

**Education and economic status in South Africa:
Insights from the Labour Force Survey of 2003**

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Abstract

It is widely held that the unacceptably high rate of unemployment in South Africa is principally structural in nature. Against this backdrop, this paper revisits the relationship between education and employment opportunities in South Africa. Descriptive statistics indicate that unemployment is concentrated amongst the youth who as a result of better access to education in the post-apartheid era have relatively higher levels of education than older cohorts in South Africa. Given that the youth unemployment problem cannot be easily separated from the issue of education, multivariate analysis has allowed for the effect of education on economic status to be isolated and a number of key deductions to be made. The first is that secondary schooling and most importantly, the attainment of a matric qualification does not improve the likelihood of procuring employment in South Africa. The second finding is that tertiary education does significantly improve the labour market opportunities of individuals. A number of reasons are explored in an attempt to explain why the completion of secondary schooling does not significantly influence the probability of an individual finding employment.

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The South African economy has been characterised by unacceptably high and growing unemployment. According to the strict definition, unemployment increased from 17 percent in 1995 to 31.6 percent in 2003. Using the expanded definition, unemployment rose from 29.4 percent to 42.8 percent over the same time period (Casale et al, 2004:989). On the basis of employment statistics from the 1993 October Household Survey, the International Monetary Fund declared that “the bulk of unemployment at present is neither voluntary nor frictional” and that the “bulk is structural” (Quoted in Standing et al, 2000:119). The view that unemployment in South Africa is largely the result of the labour market participants lacking the required skills and educational qualifications to fill vacancies is widely held (See Terreblanche, 2002:372; Fourie, 2001:378, Makgetla 2003, Ensor 2002).

It is evident that policymakers in South Africa attribute a large amount of unemployment to the alleged poor supply-side characteristics of the unemployed. The South African Reserve Bank has repeatedly defended the conservative use of monetary policy arguing that unacceptably high rates of unemployment in South Africa cannot be remedied by demand-side policies and recommending that “structural problems... require structural solutions” (Casteleijn ,1996).

Bhorat (2004: 955) argues that the pattern of economic growth in the South African economy between 1995 and 2002 has led to a shift in the demand for labour away from unskilled toward semi-skilled and skilled occupations and concludes that “this unevenness of growth requires the upgrading of the supply characteristics of those individuals entering the labour market each year, in search of employment.”

Standing et al, using 1994 data, illustrated that the educational qualifications of the employed were indeed greater than those of the unemployed at the time but resisted concluding that this meant that unemployment in South Africa was structural in nature (2000). “But one cannot presume that if all those without secondary schooling were provided with it and if all those without a recognized ‘skill’ were provided with one that unemployment would fall dramatically” (2000: 121). Standing et al cautioned that the demand-side of the economy needed consideration and predicted, “the likely prospect is that in the last few years of the twentieth century unemployment will be concentrated among African school matriculants” (2000: 118).

This paper explores the supply-side characteristics of the unemployed using the data collected in the September 2003 Labour Force Survey. Against the backdrop of alleged structural unemployment, the paper focuses on the effect of education on the economic status of the individual.

There are four parts to the paper. In the first part of the paper, the literature regarding the link between education and employment prospects in South Africa is briefly reviewed. An overview of the studies exploring the nature of unemployment in South Africa is also provided and the paper attempts to bridge these two areas of previous study i.e. by considering the influence of education on the likelihood of finding employment to contribute to the debate on the nature of unemployment in South Africa.

Following a discussion on the sources of data and definition used in the study, the third part of the paper uses descriptive statistics to compare the supply-side characteristics of the unemployed with those of the employed. The paper finds that over the last decade the educational gap between the employed and the unemployed in South Africa has narrowed, largely due to the fact that in the post-apartheid era younger people have had greater access to education than older cohorts, and the incidence of unemployment is highest amongst the youth.

It is apparent that a close relationship between age and education levels exists in South Africa, and multivariate analysis is necessary to isolate the effect of education on the likelihood of finding employment. The key findings of the regression analysis suggest that secondary school education, partial or complete, does not raise the probability of gaining employment. This result appears incongruous with the constant references to structural unemployment in South Africa.

The remainder of the paper explores various reasons why secondary school education and in particular the attainment of a matric certificate does not enhance the employment prospects of an individual. The first possible explanation investigated is that the matric qualification no longer provides employers with a reliable sorting device with which to distinguish the future productivity of one prospective employee from his counterparts with lower levels of schooling. The second possibility recognises that although the younger cohorts may have higher formal education levels than older cohorts, they are less likely to

have previous job experience and have therefore not had the opportunity to gain skills whilst working. Skills may matter more to employers than formal education. The third possible explanation examines whether completed secondary schooling raises the aspirations of individuals. Individuals with a matric qualification may be more willing to participate in the labour force but may also be prepared to remain unemployed for longer as they search the labour market for a job that they perceive to be commensurate with their educational qualifications. Finally it is difficult to make sense of the growing joblessness of people with completed secondary school education in the context of studies that have found that “labour demand patterns reflect a growing demand for higher-skilled labour, and stagnant or declining demand for less skilled workers” (Bhorat and Leibbrandt, 2001: 123). A comparison of the share of employment across various skill categories and industries in 1995 and 2003 is undertaken with the view to assessing whether the reported growth in the relative demand for skilled labour is real or the result of comparability problems across national household surveys and datasets.

1. A Review of the Literature

Employment and Earnings

Aided by the availability of reliable national sample surveys that provided detailed information on the labour market status of individuals, the 1990s saw a proliferation of work attempting to apply the human capital model to the South African labour market (see Mwambu and Schultz, 1996; Hofmeyr and Lucas, 1998; Bhorat and Leibbrandt, 2001). The human capital theory suggests that higher levels of education improve the productivity of labour and hence raise the earnings potential of the individual.

The studies conducted in South Africa proposed a close relationship between education and earnings. Mwambu and Schultz (1996) for example, found that fifty percent of the interracial differentials in wage rates could be attributed to differences in education levels between Whites and Africans in South Africa.

Bhorat and Leibbrandt (2001) identified shortcomings with previous earnings functions models, particularly with respect to how sample selection effects are considered. In many of the studies it is apparent that the characteristics of the individual that influence the

probability of finding work are not clearly distinguished from the factors that contribute towards the decision to participate in the labour market. Sample selection effects are only considered on the question of participation with the resulting inference that the unemployed are voluntarily unemployed and hence economically inactive. However, contributions to the literature on unemployment in South Africa (see Kingdon and Knight, 2004) have lead most labour market analysts to believe that unemployment in South Africa is largely involuntary. Since most returns to education studies have neglected to undertake estimations on the probability of labour market participants finding work as part of an earnings function model, little work on this matter has been done in South Africa.

