

Influence of Socio-Economic Factors on Crime among International Migrants in South Africa

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Abstract

The presence of immigrants in South Africa has led citizens to believe that migrants are responsible for increased crime rates in the country. This belief is a harmful stereotype that has no basis in reality, as most of the crimes are not committed by the migrants. This study explores the impact of socio-economic factors on crime rates by international migrants in South Africa from 2012 to 2017. Specifically, it focuses on examining the likelihood and association between two key variables: migrants with no formal education and crime, and unemployed migrants and crime. Through chi-square tests and multinomial regression, the study investigated whether these socio-economic factors drove criminal behavior among the international migrant population. This study obtained data from secondary sources. The study's findings revealed that unemployment has an impact on migrants and crime rates in South Africa. The relationship showed a weak association, attributed to insufficient supporting evidence due to the low statistical power of educational status. The relationship proved to not have a strong association, lacking supporting evidence due to low statistical power on educational status. The level of education among migrants did not play a substantial role in influencing criminal behavior within the South African context. Other factors, such as social networks, cultural integration, and individual characteristics, might have a more prominent influence on criminal activities among migrants. However, addressing unemployment issues among international migrants in South Africa to mitigate the risk of criminal involvement is crucial. Policymakers and stakeholders should focus on developing effective strategies to promote employment opportunities, skills development, and social integration among migrant communities. By addressing these socio-economic factors, it may be possible to reduce crime rates and create a more inclusive society for both migrants and the host population in South Africa.

Keywords: immigration, no education, unemployment, social factors, crime

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INTRODUCTION

The relationship between crime and immigration is the subject of ongoing academic research, public discourse, and debates. The increasing levels of migration necessitate the investigation of the potential implications of migration on crime rates in host countries. In many parts of South Africa, particularly in poorer areas, the presence of migrants has led to xenophobia, resulting in migrants experiencing violent crimes at the hands of locals (Niworu, 2018). South Africa's increasing rate of immigration since the country's transition to democracy in 1994 has evoked concerns from analysts, especially since immigrants have been scapegoated for the unemployment and wider economic crisis in South Africa (Machinya, 2022). Lower-class African immigrants in South Africa have faced the worst experiences, becoming victims of xenophobia and violence (Kollamparambil, 2019). In such an environment, the safety of international migrants is not guaranteed, as xenophobic attacks can emerge at any moment, posing a danger to their lives.

Several studies have focused on the impact of immigration on crime in the destination country. Adelman et al. (2017) examine the association between immigration, property crimes, and violent crimes over a 40-year period. They observed a population of young immigrants in the low-service sector to ascertain if poverty is linked to an increase in crime committed by international migrants. Kubrin et al. (2018) investigated the correlation between immigration and crime rates in Southern California, using three approaches – they categorized international migrants according to their ethnicity or race, residential area, and place of origin. The study contrasts these methods with the traditional approach of aggregating all immigrants under a single foreign-born percentage measure. The study emphasizes the significance of disaggregating immigrant groups when analyzing their impact on crime rates. Tufail et al.'s (2023) study investigated the possible connection between increased immigration and crime in 30 Organisation for Economic Co-operation and Development (OECD) countries. Kollamparambil (2019) investigated immigration, internal migration, and their connection to crime, using a multilevel regression analysis. They observed several factors, include the sex ratio, income inequality, poverty, and youth proportion.

International migrants, especially those from African nations, migrate to South Africa for better opportunities. However, the country faces significant income inequality, with a stark difference between the wealthy and the poor, exacerbating employment challenges (Orthofer, 2016). Many migrants are highly motivated to succeed, leaving their places of origin to improve their living standards. Unemployment is a major contributor to crime in South Africa; it is widely recognized as a factor leading to poverty, and in turn, poverty is associated with increased crime rates. Due to high unemployment rates, those lacking the means of survival, may resort to engaging in criminal activities as an alternative source of income (Ndlela, 2020).

Tambo et al. (2016) highlight the challenges that immigrants in South Africa face in the employment sector due to unreasonable delays in obtaining work permits from the Department of Home Affairs (DHA). These delays often result in qualified candidates losing job opportunities offered by local firms, as migrants cannot provide the necessary documentation. Even when their permit application process is completed, migrants may not receive timely notifications on the status of their permits. Consequently, some migrants turn to self-employment and the informal sector, which offer little job security and legal protection, leaving them vulnerable to exploitation and low-income opportunities.

