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Participation of African Migrants in the Labour Force of South Africa: Are There Structural Changes From 2001 to 2011?

By

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DECLARATION

I declare that ***Participation of African migrants in the labour force of South Africa: are there structural changes from 2001 to 2011?,*** is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Yamkela Majikijela **November 2015**

Signed: _____

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I dedicate this dissertation to God the father who gave me strength, ability and wisdom while compiling this thesis. I am grateful for the endless love and tender care He showed me whenever I was weak. May your name be lifted up and glorified forever.

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ACRONYMS

ACP – African, Caribbean and Pacific Group of State

DHA – Department of Home Affairs

GDP – Gross Domestic Product

ILO – International Labour Organization

IOM – International Organization for Migration

LFPR – Labour Force Participation Rate

MDG – Millennium Development Goals

NELM – New Economics of Labour Migration

OECD – Organisation for Economic Co-operation and Development

SADC – Southern African Development Community

SASCO – South African Standard Classification of Occupations

SPSS – Statistical Package for Social Science

StatsSA – Statistics South Africa

UN – United Nations

UNPD – United Nations Population Division

UNPF – United Nations Population Fund

ABSTRACT

This thesis examines the distribution of African migrants across the different segments of the labour force in South Africa. The specific objective of this study is to demonstrate that there has been structural changes from 2001 to 2011 in the deployment of African immigrants in terms of occupation, employment sector, income groups just to name a few. Studies that have been recorded using the 2001 population census suggest that the South African labour market attracts majority of African migrants that are not highly qualified. The proposed study makes use of the 2011 population census to evaluate the extent to which the situation has changed or whether it remained the same between the two periods. The assumption underlying this study is that, over time the magnitude of qualified migrants has improved. As far as African migration is concerned, to capture the structural changes during the ten-year period (2001 to 2011) this study focuses on variables such as demographic and socioeconomic characteristics. To profile changes in the participation of African migrants, this study makes use of the 2001 and 2011 national population census data. Furthermore, statistical packages are used to test the relationship between variables. Policy document about migration are also used to provide the legislated framework with regards to the involvement of foreign labour in the South African labour force. The geographical scope of the study is national meaning it covers all nine provinces of South Africa.

Key words:

African Migration; demographic characteristics; economic sector; educational attainment; employment status; labour force; labour migrants; occupation, and skills.

CHAPTER ONE: INTRODUCTION

1.1. Background to the Study Investigated

Cross-border migration between South Africa and its neighbouring countries started in the mid-19th century when the South African diamond and gold mining industries were discovered. Africans came to South Africa as temporary contract migrants under bilateral agreements between the apartheid government and its neighbouring countries - that is; Lesotho, Mozambique and Malawi (Crush, 2008). After the apartheid government, South Africa had comparatively strong economic and political stability as compared to its neighbouring countries. This strong economic and political stability made South Africa the leading destination for migrants from neighbouring countries and the African continent as a whole (Schachter, 2009). As a consequence, South Africa experienced an increase in the number of African migrants coming into the country in search for employment opportunities and/or political freedom. The post-apartheid government still struggles to formulate policies which reflect the country's role concerning the country's role in a changing regional, continental, and global migration regime (Crush, 2008). This is evident from the continual amendments of immigration legislations in South Africa. Migration is a global problem therefore South Africa is not the only country facing difficulties in measuring and managing migration (Bhorat, Meyer, & Mlatsheni, 2002).

Ever since South Africa gained independence and became a democratic country, the country also became a choice destination for many migrants. In other words, South Africa did not just become a destination only for African migrants who were in search for employment opportunities but the country also experienced different forms of migration and a rise in the number of migrants coming into the country for different reasons. Furthermore, the country experienced an increased number of illegal migrants coming from neighbouring countries. The influx of illegal immigrants makes it difficult to know the actual number of illegal migrants residing in the country and their countries of origin (Schachter, 2009). The 2001 population census shows that the migrants stock included 687 678 migrants from other Southern African Development Communities

(SADC), 41 817 from the rest of Africa, 228 318 from Europe, and from Asia 40,889 (Crush, 2008).

The Immigration Act 13 of 2002 had a framework focused on attracting skilled migrants and where a critical skill was needed, an exceptional skills work permit was issued by the Department of Home Affairs (DHA) to an individual having such skills or qualifications that were determined to be critical for the Republic of South Africa. Prior to this Act, many mining companies relied on foreign and unskilled workers. The 2002 Immigration Act however made it difficult for these companies to hire foreign workers as they had to apply for corporate permits. The promulgation of the Immigration Act was partly an effort by the government to push these mining companies to hire South Africans or at least skilled labour migrants (Crush, 2008). Nonetheless, over the years the Immigration Act 13 of 2002 became insufficient to control and manage migration because the government failed to formulate a migration policy that was appropriate to address the needs of the country and its international obligations (Crush, 2008). As a result the government introduced the 2011 Immigration Act which came into force in May of 2014 in order to try and manage migration.

This study therefore focuses on international labour migration that is driven by employment reasons; with direct focus on the individuals who migrated from African countries into South Africa during the ten-year period (2001 to 2011). The study aims to bring out some dynamic changes in the labour force participation of African immigrants in South Africa during this ten year period. To analyse these dynamics, the study uses 2001 and 2011 South African population censuses conducted by Statistics South Africa (StatsSA).

1.2. Research Problem

Based on the 2001 population census and drawing from the selectivity migration theory, previous studies have reported on high influxes of immigrants from outside South Africa into the country. These trends have been marked since the post-apartheid era. Previous studies have highlighted the selective character of the immigration process in terms of age, gender and educational level. It has been documented that the youth is more

represented than older persons and African male migrants are more represented than females; moreover these immigrants are said to have low level of education and are working in the informal sector. In a study conducted by Mohammed (2008) it was documented that majority of African migrants were paid employees and that their participation in the labour force varied significantly across the provinces. However, ever since the release of the 2011 census data there has been little empirical evidence in the persistence of this selectivity. The period has been marked by a series of social events such as the 2008 xenophobic violence and political revisions of the Immigration Act giving preference to migration of quality and increased control over in-migration. In such a socio-political condition, one may assume that there have been structural changes in the composition of immigration fluxes. As a result, this study seeks to explore structural changes (that is, the deployment of African migrants in terms of socio-economic variables) in the participation of African migrants in the labour force since this has not been assessed. Along these lines it was assumed that the selectivity of immigrants would operate along the same patterns.

1.2.1. Research Questions

Taking a comparative perspective within the period of 2001 and 2011, the following questions are investigated in the proposed study:

- Has there been an increase in the number of African migrants who entered the South African labour force?
- Does migration bring more migrants in the early working age than in the advanced working age?
- What are the most represented countries in the origin of migrants?
- What is the highest educational level of African migrants who are employed in the formal sector?
- How are African migrants distributed across the economic sectors?

- Are African migrants more represented in the higher occupation[1] than the lower occupation[2]?
- Are African male migrants more represented in the informal sector than African female migrants?

1.2.2. Hypotheses

The study being informed by the migration selectivity theory the following hypotheses are tested in line with the research questions above:

- In numbers the population of African migrants enumerated in 2011 exceeds the number of migrants enumerated in 2001.
- Migration brings more young people than older people in the South African labour market.
- Southern Africa remains the main area supplying migrants to South Africa.
- There has been substantial changes in overall education of African migrants.
- There are more African migrants in the nonindustrial sector[3] than the industrial sector[4].

1.3. Significance of the Study

This study contributes to the migration selectivity theory by demonstrating whether the selected variables in this study act according to the context of the migration selectivity. Furthermore, this study could serve as a baseline to monitor in-migration since the South African government has embarked in implementing the new Immigration Amendment Act 13 of 2011. This thesis enlightens changes in participation of African immigrants within the South African labour market.

[1] Higher occupation comprises of managers, professionals and technicians.
[2] Lower occupation comprises of clerks, service workers, skilled agricultural, craft workers, machine operators, elementary occupations and domestic works.

