

Affirmative action policies and the evolution of the South African racial wage gap

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Background

- Discrimination hurts incomes of various groups
 - Majority discriminator: only minority affected (USA) (Becker, 1992 Nobel Prize lecture)
 - Minority discriminator: incomes of all affected
 - Prediction: demise of discrimination
 - Fall of apartheid South Africa for this reason?
- Democratic South Africa
 - Racial wage gaps have **not** disappeared
 - Despite targeted affirmative action policies
 - This paper: empirical estimates of changes in discrimination

Evolution of wage discrimination in SA

Institutionalised labour market discrimination under *apartheid*: racial job reservation (since 1911), African unions banned, inter alia

- **1970s:** white men earned 5.7x more than black men due to job reservation (Knight & McGrath, 1977)
- **1980-1993:** narrowing of gap due to increases in education (Moll, 2000) and unbanning of black unions (Lewis, 2001)
- **1994-1999:** *Widening* wage gap (including discrimination component) (Sherer, 2000; Erichsen & Wakeford, 2001; Allanson et al, 2002; Rospabe, 2002)
- **2000 onwards:** Affirmative action with negligible *mean* effect (Burger & Jafta, 2010); rise in black middle class

Objective: Monitor effects of targeted AA policies by accounting for unobserved generational heterogeneity

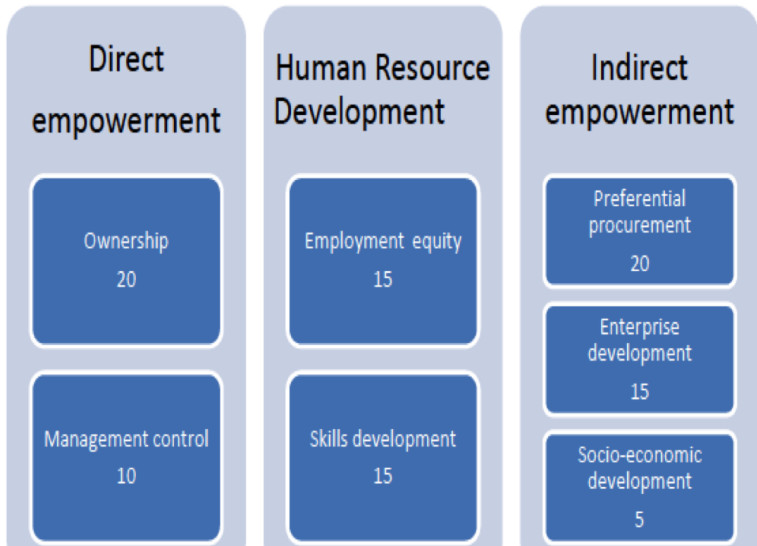
AA in South Africa

- 1993 Interim constitution lays foundation
- 1998 Employment Equity Act
 - Eliminate unfair discrimination
 - Positive development objectives towards:
 - Black, Coloured, Indian, Women, Disabled
 - EE targets by firms >50, audits, reports
 - Monitoring by DoL and employment equity commission
- 1998 Skills Development Act
 - 1% of payroll towards Sectoral Education and Training Authorities to build work-place human capital

AA in South Africa

- 2003 Broad-based Black Economic Empowerment Act
 - Beyond work-place regulation, but towards positive opportunity in all facets of life
 - *"[the] economic empowerment of all black people, including women, workers, youth, people with disabilities and people living in rural areas"*
 - Sectoral charters developed
 - Monitoring by "balanced score card".
 - government procurement, public-private partnerships, sale of state-owned enterprises, when licenses are applied for, and for any other relevant economic activity
 - Narrow scope towards race-based AA, excluding white women

BEE Scorecard



Oaxaca-Blinder (1973) Decomposition

$\log(\text{wages})$ for individual i in period t :

$$w_{it} = \mathbf{x}_{it}\beta_{r(i)t} + \eta_i + u_{it}$$

where $\beta_{r(i)t}$ are race-specific coefficient vectors for $r \in \{W; B\}$, and η_i are time-invariant determinants of productivity.

- Gap decomposed into:

$$\begin{aligned} & E(w_{it} \mid r(i) = W) - E(w_{it} \mid r(i) = B) \\ &= [E(\mathbf{x}_{it} \mid r(i) = W) - E(\mathbf{x}_{it} \mid r(i) = B)] \beta_{B_T} \\ &\quad + E(\mathbf{x}_{it} \mid r(i) = W) [\beta_{W_T} - \beta_{B_T}] \\ &\quad + E(\eta_i + u_{it} \mid r(i) = W) - E(\eta_i + u_{it} \mid r(i) = B) \\ &= \text{"productivitygap"} + \text{"discrimination"} + \text{"}\Delta\text{unobservables"} \end{aligned}$$

