The demographic aspects of African female migrants and housing type in South Africa: a comparison between the 2001 and 2011 population censuses

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Abstract

Globally, scholars and researchers have very little documentation regarding the study of female migration, and it has become even more narrowed in South Africa. Female migration has always been overlooked because migration was always associated with males. Moreover, the housing acquisition of African female migrants in South Africa has been under-researched. This study sought to unveil the determinants of housing acquisition by African female migrants in South Africa. Housing type was used to present the key determinants that affected the housing acquisition by African female migrants in South Africa. This study researched these determinants by comparing the 2001 and 2011 population censuses of South Africa received from the Department of Statistics South Africa (Statistics South Africa). Logistic regression was used to indicate the relationship between the African female migrants' characteristics and their likelihood of acquiring housing in South Africa. The findings indicate that age, country of birth, and employment status were the key determinants in African female migrants' access to housing in South Africa.

Keywords: African female migrant, housing type, country of birth, employment status, population census

Introduction

Female migration has emerged as a widely recognised fact during the past fifteen years. Throughout those years, male migration rates were higher than those of female migration (Nsengiyimva & Tati, 2017: 3271). Hassan (2020: 76) asserts that the scrutiny of the international migration has always been on men as many scholars and writers believe that migration is a male-centralised phenomenon since the likelihood of migration among men is believed to be higher than the likelihood of migration among women on a global scale. The absence of female migration during the pre-colonial, colonial, and apartheid eras gave the impression that women were not involved in migration. This myth developed because women were viewed only as housewives, child bearers, and caregivers. Female roles were believed to be centred on the home, which focused their concern on their families and children (Mhlongo et al., 2018).

The primary focus of this study was on African female migrants who entered South Africa (SA) from their home countries or states and would stay in the country indefinitely or for an extended period. Migration has always been correlated with gender, and it is now clear that women are beginning to travel more than men, especially on the African continent (Hassan, 2020: 76). According to the United Nations High Commission for Refugees (UNHCR) (2018), female migration streams have increased significantly in Africa in 2017.

Gouws (2018) asserts that consideration of influential factors of female migration is important, including factors such as the evolvement that has taken place to the current day where women are currently getting more educated, and how education influences their drive to succeed. The need for financial independence is now greater than anything else among women, and many of them want to pursue professional professions, which drives them to seize opportunities for migration. There is evidence in many African nations, including South Africa, Botswana, Lesotho, Zambia, and Malawi, to name a few (Vause & Toma, 2015); all these nations have policies to empower women.

Some African nations that want to empower women and alleviate poverty have modified policies like the Millennium Development Goals. According to Statistics South Africa (2011), South Africa experienced an influx of female migrants from sub-Saharan Africa. Among others, the countries in this region include Lesotho, South Africa, Malawi, and Zimbabwe (Greenburg & Polzer, 2008). People in this region of Africa are forced to devise alternative survival strategies because of the underdevelopment that continues to be a problem in these

countries. According to Akileswaran & Lurie (2010), a large number of female migrants from impoverished sub-Saharan African nations migrate to nearby developing nations, which has an effect on how well services are provided in areas of destinations.

Furthermore, Bekker and Cross (2002) state that African female migrants face different circumstances and conditions upon their arrival in the areas of destination. These circumstances and conditions can be associated with the standard and degree of education, and the varying job opportunities that need individuals with various abilities and qualifications, including access to housing. However, Nsengiyumva (2013) claims that land and government-subsidised housing programmes are easily accessible in places outside of major municipalities, which may make it easier for female immigrants to purchase homes.

Todes (2012) argues that informal housing has grown in South Africa because of the low-cost formal housing simply being unable to keep up with population growth. Consequently, many recent female immigrants are forced to seek shelter in these informal settlements. The poorest residents and recent immigrants to the country live in informal housing in South Africa. Female migrants typically go to areas with greater infrastructure and opportunities.

Additionally, Nsengiyumva (2013) observes that many female migrants are now in charge of households and are the primary wage earners. Hence, despite their poverty, they shoulder all responsibilities. However, nothing is known regarding the growth of female migrants from other African nations between 2001 and 2011. Statistics of the top African nations that are mostly exporting female migrants to South Africa are unsatisfactory. In terms of numbers, it is still unclear to which province the most African women are migrating. Furthermore, nothing is known regarding the type of housing in which female migrants choose to live. With regard to selective migration, the sociodemographic, socioeconomic, and migratory factors that lead female migrants to remain in a specific housing type are still unknown.

In an effort to educate policy makers and enhance the quality of life of African female migrants in South Africa, the goal of this study was to investigate the primary type of housing that African female migrants accessed across all nine provinces of the country. It also aimed to measure the relationship between the sociodemographic, socioeconomic, and migratory characteristics of African female migrants and housing-related variables, particularly housing type.

Literature Review

Migration is a crucial demographic process since it affects age and sex composition of the population in the province. According to Statistics South Africa (2020) international migrant arrivals in South Africa fell by 94,6% between June 2019 and June 2020 (from 1 163 574 to 62 841), while departures fell by 93,8% between June 2019 and June 2020 (from 1 044 833 to 64 721) and transits fell by 99,8% between June 2019 and June 2020 (from 67 192 to 140). However, the provincial in-migration indicates that about 1 643 590 and 493 621 migrants, respectively, are projected to have entered Gauteng and the Western Cape between 2016 and 2021, according to the mid-year population estimates of Statistics South Africa for 2019. Among all areas, the biggest numbers of immigrants arrived in Gauteng and the Western Cape (Statistics South Africa, 2020). The highest migration outflows occurred in Gauteng and the Eastern Cape. Owing to its comparatively higher population, Gauteng experienced the greatest number of migrant in- and outflows.

Positive net migration was recorded in all three periods in Gauteng, Mpumalanga, the Northern Cape, the North-West, and the Western Cape provinces (South African Government Information, 2009; Tibane, 2018). Gauteng consistently had the most foreign immigrants entering the provinces, with the Western Cape in the second place. According to the provincial estimates, KwaZulu-Natal, the Western Cape, and the Eastern Cape all had smaller population shares than Gauteng (South African Government Information, 2009). International and interprovincial migration patterns have a great effect on provincial population structures and numbers in South Africa.

