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Education and Youth Unemploynet in South Africa

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I. Introduction

The problem of high youth unemployment is not unique to South Africa. In fact it is a global phenomenon. According to an ILO study in 2004, youth (15-24) make up nearly half (47%) of the world's unemployed, 88 million out of 186 million to be more precise. The gravity of this statistic is made clearer by noting that youth are only 25% of the world's working age population. Furthermore, of the world's 550 million working poor who cannot lift themselves above US $1 per day poverty measure, 150 million are youth. In addition, ILO estimates in 2004 were that by halving global youth unemployment, global GDP would rise by US $2.2 trillion which is 4% of the Global GDP of 2003. These statistics lend weight to the notion that youth unemployment is a problem worthy of attention. In addition, one may argue that addressing unemployment in general would also lower poverty levels and add to GDP. The challenge then is to justify a focus on youth and then to shed some insights into the nature of youth unemployment (World Bank 2006).

The unemployment problem in South Africa is not new. Standing *et al* (1996) report that unemployment rose sharply in the 1970s and that this rise continued through the 1980s and 1990s. The labour absorptive capacity[1] of the South African economy was above 90% in the 1960s, it fell to 15% in the 1970s and 1980s, it was negative between 1991 and 1993, and it rose again to 7% in 1995 (Standing *et al* 1996). Similar results were reported by Loots (1996) and Ligthelm and Kritzinger-Van Niekerk (1990). Another longstanding troublesome issue is that of unemployment duration. In the mid 1990s findings were that nearly two thirds of the unemployed had never worked for pay (Standing et al 1996). This feature of the unemployed has persisted. The 2005 Labour Force Survey indicates that 40 percent of unemployed individuals (by the strict definition) have unemployment durations exceeding three years, while 59% of the unemployed have never had a job at all. In sum, chronic unemployment is not a recent feature of the South African labour market. Instead, there has been a continuation of a negative trend of the economy struggling to beat unemployment.

Research focusing on youth unemployment issues is not new either. Studies of youth unemployment prior to the mid 1990s (see Everatt & Sisulu 1992, Truscott 1993 and Van Zyl Slabbert 1994 among others) mainly focused on two issues. Firstly, they have detailed the bleak circumstances of youth. Account is given of the role that youth played in the fight against apartheid and how this led to social disintegration. Pertinently for this paper, there is also discussion of the deficiency in education of these youths and its likely negative effect on their employment prospects. Indeed, given the political turbulence and consequent educational disruption of youth in the 1980s there were fears that this youth cohort would become a 'lost generation' (Riordan in Everatt & Sisulu 1992). Debates about how youth were and are equipped to cope in the labour market have not gone away. Second, this literature has focused on finding solutions to the huge problem of youth joblessness. There is discussion of training programmes and possible reasons for their failure as well as recommendations of public works programmes. We will return to reflections on policy in the conclusion to this paper.

Coincident with the arrival of the new democracy in South Africa was a great improvement in the availability and quality of national survey data. These data set the landscape of research into youth labour market participants and indeed labour market participants in general. The literature of the subsequent period (see Wittenberg & Pearce 1996, Mhone 2000, Bhorat & Oosthuizen 2000,

[1] The percentage of new entrants to the labour force that find a job in the formal sector of the economy.

Mlatsheni & Rospabe 2001) has made good use of the household surveys and the censuses to provide more detailed information on the characteristics of youth and the nature of their labour market participation and outcomes.

This paper seeks to make a contribution to the analysis of the youth unemployment problem in South Africa. In the next section (Section 2), we begin by using national survey data to profile the evolution of youth unemployment over the first decade of the new democracy in South Africa. This profile highlights a puzzle. It reveals that there are a large number of youth who leave school only to join the ranks of the unemployed. These youth often remain unemployed for a number of years. At the same time, the review indicates that complete secondary education and tertiary education are important in facilitating a move into employment; hence the puzzle as to why these youth do not at least complete secondary education. The paper hones in on this issue. Panel data holds the possibility of throwing a fresh perspective on this issue and we make use of a newly collected longitudinal youth data set, the Cape Area Panel Study (CAPS). In section 4 we describe these data and analyze transitions from school into the labour market in urban Cape Town. We then go on, in section 5, to interrogate the role of education in the duration of unemployment and the transition from unemployment to work. In Section 6 we draw some conclusions. In Section 3 we bridge between the analysis of national survey data and the analysis of Cape Town using a descriptive analysis of the 2001 Census data to show how the national youth unemployment situation compares in urban Cape Town situation.

II. A description of youth labour market participation and unemployment in South Africa

Participation trends

Youth participation rates have generally been higher in the 2000s than in the 1990s. According to the October Household Survey (OHS) data sets, in 1995 the participation rate of youth (using the official South African definition of youth of 15 – 35 years old) was 42%, using the official, strict definition of unemployment (requiring active job search). By 1999 this participation rate had increased to 46%. In the 2000s youth participation rates were fairly stable at 52% in 2002 (using the LFS data sets) and 50% in 2005. In terms of absolute numbers, slightly more non-participants and less unemployed were captured in 2005 than in 2002. From 1995 to 1999, the increase in the youth participation rate was mainly in the form of an increase in the numbers unemployed.

This 15-35 definition of youth is wide by international standards. The standard ILO definition of youth for labour market purposes has an upper bound of 24. Nevertheless, the 15-35 age range is relevant for South Africa as many young people remain in schooling or other studies for a relatively longer period by international standards. The reasons for this include having started schooling late and slow progression through the schooling system, which are in turn the results of well-documented socio-political factors (see Everatt & Sisulu 1992, Truscott 1993, Van Zyl Slabbert 1994, Anderson, Case & Lam 2001). The implication of the late schooling by many South African youths is that policies aimed at facilitating the transition from education to work need to be cognisant of the extended age of school participation.

Nonetheless, Figure 1 highlights a major weakness of the use of such a wide age range; namely, it treats this group as homogenous. Yet labour market participation differs markedly for different cohorts. For example, the participation rates of 15-19 year-olds (many of whom would still be

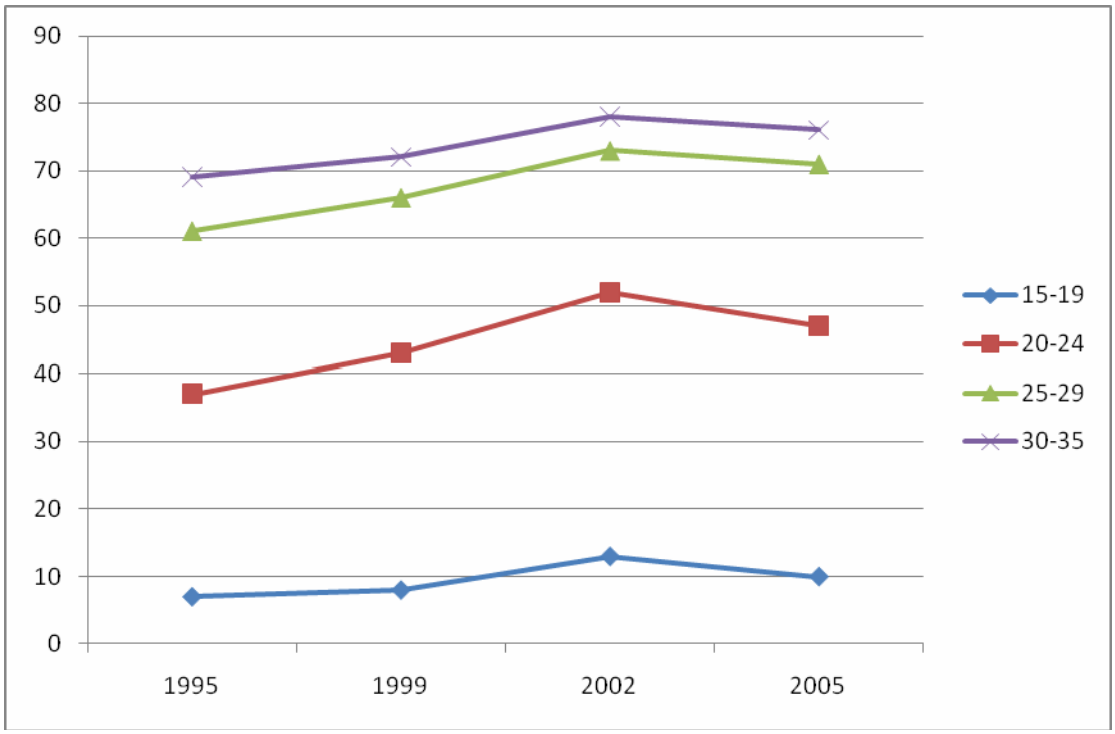
engaged in studies) for the period 1995 to 2005 are far below those of other groups. Furthermore, it is also evident from the figure that participation rates increase with age. It would seem that the only groups that are similar in terms of labour market participation are the 25-29 and 30-35 year-olds. It is therefore important, for the purposes of labour market analysis, to divide youth into cohorts. The more important cohorts for the purposes of analysis of school to work transitions are the younger 15-19 and 20-24 cohorts. Such cohorts are also useful in providing the national context for our later analysis of the youth in Cape Town and the focus of this paper will be mainly on these cohorts.

Clearly in the South African context, race is an important differentiating factor in labour market behavior and outcomes. Figure 2 indicates that African youth 15-19 have the lowest participation rates while Coloured youth in this cohort have the highest. Low participation rates amongst this cohort are not necessarily a bad sign as many of these youth are still at school. Conversely the relatively high proportion of Coloured youth participating over the decade is cause for concern as this indicates early exit from studies in an environment of mass unemployment. Among the older 20-24 cohort (Figure 3) Africans again display lower participation rates than the other population groups although their participation rates together with those of Coloureds have generally increased over the period. The trend in White and Indian participation rates is less clear. It seems that participation rates initially increased for white youth in the 1990s and declined in the 2000s. Africans make up by far the largest number of labour market participants. Given an increase of 16 percentage points in African participation (looking at 1995 and 2005), it is clear that the increase in overall labour market participation for this cohort over this decade has been driven by the African race group.

Participation differences by gender are also evident. Non-participants are fairly evenly split by gender with only a slightly higher proportion of them being women. In 1995, 53% of non-participating youth 15-24 were women and this proportion has remained fairly stable through to 2005 where 51% of non-participants were women. In keeping with the above analysis, the participation patterns of youth 15-19 and 20-24 are treated separately. Figure 4 and Figure 5 indicate that within-gender participation rates are higher among males throughout the decade 1995 to 2005. In addition, the data indicates that participation rates increased up until 2002 and decreased thereafter.

Unemployment trends

In the mid 1990s youth unemployment, even by the strict ILO definition, was already significantly high at 24% for youth 15-35 compared to 9% for non-youth 36-65. By 1999 the youth unemployment rate (15-35) had risen to 31% (from 24% in 1995), using the strict definition of unemployment, while the non-youth unemployment rate had risen to 13% from 9% in 1995. The relatively high youth unemployment rate compared to that of non-youth is not unique to South Africa. Indeed, globally it is common to find youth unemployment rates that are approximately double those of the non-youth labour force. Furthermore, that 75% of the unemployed were youth highlights the disproportionate impact of unemployment on youth. Youth (15-35) as a share of the unemployed have remained around three quarters up until 2005 where the share was 77%. The 2004 ILO global estimate of 47% for youth as a proportion of the unemployed is based on the 15-24 definition (ILO 2004), South Africa compares favourably when using this definition with youth 15-24 making up 32% of the unemployed in 2005. Figure 6 indicates that the general trend has been one of rising unemployment from the mid 1990s to 2002 and stabilization thereafter.



