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## REFLECTING ON RACIAL DISCRIMINATION IN THE POST-APARTHEID SOUTH AFRICAN LABOUR MARKET

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## Summary

*During the 20<sup>th</sup> century, South Africa's economy became increasingly ordered and controlled along racial lines. Since the official demise of apartheid in 1994, the State has implemented various policies aimed at redress. In this paper we use three sets of household surveys (1994, 2001 and 2011) to provide a picture of wage discrimination in post-apartheid South Africa, after almost twenty years of democratic rule. Evidence suggests that discrimination in the labour market has decreased since 1994 but unsurprisingly remains a determinant of differential earnings between race groups. We also use a Re-centred Influence Function (RIF) approach to decompose the impact of discrimination across the wage distribution, and we track this over time. This allows us to make observations about the relationship between discrimination and wage levels: Discrimination appears to decrease with higher wages, and some of the largest decreases in measured discrimination are evident at higher wage levels.*

## 1. Introduction

*"South Africa is a country of two nations. One of these nations is white, relatively prosperous [...] The second and larger nation of South Africa is black and poor"*

– Thabo Mbeki, 1998

*"Race remains very important in cultural and social terms, but no longer structures economic advantage and disadvantage"*

– Jeremy Seekings, 2005

The extent of racial discrimination in South Africa is in many ways unique. While *de jure* and *de facto* segregation were important features of most colonial economies, the entrenchment and legalised extension of discrimination during apartheid was exceptional in that it lasted for so long – reaching its height in the 1960s when many African countries were approaching independence – and was so extreme – there are few historical parallels of such a strictly racially-ordered society and economy. In the labour market specifically, job reservation, restrictions on movement, and 'Bantu Education' led to stark differences in the occupational and earnings possibilities open to white and black workers. After the demise of apartheid all remaining racially discriminatory laws in South Africa were abolished and significant government effort was given to affirmative action, encapsulated by specific policies such as the Employment Equity Act (1998), Broad Based Black Economic Empowerment (2003). Unsurprisingly however, twenty years after the democratic transition substantial labour market differences between racial groups persist and the language of race remains a central feature of policy and debate.

The two opening quotes provide potentially opposing views on the state of South Africa. The first suggests a divided country on all fronts, while the second argues that while the country remains racially divided along social and cultural lines, in the world of work these divides have disappeared. Both quotes, however, can be read as putting forward a broad reading of discrimination that encompasses not just access to jobs, for example, but access to the many things that prepare one for a job. We explore this broader conception of discrimination toward the end of this piece. But if we understand racial discrimination strictly to mean treating two otherwise equal people differently based on their perceived race, how much of the wage differential across race groups in South Africa is due to discrimination in this sense? This strict reading is what we are interested in exploring in the post-apartheid labour market in South Africa, having no doubt that economic opportunities more broadly remain heavily determined by race.

Previous literature on discrimination in South Africa is mixed but overall suggests that in the post-apartheid environment, with the economy no longer structured by apartheid legislation and direct efforts at transformation being introduced and enforced by the State, the labour market has become increasingly de-racialised (Erichsen and Wakeford, 2001; Rosbabe, 2002; Chamberlain and Van der Berg, 2002). Measured in terms of earnings, a decreasing share of the differences in earnings across racial groups appears to be

attributable to discrimination (Burger and Jafta 2006, 2010). Yet despite the importance of understanding discrimination in South Africa there are only a handful of studies in the economics literature to date. In addition, within this small literature only the average impact of discrimination is estimated – the focus is on discrimination at the mean of the wage distribution for any given race group and year. This does not answer some interesting questions such as whether estimates of discrimination differ across the wage distribution and if so what this might suggest. And if we can look at wage earners in the middle and at the top of the distribution over time, what has happened? Econometric techniques can be used to derive answers to these more precise questions. Essentially in the short monograph we ask three questions: What is the influence of racial discrimination on earnings in the upper half of the distribution between white and African workers?<sup>1</sup> How has this changed over time? Is it different across the income distribution? The major limitations we face are those faced by most attempts to decompose earnings into a ‘discrimination’ component in that we cannot measure unobserved characteristics for individuals which almost certainly impact on earnings. In addition, we have no measure for educational quality, or the extent of a person’s social network. These issues are highlighted in our discussion of the results.