An exception is the earnings function model developed by Borat and Leibbrandt (2001). Using data from the 1995 October Household Survey, a three-stage estimation procedure is proposed. They begin their study by the estimation of a probability of labour market participation equation. The purpose of such estimation is the identification of the key factors selecting participants. Once the participants are determined, the second stage models the probability of those willing to participate in the labour market finding work. The final stage models the earnings of those who succeed in obtaining employment (Bhorat and Leibbrandt, 2001). It is the results of the second stage of their estimation procedure that are particularly relevant to this study. In considering the factors that influence the probability of finding work, the authors find that “the education splines firstly show that, across both genders and definitions, the possession of primary schooling or less reduces the probability of finding employment. ...In contrast, the coefficient for tertiary education is positive across both genders and definitions. Collectively, the education splines indicate that individuals with lower levels of education have less of a chance of getting a job than those with high-level, and specifically tertiary, education” (Bhorat and Leibbrandt, 2001: 123).

This paper revisits the effect of education on the probability of finding employment in 2003 using data provided by the September Labour Force Survey. A substantial change in the access of younger age cohorts to education following the democratic elections in 1994 (van den Berg, 2001) makes this a worthwhile exercise.

The Nature of Unemployment

Contributions to the literature regarding the nature of unemployment in South Africa have centered on the issue of whether the large proportion of labour market participants who do not actively seek work should be considered voluntarily unemployed (see Kingdon and Knight, 2004). Such studies explored the characteristics of the searching and non-searching unemployed and determined that high search costs combined with limited household resources and a small probability of finding employment discourage workers from seeking work rather than them choosing not to look for work.

With respect to whether unemployment is related to the skills and schooling of the workforce not corresponding to the needs of the labour market, analysts using statistics from the early 1990s have been tempted to proclaim that unemployment in South Africa is structural in nature since the unemployed at the time had lower average years of schooling than the employed (Standing, 2000). However, as Standing et al caution “the outcome of a selective process does not necessarily imply that a lack of schooling is the cause of the unemployment” (2000: 119).

This paper seeks to contribute to the debate on the whether the unemployment in South Africa is largely structural in nature by examining the effect of education on employment prospects. Does formal education improve the prospects of an individual finding work? Or conversely, does poor human capital formation account for the joblessness of a significant proportion of the unemployed?

2. Data and definitions

Labour market statistics in South Africa have been drawn from a number of different sources. From 1993 to 1999 the October Household Surveys (OHS) were conducted annually. The Labour Force surveys conducted biannually from 2000 onward replaced these. Other sources of labour market statistics exist, namely the population census and the Survey of Employment and Earnings (SEE).

The population census although appealing from the point of view of comprehensive coverage of all households in South Africa has an enormous drawback in context of the

present study in that it does not provide detailed questions on an individual's labour market status (Casale, Muller, Posel, 2004: 980).

The SEE conducted from 1998 onwards samples firms and draws information on employment levels from registered, non-agricultural firms (Casale, Muller, Posel, 2004: 980). Clearly such a survey would not be appropriate to this study since it contains no information on the unemployed and the economically inactive in South Africa.

The National Household Surveys therefore provide the most comprehensive data on the characteristics of the employed, unemployed and economically inactive that this study relies upon. There have however been important changes to these surveys both within the October Household Surveys and with the introduction of the Labour Force Surveys (see Casale, Muller, Posel, 2004: 980). Such changes complicate the comparability of these data sets. For the most part of this paper a single data set is used – the LFS conducted in September 2003. Using this data set, descriptive statistics relating to the supply-side characteristics of the employed and unemployed are derived. The multivariate analysis that attempts to predict the probability of an individual finding employment in the South African labour market given household and individual characteristics also makes use of the 2003 LFS data. However, in the final section of the paper, a comparison of the employment levels in 1995 and 2003 across various skill levels is undertaken. It is at this point that changes in the format of the national household surveys may present problems with comparability. In particular, the 1995 OHS does not prompt respondents on what constitutes work and therefore is more likely to capture individuals engaged in the informal sector as unemployed or economically inactive. In particular, Casale, Muller and Posel (2004:985) warn that in the 1995 OHS “all subsistence farmers...seem to have been excluded altogether from the employment count and...were most likely to have been considered as inactive.”

For the purposes of this paper, the employed are those who performed work for pay, profit or family gain for at least one hour in the seven days prior to the survey interview, or who were absent from work during these seven days, but did have some form of paid work during this time (Statistics South Africa, 2003). Given that respondents in the 2003 survey

are prompted as to what constitutes work² the survey is more likely to capture all forms of work including informal activities.

There are two definitions of unemployment used in this paper. The strict definition of unemployment includes only those actively seeking work on a regular basis. In other words these individuals are willing to work and have taken active steps to find work or start some form of self-employment in the four weeks prior to interview. The broad definition includes the non-searching unemployed.

The economically inactive are those within working age who are not available for work. This category includes full-time scholars and students, full-time homemakers, those who are retired, and those who are unable or unwilling to work (Statistics South Africa, 2003).

3. The supply-side characteristics of the unemployed

Before focusing specifically on the relationship between the educational qualifications of individuals and their labour market status, this section of the paper begins by examining the supply-side characteristics of the unemployed more broadly.

Race, Gender and Unemployment

Irrespective of the definition used, Table 1 indicates that the incidence of unemployment is highest amongst Africans than any other race group in South Africa. Whites have the lowest unemployment rates. With respect to gender differentials, women have higher rates of unemployment than men. Even on the narrow definition of unemployment there are significant differences in the unemployment rates of women as compared to men for all race groups. The unemployment rate for men is measured at just below 26 percent while close to 32 percent of all women willing to work and actively seeking work remained jobless. If the non-searching unemployed are included, then the absolute difference between male and female unemployment rates increases considerably. This is attributed to less intensive job

² Question 2.1 in the Labour Force Survey conducted in September 2003 provides a comprehensive set of responses allowing for various activities that individuals may have been engaged in to be considered work.

search undertaken by unemployed females, a phenomenon experienced in “many other countries” (Standing, et al, 2000:121).

Table 1: Unemployment Rates by race and gender, 2003

	Strict		Broad	
	Male	Female	Male	Female
African	30.81	37.68	42.63	55.56
Coloured	20.77	23.53	26.39	34.29
Indian	16.22	19.19	18.4	25.92
White	4.5	6.55	6.39	10.92
Total	25.7	31.85	35.99	48.55

Age and unemployment

Unemployment in South Africa is concentrated among the youth. 56.73 percent of the broadly unemployed are under the age of 30 and 71.12 percent are under the age of 35³. Table 2 indicates that unemployment rates are highest amongst individuals aged between 16 and 25 years for all race groups. An alarming 76.68 percent of Africans in this age cohort are unemployed according to the broad definition. It is generally accepted that unemployment rates should be highest amongst the youth for various reasons. The youth are likely to have higher turnover rates as they find their way in the labour market and so are less appealing to prospective employers. Another possible explanation is that the youth may have higher reservation wages. Standing et al posit, “it could simply be that in a labour market in which relatively few jobs are being created, labour force entrants have to wait in a queue” (2000:118). However as Altman (2004) shows, the number of young unemployed is growing much faster than any other group between 1994 and 2001, prompting the author to comment that the “inability of the economy to absorb new labour-market entrants, must be underlined”.

