

A Comparative Analysis Of Immigrants And Natives' Occupational Attainment In Post-Apartheid South Africa

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ABSTRACT

This study investigates the occupational status of South African natives and immigrants, considering the intersection between race and nativity. Using census data for 2001, the study finds that whites dominate the top end of the occupational distribution, while the reverse is the case for Africans, irrespective of nativity. Thus, in post-Apartheid South Africa, race explains more of an individual's occupational status than country of origin – the legacy of apartheid still lingers on. The study also finds that South African-born Africans are more likely to compete for the same occupations with African immigrants from non-SADC countries than those from SADC countries. To some extent, this violates the claim that African immigrants from SADC countries steal natives' jobs.

Keywords: Race; Nativity; Occupation; South Africa; SADC Countries

INTRODUCTION

The quest for improved labour market opportunities and outcomes is a crucial driver of international migration. As such immigrants are a significant part of host countries' labour forces; they effectively contribute to those economies. It is, therefore, important to understand the relative position of immigrants in host nations' labour markets. This has instigated comparative studies of immigrants' and natives' labour market positions in host countries (see for instance, Borjas, 1994; Kogan, 2011; Bernadi, Garrido & Miyar, 2011; Gorodzeisky & Semyonov, 2011; Connor & Massey, 2010; Zuberi & Sibanda, 2004; Thomas, 2010). This literature, which is mostly concentrated in developed countries, is grounded on key indicators of labour market performance; i.e., labour force participation (LFP), employment, wages and occupational attainment. The first two allow comparisons of labour market opportunities, while the remainder facilitates the same for labour market outcomes. Immigrants' comparative status regarding labour market outcomes – occupational attainment and wages – is a proxy for relative economic well-being in recipient economies. Hence, it is a key indicator of immigrants' assimilation into these countries (Foroutan, 2008). This, in turn, determines how immigrants will contribute to the host countries' economic development.

Comparative studies of labour market opportunities (LFP and employment) generated mixed findings. Some found immigrants with relatively 'wider' opportunity sets than natives and vice versa (Butcher, 1994; Simon, 1989; Clark & Drinkwater, 2008; Kogan, 2011; Bernadi, *et al.* 2011). The immigrants' higher LFP and employment probabilities than natives' are, however, not unqualified goods. In some cases, immigrants have less favourable occupational outcomes and hence, wages than natives (Chiswick, 1978; Kogan, 2011; Bernadi, *et al.* 2011). Put differently, migration status 'selects' most immigrants (irrespective of their human capital) into low-ranking occupations associated with low skill requirements, lack of prestige, and low pay. This, apart from compromising the allocative efficiency of labour markets, also has undesirable effects on immigrants' aspirations and welfare. For instance, in South Africa, this may be caused by institutional barriers which make it difficult for immigrants to work in areas of their expertise - contributing to what has been termed brain waste in the literature. This disadvantage, however, often varies by demographic group and country of origin (Bernadi, *et al.* 2011; Thomas, 2010). Hence,

immigrants' occupational disadvantage cannot be generalized. As a whole, this suggests that a better understanding of immigrants' economic standing in destination countries requires both comparative analyses of employment opportunities and occupational attainment by, e.g., race, ethnicity, and country of origin.

Despite the importance of understanding these issues, they have mostly been engaged with in developed countries; this literature is currently scarce in developing countries such as South Africa. In light of the above, this study aims to investigate the case for South Africa. This is interesting because of South Africa's strategic and anchor position on the African continent which makes it a hub for immigrants. In fact, both skilled and unskilled immigrants play an important role in the functioning of the South African labour market. Skilled immigrants alleviate skills shortage in the country, while unskilled immigrants have historically been part of the labour market – working in mining and agricultural sectors.

To the best of our knowledge there is only one study that compares the labour market status of natives and immigrants in South Africa, Zuberi & Sibanda (2004). This study argues that foreigners have better employment opportunities than natives, regardless of race and country of origin. While this finding is informative, it does not exhibit the actual destination of foreigners in the labour market; i.e., whether they achieve higher or lower level occupations than natives, in general, and those of the same racial group, in particular. Consequently, this study investigates whether South African immigrants' relatively 'wider' opportunity sets are matched by occupational status. Apart from establishing the race-nativity related occupational ladder for South Africa, the study will ascertain whether immigrants also 'steal' natives' labour market outcomes. This is important given that black South Africans often assault their foreign counterparts, especially those from the SADC region, on allegations that they steal their jobs – xenophobic attacks. Hence, without a better understanding of the relative standing of immigrants in the South African labour market, the status quo may continue to fuel xenophobic attacks, with negative effects on the country's international reputation.

BACKGROUND

The Regional Strategic Role of South Africa

Historically, African migrant workers have worked in South Africa's mining, construction, and agricultural sectors. For example, in the 1960s, almost 50% of the mining labour force was from the SADC region (Lucas, 1985; Harington, 2004). Most immigrants have been attracted to South Africa by a number of pull factors and pushed from their countries of origin by push factors, including, but not limited to, abject poverty. South Africa's sheer size, political and economic stability are some of the factors attracting African immigrants. South Africa is Africa's largest economy and accounts for more than 20% of its GDP and 40% of the SADC region's GDP (Draper, et al 2010). Also, the demise of apartheid has seen South Africa become increasingly integrated with the rest of Africa. For example, the demise of apartheid saw a significant number of South African firms investing in a number of African countries. See, for example, Sasol (in Mozambique), Vodacom (in Tanzania and the DRC), Pretoria Portland Cement (in Zimbabwe), Eskom Enterprises (in the DRC), MTN (in Ghana, Liberia, Sudan, Rwanda and Guinea Bissau).

Political and economic instability, as well as deteriorating living standards in a majority of African countries - as is evidenced by a number of poor economic and social indicators, are some of the push factors forcing African immigrants into South Africa. For example, during the late 1990s and 2000s, Zimbabwe, South Africa's major trading partner in the SADC region and arguably the principal source of South Africa's immigrants, was dodged by political and economic instability which saw an influx of political and economic refugees into South Africa. Political instability in the DRC, Somalia, Ivory Coast, Rwanda, and Somalia also caused a huge influx of immigrants into the country.

Table 1 shows social and economic indicators for SADC member states. It is evident from the table that the economic well-being of an average South African citizen is quite high when compared to that of the citizens from other SADC countries. For example, using 2001 figures, South Africa's annual GDP per capita was \$9,500 compared to Zimbabwe's \$360, Mozambique's \$898 or DRC's \$298 (US dollars). More than 60% of the people in Zimbabwe, Malawi, Zambia, Tanzania and Mozambique were poverty stricken, living on less than \$1.25 per day.

