

Reflecting on racial discrimination in the post-apartheid South African labour market

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Outline

- Background
- Aggregate employment changes since 1994
- Methodology
- Descriptive stats
- Econometric results
- Discussion

Background

- South Africa's economy was strictly racially ordered until 1994
 - Unequal education, land dispossession , job reservation acts, influx controls
- Unique in the extent and duration of extreme discrimination
- Since 1994, affirmative action and black economic empowerment legislation has aimed to redress historical inequalities
 - Employment Equity Act (1998)
 - Broad-based Black Economic Empowerment Act (2003)

Comparative perspective

	Labour Force (total)	Unemployment rate (%)	Labour force participation rate, total (%)	Informal sector as % of non-agri employment	Employment in Industry (%)	Size of public sector
Brazil	103,193,816	6.7	66.1	42.2	21.9	20.7
Chile	8,344,949	7.1	59.8	-	23.4	12.0
Colombia	22,655,935	11.1	68.5	59.6	20.7	16.1
Costa Rica	2,248,940	7.7	60.7	43.8	19.8	18.0
Ecuador	7,214,209	4.2	62.5	60.9	17.6	12.9
India*	484,343,281	3.6	53.4	83.6	25	N/A
Mexico	50,716,876	5.3	59.6	53.7	24.1	11.7
Paraguay	3,076,086	4.3	67.6	70.7	17.1	10.3
Russia	76,906,078	6.5	68.3	-	-	18.0
South Africa	18,627,037	24.7	50.8	32.7	24.3	21.8
Vietnam	51,933,140	2.0	77.0	68.2	21.3	5.9

Source: World Bank, 2014, ILO LABORSTA, 2012

Notes: Due to data availability all indicators are in 2011; *2012 data

Inequality: Gini Coefficients, 1995 and 2010

	Income		Expenditure	
	1995	2010	1995	2010
Total*	0.663	0.696	0.618	0.660
By Race of Household Head				
African*	0.587	0.645	0.548	0.581
Coloured*	0.489	0.588	0.474	0.542
Asian	0.462	0.522	0.445	0.489
White	0.446	0.469	0.397	0.450
By Gender of Household Head				
Male*	0.641	0.667	0.606	0.647
Female*	0.647	0.679	0.575	0.619

Source: Statistics South Africa (1995 and 2010) and Authors own calculations
 Notes: The asterisk (*) sign suggests statistically significant at the five percent level

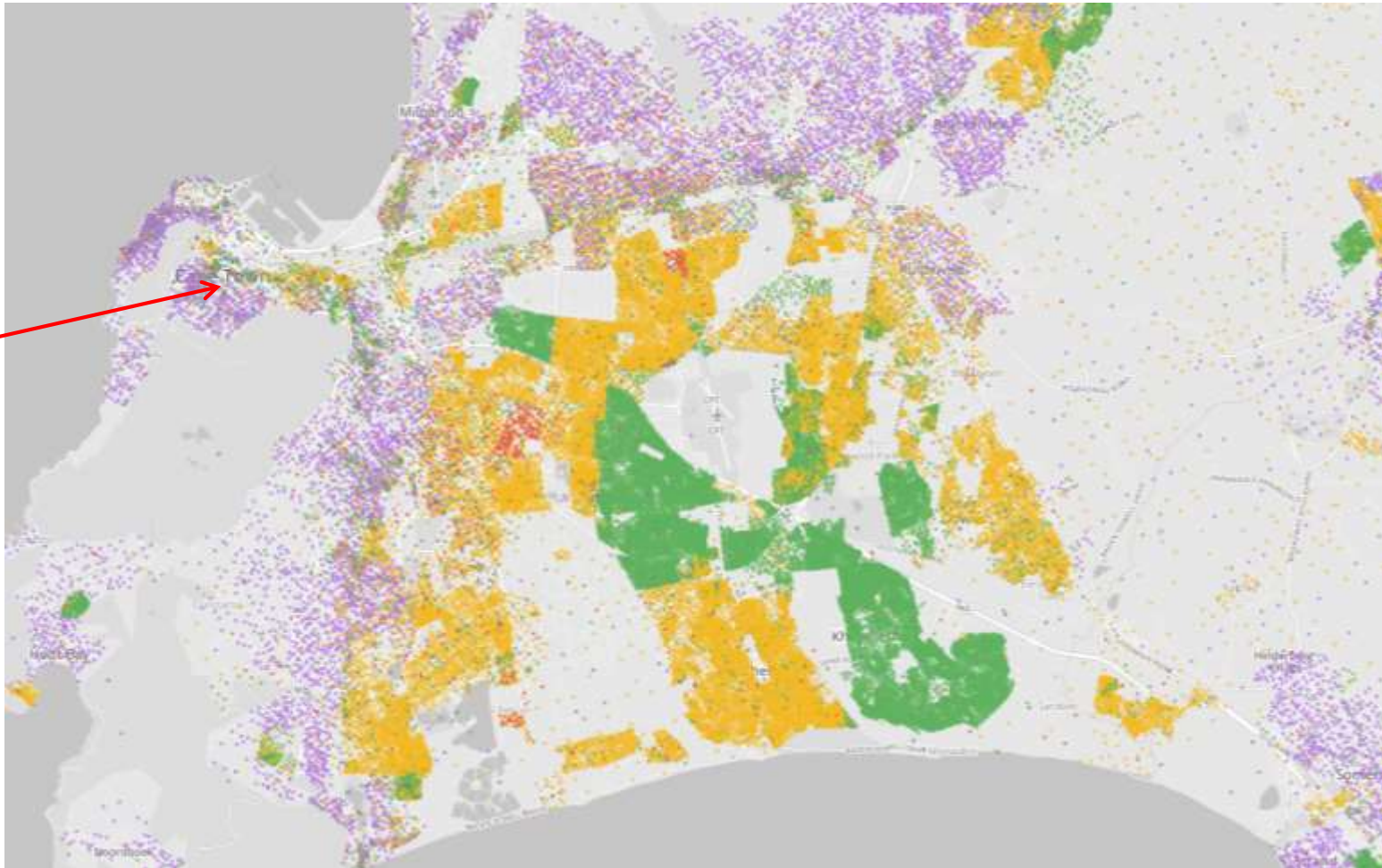
Spacial Inequality: Cape Town pop. density, by race (2011)