³ The proportion of the unemployed under the age of 30 and 35 using the strict definition is very similar to that under the expanded measure. 55.98 percent of the strictly unemployed are under the age of 30 and 71.02 percent are under the age of 35.

Table 2: Unemployment rates by age and race, broad definition (2003)

Race/Age	16-25	26-35	36-45	46-55	56-65
African	76.68	51.49	34.45	28.91	20.48
Coloured	53.91	24.38	19.94	19.19	17.15
Indian	42.37	18.82	14.4	13.32	11.41
White	21.57	6.64	6.61	5.33	6.67
Total	69.94	43.76	28.95	24.10	17.33

What explains the growing youth unemployment problem in South Africa? “Is this a problem of skills and experiential mismatches and poor labour market information, or is it deficient demand?” (Altman, 2004) Whilst many possible explanations for this high rate of unemployment amongst younger cohorts have been offered, it is difficult to attribute this youth unemployment to poor human capital formation. If the youth are indeed waiting in the employment queue than based simply on their educational qualifications and an alleged skill-intensive growth path of the South African they should be at the front of the queue.

The link between education and economic status

It is impossible to divorce the incidence of unemployment by education level from the issue of youth unemployment. In the early 1990s the incidence of unemployment was “skewed towards those with little formal education” but as predicted by Standing et al (2000), this was bound to change. By 2003 the education gap between the employed and the unemployed has narrowed so as to be negligible - the employed having 9.4 average years of schooling compared to the mean 9.3 years of education attained by the searching unemployed. As access to education improved over the last decade (see van den Berg, 2001:174), in the early 2000s it is evident that younger cohorts have more schooling than older cohorts, and younger cohorts have higher rates of unemployment. Table 3 indicates the average years of education by age cohort. Amongst the unemployed, the youngest cohort has the highest average education and the average 9.99 years of education amongst the searching unemployed in the 16 to 25 year age cohort, is not significantly different to the 10.31 years of education of the employed in the same age cohort. Certainly the average number of years of education of the searching unemployed under the age of 35 is higher than the mean education levels of older employed individuals.

Table 3: Average number of years of education by age category and economic status

	16-25	26-35	36-45	46-55	56-65
Employed	10.31 (0.057)	10.51 (0.042)	9.32 (0.053)	8.08 (0.074)	7.23 (0.128)
Searching unemployed	9.99 (0.049)	9.9 (0.056)	8.03 (0.098)	6.6 (0.17)	6.43 (0.378)
Non-searching Unemployed	9.1 (0.054)	9.01 (0.073)	6.84 (0.118)	5.3 (0.157)	4.8 (0.324)

The data in table 3 indicates a difference in the average years of education of the searching and non-searching unemployed. The searching unemployed have slightly higher average years of schooling than the non-searching unemployed and the difference in education levels becomes more pronounced amongst older cohorts. The relatively higher levels of schooling amongst the searching unemployed may be explained by the effect that education has on the search behaviour of the unemployed. Table 4 indicates that as the level of education attained increases, so the proportion of the unemployed actively searching for work rises. It is possible that schooling will raise an individual's aspiration wage and expectation of finding work. Schooling may therefore encourage individuals to enter the labour force and actively search for work.

Table 4: Proportion of the unemployed searching for work by highest education level achieved

No schooling	0.3798
Primary	0.4764
Incomplete secondary	0.5378
Matric	0.6274
Tertiary	0.7648

Given that inequalities in terms of educational outcomes have narrowed over the last ten years and that the youth are consequently relatively more educated but also more likely to be unemployed, it should be expected that the education levels of the unemployed have improved relative to the employed. Table 4 shows the proportion of labour market participants with various educational qualifications. Fewer individuals searching for employment lack schooling as compared to the employed in 2003. On the basis of the descriptive statistics the share of lower education categories is slightly higher for the employed compared to the non-searching unemployed. 35.57 percent of the employed have no secondary schooling at all whereas amongst the non-searching unemployed 34.74 percent have not proceeded to secondary school. A considerably smaller share of the

searching unemployed has not received secondary schooling (24.65 percent). These results suggest that the level of schooling achieved may be more important in influencing the income from employment, rather than whether an individual gets a job or not. Over 28 percent of the searching unemployed have completed secondary school education, compared to the 25.13 percent of the employed. However, whereas the bulk of the searching unemployed (40.81 percent) have some but incomplete secondary schooling, less than thirty percent of the employed have incomplete secondary schooling and a higher proportion have tertiary education compared to the searching unemployed.

Table 5: Educational qualifications of the employed and the unemployed, all races 2003

Education levels (%)	Employed	Searching	Non-searching
	0.061	0.033	0.0649
No schooling	(0.002)	(0.0022)	(0.0038)
	0.0017	0.0009	0.0034
Pre-primary	(0.0003)	(0.0003)	(0.0007)
	0.1465	0.1359	0.1908
Incomplete primary	(0.0032)	(0.0043)	(0.0055)
	0.0652	0.0767	0.0883
Complete primary	(0.0019)	(0.0032)	(0.0035)
	0.2934	0.4081	0.4223
Incomplete secondary	(0.0045)	(0.0059)	(0.0068)
	0.2513	0.2832	0.2026
Matric	(0.0042)	(0.006)	(0.0059)
	0.011	0.0061	0.0035
NTC	(0.0009)	(0.001)	(0.0009)
	0.0107	0.0055	0.0022
Diploma no matric	(0.0008)	(0.0009)	(0.0007)
	0.08755	0.0378	0.013
Diploma with matric	(0.0029)	(0.0025)	(0.0014)
	0.0456	0.0056	0.003
Degree	(0.0023)	(0.0009)	(0.0007)
	0.0196	0.0025	0.001
Postgraduate degree/diploma	(0.0015)	(0.0006)	(0.0005)
Other			
Other/Don't know			
	100.00	100.00	100.00

In 2003, the unemployment rates amongst people with some form of schooling (tertiary education excepted) were higher than the unemployment rate for people with no schooling. Table 6 indicates that 41.81 percent of the broadly unemployed with matric certificates could not find work in the South African economy. It would appear on the basis of descriptive statistics that tertiary education improved the chances of an individual finding

work. The data yet again reflect the close relationship between age and unemployment. For almost all educational categories, the unemployment rate declined as the age cohort increased. Only the unemployment rate for individuals with primary school education remained fairly static across age cohorts.

Table 6: Unemployment rates by highest education level achieved, 2003 (broad definition)

	Total	16-25	26-35	36-45	46-55	56-65
No schooling	36.31	77.79	52.18	36.73	32.16	22.91
Primary schooling	45.67	45.68	45.65	45.69	45.63	45.65
Incomplete secondary	50.85	75.11	53.02	34.03	26.14	17.44
Matric	41.81	65.32	40.23	19.86	12.37	8.11
Tertiary education	13.56	13.31	12.29	6.66	6.63	6.59

Whereas using 1995 data Borat and Leibbrandt (2001b:82) find that “completed secondary education is a key schooling attainment in terms of improved labour market opportunities”, Borat in comparing data from 1995 and 2002 concluded that over this time period the “largest percentage growth in unemployment is found amongst workers with a matric or a tertiary education. In these two categories, unemployment levels grew by 56 percent for the unemployed with a matric and by 139 percent for those with a tertiary qualification” (2004:957).

