Education and Youth Unemployment 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, even though youth are only 25% of the world's working age population. Of the world's 550 million working poor who cannot lift themselves above US $1 per day poverty measure, 150 million are youth. The ILO estimated in 2004 that halving global youth unemployment would increase global GDP by US $2.2 trillion, 4% of global GDP. 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).

South Africa has had a pervasive unemployment problem for the last forty years. South Africa does not appear to be a conducive climate for youth to enter the labour market. Standing *et al* (1996) report that unemployment rose sharply in the 1970s and that this rise continued through the 1980s and 1990s. In addition to high levels of unemployment, another longstanding characteristic of South African unemployment is lengthy 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. These findings 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 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. 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 explicitly 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. First, they detailed the bleak circumstances of youth. This literature gives moving account of the role that youth played in the fight against apartheid and the negative consequences of this commitment for their personal prospects. Most pertinent for this paper is the discussion of the deficiency in educational accumulation 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).

Deficiency in youth education and labour market preparedness is still a relevant concern in contemporary South Africa. The March 2005 Labour Force Survey 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 (complete secondary) qualification, while 33% have nothing more than a complete matric. As 59% of this group experience unemployment, it is a puzzle to understand why many of these youth quit school

before they acquire matric. With such a high unemployment rate, there should be a strong case for further studies even for those that do have a matric certificate.

Resource constraints are one obvious possible 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, even at low pay in mediocre jobs, in order to supplement family income (World Bank 2006). This is especially the case when there are younger siblings in need of support.

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 (World Bank 2006). This uncertain reality and the real constraints facing South African youth need to be given attention. However, it is hard to believe that these concerns override the strong signals coming to youth about the values of staying in school. Certainly, this is certainly worthy of interrogation.

The second main focus of the past South African literature on youth unemployment was on finding solutions to the huge problem. 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. However, unlike the earlier literature we hope to build these reflections on a more detailed interrogation of the role of education in youth (un)employment. We are able to do this because, 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 (Wittenberg & Pearce 1996, Mhone 2000, Bhorat & Oosthuizen 2000, Mlatsheni & Rospabe 2001) has made good use of these household sample surveys and censuses to provide more detailed information on the characteristics of youth and the nature of their labour market participation and outcomes.

In this paper we seek to make a further contribution to this new literature. The next section (Section 2), uses national survey data to profile the evolution of youth unemployment over the first decade of the new democracy in South Africa. 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 alluded to earlier as to why these youth do not at least complete secondary education.

The paper homes in on this issue. Panel data hold 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. Section 3 bridges between the analysis of national survey data of Section 2 and the analysis of Cape Town by 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). Clearly, policies aimed at facilitating the transition from education to work need to be cognisant of the extended age of school participation.

Nonetheless, Table 1 highlights a major weakness of the use of such a wide age range; namely, this group is not homogenous. Although the figure suggests that the general trend in participation in the 2000s has been one of slight decline across all age groups, the specifics of labour market participation differ 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 2000 to 2006 are far below those of other groups. Furthermore, it is also evident from the figure that participation rates increase with age. It is interesting that the 30-35 group has the highest participation of all, even exceeding the category defined as non-youth within the South African context. Therefore, it is 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 and, in line with the international literature, the focus of this paper will be mainly on these cohorts.

Table 1. Trends in youth labour market outcomes, South Africa Labour Force Survey, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Participation rates by age							
15-19	16.57	12.68	12.73	11.35	9.96	10	11.36
20-24	54.97	50.73	51.6	51.59	48.55	47.43	49.52
25-29	74.91	73.84	72.66	74.05	70.46	71.11	71.8
30-35	81.88	79.38	78.21	77.76	75.15	75.6	77.31
36-65	71.4	70.33	68.3	65.85	63.9	62.98	63.61
Participation rates by race 15-19							
African	14.44	10.71	10.65	9.23	7.99	8.12	9.7
Coloured	31.35	25.4	26.86	26.51	25.58	25.36	24.1
Indian	28.83	22.75	17.34	20.78	16.28	19.79	20.48
White	19.89	16.55	18.08	15.87	13.38	11.89	15.57
Participation rates by race 20-24							
African	50.3	46.53	47.16	47.55	44.77	44.25	45.88
Coloured	75.09	72.36	77.15	75.24	72.79	68.16	72.64
Indian	73.79	62.66	60.19	70.23	61.98	58.39	54.67
White	74.06	69.5	69.54	64.59	62.68	60.43	63.28
Participation rates by gender 15-19							
Male	17.49	13.58	13.36	12.37	10.06	11.16	11.69
Female	15.62	11.75	12.1	10.31	9.87	8.8	11.01
Participation rates by gender 20-24							
Male	58.49	54.51	55.48	54.75	51.65	51.34	53.47
Female	51.22	47.04	47.93	48.63	45.75	43.71	45.68
Unemployment rates by age							
15-19	37.53	48.74	52.2	62.48	60.47	55.1	49.42
20-24	46.23	50.32	55.35	59.49	55.67	52	50.54
25-29	36.92	37.12	39.96	41.1	37.2	35.92	34.59
30-35	26.74	24.82	27.42	28.68	26.23	24.94	23.4
36-65	14.87	14.34	16.59	17.85	14.97	13.53	13.21
Unemployment rates by race 15-19							
African	34.69	48.39	52.18	65.87	64.49	58.78	50.8
Coloured	48.01	58.67	61.37	61.9	53.97	49.07	53.42
Indian	53.63	64.53	69.24	75.55	87.38	65.19	45.37
White	35.35	26.81	31.13	30.68	33.9	33.62	30.58