[3]Non-industrial sector consist of Manufacturing, Electricity, Construction, Wholesale, Transport , Financial services, Community services and Private household
[4] Industrial sector consist of Agriculture, Mining and Construction

1.4.Purpose of the Study

The purpose of the study is to examine the structural changes that have happened pertaining the participation of African migrants in the South African labour force between 2001 and 2011, using the population censuses. These structural changes are examined in terms of demographic and socio-economic characteristics. More precisely, this study statistically examines the relationship between the individual's attributes and the employment status.

1.5. Objectives of the Study

The study profiles the following objectives:

- The specific objective of the study is to demonstrate that there have been changes in the distribution of African immigrants in terms of socio-demographic characteristics.
- To profile the distribution of African migrants according to the different occupations in the South African labour market.
- To profile the number of African migrants who are employed in different economic sectors.
- To demonstrate that educational attainment of African immigrants has improved.
- To establish the determinants of labour market participation with reference to individual's characteristics.

1.6. Scope and Limitations of the Study

This study focuses on the 2011 population census whilst using the 2001 census as a reference for comparison purposes[5]. This study is not focused on the whole range of international labour migrants; instead the focus is on African migrants that migrated to South Africa who do not possess a South African citizenship. This study is carried out throughout the nine provinces. The limitation of this study is that only 10% of the migration sample data of the 2011 population census is available thus this shortage of

[5] Please note that there has been provincial boundary changes between the 2001 and 2011 census

data have a negative impact in the development of accurate records on cross border migration.

1.7. Definitions of Key Terms

African Migration: Migration is defined as the movement of individuals from one geographical marked area to another with the intentions of temporary or permanently settling in the new area. Therefore, African migration refers to individuals moving from African countries into South Africa who do not have South African citizenship. Moreover, for the purpose of this study, if a person has a South African citizenship he/she is not considered to be a migrant.

Demographic characteristics: common features or attributes such as age, sex, ethnicity, that make up a given population at a given period of time.

Economic sector: an industry where a working age population is employed and have different jobs in nature. Economic sector is classified as the primary, secondary, tertiary and quaternary sector. The primary sector involves jobs such as mining, agriculture and farming. Then secondary sector involves manufacturing of primary sector goods into finished goods or products. The tertiary sector of the economy is the service industry which involves services such as healthcare, transportation and banking. Quaternary sector involves the high level of decision making on behalf of the economy such as government, research and education.

Educational attainment: is the highest level of schooling that a person has completed. Educational level attained is classified in a hierarchy form such as no formal schooling, primary (grade 1 to 7), secondary (grade 8 to 12) and tertiary (certificates, diploma or degree). At the primary and secondary school level, the highest educational attained refers to the number of grades completed. Furthermore, tertiary refers to the certificates, degrees or diplomas completed.

Employment status: is the total number of African migrants between the ages 15 and 64 years who are economically active, that is, those who are employed and unemployed. For the purpose of this study, this definition only includes African migrants who participated in any economic activity in the last seven days up to the day before the reference night. The unemployed who have taken active steps in finding work in the reference period (StatsSA, 2011).

Illegal migrants: are people who cross from one country to another country without permission or official authorization (visa).

Labour Force: the total number of the working age population that is employed, and unemployed who are willing and able to work, at any given period. Immigration labour force is defined as all the African migrants between the ages 15 and 64 years who are economically active.

Labour migrants: people who cross or move between countries driven by economic reasons. This definition means that labour migrants are all the individuals who moved from African countries to South Africa in search of employment opportunities.

Migrant stock: it is the total number of all immigrants in a given country over a period of time.

Occupation: refers to a person's business, profession or job that a person does as form of being employed and means of earning a living. The South African Standard Classification of Occupations (SASCO) defines occupation as a set of jobs with tasks which a person does irrespective of the industry they are in (StatsSA, 2001).

Skills: Skills is the ability learned through education, training and/or work. It is the ability learned to carry out a task.

1.8. Thesis Outline

This study is divided into 6 chapters. Chapter 1 provides background to the study. It also includes the research problem, significance of the study, purpose of the study, objectives, scope and limitations. Definitions of key terms are also given in this chapter. Chapter 2 provides the literature review related to this study. It is discussed in the following order: definitions and measurement of migration, reasons and effects of immigration, theoretical framework, immigration in South Africa, review of South Africa's migration policy and conceptual framework. Chapter 3 provides the description of research methods and data used in this study. Chapter 4 provides the results of data analysis. Chapter 5 profiles the discussion of results. Chapter 6 offers the conclusions and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The purpose of this chapter is to review existing literature pertaining to international labour migration whilst focusing in the South African context. This chapter focuses on the definition of migration, its measurement, reasons and effects of immigration. Followed by theoretical framework, immigration in South Africa and the review of South Africa's migration policy. The chapter ends with a conceptual framework.

2.2. Definitions and Measurement of Migration

Migration is not a recent phenomenon; it is one of the three factors that contribute to population changes in a given administrative area over a specific period of time. Migration is one of the three important demographic components, including fertility and mortality, which are used to determine the size, growth, distribution and composition of population in a given administrative area over a period of time (Skeldon, 2013). Migration involves a person changing place of residence. Therefore, it can be defined as a process that involves people moving from one country or administrative area to another country or administrative area. Put differently, migration is the movement of people from one place of residence to another, usually across political boundaries. The United Nations Population Division (UNPD) defines international migrants as individuals outside their country of birth or citizenship for a period of 12 months or more. Migration can mainly be divided into two categories namely "internal" and "international" migration. Internal migration is when individuals move within the borders of the country for instance, rural-urban, rural-rural and urban-urban migration. International migration is when individuals move between defined borders of countries.

Generally, for a person to be regarded as a migrant they must be in a place of destination for at least three months. The duration for a migrant in the place of destination can either be short term or long term. According to the Organisation for Economic Co-operation and Development (2001) short-term migration is when a person has stayed in a place of

destination for at least three months but not more than twelve months while long-term migration is when a person has stayed in a country of destination for a period of more than twelve months. Short-term migrants are "those who change their country of residence for less than one year; long-term migration involves changes of one's country of residence for one year or more" (United Nations Population Fund, 2014).

The International Organization for Migration (IOM) defines the concept of labour migration as a movement of persons from one state to another, or within their own country of residence, for the purpose of employment. According to the International Labour Organization (2014) globalization, demographic shifts, conflicts, income inequalities and climate changes encourage more workers and their families to move across borders in search of employment and security.

Since migration involves the movement of people, it is often explained or measured by the purpose and duration of stay of immigrants in the country of destination. According to the United Nations (2008) internationally, there are only estimates of immigrants available due to the reason that migration involves both legal and illegal migrants. Therefore, it is impossible to know the precise quantity of migrants in a country due to illegal migrants that are left uncounted. International migration can be measured using (a) Country of birth, (b) citizenship, (c) place/country of usual residence, (d) year of arrival, and (e) purpose of stay.

a) Country of birth

The country of birth is the country in which a person was born. It is important to note that a person's country of birth is not necessarily the same as his or her country of citizenship. A question on the country of birth helps to differentiate between a native-born and foreign-born population over a period of time (UN, 2008).

b) Citizenship

Citizenship is acquired by law in which the law bestows a person legal citizenship of a particular country. A person who is a citizen of a particular country has legal rights to live, work and vote.

c) Place/country of usual residence

A person's place of usual residence may be the same as, or different from a person's legal residence. Place of usual residence can be defined as the place at which the person has lived continuously for at least the last 12 months, not including temporary absence for holidays or work obligations (UN, 2008). StatsSA (2011) defines a place of usual residence as the geographical place where the person resides four nights a week on average.

d) Year of arrival

Recording a foreigner's month and year of arrival to a country of destination helps to determine the number of completed years of stay in the country. Usually the information on the year and month of arrival is focused on persons born outside the enumeration country (UN, 2008).

e) Purpose of stay

For migration purposes it is important to know why people have moved to a particular country/place since people move for a variety of reasons. These reasons include but not limited to vacation holidays, seeking employment, reuniting with family, in pursuit of education, seeking political asylum and globalization.