Data from the South African Chamber of Commerce indicates that a mere 5 percent of the matriculants in 2002 found employment in the formal sector (Macfarlane, 2004). Borat (2004) attributes the rising unemployment rate amongst the matriculants to the modest economic growth rates and poor labour absorptive capacity of the economy. While a deficiency of demand may be one possible explanation for this trend, the final section of this paper seeks to explore a number of possible reasons as to why a matric qualification does not seem to be a good predictor of finding employment.

Not only have economic growth rates in the past decade been mediocre⁴ but Borat (2004) also finds that the growth path of the economy has lead to a disproportional increase in

⁴ The South African economy achieved an average economic growth rate of approximately 3 percent per annum in the late 1990s and early 2000s. The average economic growth rate for emerging markets over the same time period was 6 percent per annum (National treasury, 2003).

demand for skilled and semiskilled relative to unskilled labour. Thus the high and growing unemployment rate among individuals with post-matric qualifications is 'a surprise and puzzling' (Bhorat, 2004:958). The final section of this paper reexamines the changes in the share of employment by skill levels between 1995 and 2003 across the main industries in South Africa. This re-estimation takes into account the important changes in the format of the National Household Surveys that make comparisons between the employment levels in 1995 and the early 2000s complicated. This paper probes whether the growth in the demand for skilled labour found by Bhorat (2004) may be largely the result of changes in the coding of workers across skills categories. If the rise in the share of skilled labour in employment can be attributed to data anomalies then the growing unemployment amongst graduates may not be all that surprising.

The high and growing rates of unemployment amongst matriculants and graduates are difficult to reconcile with the notion that unemployment in South Africa is attributable to poor human capital formation. However, given that the issue of youth unemployment is so closely related to that of educational attainment, it is difficult to separate the effect of education on the probability of finding employment from that of age using descriptive statistics. The next section of analysis explores the link between education and economic status in a multivariate context.

Employment probabilities – Multivariate analysis

A multinomial logit regression is used in order to estimate the probability of being unemployed or economically inactive rather than employed given the characteristics of the household and the individual.

From the descriptive statistics provided in the outset of the paper it is clear that there are age, race, gender and education aspects to the incidence of unemployment in South Africa. In addition location, both in terms of urban or rural settings or the province in which work is being sought may influence the probability of finding work. Consequently all four equations in the multivariate context include a set of dummy variables capturing gender, race and location effects. Of course the principal aim of the paper is to determine whether education significantly influences the labour market status of the individual. In two of the equations, dummy variables relating to the highest level of education achieved by the individual are

included. In equations 3 and 4, education is captured as a continuous variable measuring the number of years of education received by the individual.

Household income has a dual effect on the economic status of the individual. Firstly, household income could influence the decision to participate in the labour market. Secondly, it may affect the length of job search that participants may be able to afford and therefore the decision to accept work or not. It would be expected that individuals from poorer households would be forced to participate in the labour market. In addition they would presumably have fewer household resources to support lengthy job search and would therefore accept work more readily. Since including a variable for household income in a probability of finding employment equation would obviously introduce endogeneity concerns⁵, the effect of household income on participation and employment decisions is proxied by a variable that determines the number of other employed individuals in the household.

The access of the household to some form of social security may also influence both the participation and employment decision by affecting household income. Equations 2 and 4 include a dummy variable that indicates whether or not the household had received some form of social grant.

In order to avoid selection effects, the sample selected included all potential labour market participants i.e. the employed, broadly unemployed and the economically inactive. As a result a multinomial logit regression was specified with the employed as the comparison group. In other words, the regression estimates the probability of being unemployed or economically inactive rather than employed.

Since most analysts recognise that unemployment is predominantly involuntary in South Africa (Bhorat and Leibrandt, 2001; Kingdon and Knight, 2004) the results reflected in table 7 refer to the probability of being unemployed whether searching or not, rather than employed. That being said, regression estimations where only the searching are considered unemployed yield similar outcomes with respect to the direction of change and significance on variables in the model.

⁵ Household income may influence the individual's decision to work or not but the decision to work would obviously also affect the total household income earned.

Table 7: Probability of being unemployed in the South African labour market⁶

Broadly unemployed	Equation 1	Equation 2	Equation 3	Equation 4
Number of other workers in household	-0.0128 (0.025)	0.0192 (0.0284)	-0.0197 (0.0244)	0.0141 (0.0277)
Household access to social security		1.2452*** (0.0353)		1.2699*** (0.0352)
Age	-0.0222*** (0.0006)	-0.0302*** (0.0007)	-0.0257*** (0.0006)	-0.0336*** (0.0007)
African	1.7486*** (0.076)	1.5189*** (0.0766)	1.9524*** (0.0747)	1.7213*** (0.0753)
Coloured	1.156*** (0.1006)	0.917*** (0.1015)	1.3898*** (0.1007)	1.1528*** (0.1009)
Indian	0.6895*** (0.1271)	0.5533*** (0.1277)	0.8747*** (0.1281)	0.7269*** (0.1287)
Urban	-0.0567 (0.0415)	0.0500 (0.0401)	-0.0728* (0.0415)	0.0396 (0.0399)
Western Cape	-0.1879 (0.0803)	-0.2218*** (0.0782)	-0.1773** (0.0812)	-0.2111*** (0.0785)
Eastern Cape	0.2974*** (0.067)	0.1528*** (0.0641)	0.2738*** (0.0684)	0.1333** (0.0649)
Northern Cape	0.3006*** (0.0934)	0.1564* (0.1564)	0.282*** (0.095)	0.1371 (0.0882)
Free state	0.0388 (0.0632)	-0.0391 (0.0595)	0.0307 (0.0638)	-0.0475 (0.0598)
KwaZulu-Natal	0.1441*** (0.0605)	0.0587 (0.0577)	0.1306** (0.062)	0.0508 (0.0587)
Northwest	0.2129** (0.0708)	0.1617*** (0.0668)	0.1915*** (0.0715)	0.1458** (0.0673)
Mpumalanga	-0.0951 (0.0668)	-0.1869*** (0.0649)	-0.1125* (0.0674)	-0.2059*** (0.0653)
Northern	0.4395*** (0.0754)	0.315*** (0.0735)	0.347*** (0.0758)	0.2319*** (0.0735)
Years of education			-0.0113*** (0.0041)	0.0016 (0.0041)
No schooling	-0.217*** (0.0592)	-0.3019*** (0.0593)		
Incomplete secondary	0.2739*** (0.0317)	0.3068*** (0.0318)		
Matric	0.1287*** (0.0383)	0.1676*** (0.0389)		
NTC	-0.2647* (0.166)	-0.1805 (0.168)		
Diploma no matric	-0.7951*** (0.1621)	-0.6873*** (0.1636)		
Diploma with matric	-0.9961*** (0.0697)	-0.8756*** (0.0713)		
Degree	-1.703*** (0.1441)	-1.4881*** (0.1434)		
Postgraduate degree	-1.776*** (0.2299)	-1.5552*** (0.2282)		

⁶ The results of the multivariate analysis relating to the probability of being economically inactive rather than employed are contained in appendix 1 to the paper.