	2000	2001	2002	2003	2004	2005	2006
Unemployment rates by race 20-24							
African	54.68	57.52	63.56	68.11	64.07	59.19	58.63
Coloured	32.14	36.68	41.56	36.86	34.98	36.59	31.56
Indian	28.43	35.62	34.67	45.55	37.51	31.41	21.62
White	11.53	15.15	13.32	19.68	13.88	9.82	13.83
Unemployment rates by gender 15-19							
Male	33.95	47.25	47.31	55.68	50.82	50.14	43
Female	41.61	50.39	57.72	70.62	70.27	61.74	56.73
Unemployment rates by gender 20-24							
Male	44.64	48.57	53.78	55.87	51.87	46.59	45.41
Female	48.32	52.33	57.04	63.37	59.34	58.16	56.35
Proportion employed by age							
15-19	10.35	6.5	6.09	4.26	3.94	4.49	5.75
20-24	29.56	25.2	23.04	20.9	21.52	22.76	24.49
25-29	47.26	46.43	43.62	43.62	44.25	45.56	46.96
30-35	59.99	59.68	56.77	55.46	55.44	56.74	59.22
36-65	60.78	60.24	56.97	54.09	54.33	54.46	55.21
Proportion employed by race 15-19							
African	9.43	5.53	5.09	3.15	2.84	3.35	4.77
Coloured	16.3	10.5	10.37	10.1	11.77	12.91	11.23
Indian	13.37	8.07	5.33	5.08	2.05	6.89	11.19
White	12.86	12.12	12.45	11	8.85	7.89	10.81
Proportion employed by race 20-24							
African	22.79	19.76	17.19	15.16	16.09	18.06	18.98
Coloured	50.95	45.82	45.08	47.5	47.33	43.22	49.72
Indian	52.81	40.34	39.32	38.24	38.73	40.05	42.85
White	65.52	58.97	60.28	51.88	53.98	54.5	54.53
Proportion employed by gender 15-19							
Male	11.55	7.16	7.04	5.48	4.95	5.56	6.66
Female	9.12	5.83	5.12	3.03	2.93	3.37	4.76
Proportion employed by gender 20-24							
Male	32.38	28.03	25.64	24.16	24.86	27.42	29.19
Female	26.47	22.43	20.59	17.81	18.6	18.29	19.94

Clearly in the South African context, race is an important differentiating factor in labour market behavior and outcomes. Table 1 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 this period is cause for concern as this indicates early exit from studies in an environment of mass unemployment. Among the older 20-24 cohort (Table 1) Africans again display lower participation rates than the other population groups while Coloureds have the highest. In addition, participation rates of these two race groups have generally declined over the period with Africans in the 15-19 age group showing improvement in 2005 to 2006 and both Africans and Coloureds showing improvements in 2005 to 2006 among the 20-24 age group. The trend in White and Indian participation rates is also downward although with slightly more variations in some years. When looking at the 20-24 age group, an intriguing finding is that Whites and Indians have the greatest percentage point decreases in participation. Africans make up by far the largest number of labour market participants and, therefore, the magnitude of the decline in overall labour market participation for youth over this period was largely 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 2000, 51% of non-participating youth 15-24 were women and this proportion has remained fairly stable through to 2006 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. Table 1 indicates that the participation rates were higher among males throughout the 2000s and that the gender gap was wider among the older 20-24 age group.

These participation trends give us a picture of labour supply patterns. However, as discussed earlier, the demand for labour patterns are such that only some of the participating youth find employment. We go on to describe unemployment trends over the decade.

Unemployment trends

In the mid 1990s youth unemployment, even by the strict ILO definition, was already very high at 25% for youth aged 15-24, compared to 12%% for the 25-65 age group. By 2000 the youth unemployment rate (15-24) had risen to 44% (from 24% in 1995), using the strict definition of unemployment, while the non-youth unemployment rate had risen from 9% to to 22%. 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 (O'Higgins 2001). When considering the 2004 ILO global estimate of 47% for youth (15-24) as a proportion of the unemployed, South Africa compares favourably with youth 15-24 making up 32% of the unemployed in 2001 and 34% of the unemployed in 2006. Table 1 indicates that, like participation, unemployment varies by age with the youngest cohorts being hardest hit. Unemployment for the older age groups was fairly stable, with a slight peak in 2003 and general leveling off to levels slightly below those 2000. There is little difference in the unemployment rates of the 15-19 and 20-24 cohorts. For both groups unemployment seems to have risen relatively sharply from 2000 to 2003 and has subsequently fallen. Participation rates during this period were declining though.

However, it is difficult to provide an accurate sense of the labour market outcomes of individuals this young as they are likely to be oscillating between labour market statuses. 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. Table 1 echoes the findings that youth labour market outcomes worsened until about 2003. The proportion employed dipped from 2000 till 2003 for most age groups and then recovered slightly after 2003. When considering the proportion employed by race it is evident from Table 1 that the older 20-24 cohort is the easier to analyse and this may be because of the more dynamic nature of labour supply of the younger 15-19 cohort mentioned earlier. Among the 20-24 cohort Whites have the highest proportion employed, followed by Coloureds, Indians and Africans having the lowest proportions employed. The worst year for most of the race groups is 2003 whereas for Coloureds it is 2002 and 2005.