Source: OHS 95, OHS 99, LFS 2002, LFS2005

Figure 1: Youth labour market participation rates by age cohort

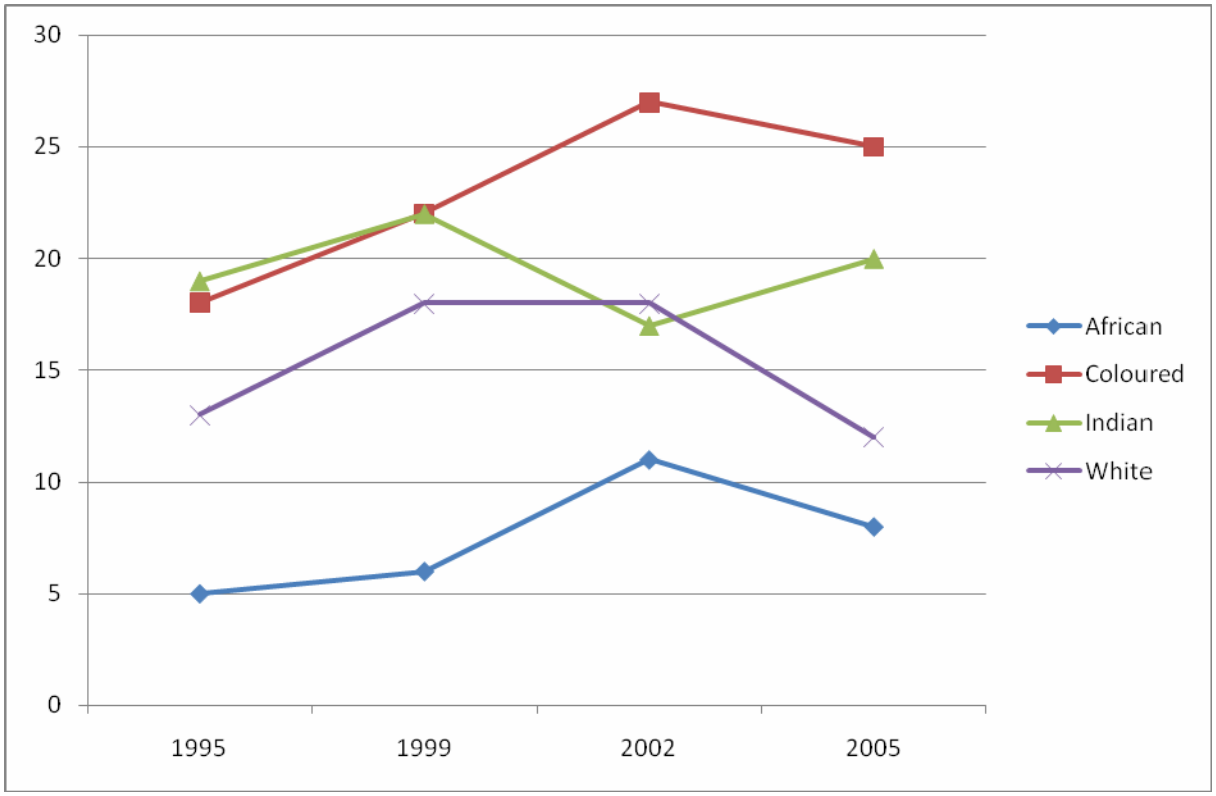


Figure 2: Youth labour market participation by race, age 15-19

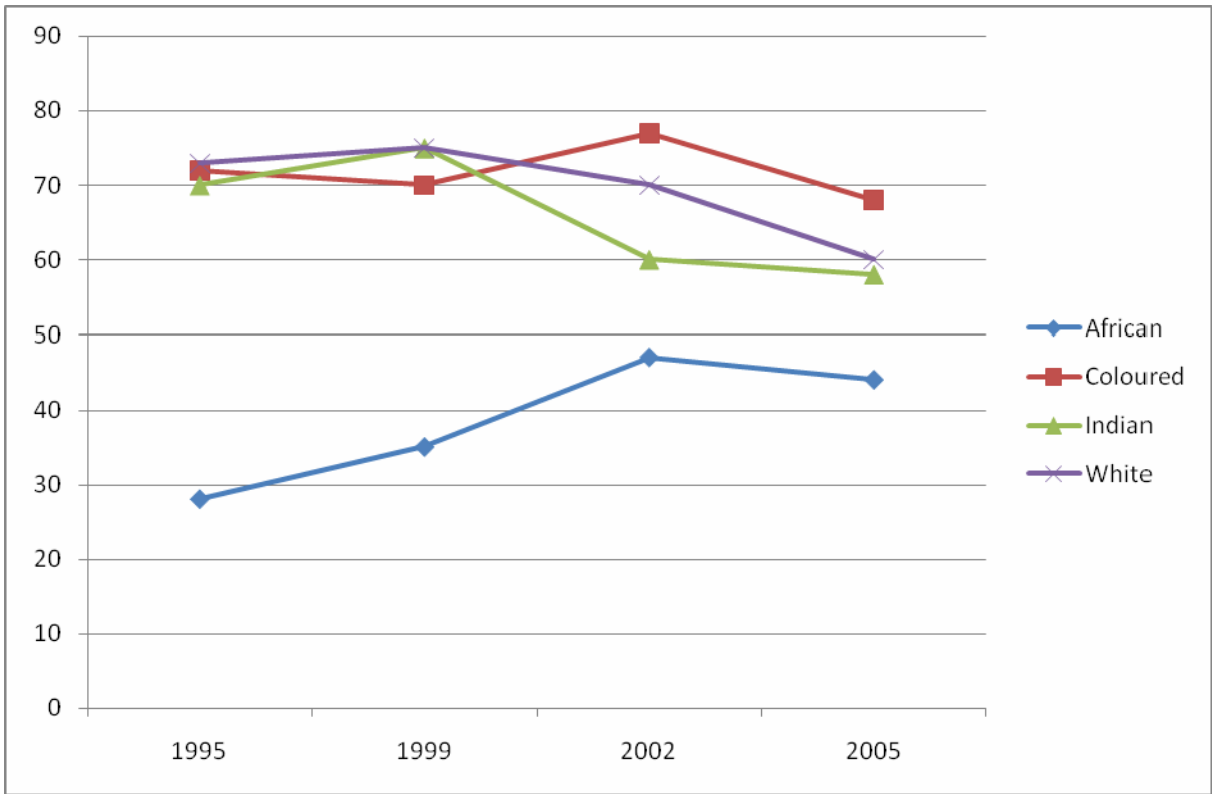


Figure 3: Youth labour market participation by race, age 20-24

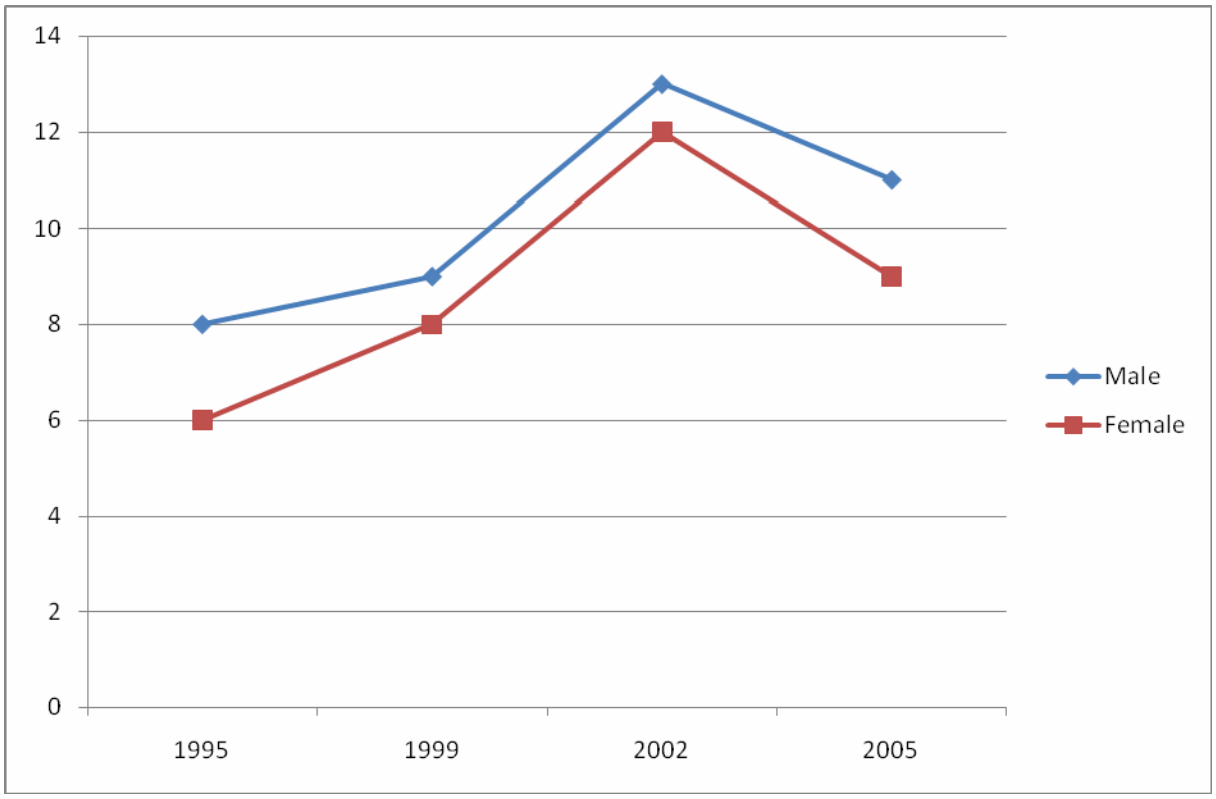


Figure 4: Youth labour market participation by gender, age 15-19

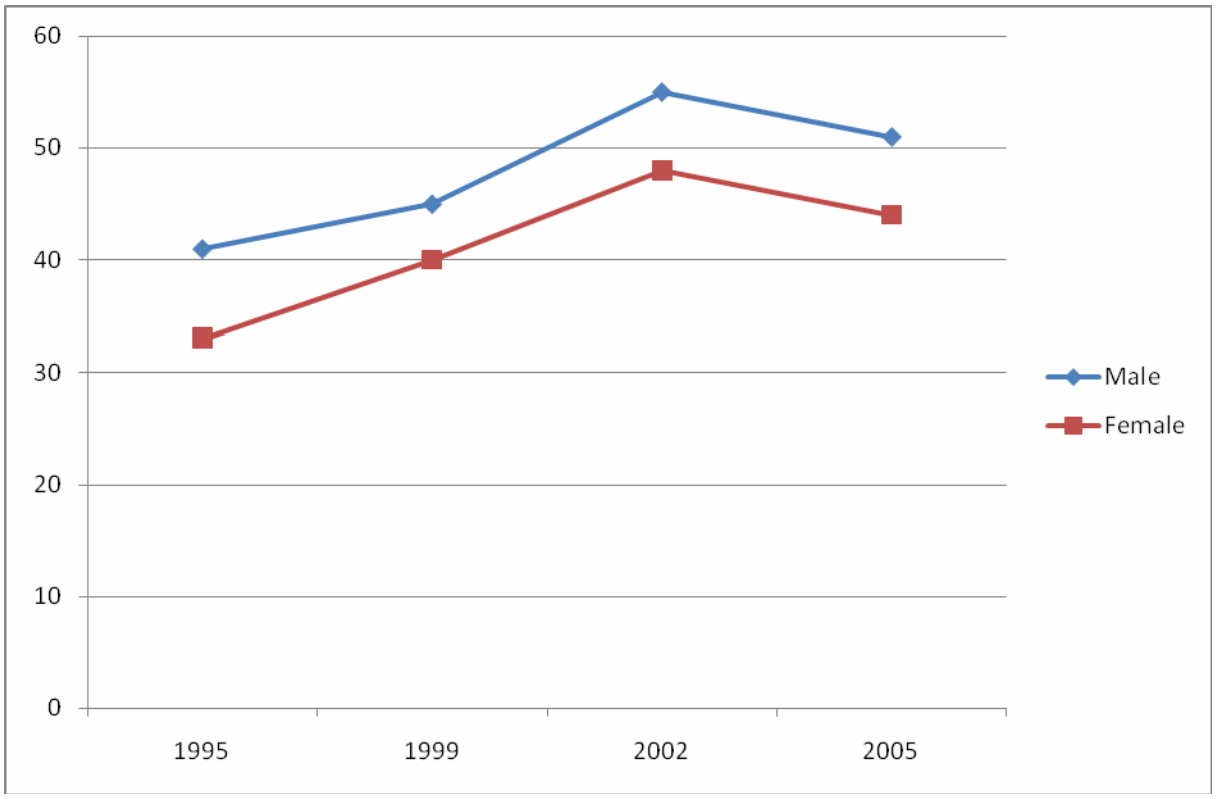


Figure 5: Youth labour market participation by race, age 15-19

However, it is difficult to get an accurate sense of the labour market outcomes of individuals this young as they are likely to be oscillating between labour market statuses and it is difficult to accurately classify them. Under these circumstances, the unemployment rate may not be the best measure to use. A better measure is the proportion of youth employed within each cohort. Figure 7 indicates that the proportion employed within cohorts has been fairly stable over time. However, when considering the proportion employed by race it is evident from Figure 8 that only African youth and to a lesser extent Coloured youth have experienced increased employment over time while the other population groups have shown general decline in proportions employed.

An analysis by gender of both the 15-19 and 20-24 cohorts indicates that higher proportions of men than women were employed throughout the period. For the younger cohort proportion employed increased until 2002 and declined thereafter (Figure 10) whereas for the older 20-24 group females experienced a decline in proportion employed from 1999 onwards while males showed a slight improvement post 2002 (Figure 11). Overall, men display higher participation and proportions employed and therefore lower unemployment rates but the patterns of movements of the genders are fairly similar over time.