## 2. Data and Method

The data for this paper come from the October Household Survey (OHS), the Labour Force Survey (LFS) and the Quarterly Labour Force Survey (QLFS), which are all publicly available. For our analysis we only include White and African people of working age (15-65 years), and we focus on formal sector employees in occupations that are racially mixed, thus we exclude the following categories of employed persons: (1) self-employed; (2) agricultural workers; (3) domestic workers; (4) informal sector workers.

In our attempt to estimate the extent of racial discrimination we employ two methodologies. The first is the well-known Oaxaca-Blinder decomposition which we use to decompose the wage difference between White and African workers. We use the log of real hourly wages and model this for each worker as a function of various characteristics such as age, gender, educational level, union membership, geographic indicators, and the type of job they are in (occupation and industry). The second technique is to use Re-centered Influence Function (RIF) regressions, which allow us to conduct this same wage decomposition between the two race groups but at a series of different points in the wage distribution<sup>2</sup>.

## 3. Results and Discussion

Table 1 provides a basic overview of the workers in our sample and offers some detail on the average characteristics of the two groups. Noticeably, white workers are more urbanised than African workers and have two more years of education on average. Most important, however, are the wage comparisons: average white wages are substantially higher than African wages. Indeed without controlling for any individual characteristics average white wages are 2.4 times higher than black wages. Our intention is to investigate to what extent this difference is due to observable individual characteristics such as education, experience, age and so on, and what can be attributed in part to discriminatory treatment based on race.

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<sup>1</sup> We focus on white and African workers for analytical convenience (in that these two groups provide the most stark differences) and due to sample size. Linked to this we focus on the upper half of the wage distribution given that at the lower end there are few white workers competing for jobs.

<sup>2</sup> Contact the authors for a more detailed explanation of the estimation techniques.

**Table 1: Average Sample Characteristics**

	African	White
Working population ('000)	8 047.2	2 296.3
Age	37.7	40.3
Years of education	11.1	13.1
% Female	40.8%	47.9%
% Married	51.1%	68.5%
% Urban	77.3%	96.5%
Hours worked	43.2	42
Experience	20.5	21.2
Hourly wage (Rands)	17.1	41.4
White wage/x wage	2.4	1.0

Source: QLFS (2011)

Notes: Hourly Real Wage in 2000 prices.

Before proceeding to a more detailed analysis of earning decompositions it is instructive to examine the ways in which occupations overlay with race, and how this has changed over time. We do this in two ways. Firstly, Table 2 shows, for African and White workers separately, what the composition of employment by occupations is. In other words, in which occupational categories are most African (White) workers employed? Table 3 then presents the data for occupational category, showing the racial composition for each category, over time.

Table 2, below, makes it immediately evident that the majority of African workers are concentrated in medium and low skilled occupations, with 27% of all African workers in our sample employed in elementary occupations in 2011. This is in stark contrast to the fact that 63% of all white workers are employed in occupations classified as 'high skilled'. While the table is instructive, it only presents proportions which hide numerical changes that have taken place, for example, the proportion of African workers in 'high skilled' occupations has only increased slightly but if the growth in the number of African workers in the labour market are taken into account these shifts are substantial.

