotomous and thus a binary probit is employed.

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[17] The null hypothesis that the coefficients on the household active and inactive unemployment rate are equal is easily rejected: the chi-square statistic (1.13) is much lower than chi-square critical for [95%, 1d.f.] which is 3.84.

Table 5
Ordered Probit of Perceived Quality of Life
SALDRU93: Household-level averaged data

Variable	coefficient	t-value	marginal effect**	coefficient	t-value	marginal effect**
Unemployment rate	-0.325	-6.38 *	-0.118			
Non-searching unemployment rate				-0.292	-5.10 *	-0.106
Searching unemployment rate				-0.386	-5.76 *	-0.139
Age	-0.030	-2.78 *	-0.011	-0.030	-2.74 *	-0.011
Age square	0.000	2.72 *	0.001	0.000	2.68 *	0.001
Married+	0.007	0.18	0.002	0.007	0.18	0.002
Education : primary+	-0.017	-0.28	0.005	-0.016	-0.25	0.005
junior+	0.018	0.29	-0.005	0.020	0.32	-0.005
secondary+	0.092	1.47	0.030	0.094	1.51	0.031
higher+	0.581	5.88 *	0.199	0.582	5.89 *	0.200
Training+	-0.392	-4.55 *	0.039	-0.391	-4.53 *	0.039
Migrate+	0.206	1.69	0.075	0.207	1.70	0.075
Hh per capita income quartile 2	0.016	0.36	0.007	0.016	0.37	0.007
quartile 3	0.242	3.72 *	0.089	0.241	3.71 *	0.089
quartile 4	0.284	3.54 *	0.103	0.281	3.51 *	0.102
Lives in owned home+	0.120	2.73 *	0.043	0.119	2.71 *	0.043
Number of children<16 in hh	0.003	0.32	0.001	0.003	0.27	0.001
Number of elderly>64 in hh	0.031	1.00	0.010	0.030	0.97	0.010
Urban+	-0.201	-2.23 *	-0.068	-0.199	-2.21 *	-0.068
Male+	-0.027	-0.57	-0.008	-0.024	-0.52	-0.008
African+	-0.934	-8.77 *	-0.337	-0.934	-8.79 *	-0.337
Coloured+	-0.432	-3.65 *	-0.156	-0.431	-3.65 *	-0.156
Indian+	-0.254	-2.33 *	-0.090	-0.252	-2.32 *	-0.090
Racial minority in community+	0.178	1.78	0.063	0.178	1.78	0.063
Homeland+	0.003	0.03	0.003	0.001	0.01	0.003
Cluster crime rate	0.678	2.01 *	0.243	0.685	2.03 *	0.246
Cluster food price index	1.405	2.35 *	0.504	1.405	2.34 *	0.504
Community has impassable roads+	-0.152	-2.22 *	-0.055	-0.153	-2.24 *	-0.056
Province dummies		yes			yes	
N		7212			7212	
Mean of the dependent variable		1.633			1.633	
LogL		-9716.63			-9715.47	
Restricted LogL		-10657.14			-10657.14	
Pseudo R^2		0.0883			0.0884	

Notes: + signifies a 0/1 variable. * denotes statistical significance at the 5% level or better. Robust t-values reported, clustering on enumeration clusters. ** signifies marginal effect of variable on the probability that the household is satisfied or very satisfied with its quality of life (QOL). The cluster crime rate variable is constructed as the percentage of households in the cluster that reported being victims of crime in the past year. The percentage of households that are satisfied or very satisfied with their QOL is 35.3%

Table 6
Impact of Searching and Non-searching Unemployment on Quality of Life,
OHS94: Household-level averaged data