In 2019, the Western Cape was home to about 11.4% of the population in South Africa. The Northern Cape had the lowest population (2.2%), and at 4.9% of the total population, the Free State had the second-smallest population in South Africa. The largest percentages of people under 15 were found in Limpopo and Eastern Cape, both at 33.3%. According to Statistics South Africa, the Eastern Cape (11.3%), Northern Cape (10.2%), and Western Cape (10) had the greatest percentages of elderly people aged 60 and older (Tibane, 2018). Female migratory patterns are poorly understood, and male and female migration frequently have different motivations.

Nonetheless, over the past twenty-one years, it has seen tremendous change. Migration was made easier by the increased liberalisation of the region, the end of apartheid, and the opening of the borders of the most prosperous nation on the continent (Crush et al., 2005). Contributing

causes included the region's reintegration into the world economy, an increase in rural and urban poverty, and the realignment of the gender of the migrant stream. The collapse of the Zimbabwean economy over the past ten years has significantly affected the migration of Zimbabweans, particularly Zimbabwean women, to nearby nations, particularly South Africa (Crush et al., 2005).

According to Statistics South Africa (2016), the backlog of nearly 3 million housing units was growing at a pace of roughly 16,85% annually, which presented a challenge for the post-apartheid government of South Africa, according to McDonald (1998). Additionally, it was crucial to keep in mind that around 720 000 units still needed to be upgraded to be standardised to accommodate people following South Africa's housing rules. This was a national priority since it was on the list of top priorities for the Reconstruction and Development Programme (RDP) of the South African government. However, it did not change the reality that the problem was one of the main causes of a lack of and inadequate housing among African immigrants who came to South Africa on purpose.

McDonald (1998) emphasises that the examination of the housing policy for migrants in South Africa was at the heart of the problem of housing among African female migrants. The constitution required the government to provide accommodation for immigrants when they entered the country, but these obligations were stated only in the policies, which were rarely put into practice in the real world. The majority of African female migrants in South Africa claimed to be ambivalent about buying homes because they did not view housing as their top priority due to their uncertainty about what their future held for them regarding long-term housing, though some were content with their various circumstances and access to housing. This perspective restricted African female migrants' access to housing in South Africa.

Conceptual Framework

When comparing demographic characteristics like age, country of birth, level of education, and employment status, migrants are not comparable. Consequently, these demographic traits are frequently linked to the accessibility of resources for migrants, such as housing (Charlton, 2004; Nsengiyumva, 2013). Many studies produced by academics and experts indicate that women are more likely to be prone to migration because of their growing independent nature resulting from empowerment and education. The study established that there was no established theory that governed the demographic aspects of African female migrants and their housing types in South Africa. However, the migration selectivity theory could be employed

to support the migration of African women and their housing acquisition. According to the relevant variables and hypotheses put forward, conceptualisation is accomplished.

Age selectivity

Given that migration patterns and trends tend to vary with age, age is one of the most important factors in determining the tendency to move in any study. Majikijela (2015) asserts that most people are more likely to migrate while they are younger than when they are older. This is mostly because of less dependency and few attachments in the country of origin compared to individuals who are in their childhood and elderly years (Vermeesch et al., 2022).

Marital status selectivity

The decision to immigrate can be greatly influenced by one's marital status. According to Vermeesch et al (2022), families typically set the conditions for a person's migration, including where they may relocate and when they can do so. This example shows the power a wife or husband has over their partner's decision to migrate. Married males have historically predominated migration streams, according to Nengiyumva and Tati (2017). This is because they were viewed as family providers and always looked for possibilities to enhance their families' economic standing in different countries. Today, things are different. The migration streams are feminized, and a large majority of the migrants are single women who want to enhance their employment prospects and quality of life without relying on the assistance of men (Duba, 2020).

Highest level of education selectivity

One of the factors that affects migration the most is educational attainment. Studies from Mokabati (2021), Duba (2020), and Nsengiyumva (2013) demonstrate that the majority of African migrants in South Africa have completed secondary education as their greatest level of education, which facilitates migration because they are qualified for the labor force and can further their academic qualifications. Additionally, because these migrants add value to their respective areas of destination, nations frequently open their doors to talented migrants (Kanbur & Rapoport, 2003).

Country of birth selectivity

According to the Mokabati (2021) the majority of migrant migrate to countries that are close to their countries of origins because safety and security is key in migration and through this

there are limited barriers and there is shared culture between the community in the area of origin and the country of destination. According to Kanbur & Rapoport (2003), migrants become more productive and comfortable in countries where they face less Xenophobic attacks, discrimination and other cultural, racial and general injustices.

Housing type selectivity

A major determinant of a migrant's desire to migrate and their destination preferences is access to housing. When migrants arrive in their destination countries, housing can sometimes be their largest out-of-pocket expense. Therefore, it makes sense to presume that when migrants consider migrating geographically, they give the cost of housing a lot of weight, both in their present location and in potential migration options. After arriving in a country of destination initially, migrants may decide to relocate based more on housing considerations than on economic, social, or environmental factors (Haberfeld et al., 2019).

Data Sources and Methods

Since the study involved data from both the 2001 and 2011 population censuses of South Africa, and a cross-sectional research design was used in this study. The information was gathered from a centralized location simultaneously and is used to examine the relationship between an individual's characteristics or attributes and their subsequent attitude, which is their propensity towards a particular research outcome (Nsengiyumva, 2013). From a statistical standpoint, the study is interested in the demographic aspects of African female migrants and their housing types. Additionally, the location of African female migrants in this study is not randomly distributed thus the selection criteria of African female migrants was particular to the SADC (Southern African Development Community) region with focus on the countries neighbouring South Africa.