Table 7 continued: Probability of being unemployed in the South African labour market

Broadly unemployed	Equation 1	Equation 2	Equation 3	Equation 4
Male	-0.622*** (0.0264)	-0.5656*** (0.0266)	-0.593 (0.0259)	-0.5367*** 0.0262
Constant	-0.8648*** (0.101)	-0.8665*** (0.103)	-0.796 (0.1097)	-0.9019*** (0.1095)
Number of observations	98622	98622	98230	98230

*** Significant at the 1% level

** Significant at the 5% level

*Significant at the 10% level

The results of the multivariate analysis suggest that whereas the number of other employed individuals in the household does not significantly influence the decision of labour market participants as whether to accept work or not, household access to some form of social security significantly raises the probability of an individual being unemployed. It would seem that individuals in households that receive a social grant could be supported during job search for prolonged periods. As a result it is likely that these individuals may tend to be more selective regarding the work they will accept and hence are more likely to be unemployed.

The race variables yield predictable results. In all equations Africans, Coloured and Indian workers face a greater probability of being unemployed than their white counterparts.

The age variables as expected show an increased probability of employment as age increases. This result reflects the large number of youth who are unemployed⁷.

The results relating to gender support the descriptive statistics provided earlier in the paper. Men are significantly less likely to be unemployed than women.

⁷ The age of an individual has a significant effect on the probability of being unemployed, with younger cohorts more likely to be unemployed. Descriptive statistics provided earlier in the paper also indicated that the educational attainments of younger age cohorts are significantly higher than those of older cohorts. A strong relationship between age and schooling was therefore apparent. In order to be certain that the age effects were not dominating the probability of being unemployed and the results on the education variables; a regression was run restricting the sample to individuals between the ages of 16 and 25. Neither the signs nor significance on the variables in the model including the education splines, changed with the sample restricted to the youngest age cohort.

The effect of location on the probability of finding employment is mixed. The insignificant result on the urban variable would make it seem that being based in an urban as opposed to a rural area does not raise the probability of finding employment. As compared to an individual located in Gauteng, the chances of finding employment are worsened for labour market participants located in the Eastern and Northern Cape, the Northwest and Northern province. The results of three of the equations suggest that probability of finding employment is significantly improved for individuals based in the Western Cape.

The results of equation 3 suggest that labour market participants with more schooling, as measured by the number of years of education, are less likely to remain jobless. However, when household access to social grants is accounted for in equation 4, the number of years of schooling seems to raise the probability of remaining unemployed but the effect is not significant.

When categorical education variables are used in the regression analysis, the results support the relationship between education and unemployment established in the descriptive statistics provided earlier in the paper. The first two equations suggest that even after accounting for age effects, neither incomplete nor completed secondary school education improves the likelihood of an individual finding work in the South African labour market as compared to an individual who has only achieved some form of primary school education. More schooling may influence the earnings of the employed as the earnings function literature has established, but does not improve the probability of finding employment. Although other studies (see Borat, 2004) have indicated a substantial increase in the unemployment rate of graduates, in a multivariate context tertiary education nevertheless significantly improves the labour market opportunities of the individual.

Recall that Borat and Leibbrandt (2001a) using 1995 data found that “collectively, the education splines indicate that individuals with lower levels of education have less of a chance of getting a job than those with high-level, and specifically tertiary, education.” In 1995 it seemed as though secondary schooling significantly improved the likelihood of employment. Comparing these results to those generated using 2003 data in the current study, suggests that there has been a substantial change in the effect of education on the probability of finding work in the South African labour market between 1995 and 2003.

The following section of the paper explores the reasons why in the early 2000s secondary school education and in particular, the completion of secondary schooling does not enhance the probability of a labour market participant finding work.

4. Why is matric education not a good predictor of finding employment?

Four possible reasons as to why the attainment of a matric certificate does not improve the likelihood of finding employment are probed in the remainder of the paper. The signaling model proposes that most skills are acquired on the job and that education signals to employers that the individual is likely to acquire skills more readily. The first possible explanation considered is that a matric qualification may no longer be a good signal to the employer of the future productivity of potential employees. The second explanation probes the issue of whether despite the higher educational levels, the matriculants are less likely to have previous job experience and have therefore not had the opportunity to gain skills whilst working. A lack of work experience and skills rather than formal education may disadvantage the opportunities of new entrants to the labour market. A third possible explanation considered is whether individuals with Matric certificates have higher aspirations regarding the type of work that they are willing to undertake and the wage they are likely to earn. As a result they may be willing to remain unemployed for longer as they search the labour market for a job that they perceive to be commensurate with a Matric qualification. Finally it is difficult to make sense of the growing joblessness of people with completed secondary school and tertiary education in the context of studies that have found that “labour demand patterns reflect a growing demand for higher-skilled labour, and stagnant or declining demand for less skilled workers” (Bhorat and Leibbrandt, 2001: 123). A comparison of the share of employment across various skill categories and industries in 1995 and 2003 is undertaken with the view to assessing whether the reported growth in the relative demand for skilled labour is real or the result of comparability problems across household surveys and datasets.

Matric as an appropriate screening device

The signaling model outlines that employers have uncertain information regarding potential employees and education is a “sorting device, a device to help firms determine which

workers will be most productive on the job. Education can fulfill this role even in the extreme case in which it has no effect at all on the skills of any worker.” (Reynolds et al, 1998:108)

The screening model differs from the human capital model in that it assumes that formal education itself will not have a direct effect on the productivity of a worker – the skills learnt at school are of little consequence to the workplace. However, in selecting workers for the job the firm uses the amount and type of schooling workers have attained in order to predict how easily it will be to impart skills to the worker, how productive they will be after training and how long they are likely to remain with the firm after being trained. Schooling therefore conveys information to the prospective employer.

The work ethic of a potential employee can be inferred from the educational experiences of the worker. Those who disliked schooling intensely due to discipline will more than likely have similar experiences adjusting to the discipline of the workplace (Reynolds, 1998). Those that persevered with schooling are more likely to remain committed to a job for longer.

The improved access to education in the last decade in South Africa is evident in the growing proportion of labour market participants with completed secondary schooling. In 1995 less than 21 percent of the labour force had completed secondary schooling whereas by 2003 over 25 percent of the economically active have a matric certificate. However, if public perception deemed that the quality of a matric pass had deteriorated this could obviously reduce the informational value of this type of qualification to the prospective employer.