An analysis by gender of both the 15-19 and 20-24 age groups indicates that higher proportions of men than women were employed throughout the period. For the younger age groups the, proportion employed decreased until 2004 and increased thereafter for both genders (Table 1). The older 20-24 group experienced a decline in proportion employed until 2003 but in this case the female recovery was less than that of the males, causing an increase in the gender gap. 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.

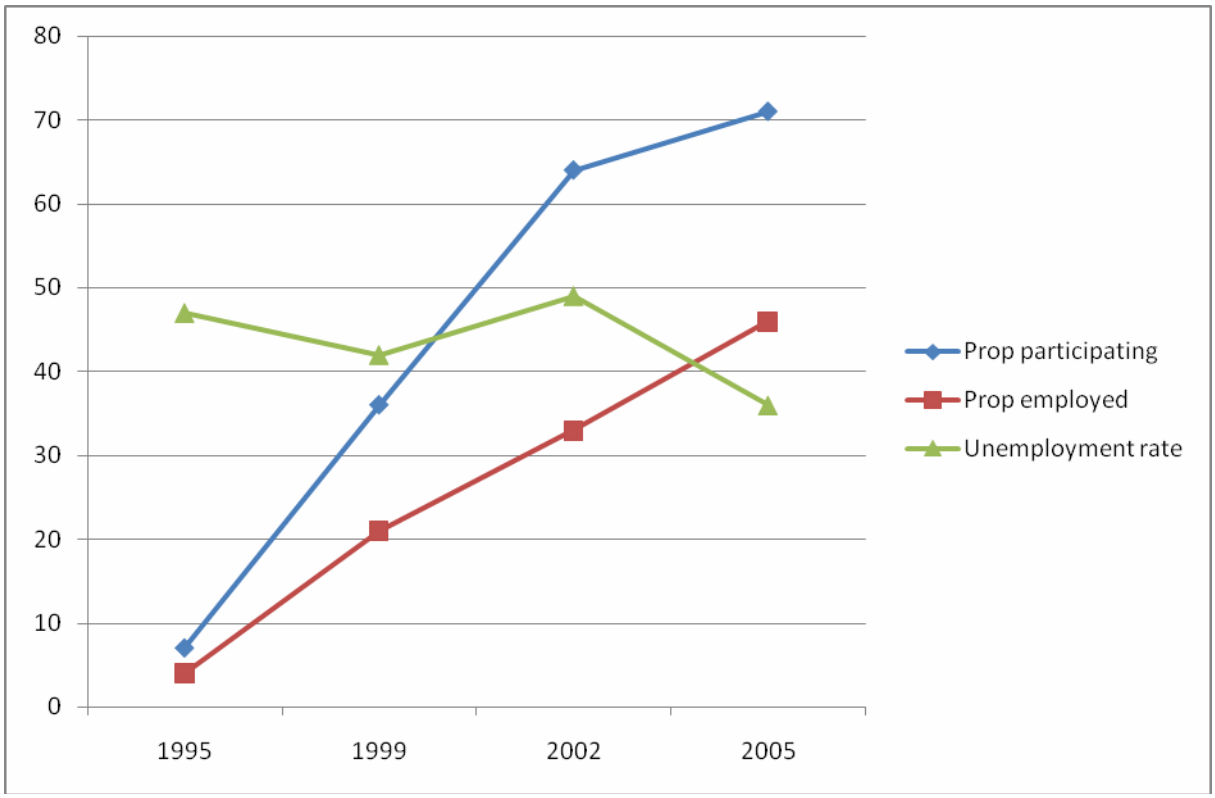


Figure 1: Labour market outcomes of the cohort that was 15-19 in 1995

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 rising youth employment has been offset by rising youth participation. In the absence of this increased participation, youth unemployment rates would not have increased. Approaching this issue from a different angle, we track the labour market outcomes of the cohort that was age 15-19

in 1995, using data from the October Household Surveys and Labour Force Surveys. The labour market experience of this cohort as it aged from 15-19 to 25-29 is shown in Figure 1. 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 1 support these prediction. 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 1 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.

As mentioned earlier, a significant number of youth in the 15-24 age range are engaged in studies while others are battling to make the transition from schooling to employment. A multinomial logit regression model provides a useful way to describe the relative roles that education and other factors play in the observed patterns of youth participation, employment and unemployment. This analysis is carried out in the following section.

Modeling youth labour market outcomes

Table 2 reflects separate sets of results for 2001 and 2006 estimations. The 2006 regression is run in order to look for evidence of changes in these relationships over the last five years. The dependent variable is "labour market status" where 0 is non-participant, 1 is unemployed, and 2 is employed. The data covers youth (15-35) who are not engaged in studies.[1]

The base status in the multinomial model is unemployment. The choice of this base status allows a direct comparison of the role of different education levels in allocating youth to unemployment versus non-participation as well as unemployment versus employment while controlling for a range of other factors. We specify education as a set of dummy variables to allow a comparison of no schooling, primary schooling, incomplete secondary schooling, complete secondary schooling (matric), a completed national training certificate (which is a technically oriented equivalent to matric), a graduate diploma or a graduate degree. Incomplete secondary is omitted as the default. The other factors that are controlled for include race, gender and specific age groups as these were shown to be important in the earlier descriptive analysis. In addition we also include a set of provincial dummy variables, to give consideration to regional and spatial factors, as well as a dummy variable for whether or not another member of the household is employed. This last variable is included to account for household linkages and networks into the labour market. There is a large literature detailing the importance of such networks in South Africa (See Schoer and Leibbrandt (2006) for example). This is not intended to be a fully specified regression but, rather, as one that offers further description of the key variables that we have highlighted in the descriptive analysis above. [2]

First we report on the effect of the explanatory variables on the odds of non-participation over unemployment. The effect of schooling is interesting in that, all other things held constant, there seems to be no significant impact of schooling on the odds of non-participation over unemployment in 2001. However, in 2006 individuals with no schooling as opposed to those with

[1] Initial concerns about the possible impact of the wide age range on the results were allayed by the fact that the results did not change much when the sample was restricted to 15-24.