Table 1 also shows that a significant number of people in the SADC region, outside South Africa, did not have access to clean water. All these factors reinforce each other to reduce the well-being of Africans living in SADC, outside South Africa. Such abject poverty forces other Africans to move ‘down south’ in search of better well-being. According to South Africa’s 2001 census, as shown in Figure 1, more than 70% of South Africa’s immigrants were from the SADC region.

Table 1: Economic and Social Indicators for the SADC Region

Country	GDI Per Capita (2009)	Population (Millions, 2009 Mid-Year Estimates)	Poverty (% Below Poverty Line) PPP \$1.25 A Day (2009)	Access to Improved Water (2009)	GER (2009)	% Population With Access To Clean Water (2009)
Angola	4,874	18.5	54.3	51.3	128	76.7
Botswana	13,049	1.9	30.6	..	110	95.0
DRC	280	66	59.2	55.5	90	34.5
Lesotho	1,664	2.1	43.4	18.4	108	89.6
Malawi	753	15.3	73.9	44.0	120	76.0
Mauritius	4,484	1.3	99	99.0
Mozambique	898	22.9	60.0	44.1	114	69.9
Namibia	6,206	2.2	38.0	14.7	112	97.3
Seychelles	16,729	0.09	0.3	..	131	..
South Africa	9,469	49.3	17.4	4.6	105	100.4
Swaziland	4,484	1.2	62.9	24.0	108	84.0
Tanzania	1,328	43.7	67.9	47.3	110	62.7
Zambia	1,254	12.9	64.3	49.8	119	69.2
Zimbabwe	376	12.5	72.0	24.2	104	79.8
SSA	1,966					
World	10,082					

Gross enrollment ratio (GER) is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. (Source: UNESCO Institute for Statistics). Source: World Bank Development Indicators Online and UNDP Human Development Report (2011).

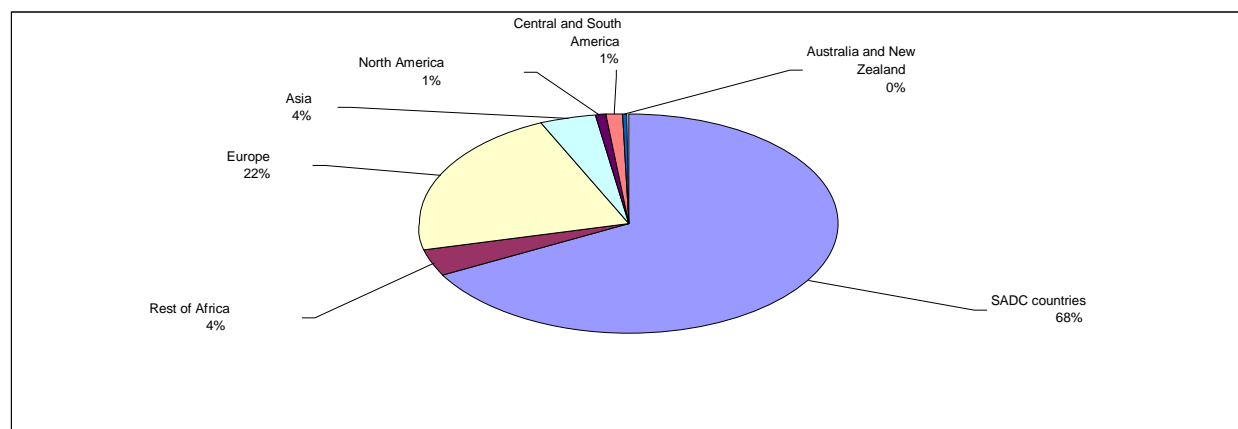


Figure 1: Foreign-Born in South Africa by Region of Origin, 2001

Source: South Africa 2001 Census

South Africa Immigration Policy

The South African immigration policy, like most post-apartheid legal instruments, had to be changed to align it with the Republic’s constitution. It also had to reflect the country’s changing role in Africa (Crush, 2008). The main legal instruments that shaped South Africa’s immigration policy are the 1937 Aliens Control Act, the 1991 Aliens Control Act, the 2002 Immigration Act, and the Immigration Amendment Act of 2004.

The overall aim of the 1937 Aliens Control Act (ACA) was to ensure separate economic development and preserve racism, while at the same time regulating entry into the country by non-citizens (Segatti, 2011). The act introduced race as a criterion of entry into the country. Foreigners were allowed to enter the country to the extent they could be assimilated into the white population (Khan, 2007). The 1937 ACA was replaced by the 1991 ACA which consolidated a number of apartheid legislation pieces into one instrument governing the terms and conditions of entry into the Republic by foreigners. The act was designed to attract whites as well as to bolster their supremacy. Africans were especially allowed to enter the country to the extent that they were to work in agricultural and mining sectors as contract workers, in line with bilateral agreements between the apartheid government and the governments of the immigrants (Crush, 2008; Zuberi & Sibanda, 2004). Unlike their white counterparts who entered the country to become permanent residents, Africans who entered the country were expected to leave at the end of their employment contracts.

Given the 1991 ACA's apartheid ideology, as well as the fact that it contravened the South African constitution, it was to be declared unconstitutional by the post-apartheid government and was replaced by the 2002 Immigration Act. The 2002 Immigration Act was designed to attract skilled labour as well as investors. According to the act, economically active foreigners can enter South Africa either as business people or as employees. In the following section, we briefly look at those immigrant categories that are likely to affect employment opportunities for the natives.

Categories of Immigrants in South Africa

Immigrants who end up working in South Africa can be categorized into different groups, including refugees and asylum seekers, illegal immigrants, and economic migrants.

Asylum Seekers and Refugees

Those that enter the country as refugees usually come from conflict-prone countries like the DRC, Zimbabwe, Somalia, Burundi, Rwanda, etc. Unlike other countries where refugees are restricted in certain areas and cannot work, South Africa's policy on asylum seekers and refugees allows them to work, study and move freely within the Republic (Polzer, 2008; Refugee Act, 1998). This generous asylum regime has been abused by work-seekers who use it as an avenue to enter the country legally. Consequently a significant number of job-seeking immigrants enter the country as asylum seekers, most of them ending up doing menial jobs even though they may be highly skilled. There are a number of barriers making it difficult for skilled immigrants to work in their areas of expertise. These range from language barriers, especially for immigrants coming from French-speaking countries, to sector-specific requirements, especially when it comes to qualified teachers, lawyers, accountants, and medical professionals. For example, foreign health professionals wishing to work in South Africa must go through a number of onerous administrative hurdles. These include registering with the Department of Health (which assesses their employability), qualifications evaluation by the South African Qualifications Authority, registration with the Health Professionals Council of South Africa (HPCSA), and lodging a work permit application with the Department of Home Affairs.