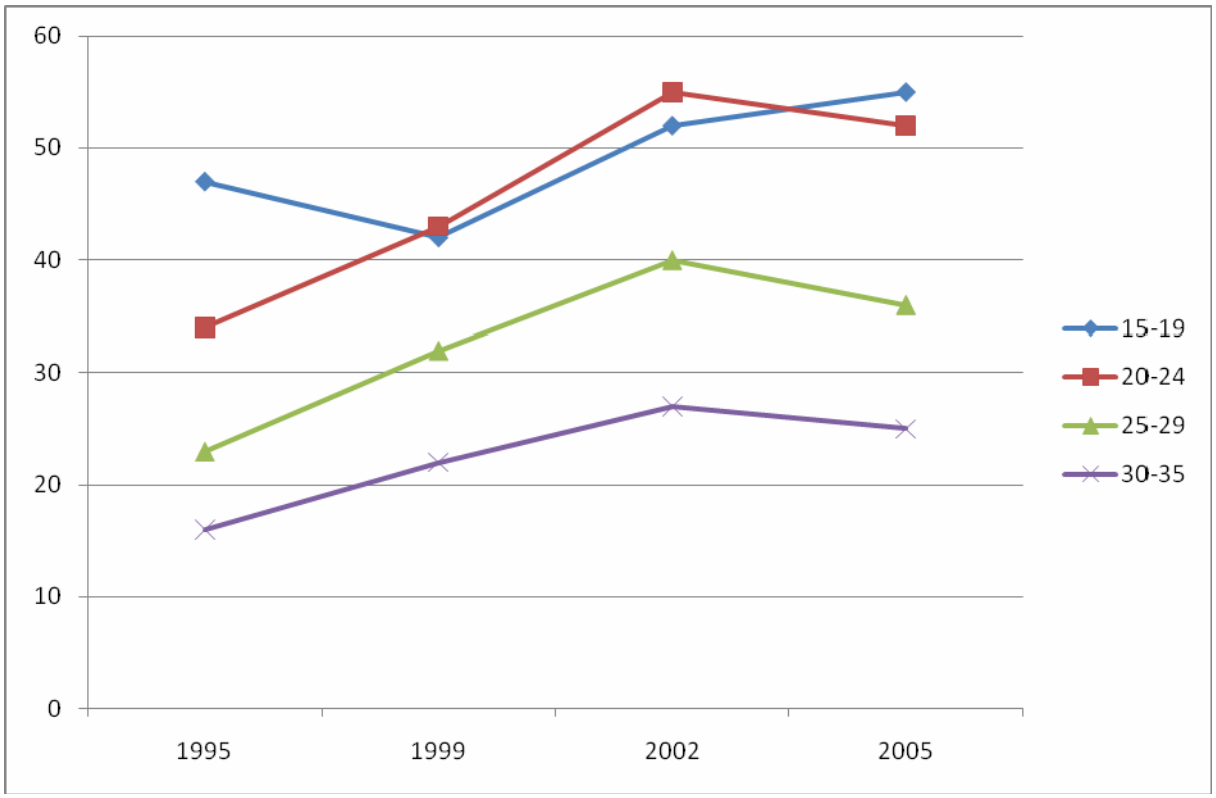


Figure 6: Youth unemployment rates by age cohort

The analysis thus far indicates that youth participation rates have risen and that unemployment rates have also risen while proportions employed have remained fairly stable. This suggests that youth employment has been outstripped by youth participation but that in the absence of this increased participation, the outcomes of youth would appear not to have deteriorated. Approaching this issue from a different angle, we track the labour market outcomes of the cohort that was 15-19 in 1995, shown in Figure 12. The expectation, based on the analysis above, is that as these individuals grow older their labour market participation will increase, the proportion employed within this cohort will increase and unemployment will decrease. The findings in Figure 12 concur with these expectations and it is evident that in terms of unemployment this cohort makes observable improvement only as they approach the 25-29 age range. It is also clear from Figure 12 that the cause of this unemployment pattern is the fact that the proportion participating has increased at a faster pace than the proportion employed. The only time participation increases at a slower rate than unemployment is the period 2002 to 2005 where unemployment also dropped.