Mehmood et al. (2016) and Westbrook (2012) argue that migrant exploitation, including low wages, increase crime rates. Many immigrants are underpaid, and when they fail to achieve financial success through legitimate means, some may turn to illegal activities to attain it. This population group is often susceptible to various factors, including extreme poverty, unlike citizens who may receive basic income support from the government through programs like the South African Social Security Agency (SASSA) grants. In contrast, immigrants may need access to such assistance and are more likely to face economic obstacles.

Education has always been regarded as a pathway for individuals from disadvantaged backgrounds to improve their circumstances and escape poverty. However, studies by Duncan and Samy (2021), Mehmood et al. (2016), and Westbrook (2012) highlight that migrants without formal education are more likely to face economic disadvantages in their destination country. Limited education can hinder their ability to participate in the labor force, forcing them to engage in illicit activities to survive.

Furthermore, language proficiency plays a significant role in accessing employment opportunities. When migrants are proficient in the language spoken in their host country, they can effectively communicate and connect with relevant individuals who may help uplift them based on their soft and hard skills. Language barriers can limit opportunities for social interaction, access to healthcare, and education.

Research on the relationship between crime and immigration has yielded complex results, with some studies finding a negative correlation between migrants and crime, while others have found positive associations. For instance, a study by Bianchi et al. (2012) in Italy found a significant positive relationship between migrants and robbery crimes. Similarly, Westbrook (2012) conducted a study in Spain, which revealed a positive correlation between migrants from certain countries, such as Herzegovina, Bosnia, Georgia, and Angola and their involvement in crime. The study also found that male migrants aged 35 to 54 were more likely to be involved in arrest events than Spanish citizens. On the other hand, Light et al. (2020) found a relatively small proportion of migrant involvement in crimes compared to American citizens, with assault crimes being higher among migrants but lower than those committed by native-born individuals.

Contrastingly, Ozden et al. (2018) found negative results regarding migrant involvement in crime. Their study in Malaysia showed that migrants were less likely to be involved in various types of crime, including violent and property crimes. Similarly, Tufail et al. (2023), in an investigation from 1988 to 2018, found no positive correlation between migrants and crime rates. They suggested that changes in crime policies and government administration might explain why migrants are less likely to engage in criminal activities in the investigated OECD countries.

Papadopoulos (2014) explored the connection between migrants in Wales and England and property crimes, by ensuring that neither migrants nor citizens were underreported in crime records. Using self-report data from the Crime and Justice System Survey, the study revealed that migrants' crimes were underreported, albeit to a lesser extent than crimes committed by citizens. The study also notes that the relationship between property crimes and migrants varied across different ethnic groups and regions in the United Kingdom (UK). Furthermore, Adelman et al. (2017) found a connection between an increase in the migrant population and a decrease in violent and property crimes. Their study suggests that immigrants generally do not engage in illegal activities. However, their presence alters the structure of opportunities for native-born individuals, leading to a decrease in migrant crimes and an increase in crimes committed by citizens.

In summary, this study suggests that the relationship between socio-economic factors, such as education and employment, and crime rates among international migrants in South Africa warrants more thorough investigation. Understanding these dynamics can inform targeted policies and interventions to address the challenges faced by migrants and promote social cohesion and safety in the host country. Additionally, research on the relationship between crime and immigration has yielded mixed results, highlighting the need for nuanced analysis that considers various factors, such as country-specific contexts and changes in government policies.

DATA AND METHODOLOGY

This study accounts for migrants between the ages of 15 and 64. Several other studies indicate that people of working age are more prone to engaging in crimes, which made this population group worthy of investigation. Due to the availability of data from the study's primary sources, the researchers selected the following five provinces for inclusion in the study: KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape, and Eastern Cape. Based on the study's aim, it investigated the socio-economic factors impacting international immigrants to determine whether these factors influence members of the population group to engage in illegal activities or not.

The study measures three social factors as variables – two independent variables and one dependent variable; crime is a dependent variable, while no education and unemployment of migrants are independent variables. The researchers compiled data for migrants' labor-force status and education to compare rates of connections of immigrants with no formal education and unemployed immigrants to crime

rates. Study variables are coded as follows: employment status (0: not employed, 1: employed), education status (0: not educated, 1: educated), and crime type (0: no crime, 1: contact crime, 2: property crime, and 3: other serious crime). The study's total sample size is 40 for the educational status variable and 30 for the employment status. The study sample was determined by the available secondary sources from which data was captured, which was presented in the form of infographics and reports. Furthermore, these sources do not present the data on crime statistics, migrants' employment status, and educational status at the individual level, but as aggregated data. This study obtained quantitative data from Statistics South Africa (Stats SA, 2019) and the South African Police Report (SAPS, 2017).