2.3. Reasons and Effects of Migration

There are countless reasons that drive individuals to move from their home countries to the host countries. However it is crucial to understand that migrants are not representative of their countries because individuals are different in terms of personal background, skills, knowledge, age, sex, education and other various characteristics (Nyamwange,

2014). The main root causes of migration are economic, political, social, education, cultural, and environmental problems (Dayton-Johnson *et al.*, 2009). Individuals may move because of one or more of the reasons above. Thus, given the reasons why people migrate, migration can positively or negatively impact an economy, policies and labour markets in both the country of origin and the country of destination. However the cost and/or benefit of migrants depends on their labour skills.

International migration results from differences such as economic, demographics and political securities between countries. These differences make one country to be more attractive than another. According to Martin (2005), economic and demographic differences encourage migration over national borders for higher incomes and better job opportunities whilst security and human rights differences add to migration pressures.

Worldwide the number of individuals who move from their home countries to the country of destination increases each year. Internationally there were 232 million migrants in 2013; out of these migrants approximately 59% lived in the developed regions, while the developing regions hosted about 41% of the world's total migration. Furthermore, in 2013 women comprised 48 per cent of all international migrants worldwide. Between the year of 1990 and 2013, the number of international migrants worldwide rose by over 77 million or at least by 50% (UNPD, 2013).

Migrant workers often contribute to growth and development in the countries of destination while countries of origin greatly benefit from their remittances and the skills acquired during their migration experience given that they return to their home countries (ILO, 2014). Even if immigrants do not return to their home countries, labour migration can reduce poverty and can also raise economic growth for the country of origin. This may possibly be achieved when migrant workers transfer money, share skills and ideas learnt in the country of destination. Moreover, labour migration also raises economic growth for the receiving countries. The countries of destination achieve economic growth through migrant's labour supply and from other economic activities. Many skilled workers leave their countries of origin due to unemployment or underemployment and lack of resources. In this recent world of globalisation, it seems like skilled workers are

migrating more and this trend is likely to continue thus putting pressure on policymakers of both the countries of origin and destination (Clemens, 2013).

Migration of skilled workers can cause a brain drain in the country of origin while it may lead to brain gain to the country of destination (Clemens, 2013). On the one hand, the countries of origin can be negatively affected by emigration of skilled workers – brain drain. When intelligent, skilled and well-educated individuals migrate it causes their countries of origin to lose out. On the other hand, destination countries greatly benefit from brain gain. For instance, if there is a shortage of skills, immigrants fill up the shortage of such skills without affecting the demand for natives given that companies/employers could not have employed them due to lack of skills and education. However, when the migration process of skilled migrants is well structured, both the countries can benefit from the migration of skilled workers (Bhorat et al., 2002).

The relationship of labour migration between labour supply and the demand for labour may drive down wages for native workers while increasing the country's Gross Domestic Product (GDP), *ceteris paribus*. When labour migrants enter the country of destination the labour supply increases causing a total employment to increase while the market wage falls. However, Ruhs and Vargas-Silva (2014) argue that the impact of immigrants on wages and employment of existing native workers depend on whether the skills of migrants are complements or substitutes to the skills of existing workers. If the skills of native workers and migrants are complements, competition in the labour market is not expected to increase. On the other hand, if the skills of migrant workers are substitutes but not perfect substitutes, immigrants are more likely to make lesser demands from employers than natives. As a result, employers end up employing migrants however, even if the skills are not perfect substitutes competition in the labour market can be expected to increase and drive wages down for native workers in the short run.

Migrants contribute to faster population growth in countries of destination. Fast population growth is not good for the standard of living since it overburdens social services by increasing demand on social services such as education, housing, sanitation,

water, healthcare, safety and security services (StatsSA & HSRC, 2001). All of these are beyond policy planning and may cause public welfare burden at the country of destination. Therefore when policymakers allocate resources they need to take into consideration additional demands that may arise due to migration. However, the subsequent taxes which migrants pay after getting employed positively create government revenue. The net public financial burden to the state of migrants is the difference between the additional finance the government have to spend against the additional revenue that the government derives in taxes.

2.4. Theoretical Framework

Scholars have come up with a number of theories in trying to explain the cause and consequences of migration. There have been many theories formulated around the issue of migration. Migration theories can be classified at micro and macro level. Micro level migration theories focus on decisions made by individuals and the macro level theories focus on geographical differences for instance economic structures. The aim of these two theories is to explain the same thing by applying different concepts and assumptions. Some of the few selected theories to be discussed in this study include; the Neoclassical economics of migration, Push-Pull theory and The New Economics of Labour Migration.

2.4.1. Neoclassical Economics of Migration

The Neoclassical economics of migration emphases labour market as the main reason why people migrate and that migration decisions are made by individuals to maximise their income whilst minimising the accompanying risks. This theory was pioneered on a perspective that people are expected to move from low income to high income geographical defined areas (de Haas, 2008). According to this theory, individuals make rational choices to increase their welfare or utility by moving to another place where they expect to earn higher income (Mafukidze 2006:104). The Neoclassical economic approach to migration can be viewed both from micro and macro theoretical perspective since it focuses on gaps in real wages and employment conditions between countries

and/or cities. However, the theory was primarily developed for internal migration even though it has also been applicable to international migration.

At the micro-level, neoclassical migration theory views migrants as individuals, who decide to move on the basis of a cost-benefit. Assuming that the individuals will have benefits when they migrate, they are expected to go where they will be most productive, given that they are able to earn higher wages as compared to their place of origin. However, the capacity of doing so depends on the specific skills a person possesses and the specific structure of labour markets (de Haas, 2008).

At the macro-level, neoclassical migration theory explains migration as part of economic development. Migration occurs as result of geographical differences in supply and demand for labour (Hagen-Zanker, 2010). Differentials in wages between countries and/or cities cause labourers to move from low-wage regions to high-wage regions (de Haas, 2008). Low-wage region labourers become attracted by the positive wage deferential and start migrating to the high-wage region. Migration occurs, as long as the expected real wage differential is positive between these two regions. Thus, migration increases as long as wages or employment rate increases, *ceteris paribus*; however migration is not completely risk-free because the migrant does not necessary get a job upon arrival at destination (Hagen-Zanker, 2010). Migration will cause labourers to become more at high-wage regions and scarcer at low-wage region (de Haas, 2008).

Whilst such gaps in wages cause individuals to migrate to high-wage regions, migration can impact positively and negatively on stakeholders involved. On one hand, migration can impact positively by the fact that sending sites and migrants themselves benefit when migrants get jobs, develop their skills, earn money and remit some it to their place of origin while destination sites benefit from the skills and labour they get from the migrants (Mafukidze 2006:105). In the long run this may however have a negative impact on both regions. As these individuals move from low to high-wage regions, such flow will lead to a labour supply decrease in the low-wage region which will eventually lead to skill shortages and labour demand given that individuals continue to emigrate. Such

immigrants will lead to an increase in labour supply in the high-wage region which may later cause an excess labour supply (unemployment).

As the Neoclassical theory on migration is applicable at an internal and international level, the theory proposes that rural-urban migration and low-high wage region migration are the fundamental drivers of the development process. In this case, rural labourers can supply labour to the urban industrial economy.

2.4.2. Push-Pull Theory

The push-pull theory is formulated focusing at micro level decisions, on factors that cause individuals to migrate. Moreover, the push-pull is more focused on grouping factors that affect migration on an individual level by looking at positive and negative factors that may push and pull migrants from and to the country of origin and destination respectively. Positive and negative factors at the origin and destination push and pull migrants towards migration (Hagen-Zanker, 2010).

There are different factors that play a role in an individual's decision to migrate. After considering and weighing the factors, a person makes a decision whether to migrate or not. In each area there are numerous factors that hold people within the same area, attract people to it, and push people away from it. However, the push and pull factors from the region of origin and destination are differently defined for every migrant or prospective migrant (Lee 1966:50). This means that what is a pull factor for one person may be a push factor for another person. Push-pull factors that may cause an individual to migrate may arise from economic, environment and political differences between countries. Factors such as employment rates, wages, natural disasters, economic stability and infrastructures may push or pull people to migrate. The cause of labour migration is likely to be centred on better economic opportunities or developments.