- Usual assumption:

$$E(\eta_i + u_{it} \mid r(i) = W) - E(\eta_i + u_{it} \mid r(i) = B) = 0$$

is unlikely to hold true

Shortcomings

- Unobservables correlated with race
 - Produces upward biased estimates of discrimination.
 - Most commonly cited candidates: quality of schooling, social networks, parental background, neighbourhood effects, trust.
 - van der Berg & Burger (2011) give indicative evidence that school quality represents about 75% of the gap;
 - School quality varies by generation
- Limited common support in covariates (e.g. white wages at primary schooling levels).
- **Changing generational composition of the labour force over time, with different endowments of observable and unobservable levels of human capital**

A new approach

Our approach attempts to address shortcomings:

- Restricting analysis to groups with 8 or more years of education
- Restricting sample to formal sector workers whose wages were consistently captured across surveys
 - Use harmonized Post-Apartheid Labour Market Series dataset from 1997 to 2011 with cross-entropy weights
 - No earnings data for 2008 and 2009 released
- Excluding "bad controls" from wage regressions
- Updated decomposition that accounts for birth cohort-level unobservables using repeated cross sections

A new approach

- Decompose time *changes* in wage gaps
 - ... but do so specifically *within* same birth cohorts to avoid confounding generational compositional changes in unobservables

- Rely on less stringent assumption than usual:

$$\begin{aligned} E(\eta_i + u_{it} \mid r(i) = W; \mathbf{C}(\mathbf{r}) = \mathbf{c}(\mathbf{w})) \\ = E(\eta_i + u_{it} \mid r(i) = B; \mathbf{C}(\mathbf{r}) = \mathbf{c}(\mathbf{b})) \end{aligned}$$

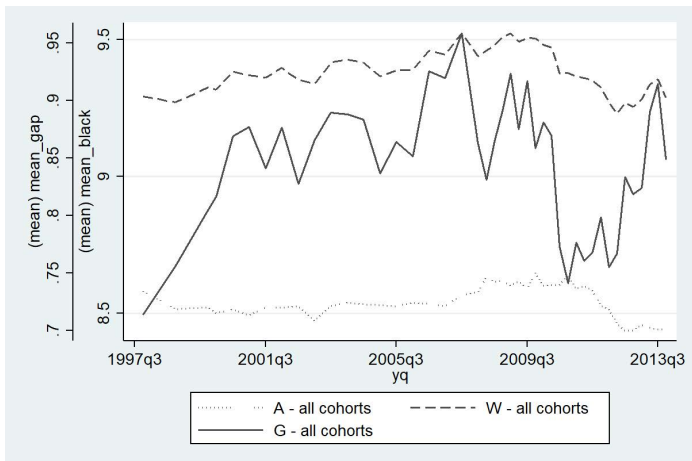
- Also: to distinguish between economy-wide time changes and dynamics across *specific* cohorts
 - Borrow elements from Age-Period-Cohort tradition: Deaton & Paxson (1994); Deaton (1997); McKenzie (2006); Browning et al (2012)

A new approach

$$\begin{aligned}
 \Delta_t \text{wagegap} &= (\bar{w}_{W_{ct}} - \bar{w}_{B_{ct}}) - (\bar{w}_{W_{c;t=1997}} - \bar{w}_{B_{c;t=1997}}) \\
 &= \bar{x}_{W_{ct}} [(\beta_{W_{ct}} - \beta_{W_{c;t=1997}}) - (\beta_{B_{ct}} - \beta_{B_{c;t=1997}})] \\
 &\quad + [(\tau_{W_t} - \tau_{W_{t=1997}}) - (\tau_{B_t} - \tau_{B_{t=1997}})] \\
 &+ \beta_{B_{c;t=1997}} [(\bar{x}_{W_{ct}} - \bar{x}_{W_{c;t=1997}}) - (\bar{x}_{B_{ct}} - \bar{x}_{B_{c;t=1997}})] \\
 &\quad + (\bar{x}_{W_{ct}} - \bar{x}_{W_{c;t=1997}}) (\beta_{W_{c;t=1997}} - \beta_{B_{c;t=1997}}) \\
 &\quad + (\bar{x}_{W_{ct}} - \bar{x}_{B_{ct}}) (\beta_{B_{ct}} - \beta_{B_{c;t=1997}}) \\
 &= \Delta \text{Discrimination} + \Delta \text{Attributes} + \text{Interaction}
 \end{aligned}$$

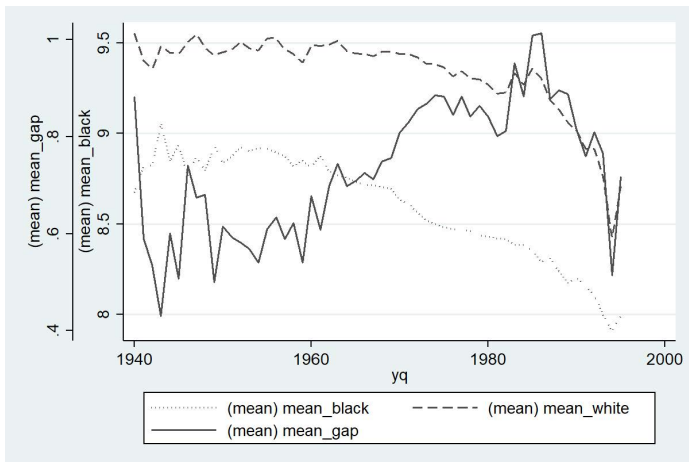
- Interaction: 1st term - **increase** in white attributes valued at initial discrimination; trade-off with "pure" changes in discrimination
- 2nd term - **narrowing** of gap due to increasing returns in African population