The 2001 and 2011 population censuses, both accessed from Statistics South Africa (2003, 2011), were used in this study. Admittedly, only 10% of the census data were made available to the general public by Statistics South Africa. These data sets were chosen because they included all the relevant variables of the study, all of which were crucial for the successful conclusion of the study. Every person present on census night was counted in the 2001 Population Census, which was conducted on October 9 to 10. To gather information on people and households across the nation using a standardised methodology, people had to be counted.

The data on each household, each person present in the household on the night of the census, the services available to the members of the household, the residents of the household, the residents of the hostels, as well as all other different living arrangements and people who spent the night of the census in hotels and institutions, were collected (Statistics South Africa, 2016). Nevertheless, the date had to be postponed until December 2011 because the census could not be completed in time. Planning for the population census began in 2003, and it was verified in 2008 after the 2007 Community Survey.

Thirty-eight people participated in a pilot survey in 2008 and 2009 to evaluate the approach and processes. The methodology and processes for a follow-up test in 2010 were further improved using the results of the pilot test. This was the final pilot test before the 2010 global census. Therefore, the data were expected to be collected during the same month as the primary census (Statistics South Africa, 2010). The population censuses of 2001 and 2011 contain a wealth of important data since they cover a wide range of housing, sociodemographic, socioeconomic, migratory, and housing information.

The researchers' decision to obtain the information and analyse the sequence of African female migrants and housing type in South Africa was influenced by these data sets. Furthermore, enumerators who had received training gathered the census information. Information was gathered through personal interviews with respondents. The enumerator provided the necessary information and motivated respondents who chose to finish the questionnaire on their own by encouraging them to do so. While there were translations into other official languages, the questionnaire was prepared in English.

Moreover, to maintain consistency between the data and the reported findings, the study takes into account this 13th ICLS terminology to restrict the range of the many categories that categorize the various employment statuses. Furthermore, the terminology in question is used to prevent any overlapping categories in the employment status categories, which would necessitate priority rules and lessen coherence. Three categories employed, unemployed, and not economically active are the main focus of this study in order to examine particular concerns or aspects of the employment status within the conceptual framework of this research.

Data Sampling procedures

The data provided by the South African Census 2001 and 2011 dataset represents a 10%-unit level sample derived from the 2001 and 2011 census in the processes listed below:

• Households: 10% of households in housing units, 10% of households in communal housing (both institutional and non-institutional), and 10% of homeless households.

• People: A sample drawn for the samples indicated above that includes all individuals residing in households, communal housing units, and homeless individuals.

There is a weight variable present in both the 10% household and person sample files. This weight variable is the undercount correction factor multiplied by 10 to bring the 10% samples up to the proper population (for households or persons, as appropriate). Aggregated totals of sparsely populated codes, like very elderly ages, in the person records may deviate significantly from real totals due to sampling fluctuations; the weights were not scaled. Real totals will roughly match aggregate totals in the household records.

Variables and Definitions

The variables were selected according to those that were utilised in the 2001 and 2011 population censuses. The independent variables of the study were chosen according to the conceptual framework of the study. These variables were divided into four categories in relation to the following characteristics: socio-demographic variables, socio-economic variables, migratory variables, and housing and household related variables. To determine possible relationships between housing and African female migrants in South Africa, the variables of interest were categorised as follows:

Sociodemographic Variables

Age of the respondent

The enumerator carrying out the interview took note of the age of each member of the household. The enumerator asked the respondents, "What is the person's age in completed years?" on the enumeration night. According to Statistics South Africa (2011), age is a period of time measured from the day, month, and year of birth. Age is calculated using the total number of years that a person has lived. Age was grouped into four categories: 1 = children (0-14 years old); 2 = youth (15-35 years old); 3 = adults (36-60 years old); 4 = the elderly (61 years and older). This variable outlines the age distribution of African female migrants in South Africa.

Employment status

According to Statistics South Africa (2016), a person must have no job attachments, have been out of work for seven days prior to the survey interview, be willing to begin working within the next 14 days, or have made strides to establish a company in the four weeks prior to the survey interview in order to be considered unemployed (Nsengiyumva, 2013). In this study employed people include those who performed work for pay, profit or family gain for at least one hour in the seven days prior to the interview or who were absent from work during these seven days, but did have some form of paid work to return to While people who are not economically active include individuals who are not available for work such as full-time scholars and students, full-time homemakers, those who are retired and those who are unable or unwilling to work (Stats SA, 2012). Regarding this variable, the respondents were required to provide three answers. The questions focused on the period of seven days prior to the beginning of the Population Censuses on October 10, 2011.The questions that the enumerators asked were as follows: Did (name) work for a wage, salary, commission, or any payment in

kind (including paid domestic work), even if it was for only one hour? In this study, this variable was re-coded into the following categories based on the definition of unemployment by Nsengiyumva (2013) mentioned above. The final coding of the variable was as follows: 1 = Employed; 2 = Unemployed; 3 = Not economically active.

Migration Variables

In this study, a migrant is defined as someone who has resided at his or her normal place of residence for at least six months, or 25 weeks if using the South African date calendar. These migratory variables were independent variables describing migration patterns according to space and time.

Country of birth

The enumerator's question was, "In which country were you born?" The answer to this question was recorded as follows: 1 = Lesotho; 2 = Namibia; 3 = Botswana; 4 = Zimbabwe; 5 = Mozambique; 6 = Other. The variable, 'country of birth', assisted in measuring the differentials among African female migrants from different African countries in relation to housing acquisition.

Housing Variables

Housing variables were variables that described the housing type.