One dot = 50 people

- Black African
- Coloured
- Indian or Asian
- White
- Other

From self-identification in Census 2011.

City
centre



Source: Frith, A (2014)

Race and class interactions

- South Africa comprises two nations, the first “white, relatively prosperous [and] the second and larger nation... black and poor”
 - Thabo Mbeki, 1998
- “Race remains very important in cultural and social terms, but no longer structures economic advantage and disadvantage”
 - Seekings, 2005

Research questions and data

- What is the influence of racial discrimination on earnings in the upper half of the distribution?
- How has this changed over time?
- Is it different across the income distribution?
- Data
 - October Household Surveys (1994/1995 pooled)
 - Labour Force Surveys (2001/2001 pooled)
 - Quarterly Labour Force Survey (2011 pooled)
- Limitations

Descriptive stats by population group

	African	Coloured	Indian	White
Working population ('000)	8 047.2	1 584.0	530.5	2 296.3
Age	37.7	36.9	37.8	40.3
Years of education	11.1	11.2	12.5	13.1
% Female	40.8%	47.6%	44.5%	47.9%
% Married	51.1%	58.2%	66.7%	68.5%
% Urban	77.3%	98.1%	99.7%	96.5%
Hours worked	43.2	41.8	43.2	42
Experience	20.5	19.7	19.2	21.2
Hourly wage (Rands)	17.1	20.8	28.1	41.4
White wage/x wage	2.4	2.0	1.5	1.0

Source: QLFS (2011)

Notes: Hourly Real Wage in 2000 prices.

Employment: occupations, by race

Occupation	1994/95		2001/2		2011	
	African	White	African	White	African	White
High Skilled						
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%
Medium Skilled						
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%
Low Skilled						
Elementary	31%	3%	24%	2%	27%	2%
Total	89%	97%	80%	96%	91%	99%

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 are not shown

Racial composition per occupation

Occupation	1994/95		2001/2		2011		Overall Δ	
	African	White	African	White	African	White	African	White
High Skilled								
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%
Medium Skilled								
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%
Low Skilled								
Elementary	82%	3%	81%	2%	86%	1%	5%	-1%

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

Discrimination: What do we know so far

- Almost all studies estimate extent of discrimination at the mean of the income distribution
- Allanson and Atkins (2001) analyse the evolution of the racial wage hierarchy during 1993-1999
 - Wage differentials fell over the period
 - The residual component of wage differentials did not decline over the period
- Rospabe (2002): discrimination in the probability of employment between 1993 -1999 declined but wage discrimination increased.

Discrimination: What do we know so far (cont.)