DATA ANALYSIS

Chi-square test for independence

McHugh (2013) states that a chi-square is a non-parametric statistical analysis that tests the association between categorical variables. In this study, the chi-square aims to test the association between the employment status of migrants and educational status force on crime. The study consists of two hypothesis tests: the first hypothesis is educational status and crime H0: There is no significant association between migrants with no formal education, educated to engage in crime. The alternative hypothesis is H1: There is a significant association between migrants with no formal education, educated to engage in crime. The second hypothesis for employment status and crime, H0: There is no significant association between unemployed migrants and crime. H1: There is a significant association between unemployed and employed migrants to engage in crime. The test is performed under the significant level of $\alpha \leq 0,05$.

$$DF = (C-1) \times (R-1)$$

In order to calculate the degree of freedom, the number of columns excluding the total cells are subtracted by one, similar to the number of rows subtracted by one, excluding the row total cell; then multiply the number of columns by the number of rows.

To test the association between educational status and crime, employment status and crime, critical value is observed at X^2 calculated value; therefore $\leq X^2_{2; \alpha:0,05}$ is the acceptance region. X^2 calculated value $> X^2_{2; \alpha:0,05}$ is a rejection region.

Critical values

$$2 \alpha;0,05 = 5,991$$

$$3 \alpha;0,05 = 7,815$$

$$6 \alpha;0,05 = 12,592$$

The expected frequency

$$E_i = (R_i \times C_i) / \sum O$$

Whereas:

Ri is the sum in row section

Ci is the sum in column section

ΣO is the sum of observations in a contingency table

Chi-square statistics

$$X^2 = \sum (O_i - E_i)^2 / E_i$$

To determine the chi-square statistics, observed frequency (O_i) will be subtracted by the expected value (E_i) and then divided by expected value (E_i). The X^2 statistics and X^2 critical value determine the decision rule; if X^2 Statistic > X^2 critical value, the H_0 for migrants' engagement in crime is driven by social factors is rejected; and if X^2 statistic is $\leq X^2$ then we accept the H_0 .

Multinomial logistic regression

Multinomial logistic regression (MLR) is the statistical analysis that handles data consisting of categorical dependent variables that carry two or more of the dummy variables. Referring to the study, the crime type variable consists of three dummy variables, as portrayed from variable description. Statistical analysis can accommodate both continuous, nominal variable and have interaction to predict the outcome of dependent variable.

$$P(Y = k | X) = \exp(\beta_0 k + X\beta k) / \sum_{j=1}^m \exp(\beta_0 j + X\beta j)$$

Application of the Multinomial Logistic Regression

$$P(\text{crime type} = k | \text{education status}, \text{employment status}) = \frac{\exp(\beta_0 k + \text{education status } \beta_1 + \text{employment status } \beta_2)}{1 + \exp(\beta_0 k + \text{education status} + \text{employment status})}$$

Where:

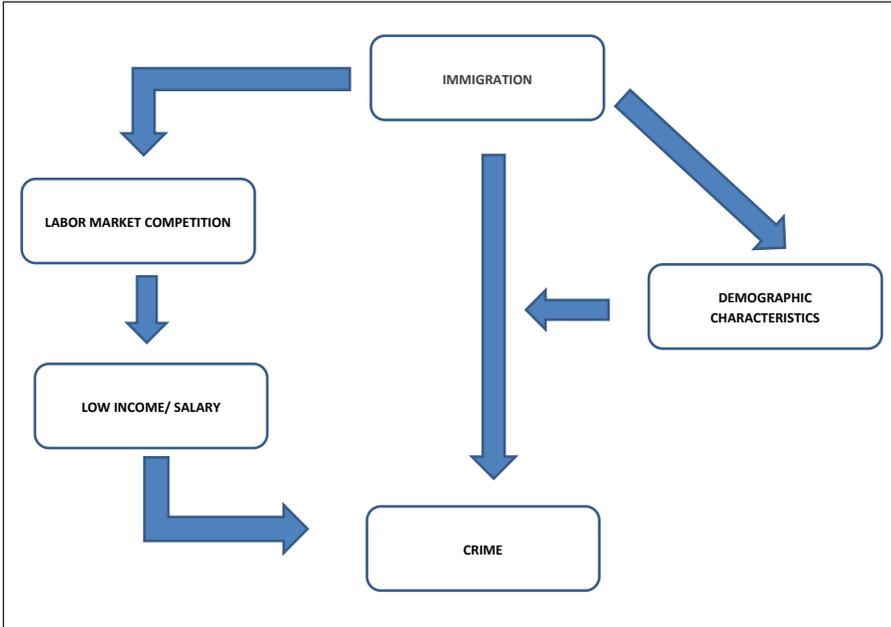
$P(Y = k|X)$ = is the probability of crime type variable equal to categorical k, given education status and employment status

$\beta_0 k$ = intercept of the categorical k

$X\beta k$ = Linear of the coefficients for education status and employment status

M is number of dummy variables of crime type (contact crime (0), property crime (1) or other serious crime (2))

CONCEPTUAL FRAMEWORK



Source: Bianchi et al. (2012).