Illegal Immigrants

These enter the country illegally and are largely undocumented. Some can also enter the country legally but may continue staying after the expiration of their permits. Given their status, most illegal immigrants find it difficult to enter into formal employment, including occupations of their expertise, and tend to operate in the informal sector where barriers to entry are very low.

Economic Migrants

These include skilled, mining and agricultural sector workers. Most agricultural and mining workers enter the country through corporate permits, which allow firms or farmers to employ a certain number of foreigners. For example, most foreigners in the mining sector entered the country through The Employment Bureau of Africa (TEBA) which provides recruitment services to the mining sector. TEBA is especially involved in hiring migrants

from Mozambique, Lesotho, Swaziland, and Botswana. It was a result of the amalgamation, in 1977, of the Native Recruitment Corporation (NRC) and the Witwatersrand Labour Organization (WLO). The WLO and NRC were formed in 1900 and 1912, respectively (Harington, McGlashan & Chelkoska, 2004). Skilled workers enter the country on different work permits, including quota, general, exceptional skills, and intra-company. For all these permits, a common requirement is that a foreigner can only be employed if a South African citizen with relevant skills is not available.

Exceptional Skills

In line with the need to grow the economy and address skills shortage, the Immigration Act 2002 provides for the employment of skilled immigrants through the quota system or exceptional skills regimes. The government's ASGISA identified sectors with skills-gaps where foreigners with requisite skills can fill such gaps. These include education, health, and the information and technology sectors.

LITERATURE REVIEW

Comparative analyses of natives and immigrants' occupational attainment are concentrated in developed countries (see, for instance, Kogan, 2011; Bernadi, *et al.* 2011; Gorodzeisky & Semyonov, 2011; Connor & Massey, 2010, among others). This is not surprising given that most migrants flow from less developed to developed countries in pursuit of better labour market outcomes. Gorodzeisky & Semyonov (2011) explore first and second generation immigrants' incorporation into Western European countries' labour markets in terms of occupational attainment. They discover that, in general, first generation immigrants have a lower occupational status than natives, while the reverse is the case for second generation immigrants as they achieve parity with natives. They also find ethnic differences in patterns of labour market incorporation among second generation immigrants. For instance, second generation European immigrants had similar prospects of occupational attainment with European natives while non-European male immigrants fared worse than natives. Kogan (2011) investigates the relative standing of recent immigrants and their predecessors in the German labour market and concludes that immigrants have inferior labour market prospects than Germans, irrespective of ethnicity and country of origin, with most immigrants located at the bottom of the country's occupational hierarchy.

Other research has attempted to explore how immigrants choose their destinations and implications thereof. In particular, Connor & Massey (2010) carry out a comparative analysis of the economic outcomes of Latin American migrants (Latino immigrants) to Spain and the United States of America (USA). They maintain that Latino immigrants are selected by these host countries by physical and social proximity. By virtue of being located in the western hemisphere, the USA offers geographic proximity and lower costs of migration, while Spain offers cultural proximity due to its colonial history. Consequently, most Latino immigrants in the USA are Central Americans of lower class origin; they are relatively low skilled, while those who migrate to Spain hail from South America from middle class backgrounds and they have skills and education. The selection mechanism also influences employment, wages and occupational attainment in host countries. Bernadi *et al.* (2011), among others, compare immigrants and natives' occupational attainment in the Spanish labour market and find that immigrants have higher employment probabilities than natives, but are disadvantaged in terms of occupational attainment as they mostly occupy unskilled occupations. Barrett & Duffy (2008) obtain a similar outcome for Ireland.

Concerning South Africa, there are a few studies on immigrants' labour market position in general and occupational attainment in particular. These include Zuberi & Sibanda (2004), Thomas (2010), Sibanda (2008) & Polzer (2008). Zuberi & Sibanda (2004) compare immigrants and natives' probabilities of employment and LFP and find that immigrants have better odds than natives, irrespective of race and nationality. This study, however, leaves a dearth of information on whether this position extends to occupational attainment. Thomas (2010) investigates race-ethnic disparities in education-occupation mismatch status among immigrants in the USA and South Africa. He finds that immigrants are more likely to be undereducated for their jobs when their racial characteristics are similar to those of the local racial majority; i.e., black immigrants in South Africa and white immigrants in the USA. This implies that variations in immigrants' labour market outcomes are conditional on their racial and ethnic identity. Sibanda (2008) and Polzer (2008) investigate the effects of immigrants on unemployment and real wages in South Africa and immigrants' employment differentials by permit type, respectively. Hence, these studies do not directly contribute to the cause for concern.

The above-mentioned literature shows that some developed countries have an occupational distribution that is skewed in favour of natives. In some cases, this holds even when immigrants have better educational qualifications than natives. Immigrants' ethnicity and country of origin also determine their occupational status in destination states. Taken together, these imply that some host countries utilise foreign-earned qualifications sub-optimally, compromising the role of labour markets in economic growth and in enhancing immigrants' welfare.

THE MODEL OF OCCUPATIONAL ATTAINMENT

Following Brown, Moon & Zoloth (1980), an individual's occupational achievement is determined by the interaction between a firm's desire to employ the individual (labour demand) and the individual's desire to work in that occupation (labour supply). Labour demand is dependent on human capital and productivity; employers prefer to hire productive individuals as proxied by higher levels of human capital. Labour supply is captured by three arguments in an individual's utility function; i.e., income (y), which varies across occupations, an individual's preferences for the work involved (p), and family size (f). f is assumed to be positively associated with financial responsibility and hence, makes an individual value occupations that offer high remuneration and employment stability, for example. From this basic model, we specify the following theoretical model of occupational attainment:

Occupational attainment = f (human capital, family background, marital status, household headship, region of residence, and other unobservables which affect an individual's tastes)

We anticipate human capital; i.e., labour market experience and highest level of education completed, to be positively correlated to a firm's desire to hire workers. Nonetheless, since the skill requirement differs across occupations (highly-skilled, semi-skilled, and lowly-skilled), we expect education to filter workers into different occupations; that is, highly educated workers into highly-skilled jobs and uneducated individuals into lowly-skilled jobs. This implies that "different production functions for human capital are required for distinct occupations" (Brown, *et al.*, 1980). Furthermore, we expect that previously accrued experience in an occupation is more desirable in highly-skilled and semi-skilled jobs rather than lowly-skilled jobs. In cases where age is used as a proxy for experience, this implies that older workers will be more productive in highly-skilled and semi-skilled jobs than young workers. Hence, firms will be biased toward hiring older workers for such jobs. This also suggests that many young South Africans are filtered into lowly-skilled jobs as they face high unemployment levels and less labour market attachment.