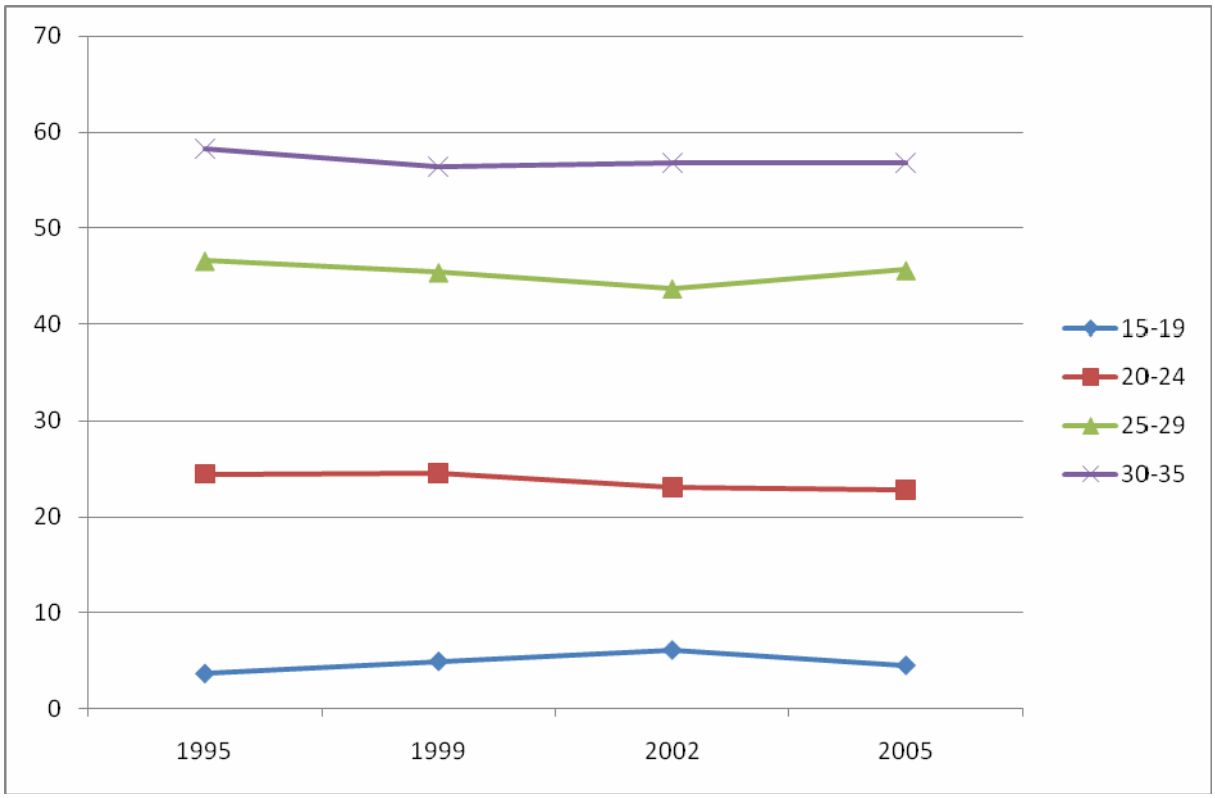


Figure 7: Proportion of youth employed within age cohorts

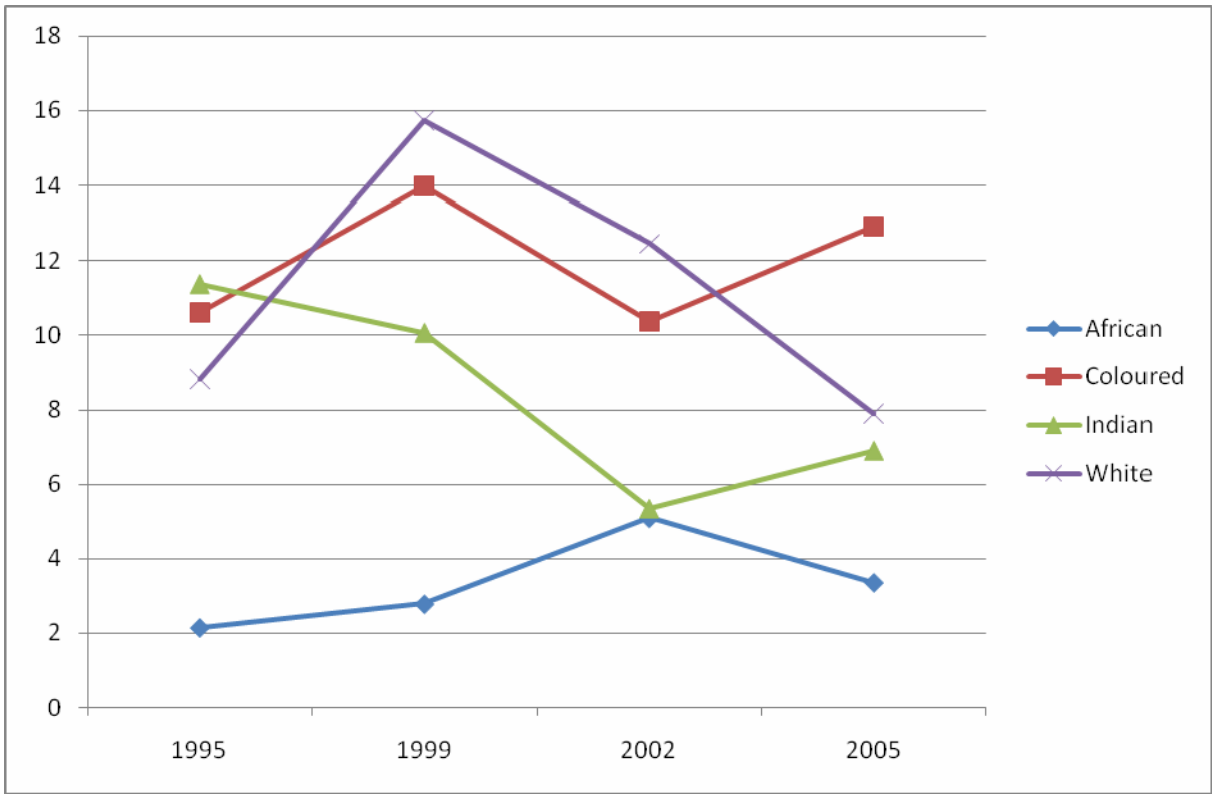


Figure 8: Proportion of youth employed by race, age 15-19

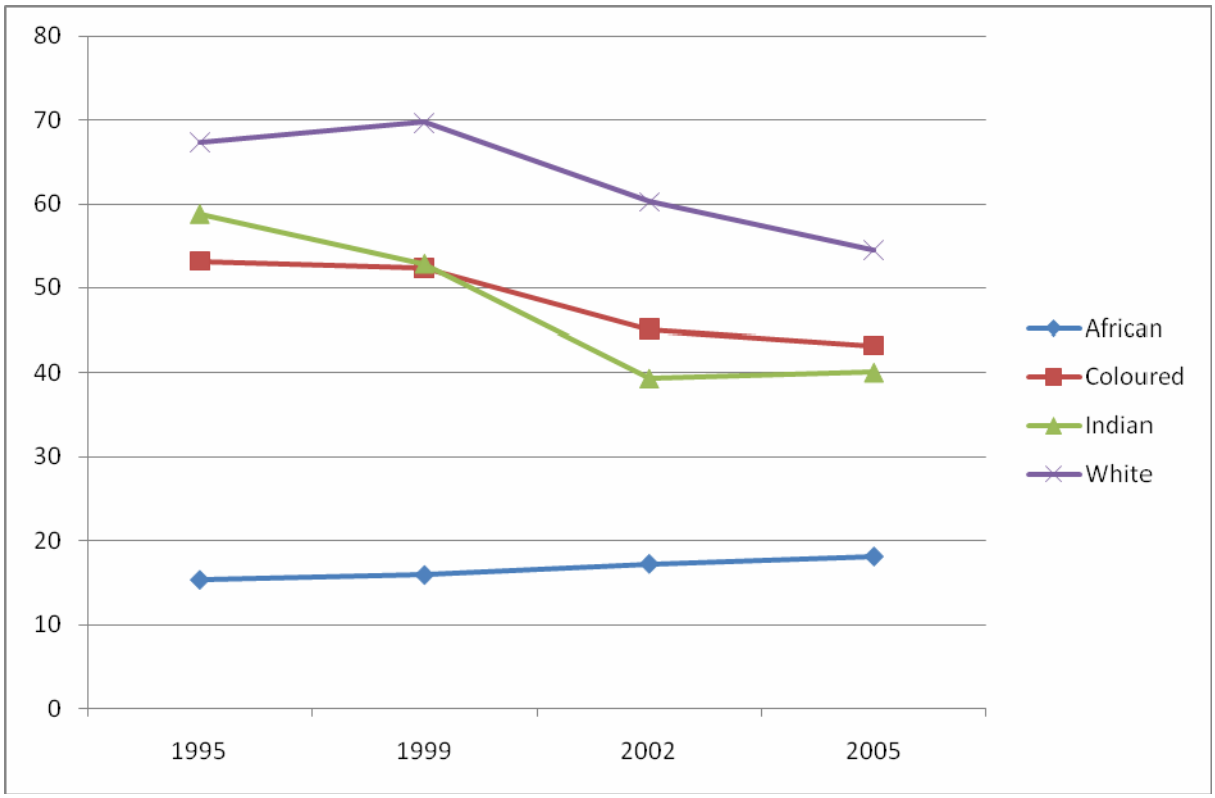


Figure 9: Proportion of youth employed by race, age 20-24

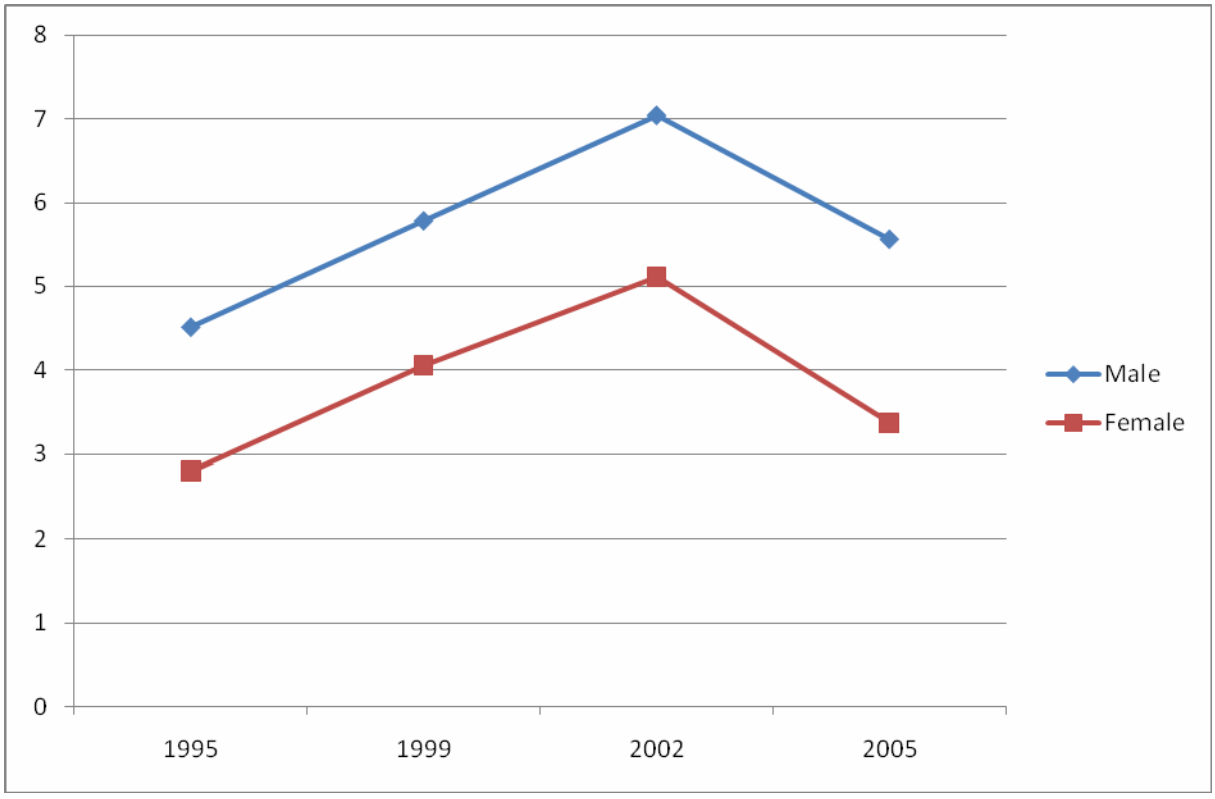


Figure 10: Proportion of youth employed by gender, age 15-1

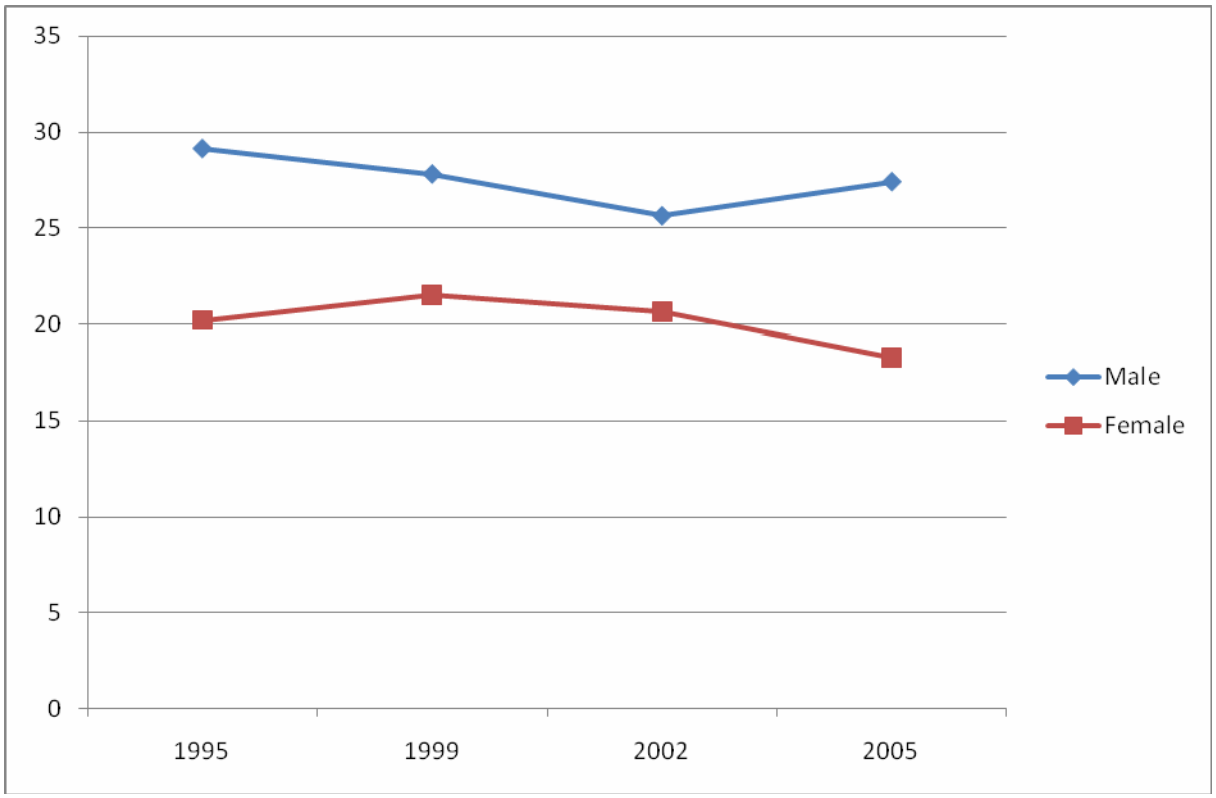


Figure 11: Proportion of youth employed by gender, age 20-24

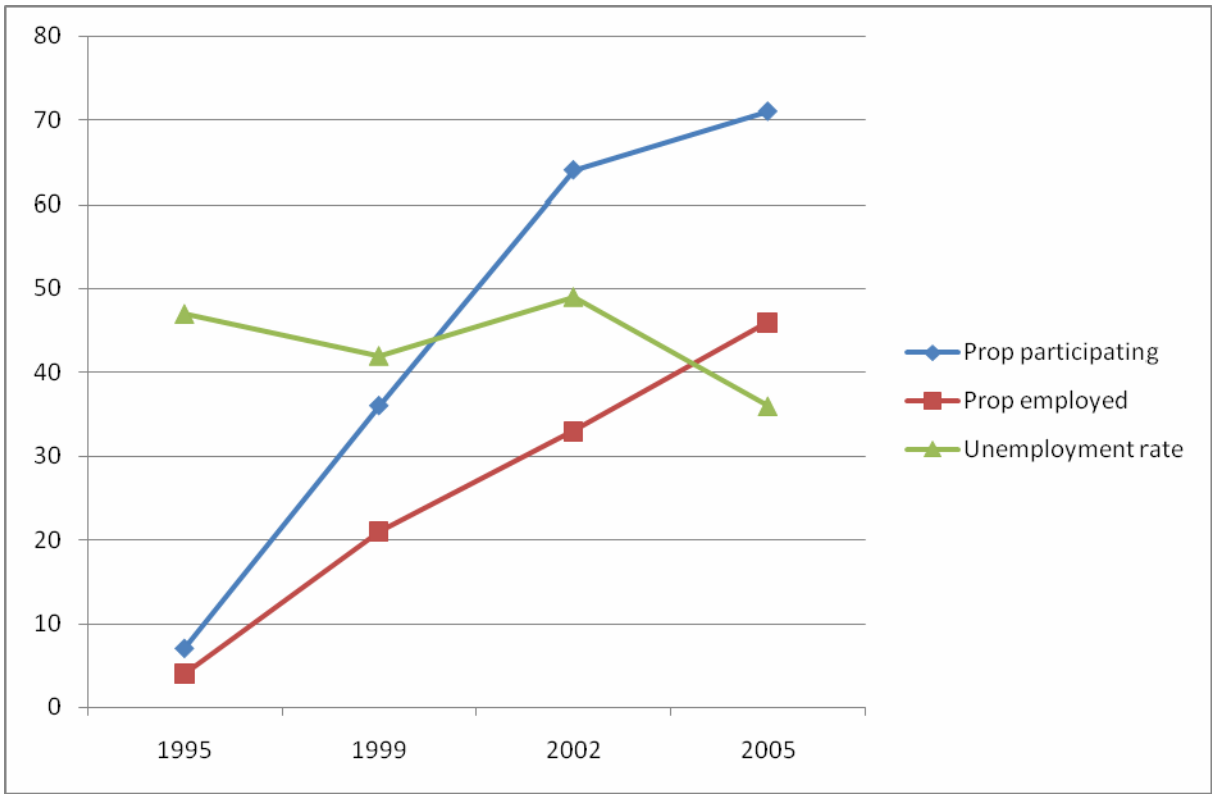
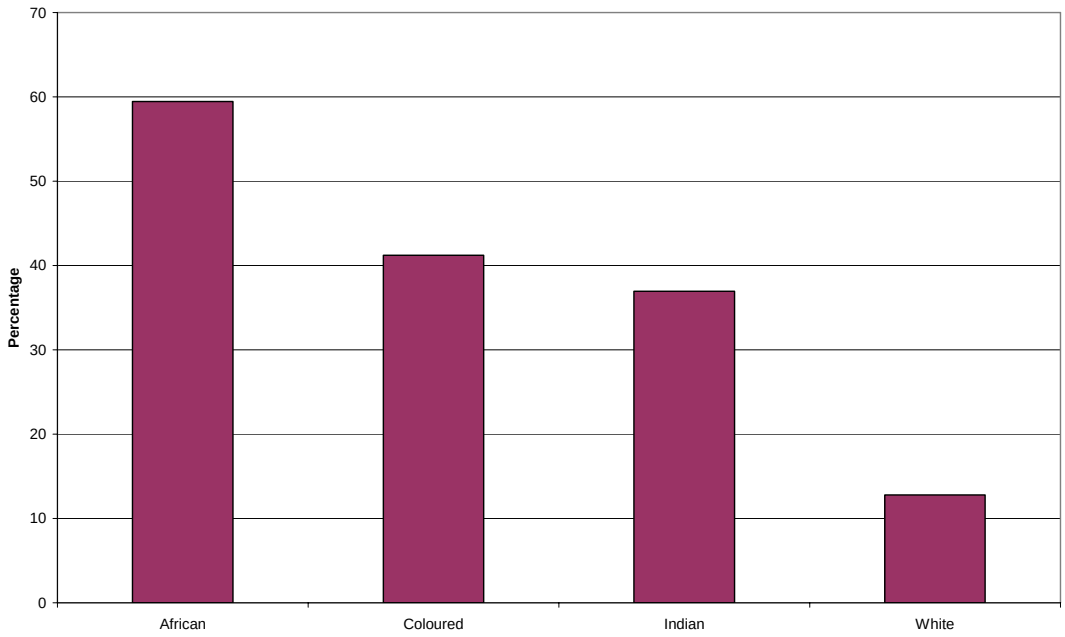


Figure 12: Labour market outcomes of the cohort that was 15-19 in 1995

The plight of unemployed youth

Youth who are neither employed nor involved in studies are in many senses the most vulnerable and marginalized group, in that they are not advancing in any way. They are not acquiring human capital in the form of studies nor are they gaining any on-the-job experience. This category of youth needs careful attention and targeted policy intervention as some of them have quit studies "prematurely" (and the mechanisms behind these decisions have to be understood) while the majority lack skills that would give them an edge in the labour market. Furthermore, youth who are idle in this manner mostly come from disadvantaged backgrounds. In a sense, intervention at this stage is tantamount to an exercise in damage control as the literature concurs that the greatest rewards to disadvantaged youth result from early and sustained interventions (Martin & Grubb 2001, Heckman & Lochner 2000, Garces et al. 2000).

African youth are the biggest group by far falling into this category. These youth face mass unemployment, where only the most educated youth fair relatively well in the labour market. In the absence of other constraints, it seems logical that among individuals from poor families, even the vaguely informed would choose to remain in studies until they acquire marketable qualifications. This point is strengthened by the fact that the costs of public schooling are low for these youth. However, the LFS (March 2005) data set reveals that 42% of African youth who are between 15 and 24 years of age stop studies and enter the labour market. What is troubling is that more than 60% of these youth have less than a matric qualification, while 33% have matric. Furthermore, as reflected in the table below, 59% of this group experience unemployment. It is a puzzle to understand why many of these youth quit school before they acquire matric. Given a 59% unemployment rate, there should be a strong case for further studies even for those that do have a matric certificate



Source: LFS March, 2005

Figure 13: Unemployment rate (strict definition) of non-studying youth, ages 15 -24

It is difficult to address this issue without detailed information on aptitude in studies. Above we alluded to the costs of school fees as a factor worthy of consideration and, more generally, resource constraints are the likely explanation for this outcome. Indeed, resource constraints are prolific in the developing country context and limit educational attainment on two fronts. First, many individuals wishing to pursue further studies simply cannot afford to do so. Second, even those individuals that are fortunate enough to obtain funding for further studies may opt for earlier entry into the labour market and thus a low pay, mediocre job in order to supplement family income, more especially when there are younger siblings in need of support (The World Bank 2006).

Furthermore, the influence of uncertainty in youth decision making should be recognised. Human capital theory assumes that individuals have perfect knowledge or foresight with respect to future earnings for every level of education. In reality though, youth are plagued by a great deal of uncertainty. This is especially true of those from less privileged backgrounds. Youth are uncertain about the value of their abilities and schooling as well as the timing of job offers and earnings after studies. In addition, they have no control over future labour demand and supply and they are uncertain about their longevity. Concerns about longevity are likely to be prominent in areas where illness, gangsterism and crime are rife (The World Bank 2006).