**Table 2: Occupational composition for both race groups**

Occupation	1994/95		2001/2		2011	
	African	White	African	White	African	White
<b>High Skilled</b>						
Legislators & Senior Officials	3%	14%	2%	20%	4%	27%
Professionals	3%	10%	2%	12%	3%	17%
Technical & Associated Prof.	8%	17%	8%	19%	9%	19%
<b>Medium Skilled</b>						
Clerks	8%	23%	6%	19%	9%	16%
Service & Sales	11%	10%	13%	10%	17%	8%
Craft & Trade	10%	15%	13%	11%	13%	9%
Operators & Assemblers	14%	4%	12%	2%	10%	2%
<b>Low Skilled</b>						
Elementary	31%	3%	24%	2%	27%	2%
<b>Total</b>	<b>89%</b>	<b>97%</b>	<b>80%</b>	<b>96%</b>	<b>91%</b>	<b>99%</b>

Source: OHS (1994/5), LFS (2001/2), QLFS (2011), Own Calculations.

Notes: Totals do not reflect the entire labour force as Indian and Coloured workers not shown.

Table 3 shows the changing racial composition of each occupational category over time. Here large shifts are more evident, particularly for workers in medium-skilled occupations. Among craft and trade workers, for example, the proportion of workers in this category that are African has risen from 54% in 1994 to 76% in 2011 – a 22% increase. The table does not include figures for Indian and Coloured workers but it is clear that the proportion of African workers in almost every occupation has risen rapidly. This provides some early evidence that there have been positive occupational shifts in the South African labour market over the period, and the analysis that follows explores the associated wage gains and to what extent we can explain the earnings differential between White and African workers.

Table 3: Occupational composition by race group

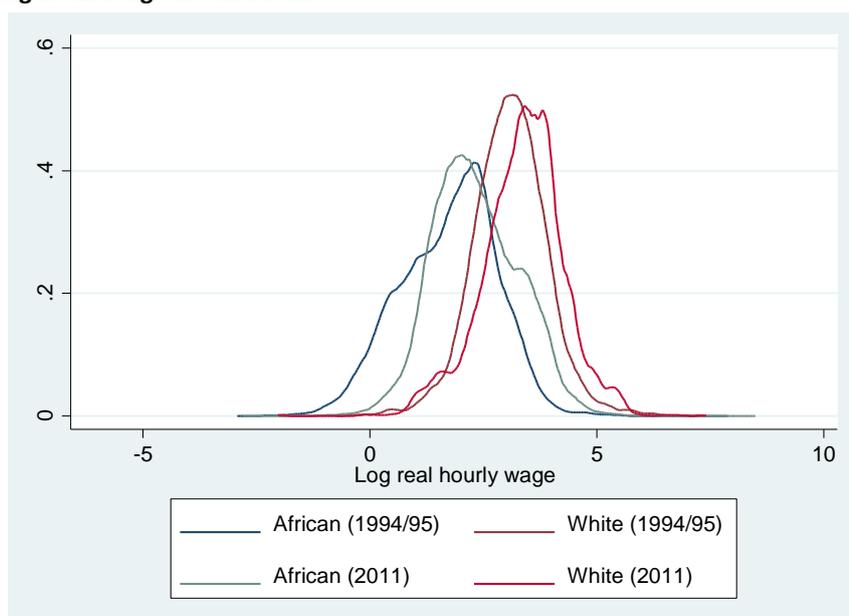
Occupation	1994/95		2001/2		2011		Overall $\Delta$	
	African	White	African	White	African	White	African	White
<b>High Skilled</b>								
Legislators & Senior Officials	35%	54%	26%	59%	33%	48%	-1%	-6%
Professionals	44%	45%	35%	53%	39%	44%	-6%	0%
Technical & Associated Prof.	51%	37%	51%	33%	55%	27%	4%	-11%
<b>Medium Skilled</b>								
Clerks	39%	43%	40%	36%	56%	22%	17%	-20%
Service & Sales	63%	20%	71%	15%	80%	8%	17%	-12%
Craft & Trade	54%	27%	71%	16%	76%	11%	22%	-16%
Operators & Assemblers	75%	7%	81%	4%	81%	4%	7%	-3%
<b>Low Skilled</b>								
Elementary	82%	3%	81%	2%	86%	1%	5%	-1%