Family background as captured by e.g. a father's occupation, race, and nativity can positively or negatively affect one's preferences for an occupation. On the positive note, if a father's occupation has many desirable characteristics it can bias an individual's preferences toward that of "like father like son". The father's occupation can also facilitate the acquisition of the required human capital for the job (Brown, *et al.* 1980). On the negative side, if a father's occupation has less desirable characteristics, an individual can decide against it in favour of "better" jobs.

Race in South Africa is correlated to socio-economic status and human capital acquisition. We therefore expect those who hail from advantaged groups to be employed in highly-skilled occupations and vice versa for others. Nativity is another important variable. Its effect is ambiguous. On the one hand, we expect employers to employ highly-educated natives in highly-skilled jobs, especially given the skills shortage in the economy. Most of these individuals also have family networks and financial support to search for appropriate jobs. We also anticipate lowly-educated natives to be selected into lowly-skilled jobs by labour demand patterns and economic need. As for immigrants, we expect most of the highly-educated to be employed in highly-skilled jobs to alleviate skills shortage in the country. We do not rule out those who settle for semi-skilled and lowly-skilled jobs due to institutional barriers. We also presume that employers prefer lowly-educated immigrants for low-status jobs over comparable natives; the former may have lower reservation wages due to economic need and lack of family support.

Household-related variables, like family size, being married, and household headship, also affect a man's tastes for an occupation. These variables are associated with family responsibilities which may need to be solved financially. Hence, individuals who hail from large families, husbands and household heads may derive utility from semi-skilled or highly-skilled occupations that are supposedly better paying than lowly-skilled jobs. Region of

residence can positively or negatively affect one's choices toward an occupation early in life. For instance, if an individual grows up in an urban area which mostly offers desirable jobs - presumably semi-skilled and highly-skilled - his preferences can be biased toward such occupations. Conversely, if one grows up in a rural area which mainly presents lowly-skilled jobs with undesirable characteristics, this may reduce his utility for such jobs; instead, he will aspire to work in higher level jobs.

Econometric Modeling of Occupational Choice

We estimate the following empirical model:

$$\text{Pr ob}\left(OCC_{iy} \mid \mathbf{x}_i\right) = F(\delta + \mathbf{X}_i' \phi_y + \varepsilon_i) \quad y = 0,1,2 \quad (1)$$

where OCC_{iy} = a qualitative dependent variable = 0 if individual i 's occupation is skilled agriculture/fishery or elementary, = 1 for the following occupations: clerk, service workers, and shop and market sales workers, plant and machine operators and assemblers, and craft and related trades workers, and = 2 for legislators, senior officials and managers, professionals, and technical and associate professionals; δ = is the constant term; X_i = is a vector of individual characteristics including age, race and nativity, marital status, education, home province, household headship status, whether the individual lives in an urban area; ε_i = is an error term. The occupations have been ranked according to median wages. Since the census 2001 data does not include wage information, we have used that from Statistics South Africa's September 2001 Labour Force Survey (Table 3). The variable definitions are given in Table 2.

Table 2: Variable Definitions

Variable	Description
Occupation	Qualitative dependent variable with 3 categories 0,1 and 2
Group 0: lowly-skilled	If an individual's occupation is Skilled Agriculture/Fishery or Elementary
Group 1: semi-skilled	If an individual's occupation is Clerk, Plant and machine operators and assemblers or Artisan Service workers, and shop and market sales workers, Craft and related trades workers
Group 2: highly-skilled	If an individual's occupation is Professional or Legislators, senior officials and managers or Technical and associate professionals
Age	
20 - 29 years*	Dummy variable: 1 if individual is aged between 20 and 29 years, 0 otherwise
40-49 years	Dummy variable: 1 if individual is aged between 40 and 49 years, 0 otherwise
50 - 59 years	Dummy variable: 1 if individual is aged between 50 and 59 years, 0 otherwise
Education	
No education*	Dummy variable: 1 if individual has 0 years of schooling, 0 otherwise
Incomplete Primary	Dummy variable: 1 if individual's schooling is in the range grade 1 to 6, 0 otherwise
Primary	Dummy variable: 1 if individual's schooling is grade 7, 0 otherwise
Incomplete Secondary	Dummy variable: 1 if individual's schooling is in the range grade 8 to 11, 0 otherwise
Complete Secondary	Dummy variable: 1 if individual's schooling is grade 12, 0 otherwise
Post-Secondary	Dummy variable: 1 if individual's schooling is higher than grade 12, 0 otherwise
Race and Nativity	
SA-born African	Dummy variable: 1 if an individual born in SA is classified as African, 0 otherwise
SA-born White*	Dummy variable: 1 if an individual born in SA is classified as White, 0 otherwise
SA-born Indian	Dummy variable: 1 if an individual born in SA is classified as Indian, 0 otherwise
SA-born Coloured	Dummy variable: 1 if an individual born in SA is classified as Coloured, 0 otherwise
SADC-born African	Dummy variable: 1 if an individual born in SADC countries is classified as African, 0 otherwise otherwise
SADC-born White*	Dummy variable: 1 if an individual born in SADC countries is classified as White, 0 otherwise otherwise
Other African Immigrant	Dummy variable: for other foreign-born Africans
Other White Immigrant	Dummy variable: for other foreign-born whites
Provinces	
Gauteng*	Dummy variable: 1 if individual resides in Gauteng province, 0 otherwise
Eastern Cape	Dummy variable: 1 if individual resides in Eastern Cape province, 0 otherwise
Free State	Dummy variable: 1 if individual resides in Free State province, 0 otherwise
KwaZulu Natal	Dummy variable: 1 if individual resides in KwaZulu Natal province, 0 otherwise
Mpumalanga	Dummy variable: 1 if individual resides in Mpumalanga province, 0 otherwise
North West	Dummy variable: 1 if individual resides in North West province, 0 otherwise
Northern Cape	Dummy variable: 1 if individual resides in Northern Cape province, 0 otherwise
Northern Province	Dummy variable: 1 if individual resides in Northern province, 0 otherwise
Western Cape	Dummy variable: 1 if individual resides in Western Cape province, 0 otherwise
Urban (rural)	Dummy variable: 1 if individual resides in an urban (a rural) area, 0 otherwise
Married	Dummy variable: 1 if individual is married civilly or traditionally, 0 otherwise
Household Head	Dummy variable: I if an individual is the head of their household, 0 otherwise

Notes: *Represents the reference groups. SADC countries include Namibia, Swaziland, Botswana, Lesotho, Angola, Democratic Republic of the Congo, Malawi, Mauritius, Mozambique, Seychelles, Tanzania, Zambia, and Zimbabwe.