Recent statistics (LFS2005) reflect that 40% percent of unemployed individuals (by the strict definition) had unemployment durations exceeding three years, while 59% of them had never had a job at all. These findings are in accord with the earlier findings of Kingdon and Knight (2000) who found that in 1997, 37 percent of the *searching* unemployed experienced unemployment durations of more than three years. Things are even bleaker for the non-searching unemployed and the non-participants. Dinkelman (2004) examined the transition patterns between different labour market states of African cohorts living in KwaZulu-Natal between the periods 1993-1998 and found that fewer than 10 percent of those who were in this non-searching group in 1993 were employed in 1998.

The prevalence of long unemployment duration greatly reduces the opportunity costs of staying in school. Add to this the low direct costs of secondary schooling and, at first glance, a number of the resource constraint explanations that are raised in the developing country literature would seem to be less persuasive for South African youth. That said, Lam *et* al (2007) show that the schooling milieu for poor South Africans is also far from ideal. Thus, the returns to remaining in school are also uncertain.

The relationship between education and employment

Regression analysis using the Labour Force Surveys confirms that generally the higher the level of educational attainment of youth, the better their probabilities of finding employment, although the strongest effects are observed post matric (Matsheni & Rospabe 2002). This section aims to clarify these findings using a descriptive analysis. As the discussion below reveals, even youth who have completed secondary schooling do not fare well in terms of finding employment. Moreover, many youth with tertiary qualifications experience unemployment. These findings suggest that there is either a problem with youth work-readiness upon qualifying or with employer perceptions of youth work-readiness and that close attention needs to be paid to education and training policies in order to address this problem. The rate of completion of secondary schooling is a cause for concern, so are the grades achieved in matric and also the poor performance of Further Education and Training (FET) college graduates in terms of finding employment.

As an indication of the relationship between levels of education and employment, Table 1 displays the composition of the labour force by level of education for youth and non-youth who are not engaged in any form of studies. These statistics provide a rough guide of the employment prospects youth are likely to face depending on their education levels, holding other factors constant. It is quite apparent from Table 1 that within each education level a higher proportion of youth versus non-youth are unemployed. Furthermore, close to half of youth within a lot of the education categories are unemployed. For example, more than half of the youth that have incomplete secondary schooling qualification are unemployed compared to less than a third of non-youth with the same qualification. The finding that a higher proportion of youth compared to non-youth are unemployed within each education level supports the notion of a job queue espoused by Standing et al (1996) especially if one considers that youth with the same years of education as non-youth are thought to be better educated and more adaptable to current times than their non-youth counterparts. Possibly the nature of the labour market is such that most of the employed non-youth have held that employment for most of their working lives.

Furthermore, the incidence of unemployment generally decreases as education levels increase. However, the unemployment rate for youth with matric is not at all impressive with more than half of them unemployed. It is interesting that individuals who have not completed matric but who have a diploma or certificate instead seem to fare better in the job market, perhaps an indication of the value of a specialised certificate in the job market. Individuals with degrees and higher levels of education have the lowest unemployment rate. However, with around 95% of the unemployed (both youth and non-youth) having grade 12 qualifications at the most, the scope for increasing the skills levels of the labour force is huge. Nevertheless, regression analysis corroborates the descriptive statistics findings in that the probability of employment increases with education levels and the effect is strongest for post matric qualifications. (Malstsheni & Rospabe).

In addition, Table 1 also reflects the shares of unemployed 15-24 youth across education levels. A striking feature of this table is that more than half of the unemployed youth (59%) have less than grade 12 qualifications. The group that experiences the highest rates of unemployment (Grade 8-11) is also overrepresented (46%) amongst the share of unemployed youth across education levels.

As mentioned above, youth are particularly likely to be in phases of transition between schooling and the labour market and back again. Indeed, many youth acquire labour market experience as part time workers while they are at school. We are not able to detail these transitions and multiple activities using national cross-sectional sample surveys. We need panel data to throw light on

these issues. South Africa does not have a national schooling and labour market panel data set. However, in section IV, we will make use a panel of youth in urban Cape Town. The first wave of this panel was conducted in 2002. Given this move from the national level to an analysis of only one of South Africa's cities, section III uses the 2001 census to situation Cape Town's youth unemployment in the national context.

Table 1: Unemployment rate and shares of unemployment by level of education, non-studying youth and older labour force participants (Strict definition of unemployment)

	Age 15-24		Age 25-65	
Level of education	Unemployment rates within levels of education	Shares of unemployment 15-24	Unemployment rates within levels of education	Shares of unemployment 25-65
None	41%	1%	16%	4%
Grade 0 – 7	47%	12%	22%	22%
Grade 8 – 11	58%	46%	29%	44%
Grade 12	52%	37%	21%	25%
NTC 1 – 3	51%	1%	11%	1%
Diploma/certificate with grade 11 or lower	49%	1%	12%	1%
Diploma/certificate with grade 12	38%	3%	10%	4%
Degree/higher	10%	0%	3%	1%
Total	53%	100%	21%	100%

Source: Labour Force Survey, March 2005

III. Youth unemployment in Cape Town in a national perspective

The 2001 census 10% micro-data set is the largest data set available to us. Because of its size it offers the possibility for taking a detailed look at the break down of labour force participation patterns of the youth by each year of age and by specific educational categories. We begin this section by illustrating this with some breakdowns at the national level. This analysis flows on directly from the end of the last section. Then, we go on to use this census data to bridge into our work using the Cape Area Panel Study (CAPS) by counterpoising the education and labour market activities of the youth in Cape Town to those in the rest of South Africa and also to other South African urban centres.

Tables 2 and 3 below show employment percentages for non-studying 20-24 year olds and 25-29 year olds broken down by gender. It can be seen from both tables that race, gender and education levels all play a role in the labour market outcomes of youth. Beginning with gender, a higher proportion of non-studying males than females are employed. Among the 25-29 cohort half the males are employed compared to under a third of the females, a finding which is in accord with the earlier analysis using the national Labour Force Surveys. Furthermore, the proportions employed are higher for the older 25-29 cohort, a feature that may be the result of having spent more time in the labour market than the 20-24 cohort.

In addition, the proportion employed differ markedly across races. Among the non-studying females in the 20-24 cohort for example, only 14 percent of Africans are working compared to 45% of Coloured females and 70% of White females. Similarly, among the 25-29 cohort 23% of African females are working, compared to 53% Coloured and 74% White females.

Analysis by education levels offers some interesting results in that these vary by race. For both African males and females in the 20-24 cohort it would seem that there is no clear difference in proportions employed among individuals having educational qualifications up to completed secondary schooling. However, a clear difference is observed for individuals with higher education qualifications. For Coloureds in the 20-24 cohort, in addition to the strong effect of having higher education, having completed secondary education does have an impact on proportions employed. This effect is even stronger among the 25-29 cohort. Whites have the best outcomes by education levels. To illustrate this point, among males a higher proportion of white males with complete secondary education are employed than males with higher education in other race groups, in both cohorts. This analysis reveals the importance of gender, race and education within the South African labour market. Furthermore, the fact that employment percentages are higher for all education levels in the 25-29 cohort shows that, even for those with matric and tertiary education, the returns seem to take a few years to come through.

Table 2: Percentage of 20-24 Year Olds Not in Education Who are Working By Years of Completed Education

Education	African	Coloured	Indian	White	Total
		Females			
No school	9%	25%	36%	30%	10%
Some prim	15%	41%	30%	33%	17%
Complete	14%	36%	16%	21%	17%
Some secondary	12%	38%	35%	47%	16%
Complete secondary	17%	55%	53%	73%	29%
Higher	32%	68%	67%	84%	51%
Total	14%	45%	51%	70%	22%
		Males			
No school	21%	44%	51%	38%	22%
Some prim	29%	48%	41%	47%	31%
Complete	29%	48%	59%	57%	32%
Some secondary	26%	49%	55%	69%	31%
Complete secondary	27%	60%	69%	81%	39%
Higher	37%	64%	76%	86%	56%
Total	27%	53%	66%	78%	34%

Source: 10% Microsample of the 2001 Census

Table 3: Percentage of 25-29 Year Olds Not in Education Who are Working By Years of Completed Education

Education	African	Coloured	Indian	White	Total
		Females			
No school	15%	28%	37%	31%	15%
Some prim	20%	41%	24%	41%	23%
Complete	21%	41%	22%	47%	23%
Some secondary	20%	45%	35%	50%	24%
Complete secondary	28%	69%	58%	76%	38%
Higher	47%	82%	78%	86%	61%
Total	23%	53%	56%	74%	31%
		Males			
No school	33%	55%	63%	41%	34%
Some prim	41%	60%	52%	55%	43%
Complete	43%	61%	49%	73%	45%
Some secondary	40%	61%	72%	78%	45%
Complete secondary	46%	77%	84%	90%	56%
Higher	60%	86%	89%	94%	74%
Total	43%	67%	81%	89%	50%

Source: 10% Microsample of the 2001 Census

By way of introducing the sections using the Cape Area Panel Study, we now turn our attention to a comparison of Cape Town and the rest of South Africa using the 2001 census. We restrict this comparison to the age ranges 14-22 years old because this coincides with the age ranges of the youth that were included in the first wave of CAPS. According to the 2001 census, Cape Town makes up just over 6 percent of South Africa's population and 11.3 percent of the urban population in the 14 to 22 age group.

Table 4 compares the population breakdown by race for this age cohort in Cape Town compared to the rest of South Africa. It shows that Africans make up the overwhelming majority (82%) of the South African population while the shares of Coloureds and Whites are almost equal. The composition of the Cape Town population is very different however. Almost half of the population of Cape Town comprises Coloureds while 35% is African and 14% is White. Comparison of Cape Town's racial composition with that of the rest of the urban areas indicates that Cape Town's unique history has resulted in something of a reshuffling of the African and Coloured race groups. The racial profile of the rest of urban South Africa is similar to the profile of the country as a whole but the shares of Africans and Whites are affected by the overrepresentation of Africans in rural areas.

Table 4: Population Percentages of Youth Aged 14-22, Cape Town versus the Rest of South Africa				
Population Group	**Cape Town**	**Rest of South Africa**		**Total South Africa**
		Urban	All	
Black African	35	74	85	82
Coloured	49	10	6	8
Indian or Asian	2	5	2	2
White	14	12	7	7
Total	100	100	100	100

Source: 10% Microsample of the 2001 Census

We go on to look at the education breakdown of 14-22 year old youth. Table 5 below shows that the education profile of Cape Town is very similar to that of the rest of urban South Africa with main difference being there is a lesser share of the Cape Town population with no schooling or some primary schooling and a slightly higher share with incomplete secondary and complete secondary schooling. The effects of including the rural areas of South Africa in the comparison is to increase the shares of the lower education groups.

Table 5: Levels of Education of 14-22 Year Olds, Cape Town and the Rest of South Africa			
Education Level	**Cape Town**	**Rest of South Africa**	
		All	**Urban**
No schooling	1.4%	4.0%	2.1%
Some primary	9.4%	17.1%	11.9%
Complete primary	9.5%	11.3%	9.5%
Some secondary	55.0%	51.7%	53.1%
Grade 12 / Std 10	21.5%	13.9%	20.2%
Higher	3.2%	2.0%	3.2%
Total	100%	100%	100%

Source: 10% Microsample of the 2001 Census

There is a problem with the picture from the above table in that many of the youth in this age range are still busy in school. Table 6 below shows the breakdown by share of the activities of these youth in Cape Town and the rest of South Africa. Also, the table shows the racial breakdown of the Cape Town figures. As the rest of the country is dominated by Africans the figures from the rest of the country are driven by Africans. In addition, the share breakdown of whites and coloureds in Cape Town is a lot like that of the whites and coloureds in the rest of South Africa. Therefore we do not report racial breakdowns for the rest of the country.

The table shows that the population group with highest proportion of youth engaged in studies is the White race (65%), followed by Africans (52%) and Coloureds (43%). This finding is in line

with the finding in the earlier part of the paper where Coloured labour market participation was found to be higher than other race groups. Also evident is the fact that a very small percentage of White youth are unemployed (4%) compared to African youth (28%) and Coloured youth (22%).

Table 6: Employment Status of 15-22 Youth in Cape Town and the Rest of South Africa

Employment Status	Cape Town				Rest of the Country	
	African	Coloured	White	Total	All	Urban
Employed	10%	23%	26%	19%	8%	10%
Unemployed	28%	22%	4%	21%	17%	21%
Scholar or student	52%	43%	65%	49%	59%	57%
Home-maker or housewife	1%	2%	1%	1%	1%	1%
Pensioner or retired	0%	0%	0%	0%	0%	0%
Unable to work	1%	1%	1%	1%	1%	1%
Seasonal worker not working	0%	1%	0%	1%	1%	1%
Does not choose to work	3%	4%	2%	3%	6%	5%
Could not find work	5%	5%	1%	4%	7%	5%
Total	100%	100%	100%	100%	100%	100%

Source: 10% Microsample of the the 2001 Census

Note: This table covers ages 15-22 because employment status is captured for those 15 years and older in the 2001 census.

The key points from this analysis are the following, while youth unemployment in Cape Town may be lower than in other parts of South Africa, it follows the same patterns. Most importantly. the role of education in a successful move into employment seems to be very similar in the urban Cape Town labour market as it is elsewhere in the country. Thus, there is real interest in what can be learnt from the school/labour market transitions and the unemployment/employment transitions of Cape Town's youth. It is to this that we now turn.