Source: OHS (1994/5), LFS (2001/2), QLFS (2011), Own Calculations

Notes: Indian and Coloured workers not shown

A useful starting point for our wage decomposition exercise would be to understand the distribution of wages for both African and White workers in more detail and examine how these distributions have changed over time. This is shown in Figure 1. Since 1994, the wage distributions for both African and White workers have shifted to the right, however, there appears to have been a slightly larger shift in the African wage distribution. In particular, at the upper and lower ends a large rightward shift can be seen. Overall the figure suggests that the median White worker continues to earn more than the median African worker, as Table 1 indicated, but there has been some narrowing of this gap over time. It is these precise differences in the labour earnings of the two groups that we aim to better understand.

Figure 1: Wage distributions



Source: LFS (2001/2), QLFS (2011), Own Calculations.

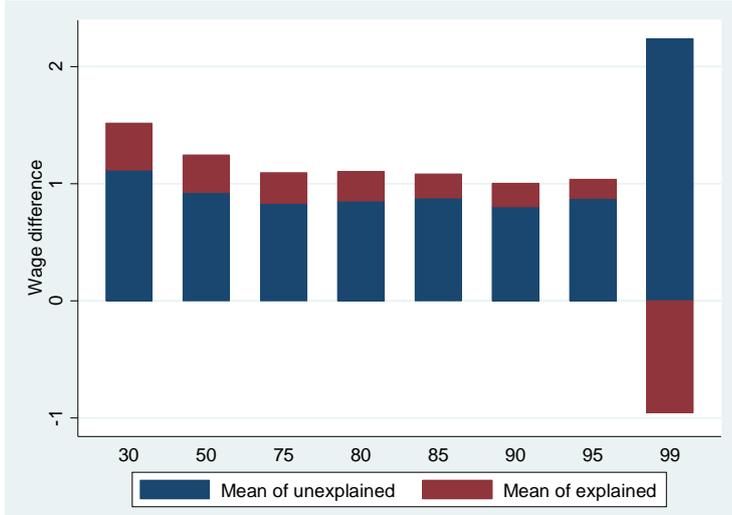
Our econometric estimations are conducted at three points in time: 1994, 2001 and 2011 (see Figures 2-4). In addition, we look at different points in the wage distribution, with a focus on the upper half of the distribution. We present three key outcomes – the wage gap, the explained component of this gap and the unexplained component. The explained component represents the portion of the wage gap that is attributed to productive individual characteristics such as age, gender, educational level, geographical indicators, and the type of job (occupation and industry). The unexplained component then is the remaining portion of the wage gap that is attributed to unobservables. These unobservables include factors such as the quality of education, networks, and of course, the element of discrimination where workers who are ostensibly the same earn different amounts simply based on their race. Whilst it is difficult to completely isolate the discrimination effect, we begin with 1994 which was essentially unchanged from the apartheid economy, and we continue to control for the same explanatory variables at each point in time which strengthens our argument that the observed changes in the unexplained component can be attributed to changes in labour market discrimination.

In 1994, the gap between African and White log hourly real wages were high across the wage distribution (Figure 2). This is unsurprising given that the labour market was largely representative of the apartheid labour market at that stage, and policies to address historical discrimination were yet to be implemented. Naturally then, the unexplained component at each point in the wage distribution – capturing the discrimination effect – explains almost all (74%-84%) of the wage gap, and furthermore, it is considerably higher at the very highest levels of wage income.

By 2001, there have been two important changes illustrated in Figure 3. First, the wage differential between similar White and African workers declined from the 1994 levels. These differentials have declined at each point in the distribution and relatively more at higher wage levels – except at the very top of the wage distribution. Secondly, above the median level of labour earnings, the discrimination component has fallen since 1994, and again, relatively more at the higher wage levels.