Housing type

This variable was created from another variable, "Main dwelling type". The enumerator asked the question, "Which of the following best describes the main dwelling and other dwelling(s) that this household occupies?" The categories for this variable were as follows: 01 = House or brick/concrete block structure on a separate stand or yard on a farm; 02 = Traditional dwelling/hut/structure made of traditional materials; 03 = Flat or apartment in a block of flats; 04 = Cluster house in a complex; 05 = Townhouse (semi-detached house in a complex); 06 = Semi-detached house; 07 = House/flat/room in backyard; 08 = Informal dwelling (shack in backyard); 09 = Informal dwelling (shack not in backyard, e.g., in an informal/squatter settlement or on a farm); 10 = Room/flat let on a property or a larger 42 dwelling/servants' squatters/granny flat; 11 = Caravan/tent; and 12 = Other. In this study, the categories to the variables transformed were as follows: 1 = Formal; 2 = Informal; 3 = Traditional; and 4 = Other. The selection of the type of housing was as follows:

1= Formal Housing

House or brick/concrete block structure on a separate stand or yard on a farm; Flat or apartment in a block of flats; Cluster house in a complex; Townhouse (semi-detached house in a complex); Semi-detached house; House/flat/room in backyard; Room/flat let on a property or a larger 42 dwelling/servants' squatters/granny flat

2= Informal Housing

Informal dwelling (shack in backyard); Informal dwelling (shack not in backyard, e.g., in an informal/squatter settlement or on a farm); Caravan/tent

3= Traditional Housing

Traditional dwelling/hut/structure made of traditional materials

4= Other

These include types of dwellings that are unknown and unspecified This variable helped to determine the types of houses that most African female migrants acquired according to their differences.

Data Analysis

This study analysed the characteristics of African females who migrated to South Africa and the type of housing that they were likely to access. By evaluating the characteristics, the data analysis illustrates the distribution of the African female migrants, Cross-tabulation and Chi-square test statistics were also used to examine the relationship between the dependent and independent variables. The results of the Chi-square, Phi and Cramer's V tests were interpreted and finally, logistic regression was used to do the study using a multivariate approach. This helped to highlight the factors associated with the types of housing that African female migrants in South Africa were subjected to.

Findings

Sample composition

The focus of this study was on international migration, and the scrutiny was on the migration of African females and their acquisition of housing in South Africa The findings confirmed that countries in Southern Africa were still the main source of female migrants to South Africa, with the majority coming from Zimbabwe, Mozambique, and Lesotho, both in 2001 and 2011. The data from the 2001 and 2011 Population Census data sets in Table 4.1 below indicate that in 2001, South Africa had a total of 21 984 (n = 21 984) African female migrants. These

African female migrants were mostly from Mozambique (28.6%), Zimbabwe (20.3%), and Lesotho (19.6%). Most of the female migrants (49.4%) indicated that they had migrated to South Africa during their youth years and some when they were already adults (32.9%). The percentage of African female migrants who lived in formal housing was 0.9%. The findings in Table 4.1 below show that South Africa had a total of 32 380 (n = 32 380) African female migrants in 2011, who mostly were from Zimbabwe (59.8%) and Mozambique (23.2%). Most of the female migrants indicated that they mostly had migrated to South Africa during their youth years (68.8%), and some when they were already adults (18.3%). The data reveal that 23.6% were not economically active. Only about 44.4% of the females were employed. Of the African female migrants, 11.2% lived in formal housing. Generally, the table indicates a slight increase among African female migrants who were unemployed in South Africa from 2001 to 2011. According to Mirika & Mainza (2016), migration of African female migrants is influenced by employment selectivity and housing acquisition, among other attributes and characteristics. Contrary to Mirika & Mainza (2016), the current study indicates that most African females in South Africa immigrated to the country between the ages of 14-35 years.

Table 4.1: Characteristics of African female migrants

Frequency distribution tables					
POPULATION CENSUS 2001			**POPULATION CENSUS 2011**		
Variable	**Frequency**	**Percent**	**Variable**	**Frequency**	**Percent**
Age			**Age**		
Children	2179	9.9	Children	3844	11.9
Youth	10855	49.4	Youth	22023	68.8
Adults	7061	32.9	Adults	5940	18.3
Elderly	1889	8.6	Elderly	573	1.8
Total	21984	100.0	Total	32380	100.00
Employment status			**Employment status**		
Employed	6769	30.8	Employed	12880	44.4
Unemployed	4089	18.6	Unemployed	9196	32.0
Not economically active	7602	34.6	Not economically active	6704	23.6
Total	21984	100.0	Total	32380	100.0
Housing type			**Housing type**		
Formal	206	0.9	Formal	3635	11.2
Informal	127	0.6	Informal	2135	6.6
Traditional	38	0.2	Traditional	190	0.6
Other	21613	98.3	Other	26420	81.6

Total	21984	100,0		Total	32380	100.0
Country of birth				**Country of birth**		
Lesotho	4300	19.6		Lesotho	5084	15.7
Namibia	1865	8.5		Namibia	188	0.6
Botswana	542	2.5		Botswana	241	0.7
Zimbabwe	4458	20.3		Zimbabwe	19358	59.8
Mozambique	6289	28.6		Mozambique	7509	23.2
Other	4530	20.6				
Total	21984	100.0		Total	32380	100.0

Source: Author's calculations from the 10% sample for the 2001 and 2011 population censuses

African female migrants' characteristics and housing type in 2001 and 2011

Akileswaran and Lurie (2010) emphasise that the African continent is faced with selective migration based on the countries of origin of migrants. One of the most influential factors that perpetuate African females' decision to migrate is the likelihood of being employed in the host country. According to Birchall (2016), occupation status has an inversely proportional association with access to housing types, as it influences the economic standing of African female migrants in South Africa. McDonald (1998) agrees with this support of the aforementioned hypothesis and states that this shows confidence in how demographic, economic, and social characteristics have a significant effect on determining housing type in South Africa, as well as how these elements also affect migration patterns and access to scarce resources.