IV. Transitions between school and the labour market in the Cape Area Panel Study

While much can be learned from analysis of large cross-sectional data sets such as the Labour Force Survey and the census, these data sets provide only a limited picture of the experience of young people when they first enter the labour market. In this section we take advantage of recently collected longitudinal data, the Cape Area Panel Study (CAPS), to get a richer picture of the dynamics of transitions from school to work. Details about the design of CAPS, a collaborative project of the University of Cape Town and the University of Michigan, are available in Lam, Seekings, and Sparks (2006)[4]. Wave 1 of CAPS, which was collected in 2002, included 4,752 young people aged 14-22, living in 3,304 households. CAPS was designed as a stratified two-stage clustered sample with stratification on the predominant population group living in each sample cluster. Cape Town has three predominant population groups – coloured, African/Black, and white. The distribution of the Cape Town population in the 2001 census was 48% coloured, 32% African, and 19% white, with about 2% classified as Indian or other groups.[5] Given this distribution, CAPS oversampled areas classified as predominantly African and white in order to produce larger samples of African and white respondents than would be present in a simple random sample. Cape Town is the only major city in South Africa to have substantial numbers of white, coloured, and African residents, providing unique opportunities for the study of the changing nature of inequality after the abolition of apartheid.

Wave 1 of CAPS contains two major sources of data. First, the survey includes a household questionnaire, in which demographic data on the entire household is collected. Second, the survey includes a detailed young adult questionnaire, which collects data on schooling, employment, and fertility of household members between the ages of 14 and 22. It also includes a basic numeracy and literacy skills test administered to each youth respondent. The results of this test will be used in the analysis below. CAPS youth respondents were interviewed a second time in either 2002 or 2003, and were interviewed a third time in 2005. The Wave 1 and Wave 3 data will be the major focus of the analysis in this paper. Overall attrition between Wave 1 and Wave 3 was about 20%, with lower attrition among younger respondents and among the coloured sample, which has strong roots in Cape Town. The African attrition rate was about 25%, with most of the attrition resulting from migration back to the rural Eastern Cape province that is the main sending region for Africans living in Cape Town.

A major focus of this section is the comparison of transitions from school to work for African, coloured, and white youths. These three population groups were subject to very different treatment under apartheid. Many of these apartheid-era differences are likely to continue affecting young people in the post-apartheid period. Whites had advantages in a wide range of areas, including significantly higher expenditures on schooling, privileged access to the labour market, unrestricted residential mobility, and better access to most social services. Africans had the least access to services and the most restrictions on work and migration, with a large gap in expenditures on schooling. The coloured population, which is heavily concentrated in Cape Town, occupied an intermediate status under apartheid, with higher expenditures on schooling, fewer restrictions on residential mobility, and better access to jobs.

[4] Technical documentation and background information is available on the CAPS web site, www.caps.uct.ac.za.

[5] As in most South African household surveys, CAPS response rates were high in African and coloured areas and low in white areas. Household response rates were 89% in African areas, 83% in coloured areas, and 46% in white areas. Young adult response rates, conditional on participation of the household, were quite high, even in white areas. Given household participation, response rates for young adults were 93% in African areas, 88% in coloured areas, and 86% in white areas (Lam, Seekings, and Sparks 2006).

Patterns of schooling and work

This section provides an overview of some key patterns in school enrolment, grade attainment, and labour force activity that form the backdrop for understanding transitions from school to work. Figure 14 shows three important indicators of schooling at each age from 6 to 20 based on the retrospective reports of the CAPS respondents who were age 20-22 in 2002. The results are broken down by gender and population group. The top panel shows the proportion of respondents who were enrolled in school or post-school educational institution at each age. There are several important features about the age profile of school enrolment. The first is that enrolment rates are high; enrolment rates for all groups are close to or above 90% for all ages between 9 and 15. A second important feature is that female enrolment rates are slightly higher than male enrolment rates for all three population groups until around age 18. The figure shows that Africans lag behind in starting school, with similar patterns for males and females. Only 80% of Africans were in school at age 8, compared to 99% for coloured and white 8-year-olds. Above age 9 Africans have enrolment rates of 95% to 99%, similar to those of coloured and white youth. Another important feature of the figure is the fact that Coloured enrolment rates begin to fall above age 15, with Africans having higher enrolment rates than Coloured youth at all ages above 15.

The second panel of Figure 14 shows the number of grades completed at each age for our 20-22 year-old Wave 1 respondents. The figure shows that white males and females advance almost one grade of school per year on average, reaching a mean of about 8 grades completed by age 14. Although coloured youth start school at a similar age as whites, and have almost identical enrolment rates, they lag behind white youth in grade advancement from an early age. By age 14 coloured females were about 0.5 grades behind white females, with a similar gap between white males and coloured males. Africans start school later and their age profile of grade advancement has a lower slope. By age 14 African females had completed 6.4 grades and African males had completed 5.8 grades. The gap between African males and white males was already two full grades by age 14. Because of the high enrolment rates for Africans in the late teens, African grade attainment almost catches up with coloured grade attainment by age 20. The second panel of Figure 1 also shows a female advantage in grade attainment in all three groups. As pointed out by Anderson, Case, and Lam (2001), girls move through school faster than boys in South Africa, with female schooling exceeding male schooling by about one full grade among recent cohorts of Africans who have finished schooling.

One of the valuable features of the CAPS data is that it provides direct measures of grade repetition. For each grade of schooling respondents were asked whether they passed the grade, failed the grade, or dropped out before completing the grade. The bottom panel of Figure 1 shows the cumulative number of grades failed at each age, as reported by our respondents age 20-22. Coloured and African students both fail grades at a much higher rate that whites, with higher failure rates for males. African and coloured males have failed an average of one grade by age 17. Taken together, the three panels in Figure 1 document a school environment characterized by almost universal primary education, high enrolment rates up to at least age 16, with grade repetition playing a large role in explaining the racial gap in schooling. Africans have particularly high rates of grade repetition, combined with high enrolment rates into the late teenage years.

Figure 14.
Schooling experience from retrospective histories,
CAPS respondents age 21-22, 2002

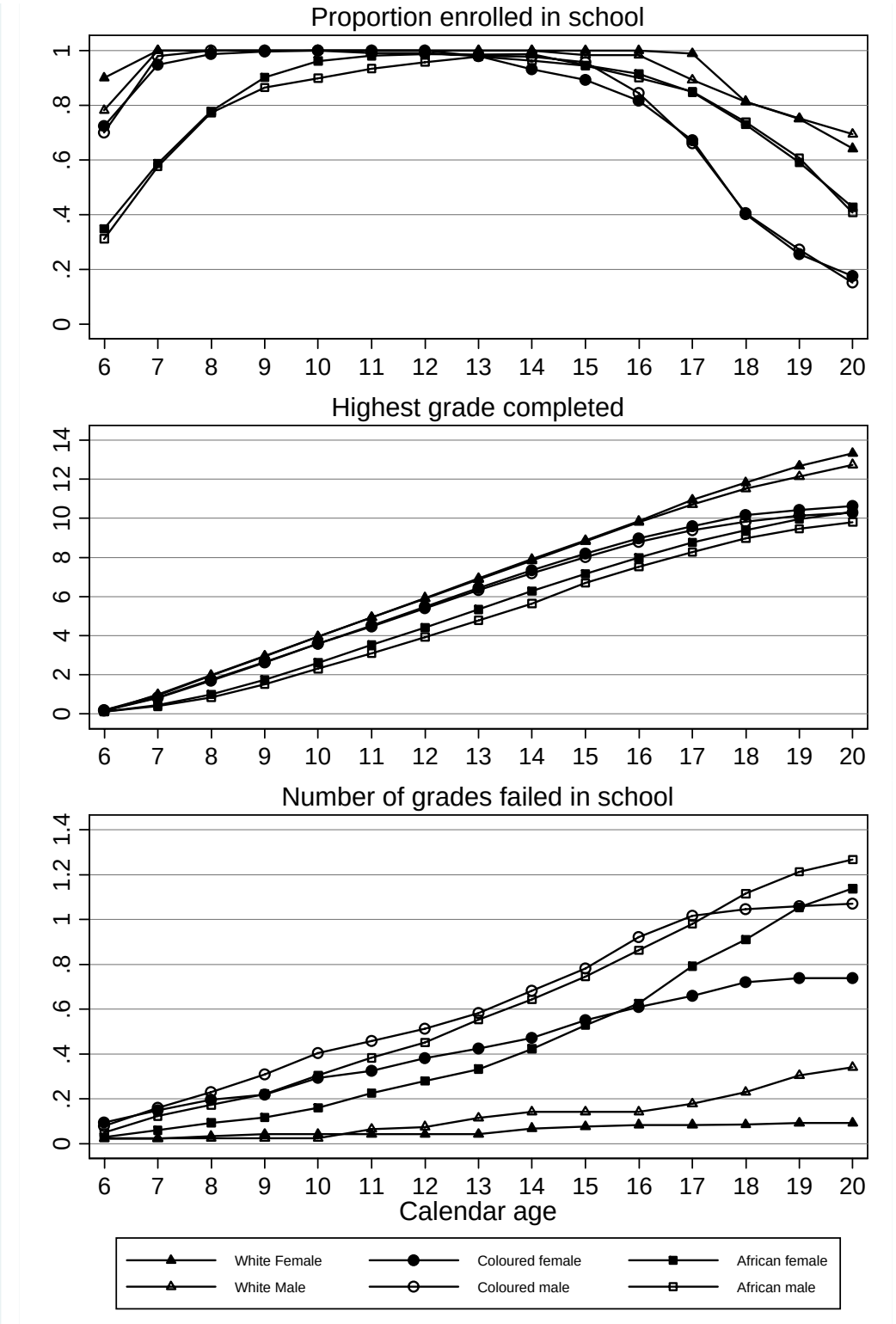


Figure 15 looks at transitions from school to work using both the retrospective histories from Wave 1 and the longitudinal data on work and school reported in 2003, 2004, and 2005. For each single year of age from 12 to 23 the sample is divided into four possible activities – (1) enrolled but not working; (2) enrolled and working; (3) working but not enrolled; (4) not working and not enrolled. Enrolment includes post-secondary schooling and formal training programs, in addition to primary and secondary school. Work is defined broadly, and includes any work done during the year. This includes work during school vacations, so it is important to keep in mind that the work/school combination does not necessarily imply that work was being combined with school. The sample used in Figure 15 is respondents who were age 23-25 in 2005.

Looking at the results for males in Figure 15, we see large differences in the transitions from school to work across population groups. While being in school without working is by far the predominant activity for all three groups at age 14, by age 17 some sharp differences have emerged. Significant proportions of white males are working during years when they are still in school, with 45% of white boys in the work and school category at age 17. In contrast, African males have extremely low rates of work. The percentage of African boys who work during years when they are still in school is negligible, never exceeding 5%. The transition from school to work for coloured males is characterized more by a sharp transition than it is for either white or African males. Relatively small proportions of coloured males work during the years they are in school, with the proportion working exceeding the proportion enrolled at age 18. The proportion of coloured males enrolled in school drops below that of both Africans and whites by age 16.

The patterns for males in Figure 15 are broadly similar to the results for females, with males having somewhat higher percentages working at most ages. One of the striking features of Figure 2 is that differences across population groups are much larger than differences between males and females within a given population group.

The large racial differences in transitions from school to work are further demonstrated in Table 7, which shows the percentage of young people who did any work for pay or family gain during the 12 months prior to the CAPS Wave 1 survey in 2002, broken down by race, age, and sex. As in Figure 15, work is defined broadly, and includes any work done during the year. At age 17, over half of white males and females report having worked in the last year, compared to only 1% of African females and 7% of African males. Coloured youth are in between, with 26% of both males and females having worked in the last year at age 17. At age 22 only 24% of African female and 35% of African males report having worked in the last year, compared to over 75% of the other four gender/race groups. Figure 16 presents a striking summary of the cumulative experience of young people as they leave school and enter the labour market. By age 20, only 20% of African females and 31% of African males have ever done any paid work, using a very broad definition. In contrast, 86% of white females and 90% of white males have done paid work, with only slightly lower percentages for coloured youth.