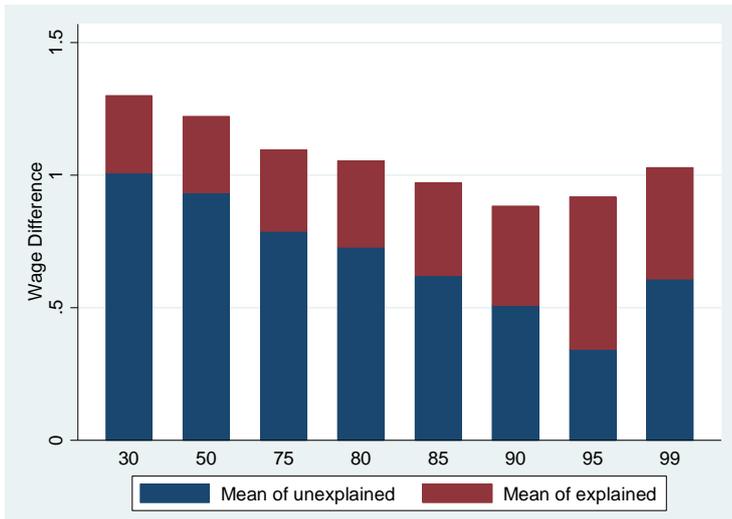
Ten years later, in 2011, we see similar changes occurring (Figure 4). Both the wage differential and the unexplained component of this differential have continued to decline, and relatively more at higher earnings levels, except for those at the highest earnings. There is clearly then a U-shaped discrimination effect in the top half of the distribution, with the lowest levels of discrimination occurring in the 85<sup>th</sup> to the 95<sup>th</sup> wage percentiles. This supports research suggesting that redress has most benefitted those at the upper end of the wage distribution in South Africa (Marais, 2011). Also driving this outcome may be the fact that there has been some progress toward more equal access to education for those in the relatively higher wage percentile groups. At very high earnings levels though, networks may still play an important role in the labour market and as such wage differences between Africans and Whites at the extreme upper end of the distribution remain high, as does the unexplained proportion of this gap.