Distribution of housing type by age

The Majikijela (2015) state that individuals in their youth are more likely to migrate to different countries than individuals in their adult or elderly years are. Migration of youths is often influenced by economic instability in the country of origin. In most instances, the ultimate goal of youth migration is to gain and sustain economic stability, quality education, improved health care, and sometimes marriage security (Todes, 2012). The findings in Table 4.2 indicate that in 2001, 40.1% of the African female migrants who were in their youth utilised formal housing, followed by 39.5% who were in their adult years. The distribution of African female migrants across informal housing indicates that 50.3% of the African female migrants who made up a majority were in their youth, followed by 45.5% who were in their adult years. Moreover, the distribution of African female migrants in traditional housing indicates that 47.4% were in their adult years, followed by 42.1% who were in their youth. According to Green & Hendershott (1996), age has a partial effect on housing acquisition because the majority of individuals in

their youth years are likely to settle for informal housing types while adults and the elderly look to settle in formal and traditional housing with certainty of the future in the host country. However, the findings on Table 4.2 further indicate that in 2011, 63.2% of the African female migrants who were largely utilising formal housing were in their youth, followed by 32.8% who were in their adult years. Moreover, the distribution of African female migrants in informal housing indicates that 67.6% were in their youth, followed by 30.6% who were in their adult years. Furthermore, the distribution of African female migrants utilising traditional housing indicates that 57.4% of those who made up a majority were in their youth, followed by 32.1% who were in their adult years. Most of the African female migrants in South Africa were in their youth, and it was very difficult for them to find employment because some of them were unskilled and had no education, and thus it was very difficult for them to find employment. This means that they were likely to live in informal areas, as the financial demands did not allow them to afford formal housing. McDonald (1998) states that traditional housing is the least favourite in this regard, as youths usually migrate to urban areas where there are fewer traditional houses. The findings of the current study indicate that there was a 19.5% increase in African youth migrants in South Africa and a11% decrease in the population of adult African female migrants from 2001 to 2011. In addition, the Chi-square test statistic was used to examine the relationship between age and housing type. The results revealed that the p-value was 0.00 (< 0.05); thus, there is a statistically significant link between age and housing type. The Phi and Cramer's V tests were used to assess the strength of the relationship between age and housing type, and the results of these tests indicated that there was a moderate relationship between age and housing type.

Table 4.2: Housing type by age

Housing type	Age group 2001				
	Children	Youth	Adults	Elderly	Total
Formal	1	70	70	36	177
	0.01%	40.1%	39.5%	20.3%	100.0%
Informal	2	94	87	8	191
	0.02%	50.3%	45.5%	4.2%	100.0%
Traditional	0	16	18	4	38
	0.00%	42.1%	47.4%	10.5%	100.0%
Total	3	182	175	48	406
	0.03%	45.1%	43.1%	11.8%	100.0%
	Age group 2011				
Formal	5	3122	1621	194	4942
	0.1%	63.2%	32.8%	3.9%	100.0%
Informal	3	1953	885	49	2890
	0.1%	67.6%	30.6%	1.7%	100.0%
Traditional	0	109	68	13	190
	0.0%	57.4%	35.8%	6.8%	100.0%
Total	8	5184	2574	256	8022
	0.1%	64.6%	32.1%	3.2%	100.0%

Source: Author's calculations from the 10% sample for the 2001 and 2011 population censuses

Distribution of housing type by employment status

In general, empowerment of women in Africa, particularly in South Africa, has opened routes for female migration on the continent. Unfortunately, some women become victims of unemployment and economic inactivity. Consequently, this injects large numbers of African female migrants in informal and traditional types of housing (Anand & Rademacher 2011). The findings in Table 4.3 indicate that in 2001, 51.5% of the African female migrants in South

Africa who were living in formal housing were employed, followed by 25.2% who were not economically active. The findings show that 42.5% of the African female migrants in South Africa who were unemployed were largely distributed across informal housing, followed by 34.6% who were not economically active. Regarding informal housing, the table shows that 47.4% of the African female migrants who were living in traditional housing were not economically active, followed by 23.7% of those who were both employed and unemployed. Furthermore, the table indicates that in 2011, 65% of the African female migrants in South Africa who were living in formal housing were employed, followed by 19.4% who were unemployed. Regarding informal housing, 53.6% of the African female migrants in South Africa who were largely distributed across informal housing were employed, followed by 31.1% who were unemployed. The findings show that 54.1% of the African female migrants who were largely distributed across traditional housing were employed, followed by 26% who were not economically active. The findings reveal that many African female migrants who were employed were largely distributed across traditional and informal housing. This was because the African female migrants were serving as cheap labour, traditional housing was mostly in rural areas, and jobs in such environments were limited and not paying enough to afford formal housing. The table shows a slight improvement from 2001 to 2011, as there were more employed African female migrants and fewer African female migrants who were not economically active from 2001 to 2011. A Chi-square test with a p-value of 0.00 (< 0.05) demonstrated a significant association between employment status and housing type. The Phi and Cramer's V tests were also examined, and the results indicated that there was a moderate correlation between employment status and housing type.

Table 4.3: Distribution of housing type by employment status

Housing type	Employment status 2001				
	Employed	Unemployed	Not economically active	Other	Total
Formal	106	15	52	33	206
	51.5%	7.3%	25.2%	16.0%	100.0%
Informal	28	54	44	1	127
	22.0%	42.5%	34.6%	0.8%	100.0%
Traditional	9	9	18	2	38
	23.7%	23.7%	47.4%	5.3%	100.0%
Total	143	78	114	36	371
	38.5%	21.0%	30.7%	9.7%	100.0%
	Employment status 2011				
Formal	3119	933	750	750	4802
	65.0%	19.4%	15.6%	15.6%	100.0%
Informal	1531	887	436	436	2854
	53.6%	31.1%	15.3%	15.3%	100.0%
Traditional	98	36	47	47	181
	54.1%	19.9%	26.0%	26.0%	100.0%
Total	4748	1856	1233	1233	7837
	60.6%	23.7%	15.7%	15.7%	100.0%

Source: Author's calculations from the 10% sample for the 2001 and 2011 population censuses

Distribution of housing type by country of birth

Akileswaran and Lurie (2010) state that South Africa has many pull factors that are very influential in the migration of the Basotho in South Africa. South Africa is one of the fastest developing countries in Africa, which makes it very vulnerable to migration from underdeveloped and other developing countries such as Zimbabwe and Mozambique. The findings in Table 4.4 indicate that in 2001, 33% of the African female migrants who were largely distributed across formal housing were Zimbabweans, followed by female migrants from other African countries (25.2%). Regarding informal housing, the findings show that 44.1% of the African female migrants who were largely distributed across informal housing were from Lesotho, followed by 35.4% female migrants from Mozambique. The findings also show that 76.3% of the African female migrants who were largely distributed across traditional housing were from Mozambique, followed by 7.9% who were from Botswana and Zimbabwe.