Table 3: Monthly Median Wages by Occupation, 2001

Occupation	Median Wage (Rands At Constant 2000 Prices)
Legislators, senior officials and managers	5678
Professionals	6151
Technical and associate professionals	3785
Clerk	3839
Service workers, and shop and market sales workers	1136
Skilled Agriculture and fishery workers	284
Craft and related trades workers	1420
Plant and machine operators and assemblers	1438
Elementary occupations	568

Source: Hlekiso and Mahlo (2006)

METHODOLOGY

A multinomial logit model is employed for the study. We specify three occupational groups - 0 = lowly-skilled jobs, 1 = semi-skilled jobs, 2 = highly-skilled jobs. Following Green (2003:721), the conditional probability that individual *i* with a vector of characteristics \mathbf{X}_i will choose occupation *y* (OCC_{iy}) is:

$$\text{Prob}(OCC_{iy} | \mathbf{x}_i) = \frac{\exp(\varphi_y' \mathbf{x}_i)}{\sum_{z=0}^2 \exp(\varphi_z' \mathbf{x}_i)}, \quad y = 0, 1, 2 \tag{2}$$

φ_y is a coefficient vector for \mathbf{X}_i . However, model (2) suffers from an indeterminacy problem as it is only the relative impact and not the absolute impact of the coefficients φ_y that is identified. This problem is solved by normalising the coefficients of one group to 0 (e.g. $\varphi_0 = 0$ i.e. occupation 0 is the base category with which other outcomes will be compared). The probabilities are, therefore,

$$\text{Prob}(OCC_{iy} | \mathbf{x}_i) = \frac{1}{1 + \sum_{z=1}^2 \exp(\varphi_z' \mathbf{x}_i)}, \quad \text{for } y = 0 \tag{3}$$

$$\text{Prob}(OCC_{iy} | \mathbf{x}_i) = \frac{\exp(\varphi_y' \mathbf{x}_i)}{1 + \sum_{z=1}^2 \exp(\varphi_z' \mathbf{x}_i)}, \quad \text{for } y = 1, 2 \tag{4}$$

The model allows us to transform the coefficients φ_y into *y* log-odds ratios/relative risk ratios which can be interpreted in relative terms. These log-odds ratios are computed as follows:

$$\ln \left[\frac{\text{Prob}(OCC_{iy} | \mathbf{x}_i)}{\text{Prob}(OCC_{iz} | \mathbf{x}_i)} \right] = \mathbf{x}_i' (\varphi_y - \varphi_z) = \mathbf{x}_i' \varphi_y \quad \text{if } z = 0 \tag{5}$$

In (5) the coefficients φ_y measure the impact of individual characteristics \mathbf{X}_i on the log odds of being in occupation (*y*) relative to the base category (occupation 0). According to the model, these odds should be independent of the other alternatives that are available. Therefore, we carried out Hausman’s test for Independence of Irrelevant Alternatives (IIA) and found evidence in support of IIA.

DATA SOURCES AND ANALYSIS

The study uses individual data from the 10% sample of the 2001 population census for South Africa. Individuals were included in the analysis if they met the following criteria: 1) were employed South African and foreign-born males (all South African races were considered and only African and white foreigners were included as we do not have adequate data for immigrants of other races), 2) were between the ages of 20 and 59, 3) resided in households as residential units, and 4) availed data on their occupations. The sample delimitation process results in 392,980 individuals, of which 366,365 are natives and 26,615 are immigrants. The decomposition of the total sample by race and nativity reveals that native Africans, Whites, Coloureds and Indians constitute 61.16%, 15.45%, 12.19%, and 4.43%, respectively. SADC-born Africans and whites form 4.17% and 1.28%, respectively, while other foreign-born Africans and whites make up 0.25% and 1.28 %, respectively. Table 4 gives the descriptive statistics of

the individual related variables used in the analysis by race and nativity. The table shows the variable's proportions and standard errors (in parentheses).

Table 4: Descriptive Statistics by Race and Nativity

	Natives				African Immigrants		White Immigrants	
	Indian	Coloured	African	White	SADC Born	Other	SADC Born	Other
	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>	<i>PROP</i>
Lowly-skilled jobs	0.060 [0.001]	0.341 [0.003]	0.293 [0.001]	0.072 [0.001]	0.246 [0.002]	0.193 ^{††} [0.012]	0.046 [0.004]	0.031 [0.002]
Semi-skilled jobs	0.542 [0.003]	0.501 [0.002]	0.573 [0.001]	0.383 [0.001]	0.313 [0.002]	0.364 ^{††} [0.015]	0.316 [0.008]	0.269 [0.006]
Highly-skilled jobs	0.399 [0.003]	0.158 [0.003]	0.134 [0.001]	0.545 [0.001]	0.271 [0.002]	0.413 ^{††} [0.015]	0.637 [0.008]	0.701 [0.006]
20-29 years	0.294 [0.003]	0.304 [0.002]	0.267 [0.001]	0.246 [0.002]	0.358 ^{††} [0.004]	0.329 [0.015]	0.169 [0.007]	0.070 [0.004]
30-39 years	0.315 [0.004]	0.346 [0.002]	0.364 [0.001]	0.313 [0.002]	0.336 ^{††} [0.004]	0.409 [0.016]	0.298 [0.008]	0.244 [0.006]
40-49 years	0.245 [0.003]	0.240 [0.002]	0.252 [0.001]	0.271 [0.002]	0.220 ^{††} [0.003]	0.181 [0.012]	0.360 [0.009]	0.296 [0.006]
50-59 years	0.146 [0.003]	0.110 [0.001]	0.117 [0.001]	0.171 [0.002]	0.087 ^{††} [0.002]	0.081 [0.009]	0.173 [0.007]	0.391 [0.007]
No-schooling	0.012 [0.001]	0.059 [0.001]	0.135 [0.001]	0.006 [0.000]	0.213 ^{††} [0.003]	0.040 [0.006]	0.005 [0.001]	0.007 [0.001]
Incomplete primary	0.022 [0.001]	0.161 [0.002]	0.189 [0.001]	0.004 [0.000]	0.256 ^{††} [0.003]	0.020 [0.004]	0.004 [0.001]	0.008 [0.001]
Primary	0.019 [0.001]	0.081 [0.001]	0.075 [0.001]	0.003 [0.000]	0.100 ^{††} [0.002]	0.011 [0.003]	0.003 [0.001]	0.005 [0.001]
Incomplete secondary	0.308 [0.003]	0.394 [0.002]	0.304 [0.001]	0.195 [0.002]	0.320 ^{††} [0.004]	0.143 [0.011]	0.149 [0.006]	0.132 [0.005]
Complete secondary	0.441 [0.004]	0.236 [0.002]	0.212 [0.001]	0.425 [0.002]	0.084 ^{††} [0.002]	0.365 [0.015]	0.378 [0.009]	0.318 [0.007]
Post-secondary	0.198 [0.003]	0.069 [0.001]	0.084 [0.001]	0.367 [0.002]	0.026 ^{††} [0.001]	0.421 [0.016]	0.460 [0.009]	0.529 [0.007]
Married	0.744 [0.003]	0.568 [0.002]	0.494 [0.001]	0.699 [0.002]	0.497 [†] [0.004]	0.518 [0.016]	0.725 [0.008]	0.766 [0.006]
Household head	0.629 [0.004]	0.632 [0.002]	0.714 [0.001]	0.761 [0.002]	0.754 ^{††} [0.003]	0.664 [0.015]	0.806 [0.007]	0.827 [0.005]
Urban	0.973 [0.001]	0.809 [0.002]	0.646 [0.001]	0.901 [0.001]	0.575 ^{††} [0.004]	0.943 [0.007]	0.929 [0.005]	0.961 [0.003]
Provinces	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	17401	47902	240332	60730	16370	993	3155	5038