[2] See Mlatsheni & Rospabe (2002) for a more complete model.

incomplete secondary schooling appear to have higher odds of non-participation while those with matric and degrees have lower odds of non-participation. As regards race, the 2001 regression results indicate that compared to Coloureds, all other races have higher odds of being non-participants rather than unemployed. This effect is strongest for Whites. In 2006 the difference between Africans and Coloureds is insignificant while it is stronger between Coloureds and Indians. In addition, odds of non-participation over unemployment are less for males than for females and this result is consistent in both years. Furthermore, the regression results indicate that the younger the youth individual the more likely it is that he/she will not be participating in the labour market rather than be unemployed. In addition, the presence of another employed individual within the household significantly reduces the odds of non-participation over unemployment in 2001 but this effect disappears in 2006. The effects of provincial location are strongest in the 2006 data where the results indicate that odds of nonparticipation are higher in every other province when compared to the Western Cape.

Next we report on the impact of the explanatory variables on the odds of employment over unemployment. With respect to education, the 2001 results do not suggest an important influence once the other explanatory variables are controlled for. However, the 2006 results indicate that having matric and having a degree does significantly improve the odds of employment over unemployment. The sample sizes for NTC and diploma are relatively small and this could be affecting the results even though the 2006 results indicate a significant impact of NTC qualification on the odds being employment over unemployment. It is clear that race plays a significant role. Africans are less likely than Coloureds to be employed rather than unemployed while Indians and Whites are more likely to be employed. Men are more likely to be employed than unemployed relative to women and this effect is stronger in 2006 than in 2001. The influence of age is consistent in both years with employment prospects improving as individuals become older. The presence of an employed individual within a household reduces the odds of employment, however, this effect weakens from 2001 to 2006. Furthermore, the odds of employment are generally less for other provinces compared to the Western Cape.

These results suggest that there have been some changes in the relationship between education and labour market outcomes over time. The impact of matric and tertiary qualifications on both participation and employment accords with *a priori* expectations based on the available South African literature on unemployment and earnings (Keswell & Poswell 2002). This literature attributes such importance to changes in the manner in which the labour market rewards educational attainment and, in particular, increased convexities in the returns to education. That said, the multinomial estimations can do little more than flag the increased importance of education and the continual importance of race for serious attention. Exploring these connections more seriously requires better data and a more tailored estimation strategy. Panel data that actually observes such transitions would be ideal in order to make more persuasive statements. This prompts our analysis of the data from the Cape Area Panel Survey (CAPS) in order to track the labour market experience of youth in the Cape Town metropolitan area and to get a better sense of the factors that are affecting labour market outcomes over time. We bridge into this analysis by using census data to compare youth unemployment in urban Cape Town with the rest of South Africa.

Table 2. Multinomial logit regressions for labour market satus, Labour Force Survey

	2001 LFS		2006 LFS	
	Non-participant	Employed	Non-participant	Employed
African	1.173	0.509	0.985	0.563
	[0.095]**	[0.038]***	[0.084]	[0.045]***
Indian	1.334	1.056	2.119	2.145
	[0.199]*	[0.145]	[0.38]***	[0.368]***
White	3.406	4.387	2.923	3.278
	[0.418]***	[0.501]***	[0.403]***	[0.423]***
Male	0.705	1.276	0.804	1.884
	[0.026]***	[0.047]***	[0.031]***	[0.074]***
No schooling	1.023	0.965	1.944	1.361
	[0.052]	[0.049]	[0.287]***	[0.214]**
Primary	0.947	0.866	0.963	1.075
	[0.047]	[0.044]***	[0.053]	[0.063]
Matric	0.970	0.922	0.593	1.176
	[0.057]	[0.055]	[0.027]***	[0.053]***
National training certificate	1.044	0.897	1.507	2.129
	[0.278]	[0.24]	[0.405]	[0.586]***
Diploma	0.922	0.986	0.667	1.415
	[0.09]	[0.096]	[0.165]	[0.309]
Degree	0.903	0.838	0.445	2.209
	[0.113]	[0.109]	[0.049]***	[0.197]***
Age15-19	15.904	0.605	13.31	0.564
	[0.957]***	[0.044]***	[0.87]***	[0.046]***
Age20-24	2.007	0.567	1.934	0.485
	[0.093]***	[0.027]***	[0.092]***	[0.024]***
Age30-35	1.101	1.696	1.143	1.733
	[0.058]*	[0.078]***	[0.062]**	[0.085]***
Other employed	0.801	0.705	0.981	0.925
	[0.031]***	[0.027]***	[0.039]	[0.038]*
Eastern Cape	1.489	0.727	1.968	0.913
	[0.129]***	[0.061]***	[0.178]***	[0.078]
Northern Cape	0.990	0.591	1.821	0.722
	[0.146]	[0.086]***	[0.305]***	[0.119]**
Freestate	1.114	0.777	1.506	0.607
	[0.118]	[0.08]**	[0.151]***	[0.059]***
KwaZulu-Natal	1.247	0.947	1.828	0.554
	[0.107]**	[0.078]	[0.155]***	[0.044]***
Northwest	1.517	0.848	1.612	0.532
	[0.148]***	[0.081]*	[0.16]***	[0.051]***
Gauteng	0.713	0.801	1.512	0.734
	[0.063]***	[0.066]***	[0.13]***	[0.058]***
Mpumalanga	1.282	1.031	1.703	0.657
	[0.133]**	[0.104]	[0.176]***	[0.066]***
Northern	2.278	0.834	2.975	0.437
	[0.213]***	[0.078]*	[0.278]***	[0.042]***
Observations	27,220	27,220	25,411	25,411