- Most recent papers are Burger and Jafta (2006, 2010)

Year	Wage gap (White-African)	Unexplained component (of 100%)
1997 (male)	90%	54%
2006 (male)	120%	50%
1997 (female)	68%	59%
2006 (female)	90%	64%

Model

- Oaxaca Blinder decomposition

$$\ln w = \beta X + \varepsilon \quad (1)$$

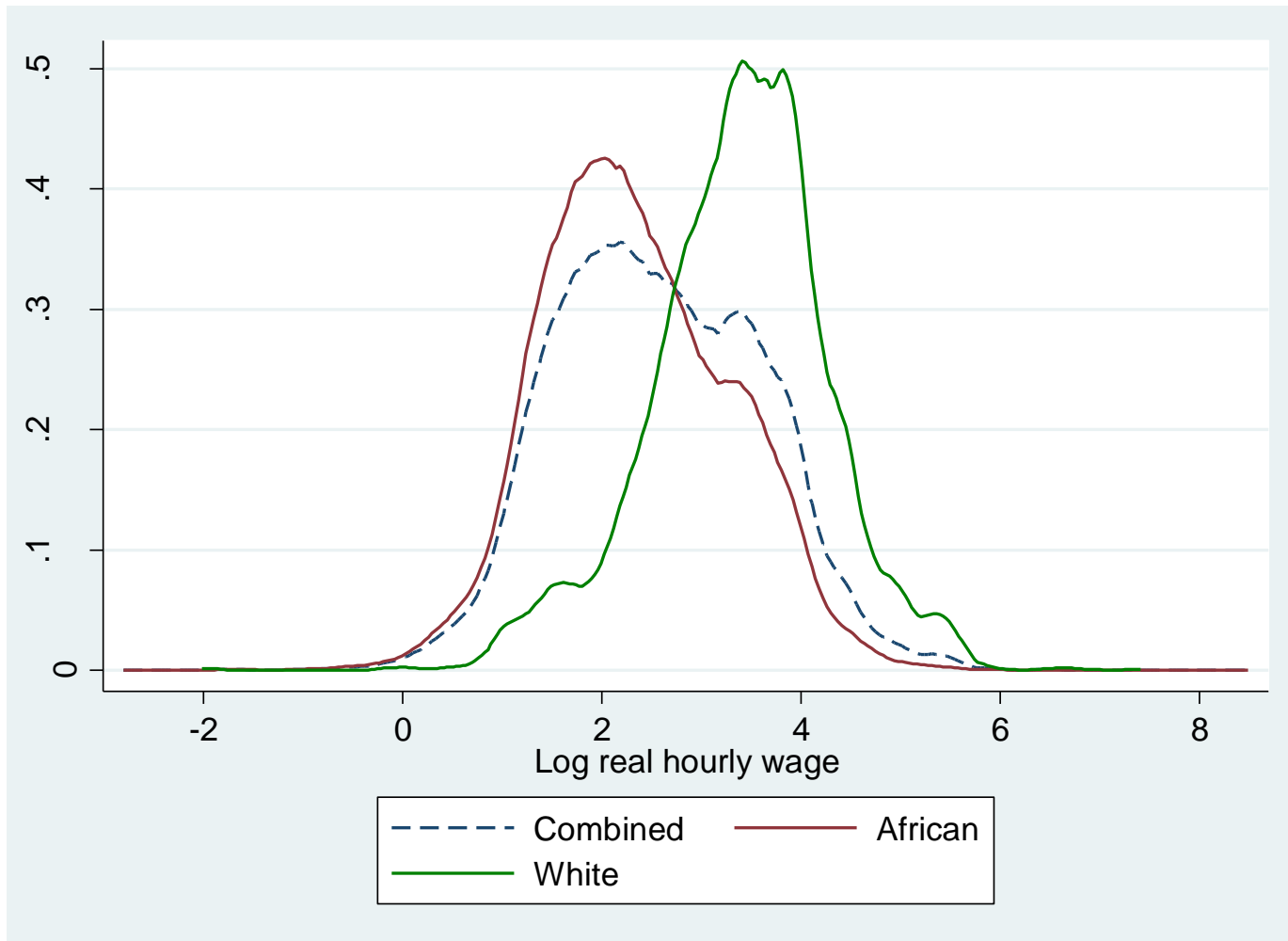
$$\ln \overline{w}_W - \ln \overline{w}_A = \overline{X}_W \beta_W - \overline{X}_A \beta_A \quad (2)$$

$$\ln \overline{w}_W - \ln \overline{w}_A = (\overline{X}_W - \overline{X}_A) b^* + \overline{X}_W (b_W - b^*) + \overline{X}_A (b^* - b_A) \quad (3)$$