2.4.3. The New Economics of Labour Migration

The New Economics of Labour migration (NELM) theory emerged in the 1980's. In contrast to the neoclassical migration theory, the theory considers families and variety of

markets, not only labour markets, as the reason for migration. The NELM views migration as a decision taken by households to maximise profits or incomes and overcoming capital constraints on family production activities while minimising risks (Massey *et al*., 1993). According to this theoretical perspective, migration is a household strategic decision rather than decisions of isolated individuals. Decisions are often taken together by household members for the wellbeing of the family as a whole. Together household members make decisions that maximises income, loosen constrains associated with market failure and minimises risk. These mentioned aspects contribute to the migration decision of household (Hagen-Zanker, 2010).

NELM considers risks that are mainly linked to capital market failures such as incomplete credit and insurance markets. Households try to overcome these market failures in their administrative areas (Hagen-Zanker, 2010). According to King (2012), there are two main aspects of the NELM. The first is to recognise that migration decisions (who goes, where to go, for how long, to do what) are not individual decisions but joint decisions taken within the ambit of the household, and for different members of the household. The second is that rational-choice decision-making is not only about wage and income maximisation but is also about income diversification and risk aversion.

In contrast to the neoclassical economics of migration, the NELM does not only consider wages between countries as a reason to migrate. Families migrate irrespective of wage differentials because there are other reasons that may cause them to migrate therefore this is the reason why migration does not stop when wage differentials disappear. According to Hagen-Zanker (2010), household members share migration costs and there is also a household co-insurance: that is, the migrant is supported by the family in times of need (urban unemployment) and the migrant sends remittances home to the family for their consumption and investment activities such as investing in a business.

2.5. Immigration in South Africa

South Africa tends to attract both legal and illegal migrants and majority of these immigrants are from South Africa's neighbouring countries. As a result South Africa has struggled to gather accurate and reliable immigration statistics regarding cross boarder

migration (Polzer, 2009). What remains to be the main challenge is that illegal migrants are reluctant to disclose their status which makes the migration data to have gaps (Maja & Nakanyane, 2007). As a consequence, South Africa's immigration data is mainly estimates instead of the accurate data.

Regardless of the high unemployment rate in the country, South Africa still attracts a number of immigrants. These immigrants are motivated by the high quality of life and strong business environment (Mabiala, 2013). According to StatsSA (2013), in 2012 a total of 141 550 Temporary Residence Permits (TRP) were processed and analysed. Out of the 141 550 recipients of TRP, 54.4% were from Africa and 45.6% were from overseas. There was a total of 1283 Permanent Residence Permits (PRP) that were processed, the PRP were issued to recipients from seventy-eight countries. Out of these PRP recipients 53.2% were from the Africa region while 46.8% were from overseas region.

South Africa also attracts scarce skill migrants. According to the Department of Home Affairs (DHA) the Immigration Act of 2002 allows the Minister of Home Affairs to consult with the Minister of Labour and the Minister of Trade and Industry in order to identify areas of scarce, critical and special skills required by the South African economy each year. The South African government recruits skilled foreigners for certain positions identified each year due to brain drain or lack of skills. These positions are then filled formally by qualified foreigners who have a minimum of five years practical experience in the field.

The public view African migrants as people who come into the country and take jobs from natives. However, others believe that African migrants start their own businesses and at times create employment for natives workers specifically, those who work in salons.

2.6. Review of South Africa's Migration Policy

Migration Policy Before 1994

During the apartheid era, international migration was controlled by the Aliens Control Act while internal migration was mainly controlled by the Group Areas Act and Bantu Authorities Act. The Aliens Control Act did not totally restrict Africans from neighbouring countries to enter South Africa; however they were mainly allowed to enter as labourers. The legislation was also designed to prohibit the movement of migrant workers from changing and abandoning their employment (Khan, 2007).

Black South Africans and foreign labourers were forced to work in mines and farms, these labourers were victims of forced labour and this included children under the working age (younger than 15 years) population. Forced labour was practiced during the apartheid era through labour contracts. Mining companies relied on African migrants from neighbouring countries because they provided cheap labour than native workers. Migrants made up almost 80 percent of the black work force (Crush *et al*., 1991). Neighbouring countries were suppliers of labour to South Africa thus industrialists and farmers relied on the South African black population and migrants for labour. Under the apartheid government black South Africans and migrants were poorly paid. Generally, mine and farm workers were the most exploited and underpaid workers. In sectors such as agriculture (farming) the service of some labourers was seasonal due to the nature of jobs.

Migration Policy Post 1994

Since 1994 when the new government took over, migration policy and patterns of migration changed drastically (Khan, 2007). The country experienced a large number of migrants entering the country especially from neighbouring countries. When the new government came to power in 1994, the government still made use of the Aliens Control Act until new Immigration Act of 2002 was formulated to control foreigners coming into the country (Crush, 2008). After apartheid, internal migration was not controlled. Individuals or families had freedom to migrate to any province in search of employment or for other reasons.

Over the years, the Immigration Act of 2002 became insufficient to manage and control immigration. As a result the government introduced the new Immigration Act of 2011 which came into effect on Monday 26 May 2014. The purpose of this new legislation is for the government to control the flow of immigrants into the country. Moreover, this new Immigration Act is aimed at assisting the government to be more selective on who enters and leaves the country and the aim is to attract migrants with certain skills in order to build a vibrant economic growth.

2.7. Conceptual Framework

Many theories have been formulated to discuss migration. Some of the few selected theories discussed in this study include; the Neoclassical economics of migration, Push-Pull theory and The New Economics of Labour Migration. Generally, migration process is selective. Therefore, this study is guided by the migration selectivity theory. Migrants are not homogenous, that is, they are different according to demographic attributes such as sex, age, marital status and education. Therefore, participation in the labour market is usually associated with these demographic attributes.

Age selectivity:

Age is one of the central attributes in any study of migration because propensity to migrate tend to vary with age. Migrants tend to be young, usually a young person with or without education is more likely to migrate compared to people who are advanced in age. For instance, a young person who is unemployed and with little education in their home country is likely to migrate given than there is a great chance of finding employment in the receiving country, ceteris paribus (Bustamante, Jasso, Taylor, & Legarreta, 1998).

Gender selectivity:

Gender is central in the migration process. Generally, migrants are predominantly males but recently females have started migrating more than they did in the past. Economic, social, political pressure and/or freedom within and between countries are some of the reasons that influence both men and women to migrate. According to Jolly and Reeves

(2005) migration process has some gender implications thus the impact of migrating for both men and women depend on many factors such as type of migration (temporary, permanent, labour, independent or as dependent spouse); and policies of sending and receiving countries. Jolly and Reeves (2005) further revealed that migrant women tend to dominate in unskilled sectors such as domestic workers and sex workers which may cause them to be at a greater risk of exploitation. On the other hand, migrant men often dominate in more regulated sectors such as construction, mines and agriculture.

Education selectivity:

Human capital (education) is another driving force causing people to migrate. Individuals with high level of education are likely to migrate more than those who are not educated or have lower levels of education because of economic returns at destination. According to Bustamante *et al*. (1998) this pattern happens due to high economic returns and employment opportunities in the country facing in-migration. Educated people migrate from developing to developed countries in search for work, business opportunities and possible high earnings. If more educated people leave their countries of origin, it may eventually lead to brain drain. According to Kanbur and Rapoport (2003) brain drain may later induce positive feedback effects such as remittances and return migration after obtaining additional skills from abroad.

Marital status:

The movement of people within and between countries often happen as a result of connection between family and friends. As a result, the more people are connected the greater in-migration flow increases at destination. Therefore, migration selectivity on marital status may be a result of the migration network theory. A person's marital status may have implications on many decisions. Migration is usually associated with married people as they need to support families. Married spouse tend to migrate more to join their counterparts at destination. A family usually play a role or rather have an influence on who migrates, to where, and for how long (Bueker, 2004). When migrating as a single person or independently, the process of finding a job, acquiring a visa and finding a decent location to reside in may be difficult and take longer. Thus, migrating as part of

family may encourage stronger incorporation as the country of destination (Bueker, 2004).