	Index of how unsafe household feels in its neighbourhood** (Ordered probit)		Index of how unsafe household feels in its dwelling** (Ordered probit)		Difficulty in breathing due to smoke and pollution*** (Ordered probit)		Household did not have money to feed the children at certain times in the year (binary probit)	
	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value
Non-search unemployment	0.017	0.25	0.045	0.69	0.461	5.28 *	0.555	8.73 *
Search unemployment	0.153	2.97 *	0.167	3.36 *	0.216	3.34 *	0.609	11.11 *
Age	0.003	0.41	0.008	1.32	0.020	2.86 *	-0.001	-0.15
Agesq	0.000	-0.29	0.000	-1.22	0.000	-2.99 *	0.000	0.15
Married	-0.049	-1.92	-0.041	-1.61	-0.060	-1.84	-0.101	-2.96 *
Primary	0.061	1.00	0.020	0.31	0.101	1.56	-0.024	-0.42
Junior	0.175	2.40 *	0.100	1.37	0.149	1.86	-0.113	-1.68
Secondary	0.073	0.93	0.008	0.11	-0.013	-0.17	-0.401	-5.32 *
Higher	0.124	1.47	0.031	0.35	-0.135	-1.16	-0.760	-3.56 *
Voc. diploma	-0.008	-0.16	0.004	0.06	0.136	1.18	0.214	1.03
Nchild	0.005	0.64	0.005	0.61	0.011	1.12	0.060	7.35 *
Nelder	-0.057	-2.44 *	-0.066	-2.62 *	-0.038	-1.25	-0.021	-0.76
Urban	0.255	3.28 *	0.217	2.88 *	0.530	5.91 *	0.276	3.99 *
Male	-0.025	-0.91	-0.043	-1.60 *	-0.024	-0.73	-0.039	-0.94
African	0.003	0.04	0.123	1.60	0.863	6.84 *	1.076	9.62 *
Coloured	-0.041	-0.39	-0.010	-0.09	0.377	2.83 *	0.522	4.51 *
Indian	0.265	4.20 *	0.344	4.41 *	0.305	2.08 *	0.313	2.73 *
Homeland	0.375	4.01 *	0.389	4.33 *	-0.043	-0.36	0.310	2.99 *
Constant	-		-		-		-1.301	-5.71 *
Province dummies	yes		yes		yes		yes	
N	25672		25672		25672		21770	
Dependent variable mean	1.677		1.625		1.530		0.341	
LogL	-26534.81		-25522.28		-19684.89		-11094.40	
Res. LogL	-27608.36		-26568.72		-21931.64		-13971.99	
Psuedo R^2	0.0389		0.0394		0.1024		0.2060	

Notes: Households with no children are excluded from the last column. Robust t-values reported, clustering on districts. No constant term shown for the ordered probit models as the constant is subsumed as the first threshold point.

'nchild' is number of children in the household; 'nelder' is number of persons aged >=65 in the household; the base category for the race dummies is 'whites'; 'voc. diploma' refers to any pre-employment vocational training and it means the percentage of household members who hold a diploma; the education dummies represent the percentage of household members that have primary education, the percentage that have secondary education, etc.

* statistically significant at the 5% level or better.
** very safe=1; rather safe=2; rather unsafe=3; very unsafe=4.
*** not difficult=1; slightly difficult=2; rather difficult=3; very difficult=4.

Table 6 uses the preferred household-level averaged data; results using individual-level data are very similar. Both measures of the household unemployment rate significantly increase the probability of having great difficulty in breathing due to smoke and pollution in winter, though the effect of non-searching unemployment is significantly greater (on a Wald test) than that of searching unemployment. Both measures of unemployment have a statistically significant and quantitatively similar effect on the probability of not having had enough money to feed the children at some time during the past year[18]. While searching unemployment is associated with a significant lack of physical safety in the home and in the neighbourhood, non-searching unemployment is not[19]. This may be due to the fact that the non-searching unemployed are at home more than the searching unemployed, and thus have greater opportunity to make contacts with others in the neighbourhood and to feel safer as members of a community. However, reverse causality is possible here, *i.e.* it is possible that the searching unemployment rate of the household is itself determined by the perceived lack of safety in the home or in the neighbourhood. The other results are plausible as well. As there is no control for household per capita income (income data are unavailable in this survey), household education variables capture the effect of income to some extent. The greater the proportion of males in the household, the lower the probability of feeling very unsafe in own dwelling. Location in a homeland and in an urban area is associated with greater perception of lack of safety.