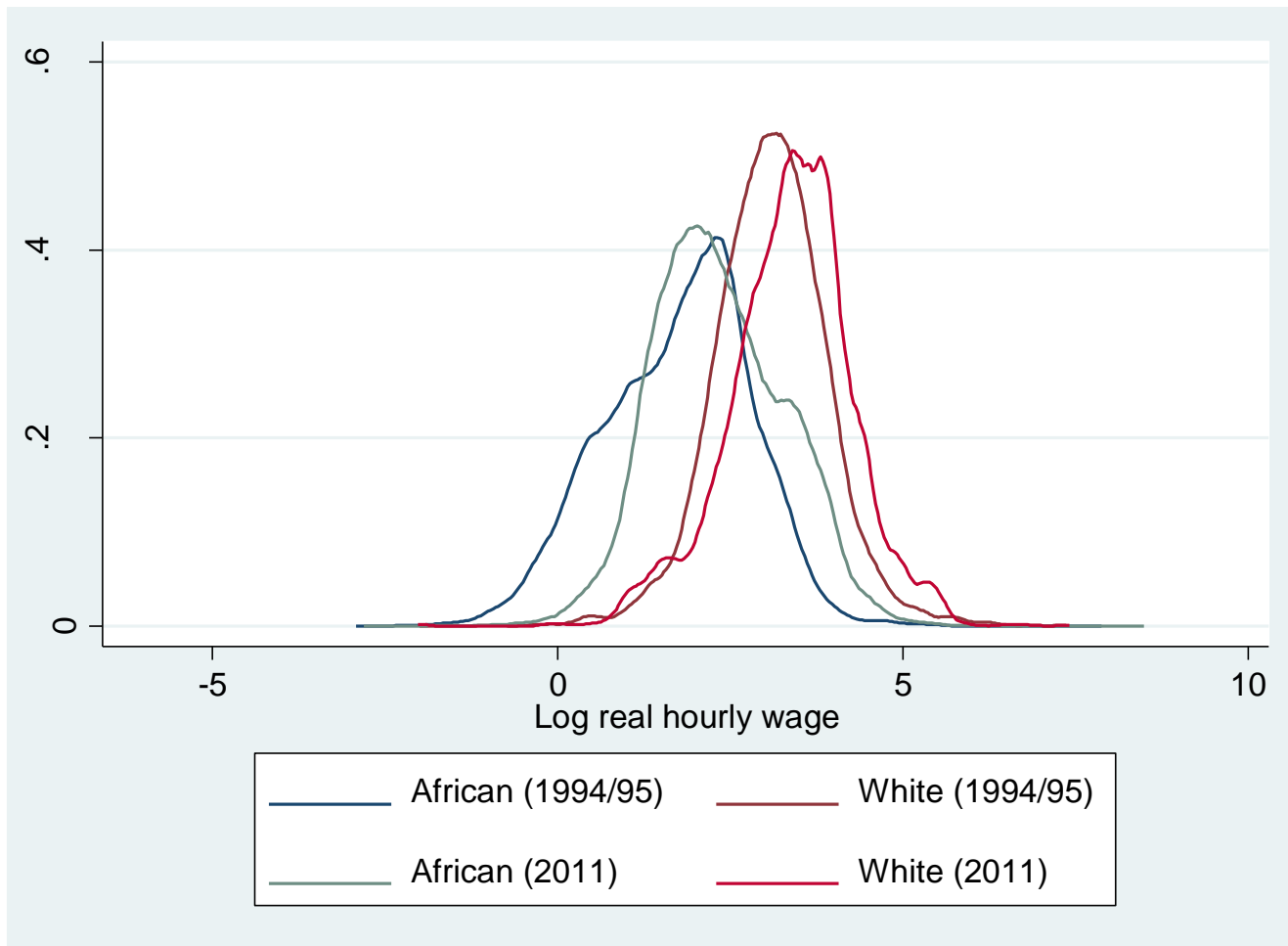
$$\ln \overline{w}_W - \ln \overline{w}_A = (\overline{X}_W - \overline{X}_A) \beta_W + \overline{X}_A (\beta_W - \beta_A) \quad (4)$$

- The Re-centred Influence Function regressions allow us to decompose the wage differentials at different points in the income distribution (Firpo, Fortuin, and Lemieux, 2010)

Wage distributions (2011)



Wage distributions (1994/95, 2011)



Econometric results

- Three points in time: 1994, 2002, 2011
- We look at different points in the income distribution (30th, 50th, 80th, 85th, 90th, 95th and 99th percentiles)
- Present three key outcomes:
 - The wage gap
 - The explained component
 - The unexplained component (discrimination & unobservables)

The apartheid wage differentials (1994/95)

	P30	P50	P75	P80	P85	P90	P95	P99
Difference	1.519	1.246	1.097	1.104	1.083	1.005	1.039	1.284
	(0.019)	(0.017)	(0.017)	(0.018)	(0.020)	(0.022)	(0.034)	(0.094)
Explained	0.401	0.322	0.262	0.249	0.204	0.199	0.165	-0.955
	(0.036)	(0.031)	(0.033)	(0.036)	(0.040)	(0.050)	(0.095)	(0.388)
Unexplained	1.118	0.924	0.835	0.855	0.878	0.806	0.873	2.239
	(0.040)	(0.033)	(0.033)	(0.037)	(0.041)	(0.050)	(0.094)	(0.414)
<i>Unexplained (% of difference)</i>	74%	74%	76%	77%	81%	80%	84%	174%

Early post-apartheid wage differentials (2001/02)