Furthermore, the table indicates that in 2011, 64.2% of the African female migrants who were largely distributed across formal hosing were from Zimbabwe, followed by 17.2% who were from Lesotho. Regarding informal housing, the findings show that 49.7% of the African female migrants were from Zimbabwe, followed by 25.9% who were from Lesotho. Moreover, regarding traditional housing, the findings indicate that 44.7% of the African female migrants who were largely distributed across traditional housing were from Zimbabwe, followed by 30% who were from Mozambique. The findings indicate that there were more female migrants from Zimbabwe and Mozambique in South Africa, and many were living in traditional housing. These migrants were from the economically poor countries on the African continent, and they were largely distributed across traditional housing because they could not afford to pay for formal housing. The study also revealed that many Basotho female migrants were utilising informal housing, and these findings validated the statement by Akileswaran and Lurie (2010) above. From 2001 to 2011, there has been a decline in African female migrants from the countries under study, except from Zimbabwe. The population of Zimbabwean female migrants in South Africa increased by more than double from 2001 to 2011. In addition, the statistical Chi-square test was performed to test the relationship between country of birth and housing type. The findings have shown a p-value of 0.00 (< 0.05); therefore, statistically, there is a significant relationship between country of birth and the housing type. To measure the strength of the association between country of birth and housing type, Phi and Cramer's V tests were used. The tests showed a weak relationship between the variables.

Table 4.4: Housing type by country of birth

Housing type	Country of birth 2001						
	Lesotho	**Namibia**	**Botswana**	**Zimbabwe**	**Mozambique**	**Other**	**Total**
Formal	36	21	2	68	27	52	206
	17.5%	10.2%	1.0%	33.0%	13.1%	25.2%	100.0%
Informal	56	14	0	5	45	7	127
	44.1%	11.0%	0.0%	3.9%	35.4%	5.5%	100.0%
Traditional	1	0	3	3	29	2	38
	2.6%	0.0%	7.9%	7.9%	76.3%	5.3%	100.0%
Total	93	35	5	76	101	61	371
	25.1%	9.4%	1.3%	20.5%	27.2%	16.4%	100.0%
	Country of birth 2011						
Formal	863	57	49	3174	799		4942
	17.5%	1.2%	1.0%	64.2%	16.2%		100.0%
Informal	748	7	16	1435	684		2890
	25.9%	0.2%	0.6%	49.7%	23.7%		100.0%
Traditional	47	1	0	85	57		190
	24.7%	0.5%	0.0%	44.7%	30.0%		100.0%
Total	1658	65	65	4694	1540		8022
	20.7%	0.8%	0.8%	58.5%	19.2%		100.0%

Source: Author's calculations from the 10% sample for the 2001 and 2011 population censuses

Factors contributing to access to formal housing in 2001

Table 4.5 below shows that an omnibus test of model coefficient was significant with $p = 0.00$ (< 0.05), and a -2 log likelihood revealed that the model fit the data. The Hosmer and Lemeshow test indicated that $p = 0.106$ (> 0.05), which means that the test was significant and also confirmed that the model fit the data perfectly.

Living without employment is cumbersome, as it limits affordability and deprives accessibility. The findings revealed that 3.38% more unemployed African female migrants were living in formal housing than the not economically active African female migrants were. Regarding the influence of country of birth on access to formal housing, African female migrants from Mozambique were most likely to live in formal housing.

Factors contributing to access to formal housing in 2011

With reference to Table 4.5, the aim of the study was to highlight and explain the variables that determine the possibilities of African female migrants in South Africa living in formal housing in 2011. The omnibus test of model coefficients was statistically significant with $p = 0.00$ (< 0.05). In addition, the model summary indicated that the model fit the data with a -2 log likelihood with $p = 0.105$ (> 0.05).

Moreover, the Hosmer and Lemeshow test indicated that $p = 0.031$ (< 0.05), which showed that the data perfectly fit the model. Regarding the variables that were significant in 2011, the findings of the study revealed that age increased the likelihood of African female migrants in South Africa living in formal housing. The results indicate that being children female migrants increased the likelihood of living in formal housing by 3.703 times in comparison with elderly African female migrants in South Africa who were not living in formal housing. The youth also had a1.857 times greater likelihood of living in formal housing in comparison with elderly African female migrants in South Africa.

Another surprising result showed that employed African female migrants had a 0.721 times decreased likelihood of living in formal housing in comparison with African female migrants in South Africa who were not economically active. African female migrants from Lesotho and Botswana had a 0.742- and 0.87-times decreased likelihood of living in formal housing in comparison with African female migrants from Mozambique.

Table 4.5: Logistic regression on access to housing type in 2001 and 2011

2001							2011					
Variable	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Age group			2.142	3	.544				211.208	2	0.000	
Children	15.777	998.602	.000	1	.987	7113290.993	1.316	0.267	24.270	1	0.000	3.730
Youth	-.805	.632	1.619	1	.203	.447	0.619	0.268	5.343	1	0.021	1.857
Elderly@	-.888	.617	2.073	1	.150	.411						
Employment status			3.430	3	.330				24.293	2	0.000	
Employed	.945	.656	2.071	1	.150	2.572	-	0.073	20.131	1	0.000	0.721
Unemployed	1.219	.695	3.077	1	.079	3.384	0.327	0.069	0.202	1	0.653	0.970
Not economically active@	.814	.624	1.701	1	.192	2.257	- 0.031					
Country of birth			7.826	4	.098				18.914	3	0.000	
Lesotho	-.347	.284	1.491	1	.222	.707	-	0.074	16.387	1	0.000	0.742
Namibia	-.336	.346	.943	1	.331	.714	0.298	0.283	0.58	1	444	1.242
Botswana	.680	.746	.830	1	.362	1.973	0.217	0.064	4.190	1	0.041	0.87
Mozambique@	-.645	.289	4.980	1	.026	.525	- 0.131					
Constant	3.087	.555	30.973	1	.000	21.919	.165	.291	.321	1	.571	1.179

NB: The last category is the reference with @

Source: Author's own calculations from 10% of the 2001 and 2011 census data

Discussion of the Results

The discussion is structured to explore a demographic characteristic of African female migrants and their access to housing type in South Africa. According to the study, the acquisition of housing by African female migrants differed depending on their individual characteristics. The study utilised data of Statistics South Africa from the 2011 Population Census as well as the 2001 Population Census for use in comparison. The SPSS software, Version 27, was used to analyse the data.