**Figure 2: The Wage Gap, and the Explained and Unexplained Components (1994/5)**



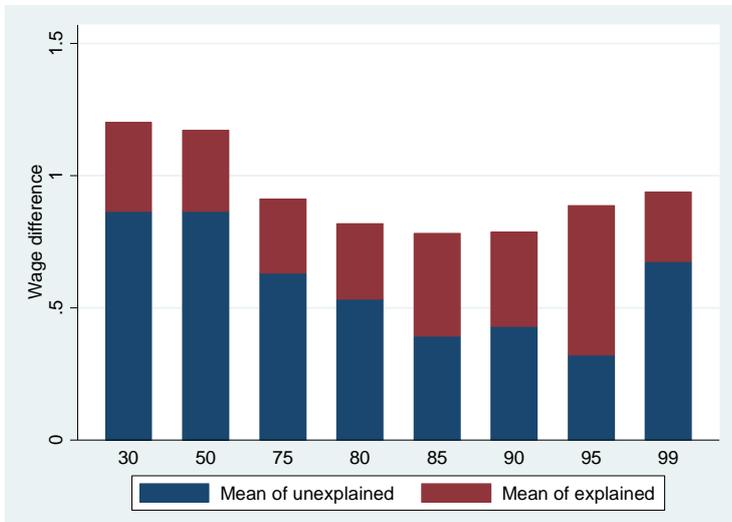
Source: OHS (1994/5), own calculations

**Figure 3: The Wage Gap, and the Explained and Unexplained Components (2001/2)**



Source: LFS (2001/2), own calculations

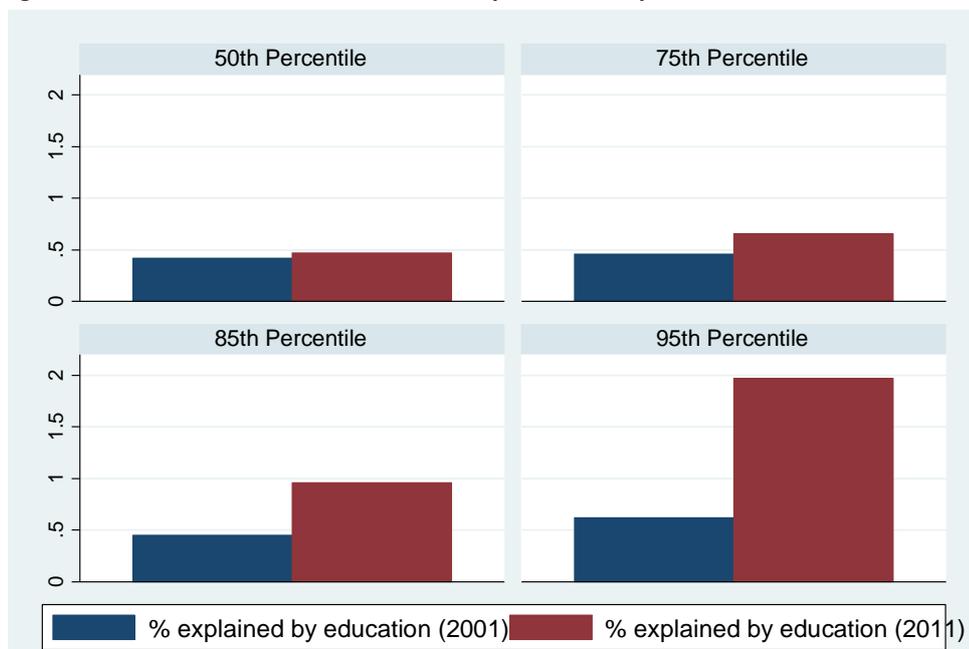
**Figure 4: The Wage Gap, and the Explained and Unexplained Components (2011)**



Source: QLFS (2011), own calculations

A closer look at the coefficients over time suggests that education plays an important role in understanding the drivers of the wage gap. Figure 5 shows the contribution of the coefficient on education to the explained component of the wage gap over time, and at different points in the wage distribution. Clearly, at each wage level, education has become an increasingly important component of the explained wage differential. Furthermore, it is relatively more important at higher earnings levels. This suggests that the narrowing of the wage gap is linked to increasing access to education.

**Figure 5: Co-efficient on Education in the ‘Explained’ Component**



Source: LFS (2001/2), QLFS (2011), own calculations

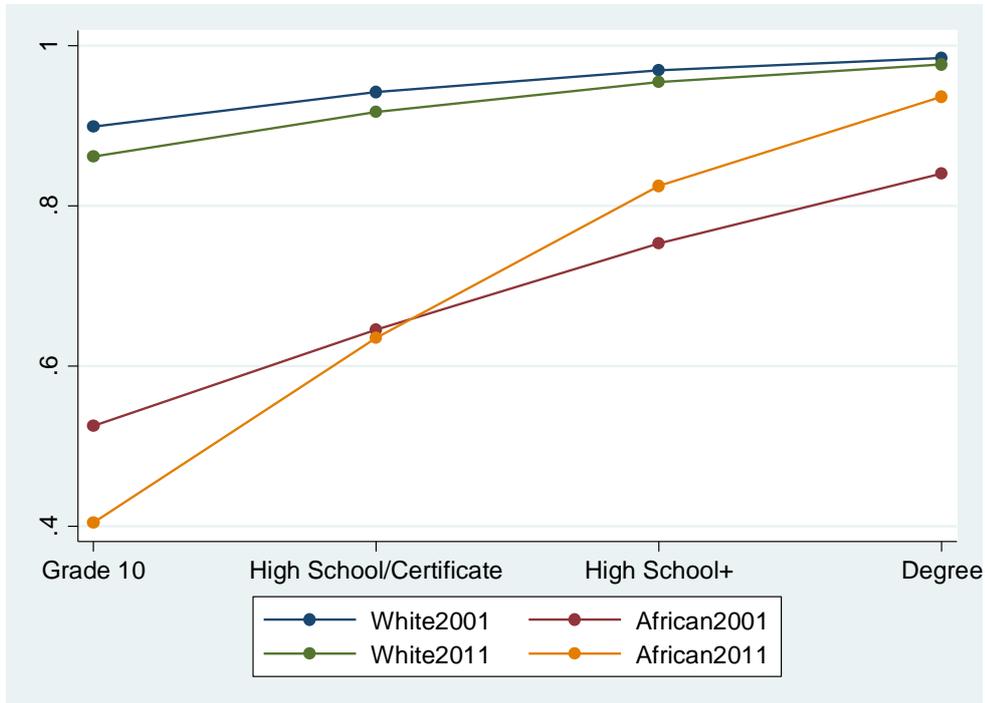
Whilst some narrowing of the wage gap between African and White workers over time appears to come from the impact of education, our analysis does not capture other factors that influence access to education, or education quality. In South Africa, there is evidence to show that the learning outcomes of pupils at historically Black schools are significantly lower than those at historically White schools (Spaull, 2013). Given that the quality of schooling in South Africa remains highly unequal, and highly stratified by race, we expect that if we were able to control for the quality of schooling it would absorb a large portion of the unexplained component.

