

ERSA Research Brief

August 2017

Black living standards in South Africa before democracy

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The history of living standards in South Africa is a complex and incomplete picture. We know much more about the pre-1994 living standards of white South Africans – the descendants of European immigrants since the 17th century – than of black South Africans, the indigenous, Bantu-speaking population that had inhabited most of modern-day South Africa before the arrival of Europeans and have since formed the majority of the population. The reason for this dearth of knowledge is the lack of source material: whereas meticulous records were kept on white living standards from the beginning of settlement, the colonial and apartheid-era records often neglected to record the wages or incomes of black South Africans at the individual level. A different approach is thus necessary to provide a more complete picture of the evolution of South Africa's living standards before the advent of democracy.

We take this alternative route by considering three unique data sources that record the biological measure of height, or human stature. The relationship between growth, nutrition and income allows us to infer information on living standards by considering adult height. In order for optimum growth to take place, nutrition, medical conditions, and living conditions must be at their optimum (Komlos, 2003; Komlos and Baten, 1998). This is highly correlated with income and other measures of welfare (Steckel, 1995; 2009). As such, average height has been shown to rise with socioeconomic class (Steckel, 1983) which can be explained by the fact that factors such as quality of nutrition and access to medical care improve with socioeconomic class (Komlos and Lauderdale, 2007). By analysing the mean height of a sample of black South African males over the 20th century, we can shed light on the standard of living of a subsection of the population that has remained hidden for too long.

Our results respond to important questions in the South African economic history that have not yet sufficiently been addressed: Were poor black living standards a result of apartheid-era policies, or did this worsen even before South Africa's most infamous era? When did the divergence between white and black living standards occur? Finally, and most difficult, can we explain the level and trend within the black population over the twentieth century?

Our results come from three very unique data sources. Firstly, we consider a sample of black Southern African males born between 1895 and 1927 who enlisted in the South African military between 1940 and 1945. Secondly, we consider a group of black males whose skeletons are protected in the Raymond A. Dart Collection of Human Skeletons in the School of Anatomical Sciences at Wits University (Dayal et al. 2009). Thirdly, we add the 2008 National Income Dynamics Study (NIDS) survey data to measure the heights of individuals born after 1960. Each of these samples requires careful analysis of the likely incentives to be included in the sample, and the effect this might have on sample selection and inference.

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Our results show that black living standards showed little improvement over the 20th century, in contrast not only to the heights of most other world populations, but also to other population groups within the same country. Whereas the differences between black and white South Africans born in the 1980s were 9cm, the difference at the start of the century was already a sizeable 6.5cm. But this single measure masks considerable change over the twentieth century and surprising within-group inequality. We find that the events of the 20th century had varying effects on different ethnic groups within the black population group. In particular, the Sotho experiences the most change (at first negative and later positive) in living standards, while the Xhosa appear to remain largely constant throughout the century. As far as we are aware, we are the first to report on such living standard disparities within the black population. The mining boom of the post-gold standard era seems to have had particularly large effects on black male heights. Although a small sample size would undermine a full persuasive causal analysis of the reasons for these shifts and shocks, our results provide the first quantitative indications of the adverse effects of the repressive and discriminatory labour policies during the first three decades, and the oppressive apartheid policies of the second half of the twentieth century.

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