African female migrants and housing type

This study examined the association between African female migrants' sociodemographic, socioeconomic, and migratory characteristics and housing type in South Africa. The findings show that African female migrants were more likely to access informal housing (shacks, shanties, caravans, tents, boats) than formal housing (house on separate stand, flat or town house, room in backyard) in South Africa.

The study found that African female migrants were likely to live in informal housing rather than formal housing in South Africa. This was influenced by both the socioeconomic and the sociodemographic factors upon the African female migrants' arrival in South Africa. The findings also show that most of the African female migrants were likely to live in informal housing in South Africa because employment opportunities that were available for these African female migrants were mostly in the informal sectors.

Access to housing type by age

Age is central to any study regarding migration. Age is important when analysing the acquisition of housing by African female migrants in South Africa because it is one of the most influential factors that play a role in the decision to migrate or not (Birchall, 2016; Nsengiyumva, 2013). In the context of this study, the assumption was that there would be a relationship between African female migrants' age and the acquisition of housing type in South Africa. The results of the Chi-square statistical test also revealed an association between African female migrants' age and access to housing type. The Phi and Cramer's V tests were used to measure the strength of this association. The results confirmed a strong association for both 2001 and 2011. The results reveal that youth and adult migrants were more likely to access formal housing than children and elderly migrants were. Youth and adult migrants were participating more in the labour market, which means they had limitations as to the type of

formal housing they were able to afford. For this reason, African female migrants were distributed across informal areas and living in informal housing. Despite that, other migrants were living in informal housing but were able to offer accommodation to these children. Migrant who accommodated them were usually family members, or at least they were from the same area of origin as these African female migrants who were in their childhood years. This agrees with Akileswaran and Lurie's (2010) finding that youth and adult African female migrants in South Africa were largely concentrated in informal housing of South Africa because of unemployment and the nature of their migration, among other very influential factors.

Access to housing type by employment status

The objective was to measure the relationship between socioeconomic factors and housing type. The employment status was used to establish if it was associated with African female migrants' acquisition of housing. To confirm this, a Chi-square statistical test was employed.

In this section, the objective was to measure the relationship between employment status and the housing type in which African female migrants in South Africa were likely to live. It was assumed that employed African female migrants in South Africa would have a greater chance of accessing formal housing than those who were not economically active and unemployed. In this regard, data were analysed to examine whether African female migrants' employment status influenced accessibility to housing type. The Chi-square test statistics confirmed that there was an association between the two variables in both 2001 and 2011. The strength of association was moderate in both 2001 and 2011.

Country of birth and African female migration in South Africa

The study also sought to answer the following question: Which are the top African countries that African female migrants in South Africa are likely to come from? The purpose of this question was to determine which African countries contributed most to migrants to South Africa. The findings in Table 4.1 indicate that most African countries were represented in the statistics of origin of migrants in both censuses. In the 2001 census, most African female migrants in South Africa came from Mozambique, followed by those who came from Zimbabwe. Namibia and Botswana had the least incidence of female migrants in South Africa. In 2011, the largest population of female migrants in South Africa were from Zimbabwe, followed by Mozambique. Namibia and Botswana still contributed the smallest number of female migrants in South Africa.

Two possible factors can explain the sharp increase. First, the introduction of the Zimbabwean Special Permits programme by the Department of Home Affairs (DHA) in 2010 could have aided the documentation of Zimbabwean immigrants in South Africa. The second factor could be more of a push factor driving people out of Zimbabwe in search for better opportunities. The deterioration of the Zimbabwean economy between 2001 and 2011 was likely to be the main reason the proportion of Zimbabwean female migrants increased sharply between the two periods (Majikijela, 2015). Table 4.1 reveals an upward trend from 2001 to 2011, which means that despite these events taking place between the two periods, the number of African female migrants coming into the country increased. This outcome might have resulted in xenophobic attacks, which caused many African immigrants to lose their lives, while others feared for their lives. These events also might have caused fear to potential African female migrants (Majikijela, 2015). Furthermore, between 2010 and 2011, the rate of female migrants moving to South Africa increased sharply, as most of them came during the census year of 2011.

Conclusion

According to the data analysis, the number of African female migrants in South Africa increased from 2 984 in 2001 to 32 380 in 2011, with most of them coming from Mozambique in 2001 and Zimbabwe in 2011. Botswana and Namibia had the lowest percentage of female migrants in South Africa throughout the study period, at 12.3%. The findings revealed that most of African female migrants enumerated in the Population Census of South Africa between 2001 and 2011 were in their youth, with a total increase of 19.4% between 2001 and 2011. According to Charlton (2004), the economy of South Africa drew many African female migrants throughout the research period since it was one of the fastest expanding and developing economies in Africa and the world.

Furthermore, the findings revealed that in both 2001 and 2011, most of African females began to develop ambition and began to place greater emphasis on their careers. In Africa, South Africa is the ideal place to advance one's career. The statistics also suggest that in 2001, most African female migrants in South Africa were unemployed. However, according to the findings, approximately 19% of them were unemployed. The statistics also suggest that more migrants were employed in 2011, with a total increase of 12%, but there was also a 13.4% increase in the number of unemployed African females. According to Todes (2012), some African female migrants are not economically active because they are married and are housewives who are not searching actively for work.

From 2001 to 2011, the studies revealed many commonalities in the characteristics of African female migrants in South Africa. On the basis of qualities, migration is selective. In this case, most youths were either employed or were unemployed and not economically active and were from Zimbabwe or Mozambique. According to the findings of the study, most African female migrants in South Africa lived in informal housing between 2001 and 2011. Many experts believe that the fast-rising population in city areas, as well as the increase in the demand for opportunities in South Africa, was encouraged by the transition in development.