After reviewing several studies on crime and immigration, Bianchi et al.'s (2012) framework proved suitable for application to the study. This conceptual framework (2012: 4) demonstrates how the relationship between crime and immigration influences the increase in criminal offenses. Their conceptual framework indicates some of the factors leading immigrants to engage in criminal offenses, including low income. Bianchi et al. (2012: 4) maintain that low-income earners are likely to partake in illegitimate business activities to earn surplus income to maintain their needs. They also aver that migrants with low educational backgrounds are likely to be associated with committing crimes, since the opportunity to participate in the labor force is low. Furthermore, migrants' demographic characteristics such as age and gender, as well as their cultural characteristics, are considered to have an impact on crime. Moreover, young migrant males are likely to be suspected of involvement in criminal activities in destination countries.

MAIN FINDINGS

Since the international literature is conflicted on this topic, there is no clear evidence that immigrants are the major contributors to crime in South Africa. However, if politicians in South Africa genuinely wish to address the perceived crime problem

(among politicians and many citizens), then they should address several factors referred to in international literature that contribute to immigrant criminality in other countries.

RESULTS

International migrant profile

The data presented in Table 1 provides valuable insights into immigration rates, employment status, and the level of education among the working-age population group in South Africa. The table compares the data from the Labour Market Outcomes Report (Stats SA, 2019) conducted in 2012 and 2017, allowing us to observe any changes and trends over this period. Regarding immigration rates, South Africa experienced an increase from 3.9% in 2012 to 5.3% in 2017. This indicates a rise in the number of immigrants entering the country during this period. When considering gender, the majority of immigrants were male, accounting for 58.3% in 2012 and 55.8% in 2017. However, the proportion of female immigrants also increased from 41.7% in 2012 to 44.2% in 2017. Overall, the total number of immigrants rose significantly from 1,333,107 in 2012 to 1,984,392 in 2017, highlighting the growing diversity of the working-age population in South Africa.

Examining employment status, the table reveals important insights. The percentage of employed migrants decreased slightly from 84% in 2012 to 81.4% in 2017. This suggests that employment opportunities may have become slightly scarcer for migrants during this period. The rate of underemployment, indicating individuals working in jobs below their skill level or not using their full potential, increased from 3% to 4.8%. This trend is concerning, as it implies that a greater proportion of migrants may be experiencing job dissatisfaction or economic challenges. Furthermore, the table highlights the prevalence of informal employment among migrants. In 2012, 33.9% of employed migrants were engaged in informal work, which decreased slightly to 29.3% in 2017. Informal employment typically needs more legal protection and regulation, often leading to low wages and job insecurity. Therefore, the high proportion of migrants involved in informal employment suggests challenges in accessing formal employment opportunities or decent work conditions (see Table 1).

Table 1: Immigration rate, employment rate, and education levels of the working-age population in South Africa

Migration at national level				
	2012		2017	
	Unadjusted	%	Unadjusted	%
Males	777,202	58.3	1,150,948	55.8
Females	555,906	41.7	827,492	44.2
Total	1,333,107	100	1,984,392	100
Employed	1,125,142	84.4	1,615,295	81.4
Underemployed	43,993	3.3	95,251	4.8
Informal employment rate	451,924	33.9	581,427	29.3
Unemployed	207,865	15.6	365,128	18.4
No education	87,985	6.6	89,298	4.5
Less than primary completed	110,648	8.3	208,361	10.5
Primary completed	81,320	6.1	123,032	6.2
Secondary not completed	507,914	38.1	775,897	39.1
Secondary completed	349,274	26.2	480,223	24.2
Tertiary	195,967	14.7	305,595	15.4

Source: Adapted from Stats SA (2019).