CHAPTER THREE: RESEARCH METHODS

3.1. Introduction

This chapter explores research methods of this study. This chapter looks at the ways in which the information used was attained and highlights the methods and instruments used to collect data, how the data is analysed and how the participants were selected.

3.2. Research Perspective

This study on participation of African migrants in the labour force of South Africa makes use of a cross-sectional design as it uses data from population censuses which were conducted by Statistics South Africa. The census was conducted as a face-to-face personal interviews and the same questionnaire was used to gather information on African migrants throughout South Africa. This study is a quantitative research because census questionnaire data is used to analyse migration. Measurements of variables are defined and relationships between variables are tested using statistical methods such as frequencies. Bivariate and multivariate analyses are performed to measure correlation between the dependent and independent variables in an attempt to answer the research questions and to test the hypotheses. Thus, the significance of this study is a correlational analysis which attempts to understand patterns of relationships between variables.

The population census was conducted by StatsSA both in October 2001 and 2011. During the 2011 population census there were three standard questionnaires that were developed (a) Household questionnaire, (b) Transient and tourist hotel, and (c) questionnaire for institutions. However, this study uses only the household questionnaire. This study captures structural changes of African migrants in the South African labour force by comparing findings from the 2001 and 2011 population census.

3.3. Context for the Study

For comparison purposes, this study makes use of the national population census that was conducted by Statistics South Africa in October 2001 and October 2011. 2001 and 2011 is the period of interest. For both years the headcount was carried out on the night of 9/10 October. This study analyse migration dynamics for all South Africa's nine provinces including both urban and rural areas. Data was accessed from Statistics South Africa and the census files were obtained in SPSS format. The accessibility of data in SPSS format made it possible to run necessary statistical analysis.

3.4. Units of Observation for the Data Analysis

This study focuses on African migrants who migrated to South Africa in search for employment opportunities based on 2001 and 2011 census data. Since this study focuses on the participation of African migrants in the South African labour force, the participants under this study include all African migrants both male and females who were living in South Africa. The study particularly focuses on African migrants who were economically active at the time of censuses. Therefore, age group of interest are those aged 15-64 years since these people make up the labour force. African migrants are selected by looking at their country of birth and citizenship status. The analysis of African immigrants is carried out using demographic characteristics such as age, sex, education, country of birth and year of arrival. As far as labour force is concerned, their participation is measured in terms of socio-economic characteristics such as employment status, income, occupation, industry, and type of sector.

3.5. Methods and Instrument Used to Collect Data

In developing the 2011 population census questionnaire, data items and questionnaire from previous censuses were reviewed by StatsSA. In carrying out the census, StatsSA conducts a *de facto* population and housing census. StatsSA collected data in all nine provinces of South Africa including urban and rural areas. To make sure that the data was successfully collected across all nine provinces, StatsSA recruited 120 000

enumerators, 30 000 field supervisors, 6 000 field coordinators, 95 district census coordinators and 9 provincial coordinators.

This study uses the available 10% sample data of 2001 and 2011 population census. However the sample data was weighed to make statistical inference for the whole population. Both the sample data for 2001 and 2011 were obtained by request from Statistics South Africa. However, the 2001 data is used for comparison purposes. Having this information at hand we are able to identify structural changes within the South African labour force concerning the participation of African migrants between 2001 and 2011.

3.6. Descriptive Variables

Variables for this study were taken from the population census and the variables are divided into two main categories namely; demographic and socio-economic variables.

Demographic variables include: age, sex, marital status, educational attainment; province of enumeration, citizenship, country of birth, year moved and duration of stay.

Socioeconomic variables include: employment status, income category, occupation, industry, type of sector and reasons for not working.

This study is informed by the migration selectivity theory. Therefore, the variables listed below were given preference because of their relevance to answer the research questions and the testing of the hypotheses.

3.6.1. Demographic Variables

3.6.1.1. Age

Age is one of the important variables in any study of migration therefore this variable was used in order to identify migrants who were part of the labour force during the time of census, age of interest in this regard is 15-64 years. This variable assisted to test the following hypothesis: "*migration brings more young people than older people in the South African labour market".* Age is the interval of time between the day, month and

year of birth expressed as the number of years lived by an individual that is, a person's age at their last birthday (StatsSA, 2011). Age was recorded in completed years. To determine the age of the participants, the question was asked "what is the age in completed years"? Then, the age was captured and re-coded into groups of five year intervals using SPSS, as follows: 1=15-19, 2=20-24, 3=25-29, 4=30-34, 5=35-39, 6=40-44, 7=45-49, 8=50-54, 9=55-59, 10=60-64.

3.6.1.2. Sex

Migration tend to be selective when it comes to gender, previous studies have mentioned that migrants tend to be predominantly males. This variable was used to identify male and female migrants. Knowing whether a person is a male or female helps to identify sex differentials of African migrants within the labour force, and to know which sex is more represented than the other. When running the bivariate analysis, sex was taken as a controlling variable. This variable assisted to answer the following research question: "*are African male migrants more represented in the informal sector than African female migrants"?* The participants were asked whether the *(person)* is male or female. The variables were recorded as 1=Male and 2=Female.

3.6.1.3. Marital Status

It has been documented that people tend to migrate single however there are those (especially women) who migrate to join their spouse/partners. This variable was used to observe the pattern of marital status among African migrants in relation to the migration selectivity theory. A person's marital status was recognised in terms of marriage laws customs of a country. The question about marital status was "what is (the *person's*) present marital status"? Marital status of the participants was categorized and recorded as follows: 1 = Married, 2 = Cohabiting, 3 = Never married, 4 = Widowed, 5 = Separated and 6 = Divorced.

3.6.1.4. Educational Attainment

According to the migration selectivity theory, migration is selective regards to human capital. Educated people often migrate more than those with no education because they

want to increase their value of capital skills. This variable on educational attainment was used to identify the highest level of education completed. Therefore this variable assisted to answer the following research question "*what is the highest educational level of African migrants who are employed in the formal sector?"* and to test the following hypothesis "*there has been substantial changes in overall education of African migrants".*

The question on highest level of education was asked as "what is the highest level of education that (*name*) has completed"? This question referred to the level of education that the person had completed, not the level they were currently in if they were still studying. Educational attainment was captured and recoded into four categories as follows: 1=No schooling, 2=Primary, 3=Secondary, 4=Tertiary.

3.6.1.5. Province of Enumeration

Some provinces (such as Gauteng and Western Cape) are more economically developed than others. Migrants tend to move to areas where there are more opportunities. This variable assisted in identifying where migrants were enumerated during the census night. Province of enumeration of participants was categorized and recorded as follows: 1=Western Cape, 2=Eastern Cape, 3=Northern Cape, 4=Free State, 5=KwaZulu-Natal, 6=North West, 7=Gauteng, 8=Mpumalanga, 9=Limpopo.

3.6.1.6. Citizenship

Migration history in South Africa indicated that most migrants came from neighbouring countries therefore this variable on citizenship was important in order to identify which nationalities are most represented. The purpose of this variable on citizenship was asked in order to identify the participants' citizenship status so that African immigrants were easily identified from the rest of the population. A question on citizenship was asked to all persons in households and transients who were born outside South Africa. To find out whether or not a person has a South African citizenship, the question was "is (*person*) a South African Citizenship"? Responses were recoded as follows: 1=Yes, 2=No.

3.6.1.7. Country of birth

Because it was difficult to directly identify citizenship by country. Country of birth was then taken as a proxy to citizenship to recognise nationalities that were most represented. Knowing a participant's country of birth was important for this study so that migrants from Africa were easy identified from other immigrants. Therefore this variable assisted to answer the following research question "*what are the most represented countries in the origin of migrants?"* and to test the following hypothesis "*Southern African remains the main area supplying migrants to South Africa".*

For the purpose of this study, those who indicated that they had a South African citizenship were not included. Therefore, to determine the participant's place of birth, everyone in the household was asked to indicate the province in which they were born. The question on country of birth was asked to all those who indicated that they were born outside South Africa.