Table 7. Percentage who worked in last 12 months, CAPS respondents in Wave 1, 2002

	African		Coloured		White	
Age	Female	Male	Female	Male	Female	Male
14	0.0	0.7	7.4	19.7	9.0	30.3
15	0.0	0.8	12.7	10.5	27.1	33.3
16	1.6	5.3	14.9	27.2	44.8	32.0
17	1.3	6.6	26.4	26.6	53.9	51.0
18	1.9	9.5	32.0	47.0	53.3	73.6
19	6.9	10.8	52.3	62.7	70.2	72.6
20	16.7	24.7	63.9	83.5	82.9	80.5
21	19.8	26.9	65.1	82.4	78.8	89.1
22	23.9	35.3	77.4	78.1	75.7	87.9
Sample Size	1,219	927	1,077	925	313	284

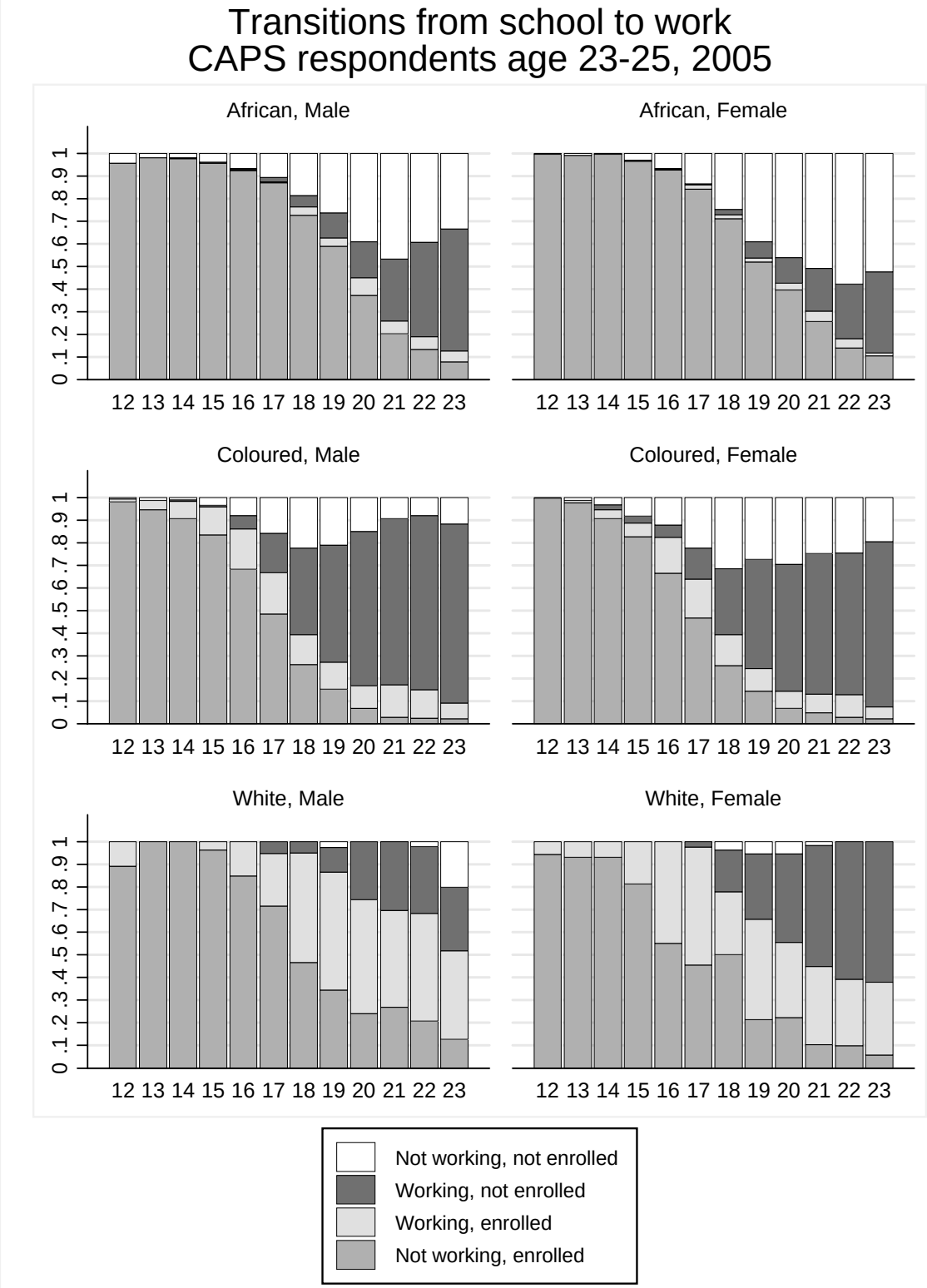
Summarizing the patterns in Figure 14 and Table 7, we see that African teenagers in Cape Town tend to have high rates of school enrolment, high rates of grade repetition, and low rates of employment. These patterns are very similar to those that would be found for African youth in all of South Africa (Anderson et al., 2002). Limited labour market opportunities, driven in part by extreme spatial segregation that is a legacy of apartheid, presumably plays an important role in explaining both the low employment and the high school enrolment. Coloured youth have significantly higher employment rates than African youth, a possible reflection of both closer geographic proximity to jobs and the legacy of the coloured labour preferences that existed in the Western Cape under apartheid. There appears to be more of a tradeoff between school enrolment and work among coloured youth, especially for males. Whites have both the highest rates of employment and the highest levels of school enrolment and schooling attainment, an indication that work and school in the teenage years are not entirely incompatible.

Employment transitions after leaving school

One of the unique features of the CAPS data is that we have collected monthly data on school, work, and job search covering the period from August 2002 through the time of the Wave 3 interview in 2005 (this will be extended to 2006 when Wave 4 data is ready for use). This data is collected retrospectively in each wave of the survey. Figure 17 shows how these data can be used to follow the transitions of young people into the labour market after leaving school. The sample used in Figure 17 is all respondents who left school (identified as three consecutive months out of school) and had observed in the monthly calendars for at least 20 months since leaving school. The figure shows the proportion of males in each population group that were working in each month since leaving school, as well as the four months prior to leaving school.

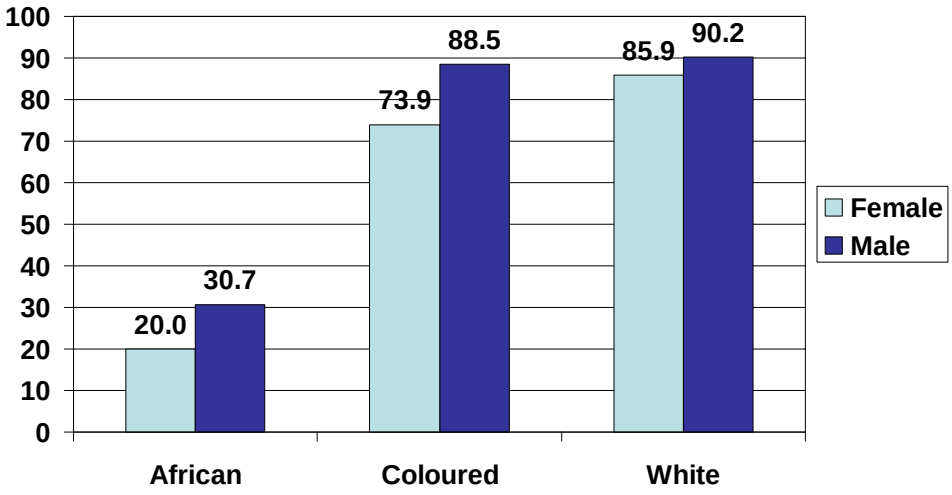
As shown in the top panel of Figure 17, about 30% of coloured males are already working in the first month after they leave school (typically the January after the end of their last year in school). About 20% of the coloured males were already working during the last four months before leaving school. The percentage of coloured males with jobs rises fairly rapidly during the first six months out of school, reaching about 50% after six months. African males start at a much lower base, with only about 10% working in the first month after leaving school, and make relatively little progress in finding work during the entire first year. This suggests that dropping out of school in order to work is a relatively unimportant cause of leaving school for Africans. The rate of job-finding increases during the second year for Africans, rising from 10% to 40% between month 12 and month 20 (note that the sample remains constant across months).

Figure 15.



Note: Working and enrolled refer to any time during year.

Figure 16.
Percentage of 20 year-olds who have ever done any paid work, CAPS Wave 1, 2002



The second panel of Figure 17 shows the proportion of African and coloured youth who were searching for work (and did not have a job) in each month. The proportion searching jumps steeply in the first month after leaving school, rising to about 20% for both African and coloured males. Coloured males get jobs at a higher rate, so the proportion searching begins to fall after the first few months. African males are much less likely to find jobs, with the proportion searching continuing to rise over the first six months out of school.

The bottom panel shows the proportion who are active labour force participants, the sum of the proportion working and the proportion searching. The curves are roughly parallel for African and coloured males, with the coloured curve about 15 percentage points higher in every month. An interesting feature of this graph is that following a sharp increase in participation in the first month after leaving school, there is a slow but steady increase in labour force participation during the next 20 months. By the 20th month after leaving school about 60% of African males and 75% of coloured males are working or searching for work.

Figure 18 shows the same patterns for females. The proportion of females working is lower than the proportion of males working in every month after leaving school. Females also show a larger discrepancy between the proportion currently working and the proportion who have ever worked, an indication that females have more movement in and out of the labour force. Coloured females have a sharper increase in job search after leaving school than African females, and the coloured females are considerably more successful in finding jobs. The bottom panel of Figure 18 shows the same kind of parallel patterns for coloured and African females that was observed for males in Figure 17, with coloured participation about 15 to 20 percentage points higher than African participation.

Figure 17.

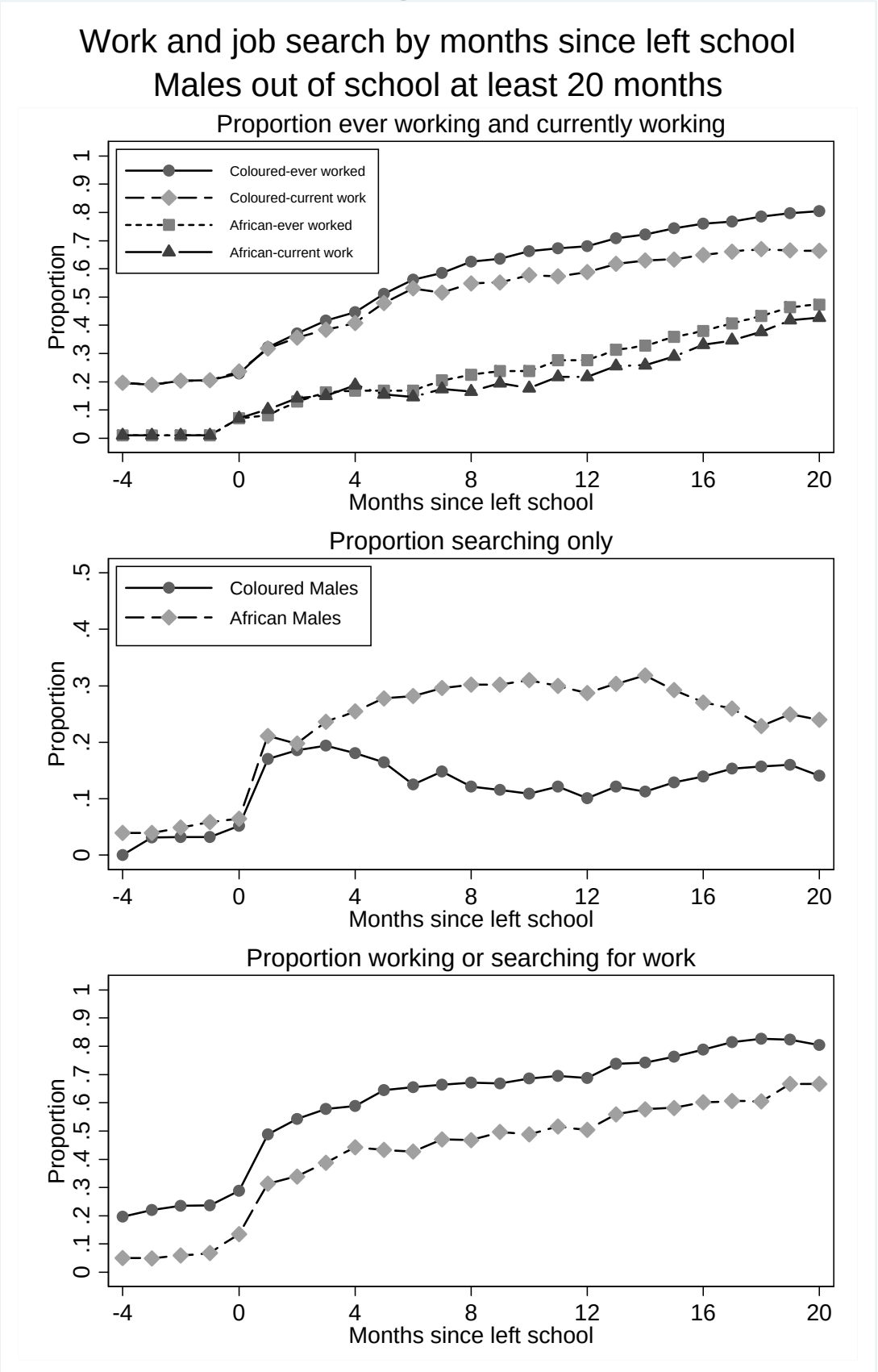
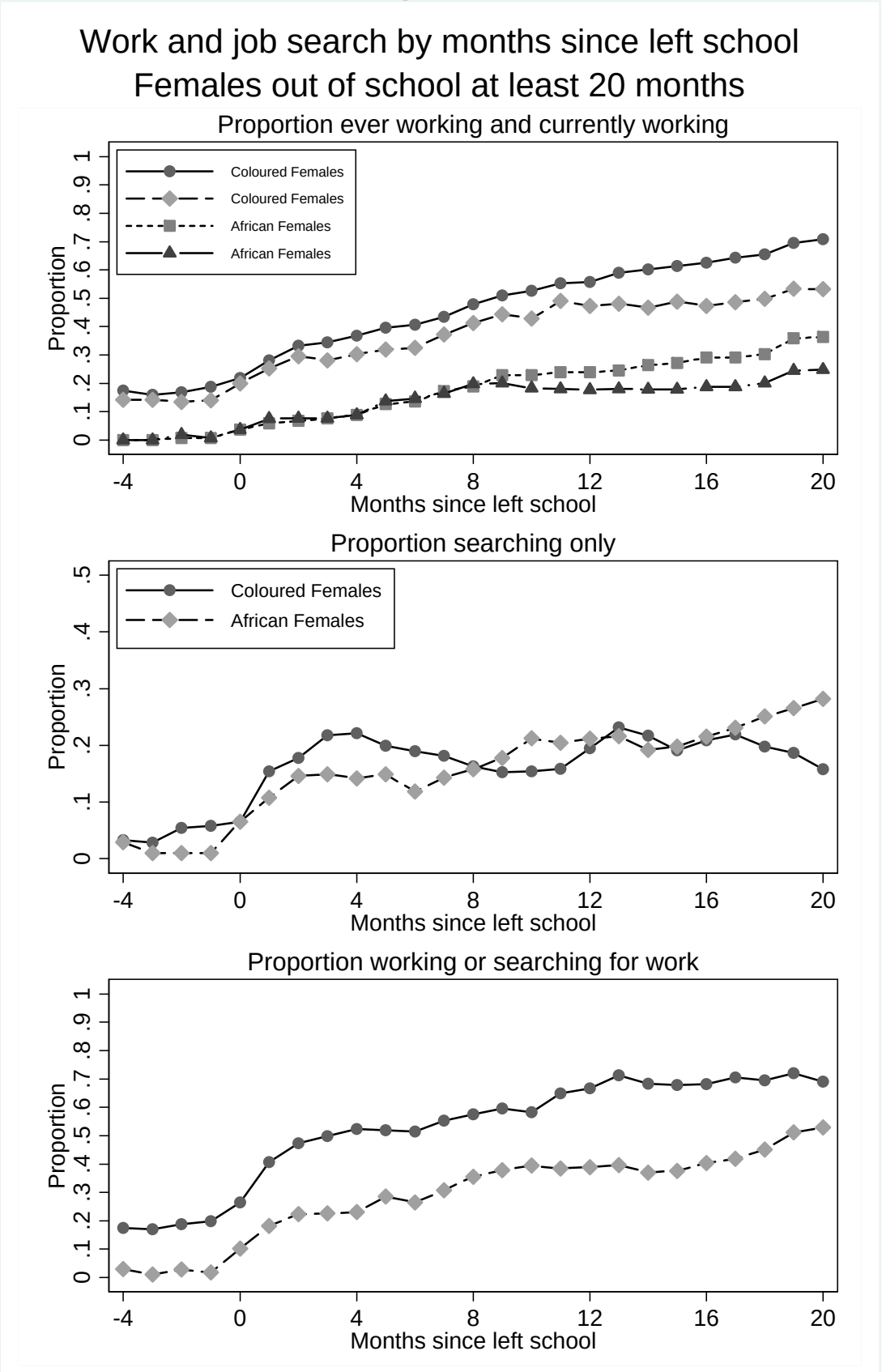