Notes: PROP stands for proportion. Standard errors in parentheses. ^{††} and [†] mean the variable's proportion (for SADC immigrants) is statistically different at 1% and 5% levels, respectively, from African natives'. [‡] means the proportions are statistically similar.

Table 4 shows that most whites are in highly-skilled jobs, followed by semi-skilled and lowly-skilled respectively, irrespective of country of origin. For instance, the proportions of white natives, SADC immigrants, and other foreign-born whites in highly-skilled jobs are 54.5%, 63.7% and 70.1%, respectively. Thus, the ratios of white immigrants in highly-skilled jobs are larger than their native counterparts. The above pattern also applies to other foreign-born Africans - 41.3% are in highly-skilled jobs, 36.4% in semi-skilled jobs, and 19.3% in lowly-skilled jobs. A larger percentage of Indians are employed in semi-skilled jobs followed by highly-skilled and lowly-skilled jobs, correspondingly. Larger proportions of African natives, Coloureds and SADC-born Africans are employed in semi-skilled jobs followed by lowly-skilled and highly-skilled jobs, respectively. The ratio of SADC-born Africans in semi-skilled jobs is comparably larger than those of the other groups, while the reverse applies to highly-skilled jobs. These figures show that higher fractions of whites and other foreign-born Africans attain high-level jobs than the other groups.

A considerable number of Coloureds (69.5%), African natives (70.3%) and SADC-born Africans (88.9%) have incomplete secondary education and below than other races. Even so, African natives are slightly more educated than their SADC-born counterparts. The fraction of African natives without education (13.5%) is lower than that of the SADC-born (21.3%), and the reverse applies to secondary education and above (29.6% for natives vs. 11% for the SADC-born). More than 60% of the other groups attained secondary and post-secondary education; i.e., 84.7% of other foreign-born whites, 83.8% of white SADC-born immigrants, 78.6% of other foreign-born Africans, 79.2% of white natives, and 63.9% of Indians. Thus, white foreigners are more educated than white natives and Indians, who, in turn, are more educated than Coloureds, African natives and SADC-born Africans.

Around 50% of Africans and 70% of whites are married, irrespective of nationality, whereas the corresponding figures for Indians and Coloureds are 74.4% and 56.8%. The percentages of other foreign-born whites (82.7%) and their SADC-born counterparts (80.6%) who are heads of households surpass those of other groups; SADC-born Africans (75.4%), white natives (76.1%), other foreign-born Africans (66.4%), Coloureds (63.2%), and Indians (62.9%). Apart from Coloureds (80.9%), African natives (64.6%) and SADC-born Africans (57.5%), more than 90% of the other racial-nativity groups reside in urban areas. The figures for the age groups show that the highest ratios of natives, including other foreign-born Africans, fall in the age group 30-39 years, and the lowest ratios are in the age cohort 50-59 years. The largest fraction of SADC-born Africans is in the age group 20-29 years followed by 30-39 years. SADC-born whites have a large percentage of individuals in the age group 40-49 years, whereas the largest proportion of other foreign-born whites is in the age group 50-59 years. Thus, the distribution of individual characteristics varies by race and nativity. The next section analyses these relationships more rigorously.

ESTIMATION RESULTS

Table 5 presents the relative odds/risk ratios (RRR) from the estimated multinomial logit models of occupational attainment. The table shows that coloureds and Africans in general have higher odds of being in lowly-skilled jobs rather than semi-skilled jobs, relative to the base category (white natives). Of these groups, other foreign-born Africans have the highest relative odds of being in low-level jobs followed by African natives, Coloureds and SADC-born Africans, respectively. Their odds are multiplied by 2.67, 1.43, 1.38 and 1.33, correspondingly. The contrary, however, holds for Indians and white immigrants (their odds are statistically similar) as their chances of being in lowly-skilled jobs rather than semi-skilled jobs are lower than those of white natives by 28% and 14%, respectively. Thus, Indians and other foreign-born whites are less likely to be in lowly-skilled jobs than SADC-born whites. On the same note, white immigrants are more likely to be in highly-skilled than semi-skilled jobs, relative to the omitted category - the relative odds for other foreign-born whites are 10 percentage points higher than those for the SADC-born. Furthermore, all Africans, Coloureds, and Indians are less likely to move from semi-skilled to highly-skilled jobs, than white natives. Their relative odds of being in semi-skilled rather than highly-skilled jobs are multiplied by 4.16 for SADC-born Africans, 2.91 for South African-born Africans, 2.07 for Coloureds, 1.69 for other foreign-born Africans and 1.30 for Indians. All together, these findings show that white immigrants have the greatest probability of attaining highly-skilled jobs, while the reverse is the case for SADC-born Africans.