3.6.1.8. Year moved

Previous studies have documented that the end of apartheid attracted many migrants into the country. The purpose of this variable was used in order to calculate the number of years a participant has stayed in South Africa. The variable on year moved was used to study the year in which migrants moved to South Africa. For the purpose of the study, the analysis was carried out for persons who moved between 2001 and 2011.This question was asked only to persons who were born outside South Africa. The participants were asked "in which year did (*name*) move to South Africa".

3.6.1.9. Duration of stay

Because migration is related to time, this variable on duration of stay was created by using the year moved. This variable assisted in knowing how long African immigrants have stayed in South Africa. Duration of stay is the number of years that African migrants have stayed in South Africa. Migrants were not directly asked this question however this variable was created in SPSS using the year moved. Duration of stay was categorized

and recorded as follows: 1= less than 5 years, 2= 5 to 9 years, 3= 10 to 19 years, 4 = 20 to 29 years, 5= 30 to 39 years, 6= 40 to 49 years, and 7 = 50 years and above.

3.6.2. Socioeconomic Variables

3.6.2.1. Employment Status

The employment status was used as a dependent variable in this study. The variable on employment status is central to this study as it assisted to identify African migrants who were part of the labour force. This variable further assisted to calculate labour market indicators such as employment rate, unemployment rate and labour force participation rate. The purpose of this variable was to identify African migrants who were economically active, either employed or unemployed at the time of census. Migrants who were part of the labour force, are those that were economically active that is, they were available for work, and were either employed, or unemployed but have taken active steps in finding work in the reference period (StatsSA, 2011). The responses were grouped and recoded into two categories as follows: 1 = Employed, 2 = Unemployed.

3.6.2.2. Income category

It has been recorded that there are disparities when it comes to income, especially between sexes. This variable on income helped to establish African immigrant's monthly income by sex, age, educational attainment and marital status. The question on income was asked on all the participants that are both employed and unemployed as the unemployed could have income in the form of maintenance and financial support from relatives.

The question on income was asked as "what is the income category that best describes the gross monthly or annual income of (*name*) before deductions and including all sources of income"? For the purpose of this study, income was recorded monthly. Income were re-coded in categories thus the responses were recorded as follows: 1 = No income, 2=R1-R400, 3= R401-R800, 4= R801-R1600, 5= R1601-R3200, 6= R3201-R6400, 7= R6401-R12800, 8= R12801-R25600, 9= R25601-R51200, 10= R51201-R102400, 11= R102401-R204800, 12= R204801 or more, and 13= Unspecified.

3.6.2.3. Occupation

Employment variations exist between variables and it has been reported that African migrants often work in low skilled occupations. Thus, this variable helped to evaluate which occupation employed majority of African migrants. Furthermore, this variable assisted to answer the following research question: "*are African migrants more represented in the higher occupation than in the lower occupation"?* The question on occupation was asked as "What kind of work does (*name*) usually do in his/her main job/business"? Responses were recorded into the following categories: 1= Managers, 2= Professionals, 3= Technicians (technicians and associate professionals), 4= Clerks, 5= Service workers (service workers, shop and market sales workers), 6= Skilled agricultural (Skilled agricultural and fishery workers), 7= Craft workers (craft and related trades workers), 8= Machine operators (Plant and machine operators and assemblers), 9= Elementary occupations and 10= Domestic works.

3.6.2.4. Industry

In the history of labour migration in South Africa researchers have reported that migrants tend to work in mining, agriculture and private household. This variable assisted to answer the following research question "*how are African migrants distributed across the economic sectors?"* and to test the following hypothesis "*there are more African migrants in the nonindustrial sector than the industrial sector".*

The question on economic sector was asked in order to know the industry which a person works in. Responses were recorded into the following categories: 1= Agriculture (agriculture, hunting, forestry and fishing), 2= Mining (mining and quarrying), 3= Manufacturing, 4= Electricity (electricity, gas and water supply), 5= Construction, 6= Wholesale (wholesale and retail trade), 7= Transport (transport, storage and communication), 8= Financial services (financial, insurance, real estate, and business services), 9= Community services (community, social and personal services), 10= Private household and 11= other.

3.6.2.5. Type of Sector

African migrants are usually employed in the informal sector. This variable helped to identify which sector employed majority of African migrants. This variable on type of sector assisted to answer the following research question "*are African male migrants more represented in the informal sector than African female migrants?"* The question was asked on all the participants were employed in the household. The responses were recorded into the following categories: 1 =Formal sector, 2 = Informal sector, 3 = Private household, and 4 = Do not know.

3.6.2.6. Reason for Not Working

People with fewer resources often have little access to information about available employment opportunities. Fewer resources affects pro activity in looking for jobs. Thus, this variable on reasons for not working assisted to make a distinction between voluntary and involuntary unemployment. African migrants aged 15 to 64 years who were not working during the time of census were asked to state their main reason for not working. The question was asked as "What is the main reason for not trying to find work or starting a business in the last four weeks before 10 October"? The purpose of this question was asked in order to identify the reasons that caused migrants to be unemployed.

The responses were recorded and grouped as follows: 1= Awaiting the season for work, 2=Waiting to be recalled to former job, 3= Health reasons, 4= Pregnancy, 5= Disabled or unable to work, 6= Housewife/homemaker, 7= Undergoing training to help find work, 8= No jobs available in the area, 9= Lack of money to pay for transport to look for work, 10= Unable to find work requiring his/her skills, 11= Lost hope of finding any kind of work, 12= No transport available, 13= Scholar or student, 15= Retired, 16= Too old/young to work, 17= Did not want to work and 18= Other.

It is crucial to note that African migrants in this section (reasons for not working) are not part of the labour force. For the purpose of this study this category was however included in order to paint a picture of why they were not economically active in order to make a distinction between voluntary and involuntary unemployment.

3.7. Methods of Data Analysis

This section focus on information gathered from the method of observation and comparing observed findings with expected findings. To carry out data analysis for this study, information obtained from the South African population census 2011 was organised, recorded and analysed using the Statistical Package for Social Sciences (SPSS®) software version 23. Univariate, bivariate and multivariate analyses were used to analyse the data using SPSS. Univariate analysis was used to conduct descriptive statistics for the variables of the study. Furthermore, the bivariate analysis was used to test statistical relationship between variables.

3.7.1. Labour Market Indicators to be Calculated

The employment rates applied in this study are in accordance with the South African labour force system. The employment rates to be calculated in this study are for African migrants who were part of the labour force during the two census periods.

Employment rate: is the percentage of African migrants who were employed during the time of census.

$$\text{Employment rate} = \left(\frac{\text{Employed}}{\text{Labour Force}}\right) * 100$$

Labour force = employed + unemployed

Unemployment rate: is the percentage of the African migrants who were unemployed but actively seeking employment and willing to work.

$$\text{Unemployment rate} = \left(\frac{\text{Unemployed}}{\text{Labour Force}}\right) * 100$$

Labour force participation rate (LFPR): is the percentage of all African migrants who were employed and/or are actively looking for work during the time of census. However, it is important to note that the number of migrants who were no longer actively searching for employment were not included in this rate.

$$\text{LFPR} = \left(\frac{\text{Labour force}}{\text{Working age population}}\right) * 100$$

Share of unemployed: is the percentage of unemployed (actively looking for work) African migrants to the working age population.

$$\text{Share of unemployed} = \left(\frac{\text{Unemployed}}{\text{Working age population}}\right) * 100$$

Labour Absorption Rate: is the employment-to-population ratio

$$\text{Labour Absorption Rate} = \left(\frac{\text{Employed}}{\text{Working age population}}\right) * 100$$

Working age population = is the sum of all African migrants aged 15 to 64 years.

3.7.2. Bivariate Analysis

Bivariate analysis makes use of cross tabulation. Independent variables were taken against the independent variable (employment status), sex was used as a controlling variable. Chi-square, Lambda, Phi and Cramer's V are used to test association between variables. Chi-square (χ^2) was used to test the significance between variables. Furthermore, Lambda, Phi and Cramer's V were performed to measure the strength between variables. These statistical tests were performed to determine whether there is a significant difference between the observed and expected findings. Lastly the association between variables is significant if P-value is less than 0.05 (<0.05).