Evolution of $\log(wages)$

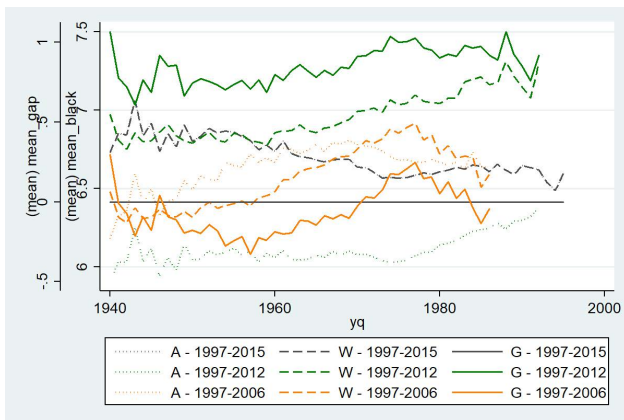


Survey disconnects
vs differential responses to business cycle phases

Evolution of $\log(wages)$

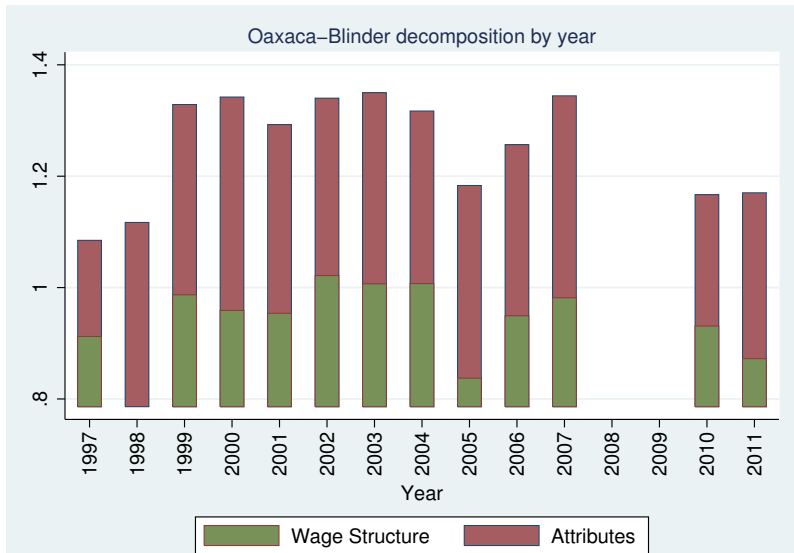


Evolution of $\log(wages)$

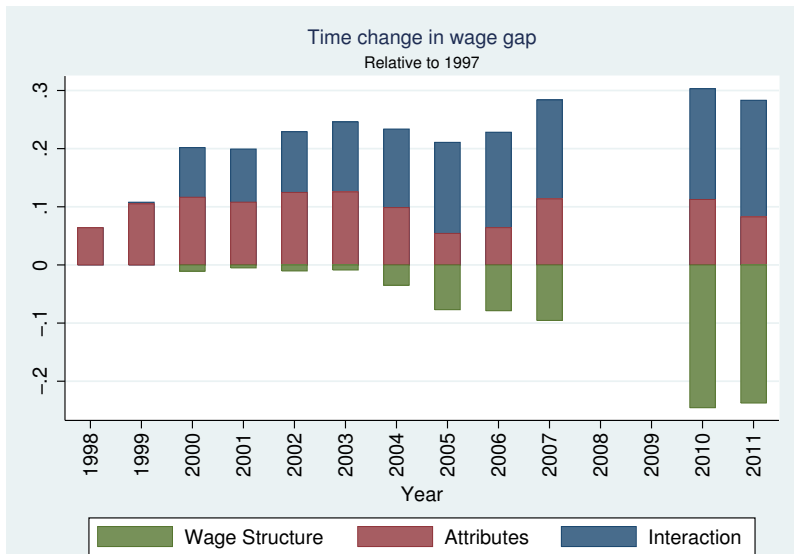


Removing life cycle effects suggest gaps have remained stable
 African age profile: slow incline → statistical discrimination

Usual Oaxaca-Blinder decomposition: over time



Δ Wage gap (base 1997): new method



Conclusions

- Racial wage gaps already declined before the end of apartheid
- Increased in the period shortly after transition
- 1998 Employment Equity Act only co-incides with increased returns to black *tertiary* education \neq **BROAD-BASED**
- 2003 BEE Act: in addition to further acceleration in black tertiary premium, *average* black wages now also rise
 - Narrowing of *average* wage gap among men
 - Role of minimum wages and the business cycle vs AA legislation?
 - Declines in wage gap post-2003 result from declining discrimination