The record pass rate of 73 percent achieved in the matric examinations conducted in 2003 and mounting media reports⁸ that matric had become easier, prompted an investigation into the quality of the senior certificate examination. Research conducted by Umalusi, the quality assurer in general and further education and training bands of the National Qualifications Framework found that the perceived decline in the standard of the matric qualification could be attributed to the rising proportion of candidates opting for standard grade examinations combined with “declining levels of conceptual challenge in Standard Grade papers” (Umalusi, 2004). Fewer questions demanded higher order thinking skills like

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evaluation, synthesis, analysis and application (Grey and Mohlala, 2004). The study compared exam papers and marking procedures from the matric exams of 1992, 1999 and 2003. "In 2003 only 30 percent of candidates wrote higher grade exams, of which a mere 18.3 percent passed"(Grey and Mohlala, 2004b).

There is reason to believe that the growing number of standard grade matric qualifications that required less demonstration of the analytical skills of the candidate may have rendered this type of qualification less useful as a screening device that employers may use to distinguish the future productivity of the matriculant from his counterparts with lower levels of schooling and so account for the high and growing unemployment amongst matriculants.

The screening model proposes that the decision to hire an individual may be based solely on educational qualifications and a lack of skills will not deter the firm from hiring the worker, since most skills are acquired on the job. The head of the South African Chamber of Business' education and training committee argued that "we need to improve our quality of matric irrespective of whether it compares well with previous results. We are concerned that we are still getting learners who battle with basic numeracy and therefore are not adequately prepared for the world of work" (Grey and Mohlala, 2004). This statement seems to indicate that firms do, in part, rely on the skills developed at school to make further training easier and that a senior certificate no longer convinces employers of a candidate's ability to acquire new skills whilst on the job.

Skills versus education

If this type of educational qualification no longer conveys reliable information to the employer, firms may place increasing importance on the past job experiences of the worker – his 'track record' in order to judge the future productivity of the individual. It may be the case that firms in the economy are requiring prospective employees to have acquired skills whilst working in addition to or as opposed to a formal educational qualification such as a matric certificate.

Table 8: Mean age and proportion of the broadly unemployed with previous work experience by highest educational qualification achieved

Education qualification	Mean Age (years)	Proportion with previous work experience
No schooling	40.96	0.5138
Primary school	25.78	0.3771
Incomplete secondary	29.28	0.3465
Matric	27.21	0.2600
Tertiary	38.59	0.5256

The average age of the unemployed with some form of schooling be it primary, incomplete or complete secondary, is significantly lower than that of unemployed individuals with no schooling or tertiary education. The comparatively low mean age of matriculants might infer that a significant portion of these workers comprises new entrants to the labour market. Again the inability of the labour market to absorb new entrants needs to be underscored. It is evident that these new entrants are less likely to have previous work experience when compared to their counterparts with no schooling or tertiary education. Highlighting the case of those with completed secondary school, 74 percent of matriculants have never worked before. And so a vicious cycle emerges. These new entrants to the labour market may have formal educational qualifications but not the work experience that employers may require. Without employment, they will not gain the crucial experience and skills that will render them employable.

Education and Aspirations

Another argument put forward to explain high unemployment amongst the matriculants in South Africa is that schooling raises the aspirations of individuals. They may have higher expectations of the type of work that they will be prepared to do and the wage that they will accept. As a result they may be willing to prolong job search until a 'suitable job' is found. It is impossible to test whether the relatively more educated have higher reservation wages than individuals with lower levels of education directly, since more recent household surveys have not provided questions relating to the reservation wages of the unemployed.

However both the Labour Force Survey (LFS) and its predecessor, the October Household Survey (OHS), have asked individuals who have not worked in the seven days prior to the interview why this is the case. The question helps distinguish the economically inactive from

the unemployed. For example, individuals can respond that they are “too young or too old” or that they are students, thereby indicating that they are not part of the economically active population. But the question may also be useful in helping to identify why individuals who are economically active, are unemployed. Three possible responses are of particular interest. Individuals may indicate that they are not working are since they “lack relevant skills”, “cannot find any work” or that they “cannot find suitable work”. It is therefore possible to probe the idea that the more educated unemployed may have higher aspirations by looking at the reasons for not working offered by individuals in different educational categories. A response of ‘cannot find suitable work’ where suitability of work refers to the salary, location of work or conditions being unsatisfactory; may be consistent with the notion that that labour market participants have high aspirations of the type of work and remuneration they will accept.

Table 9: Reasons for not working of the broadly unemployed by highest education level achieved

	No Schooling	Primary Schooling	Incomplete Secondary	Matric	Tertiary
Lack relevant skills or qualifications	0.1099 (0.0122)	0.1364 (0.0056)	0.1039 (0.004)	0.0762 (0.0045)	0.0189 (0.006)
Cannot find any work	0.7606 (0.0161)	0.7503 (0.0071)	0.7575 (0.0056)	0.7776 (0.0071)	0.6336 (0.023)
Cannot find suitable work	0.0353 (0.0068)	0.0341 (0.0033)	0.0428 (0.0027)	0.0655 (0.0043)	0.2027 (0.02)
Other - contract, seasonal, recently retrenched	0.0942	0.0792	0.0958	0.0807	0.1448

It is apparent that the vast majority of individuals across all education levels attribute their joblessness to the inability to find any work. Among those with no schooling approximately 11 percent cite not having the appropriate skills as the reason for their not having worked in the past seven days. However, what is also notable in the table is that compared to individuals with primary schooling, a lower proportion of those with no schooling are indicating that they lack relevant skills or qualifications for available jobs. Based on the data in table 8, a considerably higher proportion of the unemployed with no schooling have previous work experience compared to their counterparts with primary schooling. As such a significant proportion of individuals with no formal education may have attained skills whilst working which they consider relevant to the labour market. As education levels rise relative to primary schooling, the proportion of individuals attributing their joblessness to a lack of

relevant skills declines so that less than 2 percent of graduates consider themselves unemployed for this reason.

It is also apparent that as the educational qualifications of the unemployed improve, so the proportion responding that they cannot find suitable work increases. Nevertheless it is a small proportion of unemployed graduates (approximately 20 percent) that cite the unsuitability of available work as a reason for their joblessness. Significantly fewer (6.55 percent) unemployed matriculants consider the work available to be unsuitable. Furthermore, fewer than 2.5 percent of unemployed matriculants and less than 3.5 percent of graduates had refused a job offer in the six months prior to being interviewed and less than 1 percent of both matriculants and graduates knew of available work requiring their skills but were unwilling to accept such work.

It is impossible to test the assertion that unemployed individuals with secondary and tertiary qualifications have unrealistic expectations of the wages they could command in the economy given the omission of reservation wage data in the recent national household surveys. However, if the perceptions of the unemployed as to why they remain jobless were to be relied upon then it would seem that the vast majority of individuals with formal educational qualifications could not find any work rather than rejected available work that did not 'suit' them. This finding appears peculiar in light of evidence that "output growth continues to be skills biased" (Bhorat, 2004:953).