3.7.3. Multivariate Analysis

A binary logistic regression was also performed to examine relationships between the dependent variable (employment status) and the independent variables (age, sex, marital status, educational attainment and province). The dependent variable was categorized into the following scales: 1=employed and 0=unemployed. Thus, the use of logistic regression in this study assisted to understand the relationship between the dependent and independent variables. Logistic regression investigated the effect of African migrant's demographic characteristics on employment status. The logistic regression applied in this study is mathematically expressed as follows:

$$In\frac{P}{1-P} = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \ldots\ldots + \beta_i x_i$$

The logistic gives each predictor (independent variable) a coefficient β, which measures its independent variations to the dichotomous (dependent variable). The dependent variable in this model is employment status ($In\frac{P}{1-P}$). The purpose of the regression coefficient (β_i) is that it increases natural logarithm (log-odds) for a one unit increase in the predictor variable (x_i) when all other variables (x_i) are constant. It measures association between x_i and natural logarithm (log-odds) adjusted for all other (x_i) variables.

CHAPTER FOUR: RESULTS OF DATA ANALYSIS

4.1. Introduction

Migration is a complex process and involves a number of challenges. Despite this complex process and challenges, migrant workers have been on the rise. The number of migrant workers has been continuously increasing around the world due to income inequalities and working conditions between countries. According to ILO (2010) migrant workers contribute to economic growth and development to the country of destination through their supply of labour in the production of goods and service, and through job creation for those that are entrepreneurs and are able to create jobs. Based on the 2011 population census South Africa had an estimated 1 397 370 migrants. The migrant stock included 1 237 595 from African countries, 81 231 from Europe, 67 872 from Asia, 7 989 from America, and 2 683 from the rest of the world. The statistics above show that South Africa predominantly attracts migrants from the rest of Africa than any other continent.

This chapter provides an analysis of migration using data from the 2001 and 2011 population censuses. Specifically, the study aims to analyse migration of the African migrants who lived in South Africa and were economically active (aged 15-64 years old) during these two periods. The objective of this analysis is to address the research questions and the hypotheses outlined in Chapter One. The research questions and hypotheses are answered through examining trends and patterns in the related demographic and socioeconomic variables. To illustrate structural changes on the economic wellbeing of African migrants, the 2001 census was used as a reference of comparison. To properly demonstrate the changes in demographic and socioeconomic variables, the study draws comparison between the 2001 and 2011 census data. This study uses statistical tools such as frequency distribution, cross-tabulation, and chi-square to estimate and analyse the correlation between variables. Besides the tables and graphs in this chapter, some tables are also reported in the appendices.

4.2. Size and Geographic Distribution of African Immigrants

This section focuses briefly on the structure of African migrants in South Africa as reported in the 2011 census. Table 1 below paints a general picture of the magnitude of working age population of African migrants in relation to the total working age population in South Africa. According to the 2011 census, the national estimated working age population is 33 904 480 people and African migrants account for 1 116 402. The statistics in Table 1 revealed that the South African working age population had more females (51.3%) than males (48.7%). In comparison, the African migrants working age population had more males (64.1%) than females (35.9%). This trend points to the sex-selectivity of immigrants where more males are bound to migrate than females. From the population of 1 116 402 African migrants working age population, 880 072 of this population was economically active (labour force). The proportion of African male migrants who were part of the labour force was higher than African female migrants. Moreover, most of the economically active population lived in the urban areas than non-urban. Mohammed (2008) observed a similar trend where majority of African migrants resided in urban areas.

The statistics in Table 1 showed that urban areas attract a large proportion of African migrants. Generally, urban areas are well known to be more developed and have greater employment or economic opportunities as compared to rural areas thus the high concentration of African migrants in urban areas as compared to rural areas. Comparing the two census period (2001 and 2011), the number of economically active African migrants in South Africa increased over the ten years from 234 841 in 2001 to 880 072 by 2011. These statistics show that African migrants more than doubled in size during the period of 2001–2011. The rest of the analysis in this chapter was based on the 880 072 economically active population of African migrants (15–64 years).

Table 1: Selected Data for Analysis, 2011 census

Variable	SA Population		African migrants	
	N	%	N	%
Working age				
Male	16 515 183	48,7	715 352	64,1
Female	17 389 297	51,3	401 050	35,9
Total	**33 904 480**	**100,0**	**1 116 402**	**100,0**
Economically Active				
Male	9 952 823	53,0	612 554	69,6
Female	8 818 999	47,0	267 518	30,4
Total	**18 771 822**	**100,0**	**880 072**	**100,0**
Location				
Urban	14 216 766	75,7	716 443	81,4
Non-urban	4 555 056	24,3	163 628	18,6
Total	**18 771 822**	**100,0**	**880 072**	**100,0**

Source: *Own computation using StatsSA 2011 census data*

4.3. Descriptive Analysis of African Migrants

Demographic and socioeconomic characteristics of migrants are not homogeneous; as they differ in age, sex, education, nationality, status and social background (Nyamwange, 2014). Henceforth, this section provides descriptive analysis of African migrants (economically active population) by analysing their background characteristics based on the 2001 and 2011 census data. The tables computed in this section show the growth rates for the reference period of 2001 and 2011. This section analyse the size and population composition of African migrants, their characteristics and attributes such as age, sex, marital status, education attainment and country of origin or birth.

4.3.1. Size and Composition of African Migrants

The two census periods show the size, composition and structure of the African migrants living in South Africa between 2001 and 2011. Understanding the population structure for African migrants is important for policy planning purposes. From an economic point of view, the economically active population contributes to the productivity of the country through their provision of labour.

4.3.1.1. African Migrants Economical Active Population

The economically active population of African migrants was analysed using gender and comparison was drawn between the 2001 and 2011 population census. Table 2 below provides trends for the working age population of African migrants using the weighed 10% population census data. The economically active population of African migrants in 2011 is estimated at 880 072. Comparing the two periods, the results show that the population of African migrants increased from 234 841 (2001) to 880 072 (2011) with an average annual growth rate of 13.2%.

In 2011, 69.6% of African migrants were males and 30.4% females, it is clear that males were still migrating more than females. The percentage of males decreased from 78.1% to 69.6% whilst females increased from 21.9% to 30.4%. Inasmuch, there were changes in the distribution of migrants, from these results it can be noted that males were still higher than females. Migration of women has always been an important factor of international migration. Migration patterns within and from Africa have recently became more feminized, that is, females are migrating more in search for employment and to achieve their economic needs (UN, 2004; Adepoju, 2004).

Table 2: Distribution of African Migrants Population by Gender in 2001 and 2011

Variable	2001		2011		Percentage change (2001-2011)	Annual Average Growth rate (2001-2011)
	N	%	N	%		
Sex						
Male	183 462	78,1	612 554	69,6	233,9	12,1
Female	51 379	21,9	267 518	30,4	420,7	16,5
Total	**234 841**	**100,0**	**880 072**	**100**	**274,8**	**13,2**

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.3.1.2. Age and Sex Structure of African Migrants

According to the migration selectivity theory, young people are likely to migrate than older persons. Economic crises in countries often drives youth to make decisions to

migrate with the purpose of finding better employment opportunities in foreign countries. Young people often migrate in order to obtain higher education, finding work, getting married and family reunification (UN, 2011).

Table 3 below tabulates the age distribution of African migrants for the year 2001 and 2011. Comparing the two periods, the table shows that most of the African migrants were relatively young, with a young population (15-34 years) of 59.8% in 2001 and 70.8% in 2011. The statistics in the table reveal that the proportion of young African migrants who entered the South African labour force increased between the two periods. This shows that most of African migrants in the country were fairly young. It appears that the migrants in the 15-34 age category have been growing at a faster annual average growth rate than the rest of the African migrants. The possible reason for this high number of youth migrants could be that most of migrants migrate to South Africa in search of tertiary education but end up seeking for job opportunities after they completed their studies.