The unemployment rate among migrants also increased from 15.6% in 2012 to 18.4% in 2017. This indicates a rise in joblessness among this population group, which can have severe implications for their well-being and economic stability. High unemployment rates can lead to social and economic disparities, potentially exacerbating social factors that may push individuals toward engaging in criminal activities. Analyzing the level of education among migrants, the data highlights both positive and concerning trends. The percentage of migrants with no formal education decreased from 6.6% in 2012 to 4.5% in 2017, indicating progress in educational attainment. However, the proportion of individuals with less than primary completed education increased from 8.3% to 10.5% during the same period. This suggests that while some migrants are advancing in education, a significant proportion still faces barriers to accessing higher levels of education. Regarding both completed and incomplete secondary education, the data shows a slight increase in the proportion of migrants with incomplete secondary education, from 38.1% in

2012 to 39.1% in 2017. On the other hand, the proportion of migrants who completed secondary education decreased from 26.2% to 24.2%. This indicates a potential gap in educational opportunities and challenges in completing secondary education among migrants.

In contrast, there was a positive trend in tertiary education, with an increase from 14.7% in 2012 to 15.4% in 2017. This suggests improving access to higher education among migrants, which is crucial for enhancing employment prospects and socio-economic mobility. Overall, the data from Table 1 highlights various challenges and opportunities faced by migrants in South Africa. It underscores the importance of addressing employment-related issues such as underemployment, informal employment, and unemployment. To promote inclusive labor-force participation, policymakers should focus on creating more employment opportunities, removing barriers to employment, and supporting entrepreneurship among all population groups, irrespective of citizenship status. Additionally, the data emphasizes the significance of education as a pathway to socio-economic advancement. Efforts should be made to address educational disparities, promote access to quality education, and support individuals in completing higher levels of education. This can be achieved through targeted interventions, such as educational programs and initiatives that specifically cater to the needs of migrant communities. Moreover, addressing extreme poverty and providing social support, including affordable housing, can play a crucial role in reducing desperation that may increase the possibility of migrants engaging in criminal activities.

Level of education among migrants

Education plays a crucial role in an individual's development and opportunities. The level of education and skills acquired can determine one's access to employment. Table 1 presents the migration rates by the level of education obtained in South Africa. The data shows that the rate of individuals who had never engaged in formal education or did not complete primary education, stood at 14.6% in 2012 and increased slightly to 15% in 2017, indicating a gradual increase of 0.4%. In 2012, the population of those who completed primary school education had the lowest rate at 6.1%, which increased marginally to 6.2% in 2017.

Migrants without secondary education accounted for a significant proportion compared to other educational levels. Most migrants had dropped out of school, resulting in a rate of 38.1% in 2012 and 39.1% in 2017. Similarly, those who had completed secondary education also constituted a significant proportion, ranking second highest behind those with no secondary education, with rates of 26.2% in 2012 and 24.2% in 2017. These statistics indicate that migrants faced barriers to secondary education, leading to high dropout rates.

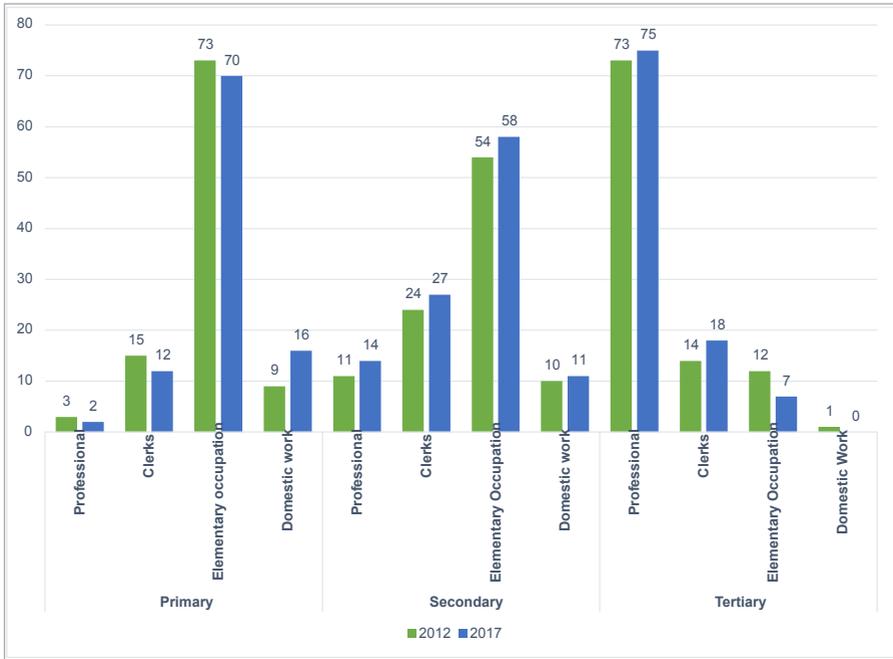
Furthermore, the data showed that 14.7% of migrants held tertiary education qualifications (diploma, degree, honors, Master's, and PhD) in 2012. This rate increased by 0.7% in 2017, the second-lowest increase compared to those who