The study also discovered that most of the African female migrants who were living in informal housing were either unemployed or not economically active in 2001. However, the study shows further that some female migrants were employed but living in informal housing. This means that African female migrants who were employed were not earning enough to afford formal houses. Furthermore, the study has shown that there were African female migrants with similar characteristics who were living in formal housing. The literature argues that the logical rationale behind this is that they were living in formal housing possibly because they were accommodated by someone who earned enough to afford formal housing. Arengo & Baldassarre (2002) state that some African female migrants depend on their male counterparts or family members who migrated before them.

The study proved that living in formal housing in South Africa is very difficult for African female migrants unless they are employed. The findings confirmed a significant relationship between housing type and socioeconomic, sociodemographic, and migratory variables such as employment status, age, and country of birth, among others, by means of cross-tabulation and Chi-square test statistic. Phi and Cramer's V tests strengthened the association.

Recommendations

It seems anticipated that South Africa will continue to have a high level of female migration, particularly from Africa. This is mostly because South Africa provides more alluring economic opportunities and easier access to essential services compared to the migrants' countries of origin. The results of the data analysis show that between 2001 and 2011, South Africa experienced a significant influx of African female migrants, which resulted in several socioeconomic issues, overpopulation, and a pressure on service delivery that necessitated instant government intervention.

The government does not yet have a tenure policy in place beyond the underlying intention of making every tenant become owner-occupier. This is completely unachievable, given the rates

of household formation and the enormous backlog in housing demand. Housing in South Africa is mainly exposed to the citizens of the country who ultimately live in informal housing for many years. For many people, including migrants, students, newly formed households, and the very poor, none of whom are in a position to buy or construct their own housing, informal housing is a very essential housing option. Without access to affordable formal housing, urban land invasions are likely to increase even more.

The Dispersal Scheme of Glasgow and refugee resettlement programmes are some of the options open to the South African government. Both are seeking to distribute housing among the nation's asylum seekers and refugees. This assists in keeping track of the number of migrants in the country and will also affect the migration of skilled African females. additionally, these similar techniques may also be used to combat xenophobic attacks, prejudice, and violence against African female refugees.

Finally, it is advised that the government make affordable housing available in highly urbanised provinces because most African female migrants migrate to provinces with high economic opportunities upon their arrival in South Africa. For the self-employed to afford housing by themselves, the South African legislature must be changed, and the National Development Plan (NDP) and tender system should be reformed to consider African female migrants in South Africa.

The government must find a solution and rescue local governments. Housing is very essential, and the government keeps on failing the citizens and the migrants. This is a basic need drafted in all South African public rights-related policies. However, it is never brought into reality. Given that every citizen is required by law to have housing, the government should assist African female migrants in accessing housing. According to the South African Constitution, every citizen, regardless of financial means, is entitled to housing. In terms of housing, questioning the legislature and revisiting policies will be critical in bridging the gap between citizens' rights and those of African female migrants.

To ensure that all policies are carried out and that there is a maximum output of catering for the residents of South Africa and those who live in it, the government is divided into many departments. The Departments of Housing and Home Affairs are in charge of managing housing and migration issues. In each case, the Justice Department needs to prioritise the problems involving these agencies. This is possible because they may hold each department responsible for upholding the South African Bill of Rights. The Department of Housing must

consider how to provide accommodation to foreign nationals living in the nation. Prioritising the security of funding through multiple channels, such as investments from diverse industries both inside and outside of South Africa, can achieve this. Established funding schemes should be made available to non-citizens in both the public and commercial sectors. However, for such plans to be effective, the nation will need to have highly accurate information about the migrants. This information includes the legal standing of the immigrants in the nation, their distribution across all cities, and their plans for housing and the laws governing it. The information should help policy makers to formulate better development strategies and informed decisions. The government ought to forbid local politicians from acting as gatekeepers. It is important to educate the populace on the advantages and necessity of immigration to South Africa, as well as the need for provisions like housing for non-citizens. These can be taught in schools, and community outreach initiatives in every neighbourhood can spread knowledge of them.

Local and regional governments play a critical role by way of the Provincial Housing Boards as they have a final say on the granting of housing subsidies; however, the local level caters to the other important stages, including the formulation and the implementation. The point being made here is straightforward: the government at the community and municipality level is capable of acting as a gatekeeper when considering projects such as housing developments and can continue to affect African female migrants' access to housing negatively, regardless of policies being available at the national level. This kind of gatekeeping role neither applies to housing only, nor is it unique to the politics in South Africa (McDonald, 1998), However, it indicates how politics at the regional and municipality level can belittle the policy initiatives at the national level both in terms of housing and immigration reform.

More research on African female migrants and housing in South Africa is advised in view of the conclusions and arguments made in this chapter. Gender inclusion in migration-related research, initiatives, and policies needs to be a top priority. Women's vulnerabilities should be studied in detail, and solutions to address them should be developed. During the course of this investigation, it was found that little had been written about African females who migrate. To help highly educated migrants to find suitable professions that will enable them to make a decent living and afford better housing, it is recommended that the South African Government and the Department of Home Affairs establish progressive initiatives.

There were several issues regarding the population census statistics of 2001 and 2011. The data used in this study had problems with some of the variables for 2001 and 2011. Since some variables were omitted, it was impossible to analyse some trends. Hence, several critical variables such as household headship, period of movement, and duration of residence were not examined in this study. The motive for migration was not included in this analysis because it lacked consistency; it was recorded in the 2001 Population Census but not in the 2011 Population Census.

Moreover, it is also important to state that the researcher used data from the 2001 and 2011 population censuses, and they were both outdated. However, the researcher's options were compromised because these were the only available data sets that provided migration variables. Hence, these data could not generate updated information. Therefore, the absence of some variables made it impossible to make proper comparisons between 2001 and 2011. Therefore, it is recommended that Statistics South Africa avoid omitting the essential migratory variables when developing future census questionnaires.

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