The issue of education also links to an issue raised earlier regarding strict and broad conceptions of discrimination. Our results show a somewhat positive picture in that we observe both declining wage gaps and less discrimination against Africans in the labour market over time, however, it hides some of the underlying inequalities. In other words, even if we were able to control for the quality of education and find that strict discrimination disappears, if the underlying factors in society are such that access to quality education between Africans and Whites does not equalise, Africans will continue to be disadvantaged in the labour market, and this can be thought of as discrimination in a much broader sense. This then shifts the policy focus away from anti-discrimination policies in the labour market toward addressing more fundamental historical inequalities that continue to determine people’s labour market outcomes before they enter it.

This reality is exacerbated by the fact that South Africa’s economic growth path is relatively skills-intensive, thus raising the returns to quality education. Evidence has shown that since 2001, there have been significant job losses in the primary sector and that employment growth is driven predominantly by the tertiary sector in high and medium skilled jobs (financial sector and retail trade) (Bhorat, Goga, and Stanwix, 2013). A simple

way to examine this is to estimate the conditional probability of employment for Africans and Whites at different levels of educational attainment (Figure 6).

**Figure 6: Conditional Probability of Employment, African & White, 2001 & 2011**



Source: LFS (2001/2), QLFS (2011), own calculations

For Africans, there is a rapid increase in the probability of employment with each successive increase in education level, emphasising the relatively higher returns to higher education. In fact, the employment probability gap between Whites and Africans almost disappears for those with a university degree. For Africans with either a matric qualification or less, the likelihood of being employment is very low, and this to some extent captures the unemployment crisis in South Africa.

#### 4. Conclusion

In summary, we have shown that since 1994, there has been an increasing proportion of African workers in medium-skilled occupations and a lower the proportion working in low-skilled occupations. There has also been an associated rightward shift of the wage distribution for Africans over time. However, on average Whites continue to earn more than Africans in our sample and our paper investigated this differential by decomposing it and tracking the changes over time. Our econometric results show a narrowing of the wage differentials between Whites and Africans over time, at each point in the wage distribution (except for the very top of the distribution). Moreover, the unexplained component of the wage gap has also declined over time across the distribution, and relatively more at higher earnings levels, which suggests that if we understand discrimination in a strict sense that levels of racial discrimination in the labour market have fallen. Beyond this, we provided evidence that increased levels of education appear to have contributed to the falling racial wage gap, but that if we consider that access to quality education is still racially structured then broad discrimination still explains much of the wage differentials in our sample.

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