Table 5: Multinomial Logit Estimates of Occupational Attainment

Explanatory Variables	Base Group Is Semi-Skilled Jobs		Base Group Is Highly-Skilled Jobs	
	Lowly-Skilled Jobs	Highly-Skilled Jobs	Lowly-Skilled Jobs	Semi-Skilled Jobs
	<i>RRR</i>	<i>RRR</i>	<i>RRR</i>	<i>RRR</i>
SA-born white*	1.00	1.00	1.00	1.00
SA-born Indian	0.72 ^a	0.76 ^a	0.94	1.30 ^a
SA-born Coloured	1.38 ^a	0.48 ^a	2.86 ^a	2.07 ^a
SA-born African	1.43 ^a	0.34 ^a	4.17 ^a	2.91 ^a
SADC-born African	1.33 ^a	0.24 ^a	5.58 ^a	4.16 ^a
Other African immigrant	2.67 ^a	0.59 ^a	4.53 ^a	1.69 ^a
SADC-born white	0.86 ^a	1.21 ^a	0.71 ^a	0.82 ^a
Other white immigrant	0.73 ^a	1.36 ^a	0.54 ^a	0.74 ^a
20-29 years*	1.00	1.00	1.00	1.00
30-39 years	0.72 ^a	1.27 ^a	0.56 ^a	0.78 ^a
40-49 years	0.67 ^a	1.46 ^a	0.46 ^a	0.68 ^a
50-59 years	0.83 ^a	1.49 ^a	0.56 ^a	0.67 ^a
No-schooling*	1.00	1.00	1.00	1.00
Incomplete primary	0.95 ^a	0.72 ^a	1.33 ^a	1.39 ^a
Primary	0.74 ^a	0.80 ^a	0.93	1.25 ^a
Incomplete secondary	0.48 ^a	1.34 ^a	0.36 ^a	0.74 ^a
Complete secondary	0.27 ^a	3.35 ^a	0.08 ^a	0.30 ^a
Post-secondary	0.24 ^a	16.31 ^a	0.01 ^a	0.06 ^a
Not married	1.00	1.00	1.00	1.00
Married	0.62 ^a	1.18 ^a	0.52 ^a	0.84 ^a
Household head	1.07 ^a	1.17 ^a	0.91 ^a	0.85 ^a
Rural*	1.00	1.00	1.00	1.00
Urban	0.37 ^a	1.11 ^a	0.33 ^a	0.89 ^a
Provinces	Yes	Yes	Yes	Yes
N	392980	392980	392980	392980
F	2048	2048	2048	2048
Prob>F	0.00	0.00	0.00	0.00

Notes: RRR denotes relative risk ratio. ^a=significant at 1%, ^b=significant at 5%. * Represents reference groups. Estimates are weighted. Source: Own calculations from South Africa 2001 Census.

Table 5 also shows that the odds of being in lowly-skilled rather than semi-skilled jobs decrease with education levels, relative to those without education. Having incomplete primary education decreases the odds of being in lowly-skilled jobs by 5%, whereas possessing primary, incomplete secondary, complete secondary and post-secondary education reduces the odds of being in lowly-skilled jobs by 26%, 52%, 63% and 76%, respectively. Furthermore, attaining incomplete secondary education and above reduces the odds of being in semi-skilled rather than highly-skilled jobs by 26% for incomplete secondary, 70% for complete secondary and 94% for post-secondary. Thus, education plays a significant role in the job allocation process, allocating highly educated individuals to highly-skilled jobs, and vice versa for the lowly educated.

Marriage reduces the chances of being in lowly-skilled jobs rather than semi-skilled jobs by 28% and increases the chances of being in highly-skilled jobs rather than semi-skilled jobs by 16%, relative to not being married. Thus, being married increases the odds of being in high level jobs. The case for household heads shows an increase in the chances of being in lowly-skilled rather than semi-skilled jobs by 7% and those for being in highly-skilled rather than semi-skilled jobs by 15%.

Residing in an urban area reduces the odds of being in lowly-skilled rather than semi-skilled jobs by 63% and increases those of being in highly-skilled rather than semi-skilled jobs by 11%. On the same note, apart from residing in Northern Province and Eastern Cape, living in the other provinces reduces the odds of being in highly-skilled rather than semi-skilled jobs, relative to Gauteng.

Also shown is that being in the age groups 30-39 years, 40-49 years and 50-59 years increases the odds of attaining highly-skilled jobs rather than semi-skilled jobs by 22%, 32% and 33%, correspondingly, relative to the

age group 20-29 years. Also being in the older age cohorts reduces the odds of working in lowly-skilled rather than semi-skilled jobs. Hence, the odds of attaining high-level jobs are positively correlated to age. Having established that there is a race-nativity pecking order in occupational attainment, which suggests that race is more important than country of origin, we proceed to estimate regressions for Africans only in order to have an in-depth understanding of their relative chances of occupational attainment. This is crucial given that African natives often accuse their SADC-born counterparts on allegations that they steal their jobs.

Table 6 reveals that SADC-born Africans have lower odds of being in lowly-skilled, rather than semi-skilled, jobs than natives; the odds are 5% lower. The opposite applies to other foreign-born Africans as their chances of attaining lowly-skilled rather than semi-skilled jobs surpass those for natives by 76%. Table 6 also shows that SADC-born Africans are more likely to be in semi-skilled rather than highly-skilled jobs than natives, by 36 percentage points. Thus, natives have a larger probability of moving from semi-skilled into highly-skilled jobs than the SADC-born. Nonetheless, these chances for natives are lower than those for other foreign-born Africans. On the basis of these findings, chances are high that other foreign-born Africans compete more with natives for lowly-skilled and highly-skilled jobs than the SADC-born. Furthermore, the fact that most African natives do not possess the required skills for highly-skilled jobs implies that SADC-born Africans could be hindering some natives from attaining the semi-skilled jobs. The results for the other covariates are similar to those discussed above. Hence, we are not going to repeat them. This similarity could be arising because Africans dominate the total sample of analysis; hence, their characteristics could have been driving the findings of the two models.