In summary, evidence from both SALDRU93 and OHS94 datasets shows that perceived quality of life is worsened to the same extent by non-searching unemployment as by searching unemployment. There appears to be no significant difference between them in the way that they affect lives: the passive unemployed are no less unhappy than the active unemployed. These findings imply that it would be wrong to exclude the non-searching unemployed from the measure of unemployment.

5. The unemployment-wage relationship

In this section we take a very different approach to assessing the relevance of the broad and narrow measures of unemployment in the South African labour market. We examine the wage-unemployment relationship to determine the relevance of the non-searching unemployed persons to the labour market. Blanchflower and Oswald (1994) and, subsequently, many other researchers report evidence of a negative relationship between local unemployment and local wages, a relationship which has been termed the 'wage curve'[20]. The wage curve can help assessment of alternative definitions of unemployment by showing which measure of the unemployment rate is more important in explaining wages. If those wanting work but not actively seeking are outside the labour force, we would expect the wage curve to be steeper for narrow than for broad unemployment.

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[18] Although it is plausible that the household unemployment rate will affect household income or poverty, household income or poverty may also affect the decision to search. We tested for this effect and found supporting evidence in Table 4. When we estimated a job-search logit using the OHS94 data on the unemployed, the variable 'household did not have enough money to feed the children at some time during the past year' had a negative sign, though it was insignificant, *i.e.* this indicator of poverty may also have deterred search.

[19] However, a Wald test cannot not reject equality of the coefficients on the two types of unemployment, either in the case of the safety in the neighbourhood or in the case of safety in the dwelling. The chi-square statistics were 2.63 and 2.22 respectively, while chi-square critical [5%, 1 d.f.] is 3.84.

[20] There are two main explanations for this negative relationship. One is that efficiency wage behaviour by employers causes wages to be set higher in areas with lower unemployment because higher local unemployment serves as a disciplining device to prevent workers from shirking on the job. The other is that union wage bargaining is weaker in higher unemployment areas, causing a negative relationship between local unemployment and wages.

Kingdon and Knight (1999b) examine the wage-unemployment relationship for South Africa, regressing the log of individual wage on the usual Mincerian variables such as experience and education, and on the cluster unemployment rate. The results - summarised in Table 7 - show that broadly measured unemployment has a far greater impact on wages than narrowly measured unemployment. This relationship is robust to changes in the specification of the wage equation, that is, to alternative specifications such as the exclusion of locality fixed effects, exclusion of occupation, selectivity correction for participation in waged work, *etc*. The relationship between broadly measured unemployment and wages is also robust when we allow for possible endogeneity between wages and unemployment. The relationship is unaltered when the analysis is carried out at a higher level of aggregation, *i.e.* when cluster average wage is regressed on cluster average characteristics and cluster unemployment rate. In sum, the wage curve evidence suggests that non-searching labour force participants *are* taken into account by wage-setters and that their numbers in a locality *do* influence local wage determination. This may arise because, even though the inactive unemployed are not searching, employers are aware of the existence of a pool of non-searchers and perceive that such persons would become searchers if they knew that jobs were available. These are further grounds for retaining non-searching persons who want work in the definition of unemployment and for using the broad measure as the more appropriate concept of unemployment in South Africa.