The demand for skills

The final section of this paper reexamines the changing nature of employment by three broad skills categories at the main industry level between 1995 and 2003. Bhorat (2004) using data from the 1995 OHS and 2002 LFS revealed a 2 percentage point increase in the share of skilled and semi-skilled employment respectively and a 4 percentage point decline in employment in unskilled occupations for the economy as a whole. On a sectoral level, the largest shift in demand away from unskilled to relatively more skilled occupations occurred in the agricultural sector of the economy. The demand for semi-skilled labour in this sector increased by 34 percentage points while the proportion of unskilled labour dropped by the same margin. However, as pointed out earlier in the paper, changes in the format of the

national household surveys may present problems when comparing estimates of employment over time.

There are two problems generally with comparing the estimates of employment over time. The first is that the 1995 OHS does not prompt respondents on what constitutes work and therefore is more likely to capture self-employed individuals engaged in the informal sector as unemployed or economically inactive. Deliberate attempts to improve the survey resulted in the Labour Force surveys counting more own account workers in the informal sector as employed.

Casale, Muller and Posel (2004:985) have found that in the 1995 OHS “all subsistence farmers...seem to have been excluded altogether from the employment count and...were most likely to have been considered as inactive.” To further complicate the matter, in the Labour Force Surveys of 2002 and 2003, subsistence farmers⁹ have been captured but coded as skilled agricultural workers. Using the ILO convention, skilled agricultural workers are classified as semi-skilled workers. The inclusion of subsistence farmers in the employment count in 2002 and the coding of such workers as semi-skilled workers may explain why Borat (2004) finds a significant increase in the proportion of semi-skilled workers relative to unskilled workers in the agricultural sector between 1995 and 2002.

Given the difficulties in comparing employment levels across the 1995 October Household surveys and the latter Labour Force Surveys, when calculating the share of employment by skills categories, the current study excludes the self-employed in both the formal and informal sectors and subsistence farmers. In sum only those individuals working for someone else (employees) are considered. The removal of the self-employed assists in making the data more comparable across data sets but does not diminish the value of the analysis. After all, what is being studied is how the demand for labour has changed across the three skills categories. The paper is not concerned with the entrepreneurial or survivalist activity as the case may be, that has led to the creation of self-employment.

⁹ In 2003 there are approximately 283 000 subsistence farmers included in the skilled agriculture occupation group.

Table 10: Share of employment by three skills levels and main industry

	Year	Skilled	Semi-skilled	Unskilled
Agriculture	1995	0.0052	0.182	0.8125
	2003	0.0175	0.2443	0.7376
Mining and quarrying	1995	0.035	0.7697	0.1878
	2003	0.0477	0.8177	0.1344
Manufacturing	1995	0.0539	0.738	0.2035
	2003	0.0739	0.7476	0.1778
Utilities	1995	0.0564	0.7922	0.1344
	2003	0.1637	0.6823	0.1540
Construction	1995	0.0344	0.7337	0.2284
	2003	0.0361	0.7067	0.2549
Retail	1995	0.0657	0.7653	0.1655
	2003	0.0731	0.7412	0.1849
Transport and communication	1995	0.0631	0.8052	0.1252
	2003	0.1084	0.7431	0.1446
Finance	1995	0.1328	0.7965	0.0667
	2003	0.2012	0.6676	0.1302
Community services	1995	0.1313	0.7152	0.1475
	2003	0.1758	0.6856	0.1375
Private households	1995	-	0.1709	0.8291
	2003	-	0.0026	0.9974
Total	1995	0.0721	0.6518	0.2644
	2003	0.0939	0.5863	0.3177

Notes: Skilled labour refers to ISOC codes 1 and 2, semi-skilled labour refers to ISOC codes 3 –8 with subsistence farmers removed from the skilled agricultural worker occupation group and Unskilled refers to ISOC code 9.

In four sectors of the economy the share of unskilled employment decreased between 1995 and 2003. The 7 percentage point decline in the share of unskilled labour in the agricultural sector is reflected in a 1.5 percentage point increase in the demand for skilled labour and a 5.5 percentage point increase in the demand for semi-skilled labour. While it is clear that the demand for unskilled labour has declined relative to the more skilled occupations within the agricultural sector, the shift in demand for employees across skills categories has not been as substantial as estimated by Borat (2004).

The evidence garnered in table 11 also indicates a relative increase in the demand for unskilled employees in the remaining six sectors of the economy that contributes to the 5.3 percentage point increase in the share in employment for low skilled occupation groups for the economy as a whole. In addition to private households, the share of unskilled employment rose in the utilities, construction, retail, transport and financial services sectors. Furthermore with respect to four of these sectors (construction and private households excepted) there was a rise in the share of skilled labour relative to semi-skilled labour over

the period 1995 to 2003 and this pattern is reflected in the 6.5 percentage point fall in semi-skilled employment and 2.1 percentage point increase in the demand for skilled occupation groups for the economy as a whole.

These patterns of declining proportions of semi-skilled workers and higher shares of skilled and unskilled workers certainly support the results obtained in the multivariate analysis. If one assumes that labour market participants with partial or completed secondary schooling are more likely to seek work in semi-skilled occupations and those with less formal education are likely to seek elementary occupations then given the relative decline in demand for semi-skilled workers and rising demand for unskilled workers it is unsurprising that individuals with secondary schooling are less likely to find work than their counterparts with primary school education. In the multivariate analysis, tertiary education significantly enhances the probability of procuring work and this may be explained by the rising demand for skilled workers.

Claims that the educational qualifications of the unemployed need to be upgraded in order to improve their economic prospects, need careful evaluation in light of the unevenness of the employment growth across the skills categories. Two points in particular need to be made. The first is that such a suggestion would imply that individuals with secondary school education would have to be provided with post-matric education in order to improve the chances of finding work in the labour market. Beside the obvious feasibility issues, the second point worth considering is that it is not guaranteed that the overall growth in skilled employment would be sufficient to absorb the growing number of workers with tertiary education.

Adding to the evidence of the increasing importance of the services sector in South Africa (see National Treasury, 2003) the Department of labour (2004) indicated that between 2000 and 2003, the largest growth in employment had been in the business services (16.3 percent) and community services (13.6 percent) sectors. Based on the evidence provided in table 10, these sectors have also seen a relative increase in the share of skilled labour employed. The employment levels in the manufacturing sector of the economy rose by almost 4 percent over this period and the share of skilled labour in employment rose by 2 percent between 1995 and 2003 in this sector. Against this backdrop, table 11 illustrates the area of study of unemployed graduates.

It is evident that the largest proportion, almost 25 percent, of graduates have completed studies in commerce and management studies. Almost 23 percent of unemployed graduates have pursued studies related to education and training. Close to 11 percent have formal qualifications relevant to manufacturing, engineering and technology. Almost 12 percent of unemployed graduates have qualifications relating to the health and social services field. These statistics when compared to the growth in employment levels by sector and skills categories suggests that the increase in the demand for skilled labour in these sectors is not sufficient to absorb the number of new entrants with tertiary qualifications to the labour market rather than the qualifications of graduates being inappropriate.