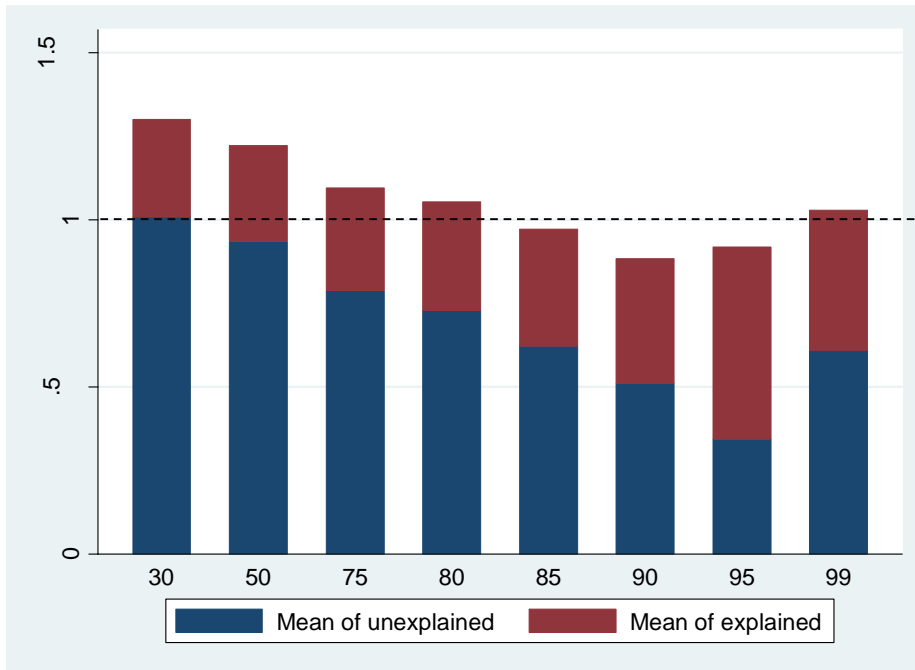
	P30	P50	P75	P80	P85	P90	P95	P99
Difference	1.300	1.222	1.095	1.053	0.972	0.884	0.918	1.030
	(0.019)	(0.018)	(0.020)	(0.021)	(0.023)	(0.026)	(0.041)	(0.085)
Explained	0.291	0.289	0.308	0.324	0.350	0.374	0.574	0.421
	(0.040)	(0.034)	(0.037)	(0.038)	(0.041)	(0.050)	(0.081)	(0.190)
Unexplained	1.009	0.933	0.787	0.729	0.622	0.510	0.344	0.608
	(0.044)	(0.036)	(0.038)	(0.039)	(0.041)	(0.049)	(0.070)	(0.166)
<i>Unexplained (% of difference)</i>	<i>78%</i>	<i>76%</i>	<i>72%</i>	<i>69%</i>	<i>64%</i>	<i>58%</i>	<i>37%</i>	<i>59%</i>

The earnings gap in 2011

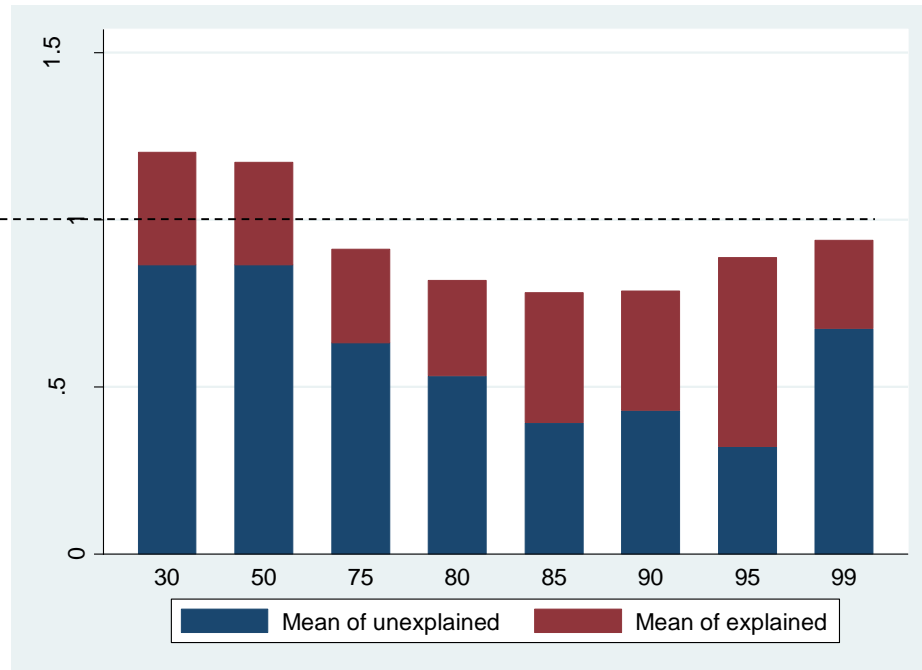
	P30	P50	P75	P80	P85	P90	P95	P99
Difference	1.202	1.171	0.912	0.817	0.782	0.786	0.887	0.938
	(0.018)	(0.016)	(0.017)	(0.018)	(0.021)	(0.022)	(0.040)	(0.045)
Explained	0.336	0.306	0.281	0.286	0.391	0.358	0.567	0.264
	(0.865)	(0.026)	(0.021)	(0.024)	(0.031)	(0.032)	(0.064)	(0.054)
Unexplained	0.865	0.865	0.631	0.532	0.391	0.428	0.320	0.674
	(0.039)	(0.029)	(0.023)	(0.0257)	(0.030)	(0.031)	(0.051)	(0.046)
<i>Unexplained (% of difference)</i>	72%	74%	69%	65%	50%	54%	36%	72%