Table 7
Unemployment Elasticity of Wage by Definition of Unemployment and Region, SALDRU93 data

Region	Narrow definition			Broad definition		
	coeff	t-value	elasticity	coeff	t-value	elasticity
Rural						
Unemployment	0.707	1.00	0.060	-1.293	-1.93 *	-0.122
Square of unemployment	-0.352	-0.27		1.530	2.16 **	
Urban						
Unemployment	-1.053	-2.21 **	-0.082	-0.999	-2.32 **	-0.135
Square of unemployment	1.473	1.41		0.840	1.14	
All South Africa						
Unemployment	-0.247	-0.52	-0.006	-1.305	-3.27 ***	-0.108
Square of unemployment	0.878	0.89		1.803	3.46 ***	

Note: * represents significance at the 10% level, ** at the 5% level and *** at the 1% level. Robust t-values reported. Elasticities are computed at mean unemployment rates in the respective regions.
Source: Kingdon and Knight (1999b).

6. Conclusion

In South Africa, there is a large gap between narrowly and broadly measured unemployment, and the official statistical agency has recently adopted the narrow concept of unemployment as the official definition. The narrow measure is now more prominently presented and is, sometimes, the only unemployment rate quoted. This is likely to affect perceptions about the extent of unemployment in South Africa. However, our analysis indicates that it is misleading to apply the job-search criterion in measuring unemployment and that the broad definition of unemployment is the more appropriate one for labour market analysis in South Africa.

We find, firstly, that the non-searching unemployed are more deprived than the searching unemployed. The fact that they are not better-off casts doubt on the interpretation based on tastes and favours the alternative interpretation, namely that search is hindered by constraints. The latter view is supported by the evidence in the job-search model which suggests that search is hampered by poverty, cost of job-search from remote rural areas, and high local unemployment. It appears that many unemployed persons do not search actively for work because they are discouraged workers. Secondly, the non-searching unemployed are not significantly happier than the searching unemployed. Their unemployment depresses their well-being to the same extent as is the case for the searching unemployed. This suggests that there is no behavioural distinction between the two states. Finally, evidence on the wage-unemployment relationship indicates that local wage determination takes non-searching workers into account as genuine labour force participants. This again suggests that the broad concept of unemployment is the more appropriate in the South African context, and that the appropriate measure of unemployment in 1997 was 38% rather than 23%.

To our knowledge, this is the first study of the discouraged worker phenomenon in a developing country. Our conclusions for this country may well apply to other countries in which labour market conditions and institutions give rise to passive rather than active job-search. The analysis suggests that the concept of unemployment appropriate when unemployment is very high is different from the standard definition recommended by the ILO and which is adopted by many countries. In such conditions the joblessness of the non-searching unemployed is at the least no less entrenched and no less clearly associated with destitution than is that of the searching unemployed. While conformity with the standard definition might be considered useful for cross-country comparability of unemployment statistics, it comes at the cost of jeopardising the fulfilment of the domestic functions of unemployment statistics[21]. Exclusion of the non-searching unemployed carries the assumption that they are not part of the labour force and implies a value judgement. In particular, it can lead to the weakening of policy concern about the non-searching unemployed and a playing-down of the unemployment problem.

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[21] The *Bulletin of Labour Statistics* (ILO, 1999, p57) presents monthly unemployment rates for South Africa of between 4.4% and 5.4% for the years from 1994 to 1997. While these statistics - being based on the number of people who are registered at employment offices - may be intended to facilitate international comparability and to serve as a proxy for fluctuations in economic activity, they provide very misleading impressions about the rate of joblessness in South Africa.

References:

Barker, F. S. (1999) "On South African Labour Policies" *South African Journal of Economics*, 67, No. 1:1-33. March.

Bhorat, H. (1999) "The October Household Survey, Unemployment and the Informal Sector: A Note", *South African Journal of Economics*, 67, No. 2: 320-326.

Blanchflower, D. and A. Oswald (1994) *The Wage Curve*, MIT Press, London.

Blundell, R., J. Ham, and C. Meghir (1998) "Unemployment, Discouraged Workers, and Female Labour Supply", *Research in Economics*, 52, No. 2: 103-31.

Clark, A. E. and A. Oswald (1994) "Unhappiness and Unemployment", *Economic Journal*, 104 (424), May: 648-59.