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

Outcome Unemployed = 1 is the comparison group

Omitted categories: Coloured, Female, Incomplete secondary, Age25-29, Western Cape

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 breakdown of labour force participation patterns of the youth by each year of age and by specific educational categories. We begin this section by showing some breakdowns at the national level. We show that the trends in youth participation, unemployment and education for Cape Town are similar to those observed in the national analysis except that in the case of the Cape Town the number of individuals concerned is less. Then, we go on to compare 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 age group half the males are employed compared to under a third of the females, a finding which is accords with the earlier analysis using the national Labour Force Surveys. The proportions employed are higher for the older 25-29 age group, a feature that may be the result of having spent more time in the labour market than 20-24 year-olds.

The proportions employed bear the same strong racial footprint as revealed by all earlier empirical work in this paper. 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 also indicates important differences by race. For both African males and females in the 20-24 age group 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 aged 20-24, 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 age group. 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. 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 age group shows that, even for those with matric and tertiary education, the returns seem to take a few years to come through.

Table 3 : 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 4: 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 5 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 5: 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 6 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 that 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 effect of including the rural areas of South Africa in the comparison is to increase the shares of the lower education groups.

Table 6: 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

However, an issue that arises with regard to the above table is that many of the youth in this age range are still in school. Table 7 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 7: Employment Status of 15-22 Year-Old 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. Moreover, the racial marker is as strong in Cape Town as it is elsewhere. At the same time, the presence of a substantial Coloured population occupying an intermediate position between Africans and Whites allows for additional subtlety in exploring the interactions between race and education. Thus, there is real interest in what can be learned 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)[3]. 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.[4] 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. As discussed above, 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.

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

[4] 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).

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.

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 2 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 2 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 2 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 2 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 2 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 2.
Schooling experience from retrospective histories,
CAPS respondents age 21-22, 2002