completed primary school education. The lower educational-attainment rates among migrants can be attributed to financial constraints, such as a lack of funding opportunities, as well as social factors, such as difficulties in the transferability of credentials and the validation of legal particulars, such as permits. Unemployment is a significant social factor that can push citizens and migrants to engage in illegal activities. Table 1 provides information on the employment status of migrants in South Africa. In 2012, 84% of working-age migrants were employed, but this employment rate decreased by 2.6% in 2017. Out of the overall rate in 2012, 3% of the population was classified as underemployed, and this rate increased by 1.8% in 2017. The population group employed in the informal sector dominated with a rate of 33.9% in 2012, but by 2017, this rate had dropped by 4.6%. A possible factor is the decrease in demand for informal-sector work and an increase in international migrants with higher levels of education during 2012 and 2017. The informal sector needs more legal regulation, resulting in unstructured working hours and income not determined by the number of hours worked (ILO, 2015). Both the population groups employed in the informal sector and those underemployed are more likely to face challenges related to low incomes. As shown in Table 1, unemployment among migrants in South Africa has increased from 15.6% to 18.4% over the last five years, indicating a rise of 2.8%. This is a concerning trend that suggests a potential threat to the well-being of migrants. The overall employment statistics highlight migrants as a group that experiences employment-related challenges, including low income and underemployment, as these rates gradually increase.

Migrants' occupation by level of education

Figure 1 provides an overview of the different types of occupations based on the level of education among migrants. In 2012, 3% of migrants with primary education were employed in professional occupations, but this rate decreased by 1% in 2017. Professional work in this category included roles such as child care, delivery drivers, and security guards. The rate of migrants employed as clerks was 15% in 2012, gradually decreasing to 12% in 2017, indicating a 3% decrease. Elementary occupations, which require minimal qualifications, were the most common among migrants with primary education, with rates of 73% in 2012 and 70% in 2017. These occupations often included street vendors. Overall, the rates for almost all occupations gradually decreased from 2012 to 2017. However, the statistics for domestic occupations showed an increase from 9% to 16%, with a growth rate of 7% over the last five years (see Figure 1).

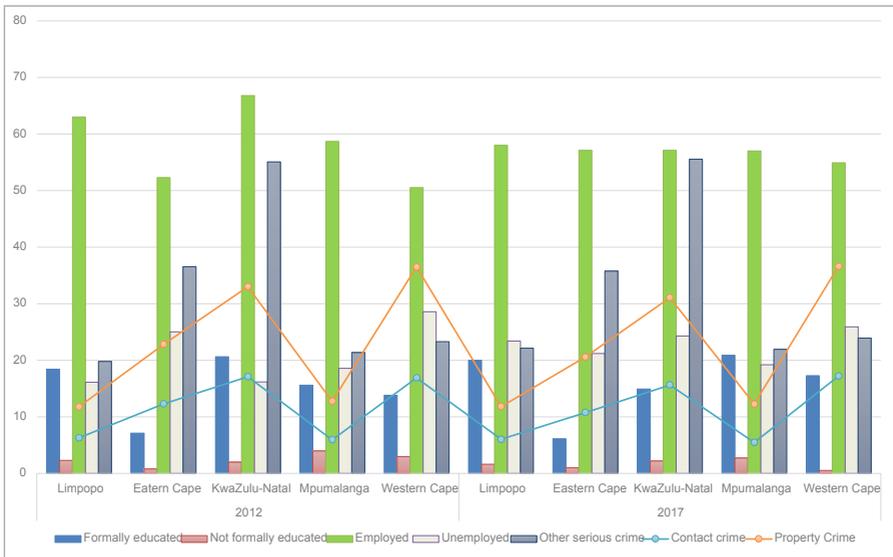
Figure 1: Immigrants' occupation by level of education



Source: Adapted from Stats SA; Labour market outcomes of migrant populations in South Africa, <http://www.statssa.gov.za/publications/02-11-04/02-11-042017.pdf>

For migrants with secondary education, all occupations experienced a gradual increase from 2012 to 2017. The rates of professional and clerical occupations increased by 3%, with professional occupations increasing from 11% to 14% and clerical occupations increasing from 24% to 27%. Elementary occupations remained dominant, with a rate of 54% in 2012 and 58% in 2017. Domestic occupations had the lowest rate among migrants with secondary education, with a rate of 10% in 2012 and 11% in 2017. These rates highlight the disparity in opportunities between those with lower educational levels and those with at least secondary education. Migrants with primary education were more likely to face social factors such as low salaries due to their prevalence in elementary occupations.