Clark, K. B. and L. H. Summers (1979) "Labour Market Dynamics and Unemployment: A Reconsideration", *Brookings Papers on Economic Activity*, 1, 13-72.

CSS (1995) *October Household Survey: 1994*, Statistical Release P0317, Central Statistical Service, March.

CSS (1996) *Planning Growth and Development in South Africa: Selected Indicators on Employment, Human Resource Development, Infrastructure, and Poverty*, Pretoria, February.

Devine, T. and N. Kiefer (1991) *Empirical Labour Economics: The Search Approach*, Oxford University Press, Oxford.

Di Tella, R., R. McColloch, and A. Oswald (1998) "The Macroeconomics of Happiness", paper presented at the Conference on The Labour Market: Stocks and Flows, Institute of Economics and Statistics, University of Oxford, 28-29 September.

Erasmus, Johan (1999) "Unemployment in South Africa", mimeo, Human Science Research Council, Pretoria.

Finegan, T. A. (1978) "Improving Our Information On Discouraged Workers", *Monthly Labour Review*, September: 15-25.

Flinn, C. and J. Heckman (1983) "Are Unemployment and Out of the Labour Force Behaviourally Distinct Labour Force States", *Journal of Labour Economics*, 1, No.1: 28-42.

Goldsmith, A. H., J. R. Veum, and W. Darity (1995) "Are Being Unemployed and Being Out of the Labor Force Distinct States? A Psychological Approach", *Journal of Economic Psychology*, 16: 275-95.

Gonul, F. (1992) "New Evidence on Whether Unemployment and Out of the Labour Force are Distinct States", *Journal of Human Resources*, 27, No. 2: 329-361.

ILO (1995) *Yearbook of Labour Statistics*, International Labour Organisation, Geneva.

ILO (1999) *Bulletin of Labour Statistics*, 1999-3, International Labour Organisation, Geneva.
Kingdon, Geeta G. and John Knight (1999a) "The Incidence of Unemployment in South Africa", mimeo, Centre for the Study of African Economies, University of Oxford.

Kingdon, Geeta G. and John Knight (1999b) "Unemployment and Wages in South Africa: A Spatial Approach", Working Paper No. WPS/99-12, Centre for the Study of African Economies, University of Oxford.

Klasen, Stephan and Ingrid Woolard (1999) "Levels, Trends, and Consistency of Employment and Unemployment Figures in South Africa", *Development Southern Africa*, 16, No. 1: 3-36.

Kuch, P. J. and S. Sharir (1978) "Added- and Discouraged-Worker Effects in Canada, 1953-74", *Canadian Journal of Economics*, 11, No. 1: 112-120.

Nattrass, N. (2000) *Macroeconomics: Theory and Policy in South Africa*, second edition, David Philip, Cape Town.

Ondeck, C. (1978) "Discouraged Workers' Link to Jobless Rate Reaffirmed", *Monthly Labour Review*, October: 40-42.

Sabot, Richard (1977) "The Meaning and Measurement of Urban Labour Surplus", *Oxford Economic Papers*, p389-411.

SALDRU (1994) *South Africans Rich and Poor: Baseline Household Statistics*, South African Labour and Development Research Unit, University of Cape Town, August.

Schlemmer, L. and C. Levitz (1998) *Unemployment in South Africa: The Facts, the Prospects, and an Exploration of Solutions*, South African Institute of Race Relations, Johannesburg.

Sorrentino, C. (1995) "International Unemployment Indicators, 1983-93", *Monthly Labour Review*, 1995: 31-50.

Standing, G., J. Sender, and J. Weeks (1996) *Restructuring the Labour Market: The South African Challenge: An ILO Country Review*, International Labour Organisation, Geneva.

StatsSA (1998a) *Unemployment and Employment in South Africa*, Statistics South Africa (formerly known as Central Statistical Service), Pretoria.