A visual comparison

2001/02



2011

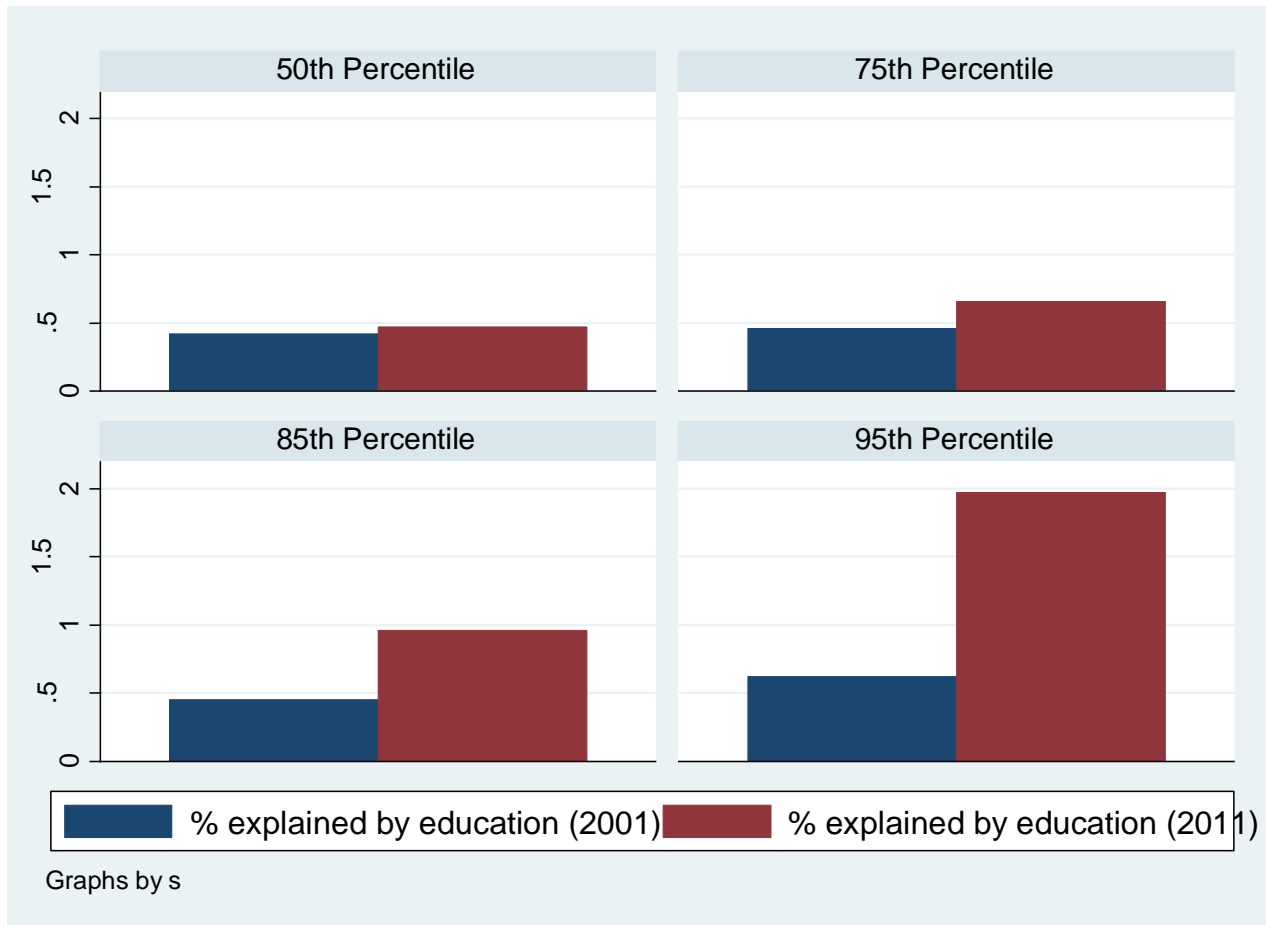


Summary of results

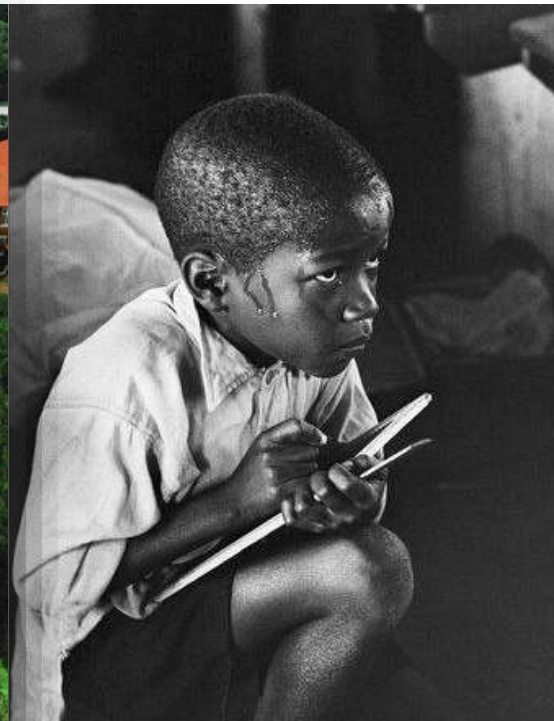
- Descriptives:
 - Growing proportions of Africans in medium-skilled occupations
 - Rightward shift of the African wage distribution
- Econometric results:
 - High but declining wage differentials over time at each point in the distribution
 - Unexplained component declines considerably over time at each point in the distribution, and across the distribution