Figure 2: Crime by migrant education and employment status in South Africa



Source: Adapted from StatsSA, 2017, Labour market outcomes of migrant populations in South Africa, and SAPS 2017.

Migrants with higher levels of education had a higher probability of being employed in professional occupations compared to those with secondary and primary education. For migrants with tertiary education, 73% were in professional occupations in 2012, and this rate increased to 75% in 2017, with a growth difference of 2%. In contrast, elementary occupations were less common among migrants with tertiary education, accounting for 12% in 2012 and decreasing to 7% in 2017. Only 1% of migrants with tertiary education experienced employment challenges in 2012, and this rate declined to 0% in 2017.

The chi-square test examined the relationships between immigration rate, employment status, education levels, sex, and age group among the working-age population in South Africa. Notably, the educational status displayed a significant association ($p=0.05$) with crime, particularly among the non-educated segment. Employment status also significantly correlated ($p=0.01$) with crime, particularly among the unemployed. However, the study found no substantial associations between sex or age groups with crime ($p>0.05$). These results suggest that education and employment status influence crime rates within the working-age population in South Africa.

Table 2: Chi-square test results: Relationships between immigration rate, employment rate, and education levels among the working-age population in South Africa

	No crime	Contact crime	Property crime	Total	Value	Df	P-value
Variables		N	N				
<i>Educational status</i>							
Not educated	14	5	1	20	7,758	3	0,05
Educated	18	1	1	20			
Total	32	6	2	40			
<i>Employment status</i>							
Unemployed	5	3	2	10	8,813	2	0,01
Employed	19	1	0	20			
Total	24	4	2	30			
<i>Sex</i>							
Females	18	1	1	20	2,273	2	0,52
Males	14	4	2	20			
Total	32	5	3	40			
<i>Age group</i>							
15 to 29	10	2	0	12	6,13	6	0,41
30 to 49	13	1	2	16			
50 to 64	9	2	1	12			
Total	32	5	3	40			

Source: Adapted from Stats SA (2019).

The multiple logistic regression analysis investigated the influence of immigration rate, employment status, and education levels on contact crime and property crime among South Africa's working-age population. The findings show that employment status exhibits a statistically significant association ($p=0.04$) with contact crime. Specifically, the odds ratio suggests that being employed slightly increases the likelihood of contact crime by 1.273 times compared to unemployment. However, education levels did not significantly correlate with contact crime ($p>0.05$). For property crime, none of the variables reached statistical significance. It implies that employment status may play a role in contact crime within this population, but further investigation might be needed to understand its nuanced impact.

Table 3: Multiple logistic regression analysis of immigration rate, employment rate, and education levels among the working-age population group in South Africa

Variable	Estimates of coefficient	SE coefficient	Wald	p-value	Odds ratio
Contact crime	-1,967	2,25	0,764	0,38	-
Age	-0,328	0,291	1,272	0,26	0,72
Educational status	0,284	0,263	1,167	0,28	1,328
No education	0,002	0,053	0,002	0,97	1,002
Educated	-0,238	0,3	0,631	0,43	0,788
<i>Employment status</i>	0,242	0,119	4,114	0,04	1,273
Unemployed	0,032	0,391	0,594	0,44	0,74
Employed	-0,0154	0,199	0,597	0,44	0,857
Property crime	-3,378	2,337	2,089	0,15	-
Age	-0,024	0,266	0,008	0,93	0,977
<i>Educational status</i>	0,0272	0,27	1,009	0,32	0,315
Not educated	-2,329	1,67	0,968	1	0,097
Educated	-0,067	0,083	0,427	0,99	4,3
<i>Employment status</i>	-0,284	0,12	2,433	0,12	0,119
Unemployed	0,02	1,212	0,008	0,93	4,08
Employed	-0,465	0,032	0,173	0,68	6,19

The reference category is Other serious crime

Source: Adapted from Stats SA (2019).

DISCUSSION

In order to draw meaningful results, the researchers used a chi-square test analysis to test association and independence between variables. The study observed two hypotheses H^0 : There is no significant association between migrants with no formal education, educated to engage in crime. The alternative hypothesis H^1 : There is significant association between migrants with no formal education, educated to engage in crime. The second hypothesis for employment status and crime, H^0 : There is no significant association between unemployed migrants and crime. H^1 : There is no significant association between unemployed and employed migrants to engage in crime.