Table 11: Area of study of broadly unemployed with tertiary education

Communication studies and language	0.0313
Education, training and development	0.2218
Manufacturing, engineering and technology	0.1095
Human and social studies	0.0556
Law, military science and security	0.065
Health sciences and social services	0.1171
Agriculture and nature conservation	0.0224
Culture and arts	0.032
Business, commerce and management studies	0.2489
Physical, mathematical, computer and life sciences	0.0729
Services	0.012
Physical planning and construction	0.0091
Don't know	0.0024
Total	1

5. Conclusions

Attributing a high proportion of the unemployment in this economy to the poor formation of human capital of the unemployed, policy makers in the post-apartheid era set about improving the supply-side characteristics of the labour force. The improvement in the access to education is reflected in the growing proportion of new entrants to the labour market having completed secondary schooling and yet the vast majority of these individuals do not find employment in the economy. As predicted by Standing et al (2000) the imparting of more education to future labour market participants and the unemployed did not result in dramatically reduced unemployment rates. Instead unemployment rates particularly amongst the relatively more educated youth continued to rise. It would seem that a number

of explanations could be put forward in an attempt to explain why the completion of secondary schooling does not enhance the labour market prospects of the individual.

Amongst these reasons is the notion that a perceived deterioration in the quality of a matric qualification may have rendered this type of education less useful to employers in judging the future productivity of a worker and so does not assist in distinguishing matriculants from workers with lower levels of schooling. In this context, the previous work experience and skills attained by individuals may represent a better device that employers may use to select more productive workers from others. In this regard, matriculants are less likely to have previous work experience and this may provide a second possible explanation for why they are more likely to remain unemployed. To the extent that a lack of experience creates a barrier to employment for individuals with formal educational qualifications, the current learnership programmes developed by the department of labour may provide a means of breaking a vicious cycle. These learnerships provide firms with tax incentives to hire and train unemployed individuals whilst on fixed term employment contracts.

A third reason explored in trying to explain the high unemployment rates amongst matriculants relates to the possibility that these relatively more educated individuals have higher (and probably unrealistic) aspirations regarding the type of work and wage they would accept. However, on the basis of limited available data this explanation is difficult to defend. The vast majority of these labour market participants have indicated that work is simply not available, with very a low proportion rejecting or refusing available work on the grounds that it is unsuitable. Poor labour market information to some extent may explain why well over 95 percent of individuals with completed secondary and tertiary education simply do not know of any available work. But at the same time it is difficult to dispel the nagging suspicion that the demand-side of the economy has not received sufficient attention.

The data may simply reflect that employment growth in South Africa has been inadequate to absorb the growing number of new entrants to the labour market despite these individuals having on average vastly better supply-side characteristics than their older counterparts in the labour force. Claims that the educational qualifications of the unemployed need further improvement are difficult to comprehend. Multivariate analysis suggests that at present tertiary education improves the labour market outcomes of individuals and yet the

unemployment rate amongst graduates has also risen dramatically (Bhorat, 2004). The majority of the unemployed with post-matric education have qualifications seemingly relevant to sectors where employment growth has taken place and where this growth has been skewed to high skilled occupation groups.

Taking into account disparities in the manner in which employment data was collected in 1995 and 2003, this paper provides evidence of an increase in the demand for skilled and unskilled labour and a decline in the share of semiskilled employment over this period. This unevenness in growth in employment may explain why individuals with completed schooling are less likely to find work in the economy as compared to workers with primary school education. At this point it is worth pointing out that “above all, one must bear in mind that the demand-side of the economy can also be changed to fit the supply side” (Standing et al 2000:119). The rate of labour absorption and the pattern of demand for labour can be altered through strategic government intervention. Creating demand for semi-skilled occupations may be one potential solution to the growing unemployment of individuals with completed secondary schooling.

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Appendix 1

Table 12: Probability of being economically inactive in the South African labour market				
Economically Inactive	Equation 1	Equation 2	Equation 3	Equation 4
No of other workers in household	0.1225*** (0.0243)	0.1807*** (0.0294)	0.1106*** (0.024)	0.1667*** (0.0292)
Access to social security		1.663*** (0.0357)		1.654*** (0.0357)
Age	-0.0484*** (0.0009)	-0.0575*** (0.0009)	-0.0492*** (0.001)	-0.0585*** (0.001)
African	-1.1103*** (0.0664)	-1.459*** (0.0679)	-0.8009*** (0.0566)	-1.153*** (0.0567)
Coloured	-1.287*** (0.0805)	-1.633*** (0.0824)	-0.9699*** (0.0717)	-1.323*** (0.0729)
Indian	-0.6158*** (0.1074)	-0.8835*** (0.1114)	-0.4142*** (0.0951)	-0.635*** (0.0986)
Urban	-0.0491 (0.4288)	0.0794** (0.0412)	-0.0139 (0.0437)	0.1167*** (0.0442)
Western Cape	-0.0149 (0.0716)	0.0712 (0.0724)	0.0107 (0.0684)	-0.0396 (0.0692)
Eastern Cape	0.6430*** (0.0687)	0.4303*** (0.066)	0.6132*** (0.0686)	0.4112*** (0.0658)
Northern Cape	0.2621** (0.0915)	0.0651 (0.085)	0.2351*** (0.0936)	0.0435 (0.0882)
Free state	0.0865 (0.0712)	-0.0171 (0.0674)	0.0573 (0.071)	-0.0424 (0.0672)
KwaZulu-Natal	0.3710*** (0.0646)	0.2481*** (0.0616)	0.3544*** (0.0635)	0.2378*** (0.0606)
Northwest	0.3323*** (0.0768)	0.2572*** (0.0714)	0.3083*** (0.0635)	0.2367*** (0.0712)
Mpumalanga	0.0683 (0.0719)	-0.061 (0.0681)	0.0292 (0.072)	-0.1005 (0.0682)
Northern	0.7747*** (0.0818)	0.5979*** (0.081)	0.7256*** (0.0805)	0.5669*** (0.0798)
Years of education			-0.2997*** (0.004)	-0.2856*** (0.004)
No schooling	1.093*** (0.0449)	0.9821*** (0.0431)		
Incomplete secondary	-0.950*** (0.027)	-0.9099*** (0.0287)		
Matric	-2.644*** (0.047)	-2.587*** (0.0495)		
NTC	-2.469*** (0.1728)	-2.359*** (0.1824)		
Diploma no matric	-2.601*** (0.1743)	-2.4721*** (0.1821)		
Diploma with matric	-3.643*** (0.0879)	-3.4883*** (0.0909)		
Degree	-3.532*** (0.118)	-3.3193*** (0.1237)		
Postgraduate degree	-3.593*** (0.1737)	-3.3821*** (0.1781)		
Male	-0.6462*** (0.023)	-0.5822*** (0.0234)	-0.6397 (0.0227)	-0.5749*** (0.0233)
Constant	3.956*** (0.0937)	3.882*** (0.097)	5.159 (0.0973)	5.0036*** (0.0988)