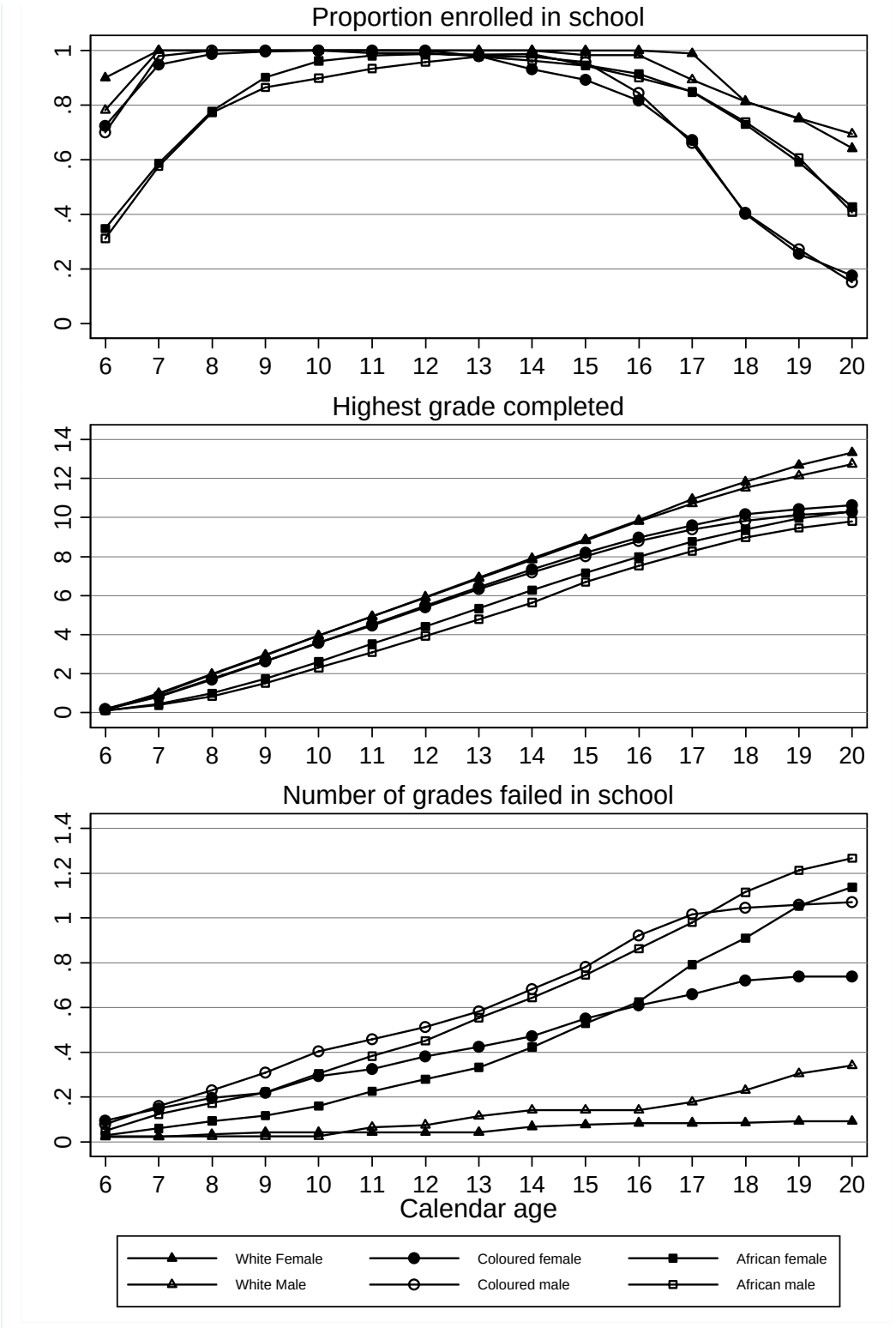


Figure 3 looks at transitions from school to work using both the retrospective histories from Wave 1 and the longitudinal data on work and school reported in 2003, 2004, and 2005. For each single year of age from 12 to 23 the sample is divided into four possible activities – (1) enrolled but not working; (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 3 is respondents who were age 23-25 in 2005.

Looking at the results for males in Figure 3, 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 3 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 3 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 8, 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 3, 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 4 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

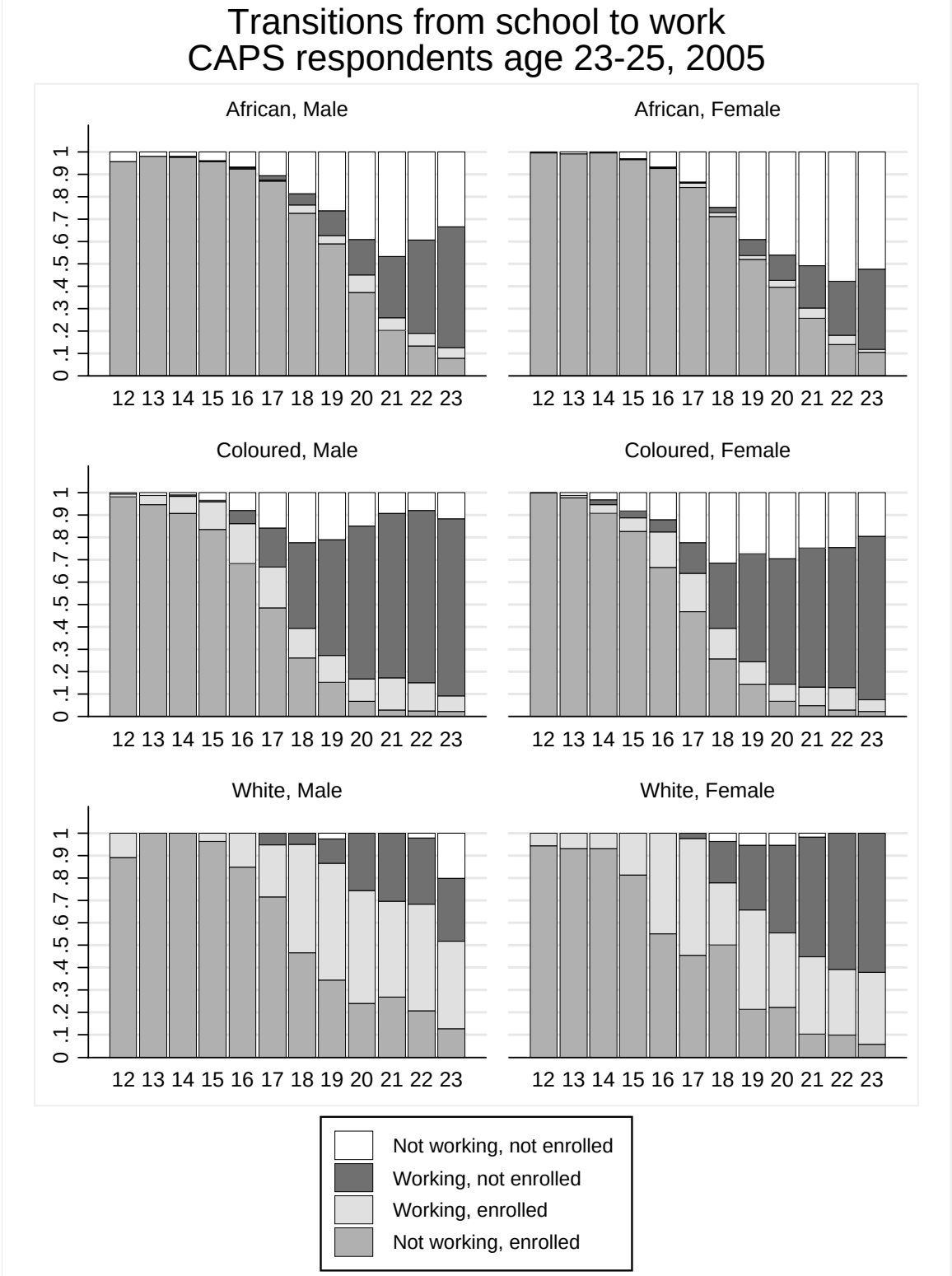
Summarizing the patterns in Figure 2 and Table 8, we see that African teenagers in Cape Town tend to have high rates of school enrolment, high rates of grade repetition, and low rates of employment. These patterns are very similar to those that would be found for African youth in all of South Africa (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 5 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 5 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.