The education variable reveals that the likelihood of migrants with no formal education and those with formal education to take part in illegal activities is not determined by the status of education one possesses. The calculated value (7,758)

appeared to be smaller than chi-square critical value (7,815); this implies that the study failed to reject the null hypothesis. However, the results on employment status and crime seem to be associated – migrant involvement in crimes is determined by their employment status; chi-square critical value (7,815) is smaller compared to calculated value (8,812). This implies that migrants who are employed are not likely to take part in crime-related activities. The sex and age group variables appeared to be not statistically significant.

Most of the results illustrated by the multinomial regression appeared to be not statistically significant. When observing the age variable under contact crime, it reveals that an increase by one year among the observed population, the likelihood of engaging in contact crime decreased by 0,328. When observing the educational variable, there is no difference in crime engagement. As the number of migrants with or without education increases or decreases, crime would remain constant, indicating that education clearly has no impact on their likelihood to engage in contact crime. The employment variable appeared to be statistically significant (p -value= 0,043) and the variable has a negative coefficient (-0,242). This signifies that as migrants become employed, their likelihood of engaging in contact crimes decreases.

When observing variables from the property crime model, all the variables are not statistically significant. Property crime seems to not be impacted by the educational status, similar to the results of contact crime. The study conducted by Papadopoulos (2014) in the United States of America unveiled negative results on migrant involvement in property crimes. The study uncovered negative results regarding migrant involvement in violent crimes in the UK. It found that reports of migrant involvement were more accurate and less frequent than those of native citizens.

This study had certain limitations that should be considered. Firstly, due to data limitations, the study did not include undocumented migrants in the investigation. This omission may affect the overall understanding of the impact of social factors on this particular group. Additionally, the study relied on a small sample size, which presented challenges in analyzing the variables and testing the association and likelihood between migrants' educational status and crime. The statistical power needed to be higher, resulting in non-significant results in the analysis of immigrants' educational status, employment status, and some of the demographic characteristics (age and sex). Future research endeavors should explore these associations in more depth to contribute to a comprehensive understanding of the factors influencing crime patterns.

CONCLUSION

The study aimed to examine the impact of social factors on migrants' involvement in crime. The findings from Table 1 and Figure 2 revealed high rates of individuals with no secondary school education among migrants, as well as a significant level of unemployment. The relationship between social factors and crime among migrants

varied across different provinces. Access to secondary education emerged as a significant social factor affecting migrants. However, the correlation table indicated that immigrants facing barriers in education did not contribute significantly to the increase in crime rates. On the other hand, the study observed a significant association between unemployment and involvement in crime among migrants.

RECOMMENDATIONS

Based on the findings discussed above, this study offers the following recommendations:

- Address the issue of limited access to education among migrants: Efforts should be made to provide educational opportunities and support systems, particularly at the secondary level, to ensure that migrants have the necessary skills and qualifications to secure employment.
- Promote an inclusive labor force: Efforts should be made to create more employment opportunities and remove unnecessary delays in work permit processing by the Department of Home Affairs that hinder migrants' access to employment. By ensuring equal opportunities for all population groups, regardless of their citizenship status, policymakers can reduce barriers to employment and foster a more inclusive society.
- Support entrepreneurship and sponsorship: The relevant authorities and bodies should implement programs and initiatives that support and sponsor individuals, including migrants who are interested in starting their own businesses. By encouraging entrepreneurship, the relevant stakeholders can empower migrants to contribute to the economy and create opportunities for success.
- Establish social support systems: It is crucial to establish robust social support systems that assist families experiencing extreme poverty, including migrants. Access to affordable housing, financial aid, and other forms of support can alleviate the desperation that may lead some individuals engaging in criminal activities.

These recommendations aim to promote inclusivity, support entrepreneurship, and provide social assistance. By implementing these measures, the state can create a more supportive environment for migrants, reduce the factors that may drive them to engage in crime, and maximize their potential contributions to society.

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AUTHOR CONTRIBUTIONS

The study's conception and design were a collaborative effort involving both authors. Knowledge Sithole was responsible for data preparation and performed the analysis. Knowledge Sithole and Sathiya Susuman Appunni jointly wrote the

initial draft of the manuscript. Both authors participated in reviewing and approving the final version of the manuscript.

CONFLICT OF INTEREST

The authors have no conflict of interest to report.

ETHICAL APPROVAL

The authors disclose that all the accepted ethical guidelines and requirements were adhered to, and there is nothing to report regarding live subjects.

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