A partial explanation

Co-efficient on education in the 'explained' component



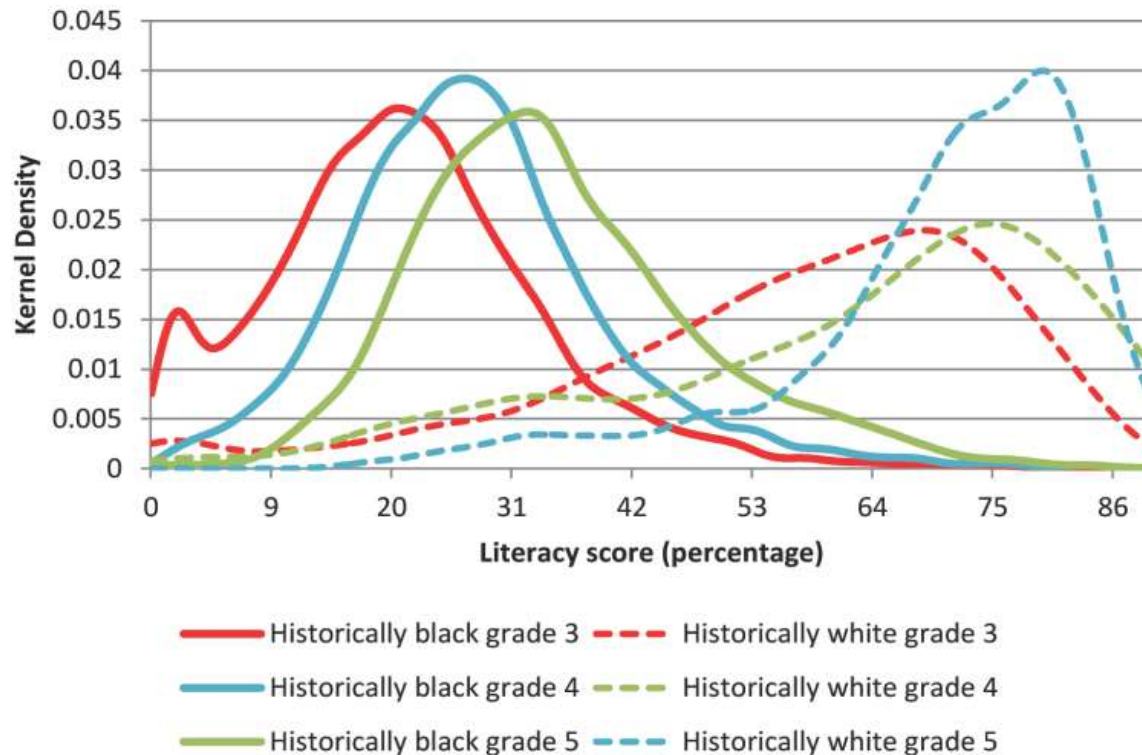
Educational inequality



Source: Spaul, N. 2014

Unequal schooling outcomes

Kernel Density curves, 2007, 2008, 2009



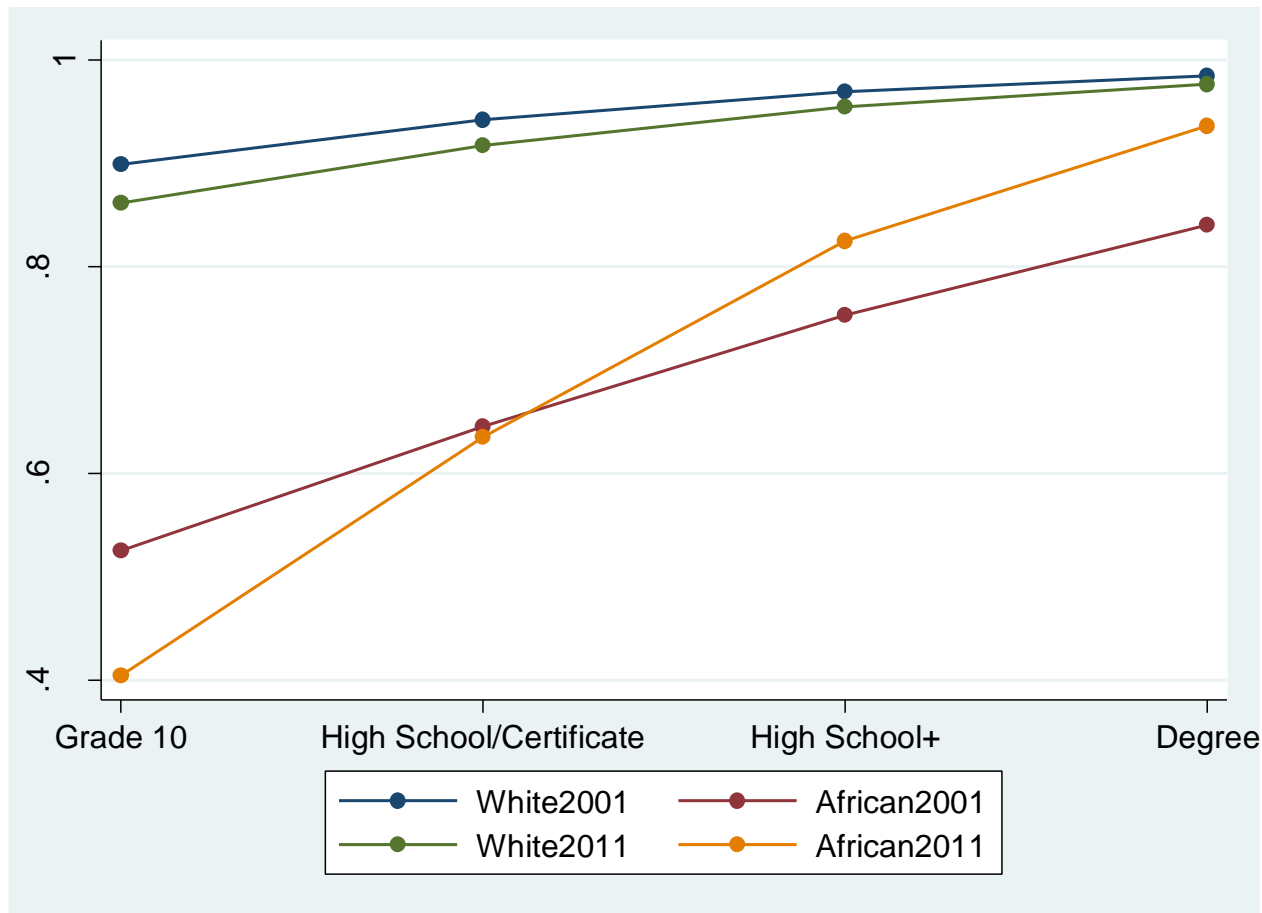
Source: Taylor, S. 2011

Skills-biased Employment Shifts

		<i>Proportions</i>		<i>Change in Prop</i>	<i>Change in No</i>
		2001	2012	2001-2012	
Primary	High-Skilled	0.03	0.08	0.05	27,602
	Med-Skilled	0.54	0.37	-0.17	-571,229*
	Unskilled	0.43	0.56	0.13	-175,392*
	Total	1	1	-719,232*	
Secondary	High-Skilled	0.14	0.18	0.04	188,518*
	Med-Skilled	0.70	0.62	-0.08	136,140
	Unskilled	0.16	0.20	0.04	214,002*
	Total	1	1	537,376*	
Tertiary	High-Skilled	0.27	0.29	0.02	931,498*
	Med-Skilled	0.42	0.43	0.008	1,214,349*
	Unskilled	0.31	0.28	-0.03	576,288*
	Total	1	1	2,720,821*	

Source: StatsSA (LFS 2001 and QLFS 2012), Author's Calculations

Conditional employment probabilities (2001-2011)



Discussion

- Discrimination vs legacies of inequality (education)
- Discrimination vs. structural constraints (skills-biased growth path)
- Broader lessons: the role of state in enforcing transformation (legislation not enough), equal opportunities to quality education

Thank you