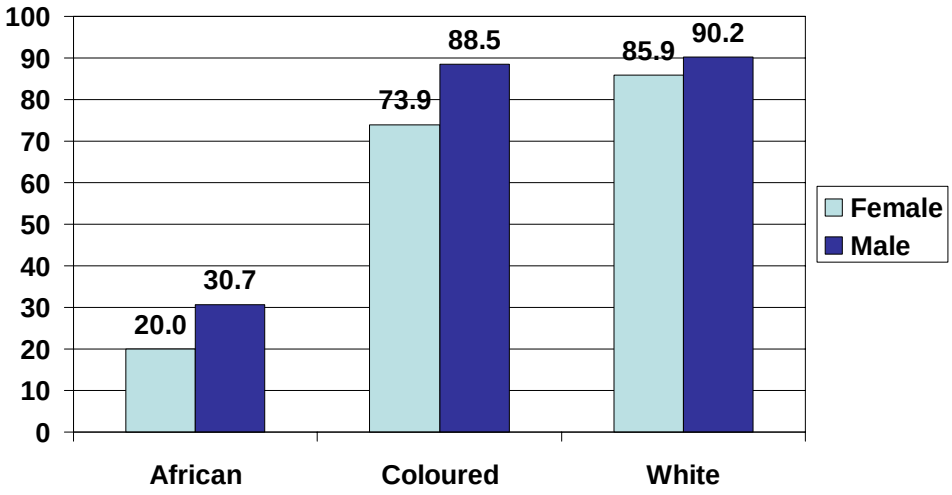
As shown in the top panel of Figure 5, about 30% of coloured males are already working in the first month after they leave school (typically the January after the end of their last year in school). About 20% of the coloured males were already working during the last four months before leaving school. 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 3.



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

Figure 4.
Percentage of 20 year-olds who have ever done any paid work, CAPS Wave 1, 2002



The second panel of Figure 5 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 6 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 6 shows the same kind of parallel patterns for coloured and African females that was observed for males in Figure 5, with coloured participation about 15 to 20 percentage points higher than African participation.

Figure 5.