StatsSA (1998b) *Employment and Unemployment in South Africa: October Household Survey 1994-1997*, Statistical Release P0317.10, Pretoria.

Tachibanaki, T. (1991) "Labour Supply and Unemployment in Japan", *European Economic Review*, 35: 1575-1587.

Theodossiou, I. (1998) "The effects of Low Pay and Unemployment on Psychological Well-being: A Logistic Regression Approach", *Journal of Health Economics*, 17: 85-104.

Warr, P.B., P.R. Jackson, and M. Banks (1988) "Unemployment and Mental Health: Some British Studies", *Journal of Social Issues*, 44: 47-68.

Wilson, Francis and Mamphela Ramphele (1989) *Uprooting Poverty: The South African Challenge*, W.W. Norton & Co., London.

Appendix Table 1
Labour Market Status and Socio-Economic Situation
SALDRU 1993 data

	Non-labour force participants	Inactive unemployed (a)	Active unemployed (b)	All Unemployed (c=a+b)	Informally employed	Formally employed
Household unemployment rate	0.356	0.763	0.727	0.751	0.134	0.105
Per capita household income:						
(Rand/month)						
Remittances received	19.601	13.459	14.095	13.670	11.324	5.869
Pension, dividends, etc.	60.620	32.735	47.712	37.706	37.224	23.668
Wage income (regular jobs)	181.582	103.092	145.169	117.097	262.327	960.952
Wage subsidies	12.604	4.881	11.898	7.216	24.478	86.263
Wage income (casual jobs)	6.561	3.580	9.991	5.708	50.315	12.023
Agricultural income	15.858	4.003	1.782	3.266	43.875	5.913
Total - mean	318.545	162.541	232.234	185.675	594.497	989.900
- median	131.961	96.673	133.125	104.260	200.000	549.250
Per capita household expenditure:						
(Rand/month)						
Total - mean	313.788	190.887	282.079	221.020	458.547	772.148
- median	168.415	136.017	184.069	147.294	242.018	440.528
Other indicators:						
Remittance/Total income	0.197	0.183	0.148	0.172	0.065	0.014
Other non-earned/Total income	0.243	0.266	0.239	0.257	0.095	0.038
Below int'national poverty line $1/d	0.389	0.485	0.381	0.451	0.295	0.079
Number of assets	3.718	2.931	3.619	3.159	4.109	5.252
Years of education	7.402	6.793	7.595	7.059	6.656	8.511
African	0.825	0.953	0.796	0.901	0.783	0.581
Household size	6.720	7.228	6.554	7.005	5.382	4.699
Perception of well-being:						
Dissatisfied/very dissatisfied with life	0.621	0.738	0.718	0.731	0.566	0.459
Living conditions:						
Lives in a house/part of house	0.524	0.473	0.561	0.502	0.555	0.656
Number of hh members per room	1.787	1.965	1.906	1.945	1.613	1.269
Home is owned	0.790	0.773	0.705	0.750	0.646	0.610
Dwelling has corrugated iron roof	0.616	0.681	0.571	0.645	0.601	0.448
Piped water within or tap in yard	0.680	0.363	0.571	0.432	0.607	0.751
Has to fetch water daily	0.545	0.603	0.395	0.534	0.363	0.222
Distance to water (meters)	280.199	305.931	170.513	260.901	174.137	83.608
Dwelling has flush toilet	0.339	0.269	0.461	0.333	0.504	0.676
Dwelling has electricity connection	0.390	0.302	0.451	0.351	0.520	0.708
Community characteristics:						
Urban	0.393	0.352	0.599	0.434	0.582	0.646
Homeland	0.617	0.667	0.431	0.588	0.408	0.236
Distance to facilities from home	101.939	111.096	74.124	98.886	74.366	65.168
Community has tarred roads	0.192	0.100	0.236	0.145	0.275	0.427
Community roads impassable at certain times of year	0.513	0.563	0.402	0.509	0.425	0.268
N	8853	2775	1379	4154	2542	6620