Work and job search by months since left school
Males out of school at least 20 months
Proportion ever working and currently working
Coloured-ever worked
Coloured-current work
African-ever worked
African-current work
Proportion
0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1
-4 0 4 8 12 16 20
Months since left school
Proportion searching only
Coloured Males
African Males
Proportion
0 .1 .2 .3 .4 .5
-4 0 4 8 12 16 20
Months since left school
Proportion working or searching for work
Proportion
0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1
-4 0 4 8 12 16 20
Months since left school

Figure 18.


Work and job search by months since left school
Females out of school at least 20 months
Proportion ever working and currently working
Coloured Females
Coloured Females
African Females
African Females
Proportion
0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1
-4 0 4 8 12 16 20
Months since left school
Proportion searching only
Coloured Females
African Females
Proportion
0 .1 .2 .3 .4 .5
-4 0 4 8 12 16 20
Months since left school
Proportion working or searching for work
Proportion
0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1
-4 0 4 8 12 16 20
Months since left school

V. Modelling transitions to work

Probit regressions for monthly employment

CAPS has a rich set of information about young people and their households that can be used to analyze the determinants of early labour market success. Table 8 presents probit regressions analyzing the probability of being employed in each month after leaving school. For each regression, the first column shows the probit coefficients and the second column shows the marginal effects, evaluated at the means. Repeated monthly observations are used for each respondent, so the standard errors are adjusted to account for correlated errors at the individual level. Probit 1 only includes dummies for African and white (coloured is the omitted category) plus the number of months since leaving school and a quadratic in monthly age. Looking at the marginal effects in Column 2, Africans have 38 percentage point lower probability of working than coloureds, evaluated at the sample means, while whites have 7 percentage point higher probability of working than coloureds. Males have a 10 percentage point higher probability of working than females. The probability of working rises at an average rate of half a percentage point per month.

Probit 2 adds schooling variables. The schooling variables in the regression indicate the highest grade attained at the time the respondent left school, with schooling Grade 9 or below as the omitted category. The marginal effect of having completed grade 10 or 11 if a 7 percentage point increase in the probability of working compared to having completed less than Grade 10. There is a large effect of completing grade 12 (when there is a standardized matriculation exam), implying a 12 percentage point increase in the probability of working, evaluated at the sample means. In contrast to the view sometimes expressed in South Africa, completing secondary school does appear to have a substantial effect on successfully finding a job after leaving school.

Probit 3 adds the score on the literacy and numeracy exam (LNE) administered in Wave 1 of CAPS. This is one of the unique features of CAPS, and we see that the test is a strong predictor of early labour force outcomes. A one standard deviation increase in the test score is associated with a 6 percentage point higher probability of working. Controlling for the LNE score considerably reduces the estimated impact of schooling. The estimated marginal effect of completing Grade 12, for example, drops from 12.2 percentage points in Probit 2 to 6.8 percentage points in Probit 3. The estimated impact of having Grade 10 or 11 (compared to Grade 9 or less) actually becomes statistically insignificant in Probit 3, with point estimates that are about half those of Probit 2. These results suggest that the labour market does reward the skill that is captured in the LNE score. The precise mechanism for this is unclear, however. It could indicate that those who get better LNE scores are better motivated, working harder and more effectively at job search. Alternatively, it could mean that employers are somehow able to perceive the greater ability of those with higher test scores, choosing them first out of the pool of new labour force entrants.

Probit 3 also looks at the impact of health on the probability of working. The variable “poor health in 2005” indicates that the respondent reported that they were in poor or fair health in 2005 (other choices were good, very good, or excellent). Those who reported being in poor or fair health were 10 percentage points less likely to be working after leaving school, holding constant the other variables in Probit 3.

Table 8. Probit regressions for working in months after leaving school, Cape Area Panel Study

Variable	Probit 1		Probit 2		Probit 3	
	(1)	(2)	(3)	(4)	(5)	(6)
African	-1.126	*-0.379*	-1.063	-0.359	-0.96	-0.327
	[0.070]***	*[0.020]****	[0.072]***	[0.021]***	[0.077]***	[0.023]***
White	0.195	*0.074*	0.136	0.051	-0.013	-0.005
	[0.113]*	*[0.044]**	[0.117]	[0.045]	[0.122]	[0.045]
Male	0.256	*0.095*	0.281	0.103	0.238	0.087
	[0.058]***	*[0.021]****	[0.059]***	[0.022]***	[0.059]***	[0.022]***
Months since leaving school	0.013	*0.005*	0.017	0.006	0.018	0.006
	[0.003]***	*[0.001]****	[0.003]***	[0.001]***	[0.003]***	[0.001]***
Age in months	1.009	*0.371*	0.757	0.278	0.73	0.267
	[0.201]***	*[0.074]****	[0.216]***	[0.079]***	[0.220]***	[0.081]***
Age squared	-0.02	*-0.007*	-0.015	-0.005	-0.014	-0.005
	[0.005]***	*[0.002]****	[0.005]***	[0.002]***	[0.005]***	[0.002]***
Grade 10 or 11			0.19	0.071	0.104	0.038
			[0.087]**	[0.033]**	[0.090]	[0.033]
Grade 12 or higher			0.331	0.122	0.184	0.068
			[0.086]***	[0.032]***	[0.092]**	[0.034]**
Standardized LNE total score					0.173	0.063
					[0.043]***	[0.016]***
Poor health in 2005					-0.275	-0.095
					[0.117]**	[0.038]**
Constant	-12.379		-9.716		-9.361	
	[2.050]***		[2.191]***		[2.238]***	
Observations	23,925		23,101		22,807	

Notes: Robust standard errors adjusting for repeated observations per individual in brackets
Marginal effects evaluated at means in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%
Omitted categories: Coloured, Grade 9 or less.

VII. Conclusion

Using a combination of nationally representative cross-section surveys, the 2001 census, and the recently collected Cape Area Panel Study, we have documented a number of important features of the youth labour market in South Africa. The percentage of young people who are working is disturbingly low. Only about 25% of 20-24 year-olds are working, a percentage that stayed roughly constant between 1995 and 2005. The percentage of young peopl who are economically active appears to have increased between 1995 and 2005, but most of the increase is accounted for by an increase in the percentage who are searching for work but not finding jobs. As a result, youth unemployment increased in the 1990s, though it appears to have leveled off since 2002. There are stark racial differences in youth labour market outcomes. While 78% of white males aged 20-24 were working in the 2001 census, only 27% of African males aged 20-24 were working.

All of our data sets indicate that those young people who get more schooling do better in the labour market. Those who have completed Grade 12 are more likely to be employed than those who have not, and those who complete some post-secondary schooling have by far the best early labour market outcomes. Using the longitudinal data of the Cape Area Panel Study, we are able to get an unusally rich picture of the transition from school to work. Racial differences appear even before youth finish school, with white youth much more likely than any other group to work during the years they are enrolled in school. Looking month-by-month at transitions between school and work, we see that coloured youth in Cape Town are much more likely to be working during the last four months before leaving school than are African youth. Both groups experience a sharp jump in labour force participation immediately after leaving school. Coloured youth are much more likely to find jobs, however, resulting in a quick decline in the percentage who are searching for work. African youth have a steady increase in the percentage searching for work during the first 20 months after leaving school. By the 20th month after leaving school, only about 30% of African males and 20% of African females are working.

Probit regressions provide further evidence about the importance of schooling and ability in early labour market outcomes. We estimate significant effects of schooling on the probability of being employed during the first 20 months after leaving school. Those who leave school with Grade 12 or higher are 12 percentage points more likely to find work than those who leave school with less than Grade 10. When we include the results of the literacy and numeracy test that was administered to CAPS respondents in 2002, we estimate a large impact of the test score on the probability of finding work. Including the LNE score cuts the estimated impact of schooling roughly in half, implying that a large part of the apparent impact of schooling is captured by our measure of ability. This may indicate that employers do not use schooling alone as a signal, but are also able to discriminate on the basis of ability.

References

Anderson, K.G, A. Case & D. Lam (2001). Causes and consequences of schooling outcomes in South Africa: Evidence from survey data. *Social Dynamics* 27(1): 37-59.

Bhorat H. & M. Oosthuizen (2005). The Post-Apartheid South African Labour Market, Development Policy Research Unit, Working Paper 05/93 ISBN 1-920055-09-6

Dinkelman, T (2004). How household context affects search outcomes of the unemployed in KwaZulu-Natal, South Africa: A panel data analysis. *South African Journal of Economics*, 72: 3.

Everatt, D & E. Sisulu (1992). Black youth in crisis, Ravan Press, Braamfontein.

Garces, E., D. Thomas & J. Currie (2000). "Longer-term effects of Head Start", NBER Working Papers No. 8054 (papers.nber.org/papers/w8054).

Heckman, J.,R. & L. Lochner (2000). "Rethinking education and training policy: Understanding the sources of skill formation in a modern economy" in S. Danzinger & J. Waldforgel (eds), Securing the future: Investing in children from birth to adulthood, Russel Sage Foundation, New York.

International Labour Office (2004). Key Indicators of the labour market. International Labour Office database.

Kingdon, Geeta and Knight, John (2000). Are searching and non-searching unemployment distinct states when unemployment is high? The case of South Africa. Centre for the Study of African Economies, University of Oxford.

Lam, David, Jeremy Seekings and Meredith Sparks (2006) The Cape Area Panel Study: Overview and Technical Documentation for Waves 1-2-3. University of Cape Town, December 2006.

Ligthelm, A & L. Kritzinger-Van Niekerk (1990). Unemployment: the role of the public sector in increasing the labour absorption capacity of the South African economy. *Development Southern Africa*. Vol. 7, No. 4, November.

Loots, A (1996). Unemployment in South Africa: a case of jobless growth? EBM conference paper, Port Elizabeth. November.

Martin, J. & D. Grubb (2001). "What works and for whom: A review of OECD countries' experiences with active labour market policies" IFAU working paper 2001:14 (www.ifau.se/eng/index.html).

Mhone, G.C.Z (2000). Promoting Youth Employment in South Africa, NIEP Occasional Paper Series No. 19, February.

Mlatsheni, C & S. Rospabe (2002). Why is youth unemployment so high and unequally spread in South Africa? DPRU Working Paper No. 02/65.

O'Higgins, N. (2001), *Youth unemployment and employment policy. A global perspective*, International Labour Organisation, Geneva.

Standing, G., Sender, J. and J. Weeks (1996). *Restructuring the labour market: the South African challenge*. An ILO Country Review. International Labour Office, Geneva.

Van Zyl Slabbert, F (1994). Youth in the new South Africa, HSRC Press, Pretoria.

Wittenberg M. and C. Pearce (1996). "Youth unemployment: Some perspectives from the South African Living Standards and Development Survey", in L. Chisholm et al., *Out-of-School Youth Report: Policy and Provision for Out-of-School and Out-of-Work Youth*, Education Policy Unit, University of the Witwatersrand, 1996.

Truscott, K, (1993), "Youth education and work: The need for an integrated policy and action approach", CASE, Univeristy of Witwatersrand.

The World Bank (2006). World development Report 2007: Development and the next generation.