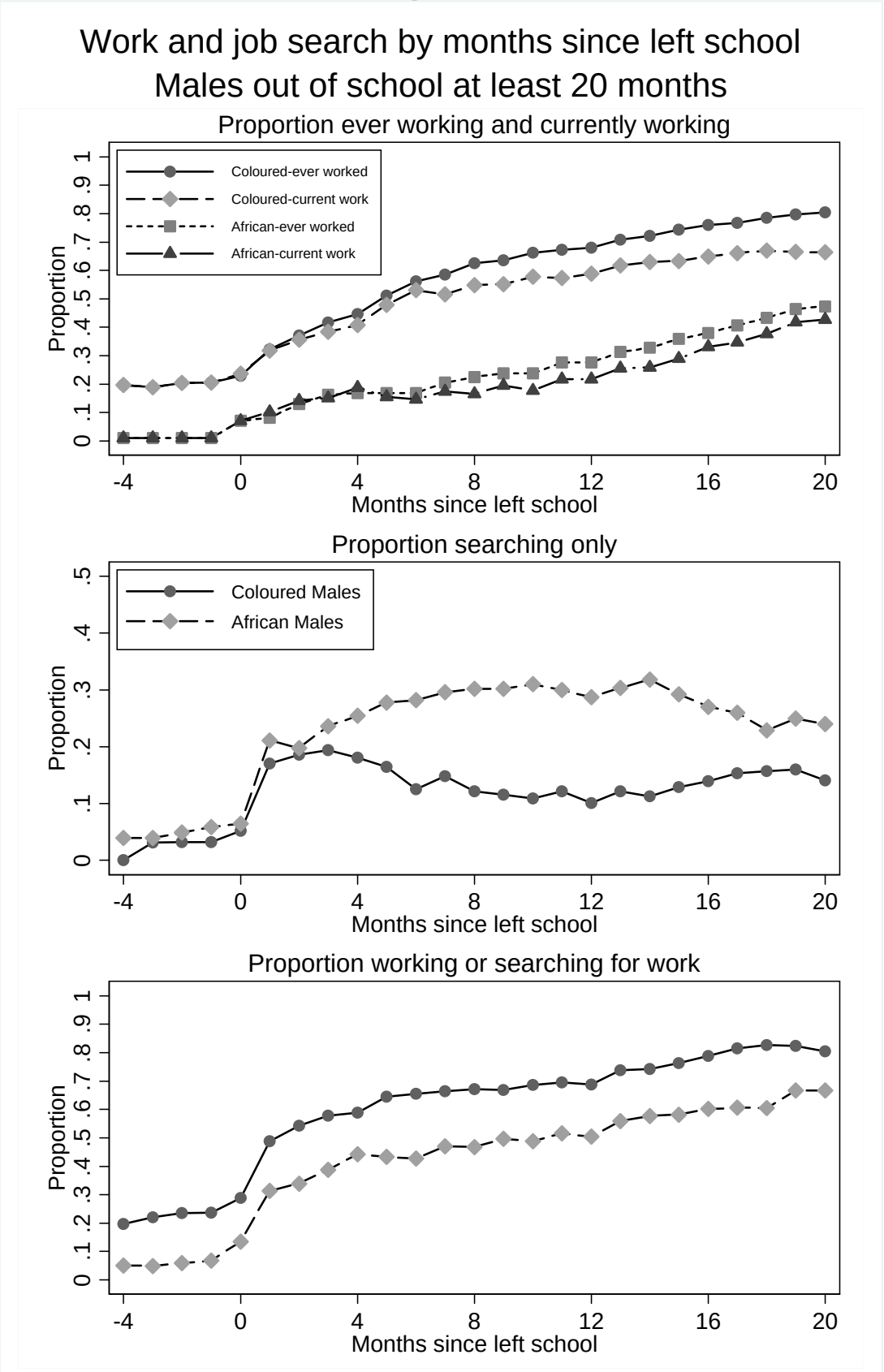
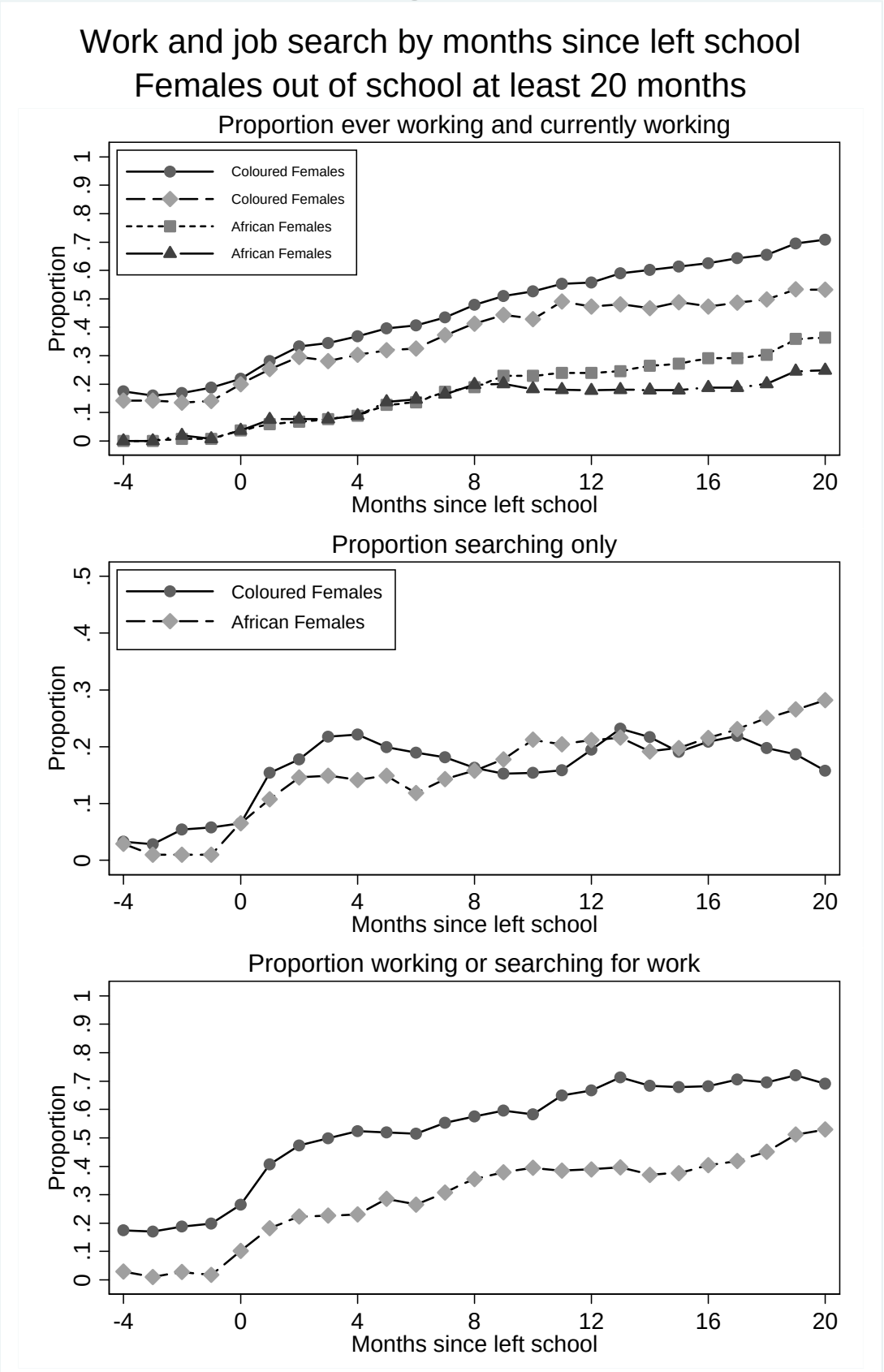

Work and job search by months since left school
Males out of school at least 20 months
Proportion ever working and currently working
Coloured-ever worked
Coloured-current work
African-ever worked
African-current work
Proportion
0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1
-4 0 4 8 12 16 20
Months since left school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


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 9 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 is 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. This may reflect the impact of HIV/AIDS, although the evidence is only indirect. CAPS does not do HIV testing and does not ask directly about HIV status. The results do suggest that poor health does affect the employment of some South African youth.

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 people 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.

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