Table 6: Multinomial Logit Estimates of Occupational Attainment for Africans

Explanatory Variables	Base Group Is Semi-Skilled Jobs		Base Group Is Highly-Skilled Jobs	
	Lowly-Skilled Jobs	Highly-Skilled Jobs	Lowly-Skilled Jobs	Semi-Skilled Jobs
	RRR	RRR	RRR	RRR
SA-born African*	1.00	1.00	1.00	1.00
SADC-born African	0.95 ^a	0.75 ^a	1.26 ^a	1.32 ^a
Other African immigrant	1.76 ^a	1.64 ^a	1.07	0.60 ^a
20-29 years*	1.00	1.00	1.00	1.00
30-39 years	0.69 ^a	1.39 ^a	0.49 ^a	0.72 ^a
40-49 years	0.62 ^a	1.66 ^a	0.37 ^a	0.60 ^a
50-59 years	0.77 ^a	1.65 ^a	0.47 ^a	0.61 ^a
No-schooling*	1.00	1.00	1.00	1.00
Incomplete Primary	0.92 ^a	0.74 ^a	1.24 ^a	1.34 ^a
Primary	0.71 ^a	0.88 ^a	0.81 ^a	1.13 ^a
Incomplete secondary	0.50 ^a	1.35 ^a	0.37 ^a	0.74 ^a
Complete secondary	0.26 ^a	3.43 ^a	0.08 ^a	0.29 ^a
Post-secondary	0.16 ^a	24.25 ^a	0.01 ^a	0.04 ^a
Not married*	1.00	1.00	1.00	1.00
Married	0.62 ^a	1.26 ^a	0.49 ^a	0.79 ^a
Household head	1.03 ^b	1.09 ^a	0.94 ^a	0.91 ^a
Rural*	1.00	1.00	1.00	1.00
Urban	0.49 ^a	1.02	0.48 ^a	0.97
Provinces	Yes	Yes	Yes	Yes
N	257695	257695	257695	257695
F	1331	1331	1331	1331
Prob>F	0.00	0.00	0.00	0.00

Notes: ^a=significant at 1%, ^b=significant at 5%, ^c=significant at 10% levels. The omitted variables are no-schooling, 20-29 years, rural, South African born, and not married. Estimates are weighted. *Source: Own calculations from South Africa 2001 Census*

DISCUSSION AND CONCLUSIONS

This study carries out a comparative analysis of natives and immigrants' occupational attainment in post-Apartheid South Africa. This is interesting because immigrants are a sizeable proportion of the South African labour force. As such, South Africa is relatively richer and politically stable than its neighbouring states which have attracted immigrants from the African continent and beyond. In addition, the country's immigration policy encourages an inflow of skilled labour in order to complement the country's skills base. By and large, both natives

and foreigners have built the South African economy, which necessitates a comparison of their occupational status. Furthermore, the South African labour market is notoriously known for being racially fragmented which provides room for analysing whether it is race, immigration status, or both, that matters for occupational attainment.

Using Brown *et al's* model of occupational attainment, individual data from the 2001 population census for South Africa, and a multinomial logit model, this study investigates the role of race and country of origin in explaining an individual's odds of moving from lowly-skilled to semi-skilled jobs and from the latter to highly-skilled jobs, controlling for age, education, marital status, household headship and region of residency.

The study finds that education allocates individuals into occupations. Attaining some form of education reduces the odds of being in lowly-skilled - relative to semi-skilled - jobs. The odds of moving into highly-skilled jobs are positively correlated with education level. Also having incomplete secondary education, and above, increases the odds of moving from semi-skilled into highly-skilled jobs. Therefore, the association between education and occupational attainment is consistent with the theoretical expectation that employers prefer to hire workers who possess the requisite skills for the job – highly-skilled workers for highly-skilled jobs and vice versa. On the same note, if age is a good proxy for work experience, the findings also suggest that employers for semi-skilled and highly-skilled jobs prefer to hire workers with previously accrued experience as they are more productive.

Another result is that marriage increases the likelihood of being in semi-skilled and highly-skilled jobs rather than lowly-skilled jobs. This implies that family responsibilities increase an individual's preferences for jobs that offer relatively high financial rewards. Furthermore, being a household head increases the chances of being in lowly-skilled, rather than semi-skilled, jobs and those for being in highly-skilled rather than semi-skilled jobs. The latter outweighs the former. Nonetheless, this could imply that on the one hand, some household heads are pushed into lowly-skilled jobs by economic need, especially given the high unemployment levels in the country. On the other hand, their household responsibilities make them prefer highly-skilled jobs which supposedly pay more. The findings also suggest that residing in an urban area offers opportunities to work in semi-skilled and highly skilled jobs, relative to a rural area.

More importantly, the study discovers that the odds of attaining an occupation are not uniform across demographic groups. For instance, the findings suggest that there is race-nativity pecking order for moving from semi-skilled to highly-skilled jobs. This places white immigrants from non-SADC countries first, followed by SADC-born whites, white natives, Indian natives, African immigrants from non-SADC countries, coloured natives, African natives and SADC-born Africans, in that order. This implies that whites dominate the top end of the occupational distribution, while Africans dominate the base; thus, race seems to matter more for occupational attainment than country of origin. The legacy of apartheid still lingers on. A closer look at the findings for whites (by region of origin) shows that those with a relatively high fraction of highly educated people occupy the top rung of the occupational ladder. This could be evidence that most white immigrants serve to eradicate the skills shortage in the country. Therefore, this study argues that white immigrants' relatively 'wider' employment opportunities are matched by their occupational status, whereas the same cannot be said for all African immigrants. Thus, migration enhances white immigrants' welfare, while this cannot be generalised to all Africans.

The study also finds that SADC-born Africans are more likely to move from lowly-skilled to semi-skilled jobs than natives, while the opposite applies to other foreign-born Africans. The latter also have higher odds of transitioning from semi-skilled into highly-skilled jobs than natives, whose odds are higher than those for the SADC-born. These findings suggest that African natives are more likely to compete for the same jobs with other foreign-born Africans instead of SADC-born Africans. Therefore, we argue that xenophobic attacks against the SADC-born are not completely justifiable. Nonetheless, the reason the SADC-born Africans are less likely to be in highly-skilled jobs than natives could be due to relatively lower endowments of human capital and Affirmative Action Policies which promote the employment of natives over foreigners. We, however, suggest that this finding should not be celebrated as most natives do not possess the prerequisites for such jobs. Hence, we infer that SADC immigrants could be hindering some natives from attaining semi-skilled jobs. Chances are high that natives could qualify for these jobs than the highly-skilled jobs. Furthermore, we do not rule out employer preferences in explaining why SADC-born Africans are more likely to be in semi-skilled jobs than natives. In fact, the country has

a long history of employing foreigners in menial jobs; therefore, we expect employers to prefer foreigners in related jobs.

When considered in a global context, the finding that natives and immigrants' occupational attainment in host countries is conditional on race and country of origin is not unique to South Africa alone. Similar findings have been obtained for Germany, Spain, and USA (Kogan, 2011; Bernadi, *et al.* 2011; Gorodzeisky & Semyonov, 2011; Connor & Massey, 2010). It is notable that these analyses have some limitations. For instance, the data only limits our analysis to documented immigrants. The data are also cross sectional in nature; therefore, they do not allow us to control for other unobservables which affect the individuals' labour market experience by race and country of origin, for example. Also, the data do not present us with pertinent information for the study, for example, data on language proficiency, family background, type of the immigrants permits, and length of stay in South Africa. Hence, it is advisable to update this study as more appropriate data become available.

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