In comparison to the high proportion of young migrants, Table 3 shows that the proportion of the 35-39 years age group remained fairly constant at about 13% between the two census periods. In sharp contrast to the increase in youth migrants or the contrast proportion of the middle aged category, the remaining population in the labour force (from ages of 35-64 years) show a decline from 40.2% in 2001 to 29.2% in 2011. These results show that the proportion of young migrants has been increasing at the expense of older people during the ten-year period. The decrease in the proportion of older people in the labour force may be due to the high growth in youth participation. Furthermore, it is evident that from the age 25-64 years the participation of African migrants in the labour force decreases with age. This could be suggesting that the migrants who were part of the labour force in 2001 were no longer part of the working age population or had retired before or around 2011.

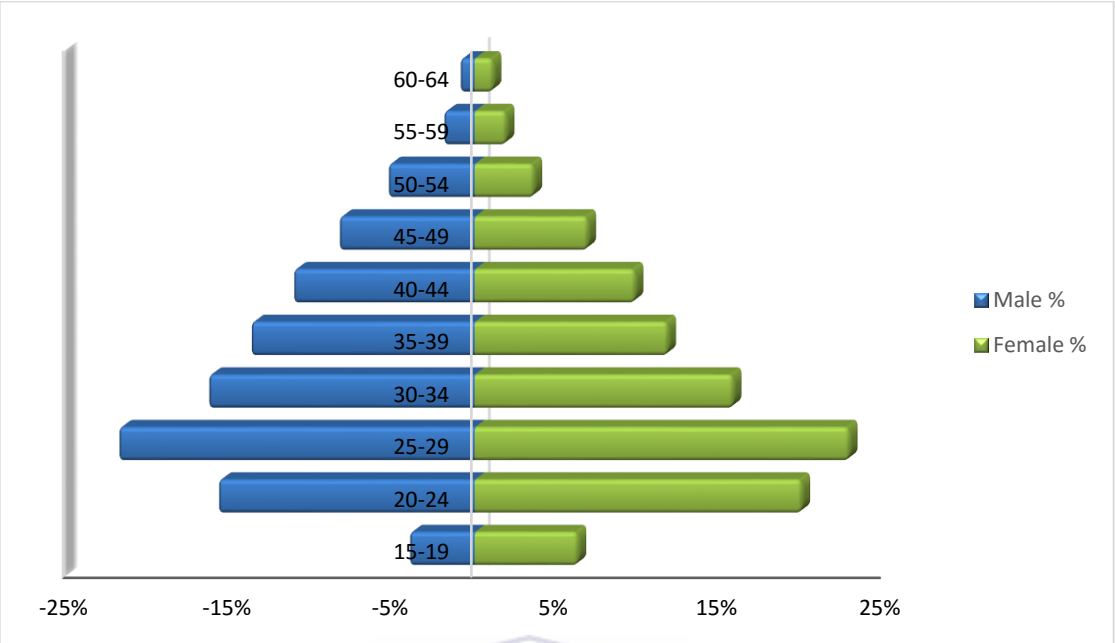
Table 3: Age Distribution of African Migrants in 2001 and 2011

Variable	2001		2011		Percentage change (2001-2011)	Annual Average Growth rate (2001-2011)
	N	%	N	%		
Age group						
15-19	10 722	4,6	30 762	3,5	186,9	10,5
20-24	39 312	16,7	165 842	18,8	321,9	14,4
25-29	52 045	22,2	244 122	27,7	369,1	15,5
30-34	38 221	16,3	183 479	20,8	380,0	15,7
35-39	31 283	13,3	115 777	13,2	270,1	13,1
40-44	25 568	10,9	63 142	7,2	147,0	9,0
45-49	18 932	8,1	36 434	4,1	92,4	6,5
50-54	11 758	5,0	23 132	2,6	96,7	6,8
55-59	4 694	2,0	12 414	1,4	164,5	9,7
60-64	2 307	1,0	4 969	0,6	115,4	7,7
Total	**234 841**	**100,0**	**880 072**	**100,0**	**274,8**	**13,2**

Source: *Own computation using StatsSA 2001 and 2011 census data*

The population pyramids in Figure 1 and 2 below portrays the age group and gender distribution of African migrants in 2001 and 2011 respectively. The two figures complement the observation from Table 3 but with a gender dimension. As depicted in Figure 1 below, African migrants were fairly young in 2001. In 2001 the biggest proportion of the labour force of approximately 60% was made up of the young population in the ages of 15-34 years and the age category of 35-64 years accounted for 40% only. Figure 1 also show that the proportion of females is higher than that of males for 15-29 years age group while the proportion of males is higher from 30-59 years.

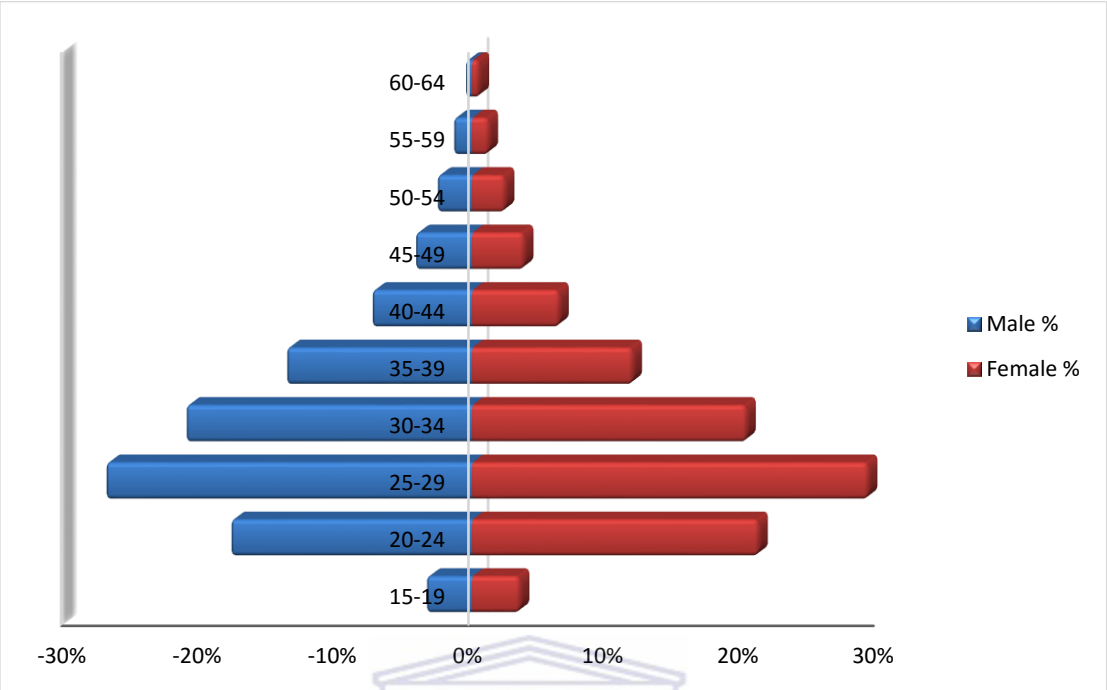
Figure 1: Population Pyramid for African Migrants, 2001 census



Source: *Own computation using StatsSA 2001 census data*

Comparing the results, Figure 2 below reveals a similar trend as observed in 2001 (Figure 1) where majority of the economically active population was young. However, the share of young migrant population in the ages of 15-34 years increased to 71% from 60% and the population aged 35-64 years dropped from 40% to 29%. In the age group 15-24 years, there were more females than males, whereas the age group 30-59 years show that there were more males than females. The proportion African male and female migrants in the age category of 20-34 years increased between the two census years and proportion of 35-39 years remained constant. Furthermore, in age groups of 15-19 and 40-64 years the share of both sexes decreased. The proportion of males in the labour force increased from 60% (2001) to 78% (2011) whereas females show a decline from 40% to 22% in 2001 and 2011 respectively. From the results above, the deduction is that majority of African migrants who were part of the labour force in South Africa were mostly young and male.

Figure 2: Population Pyramid for African Migrants, 2011 census

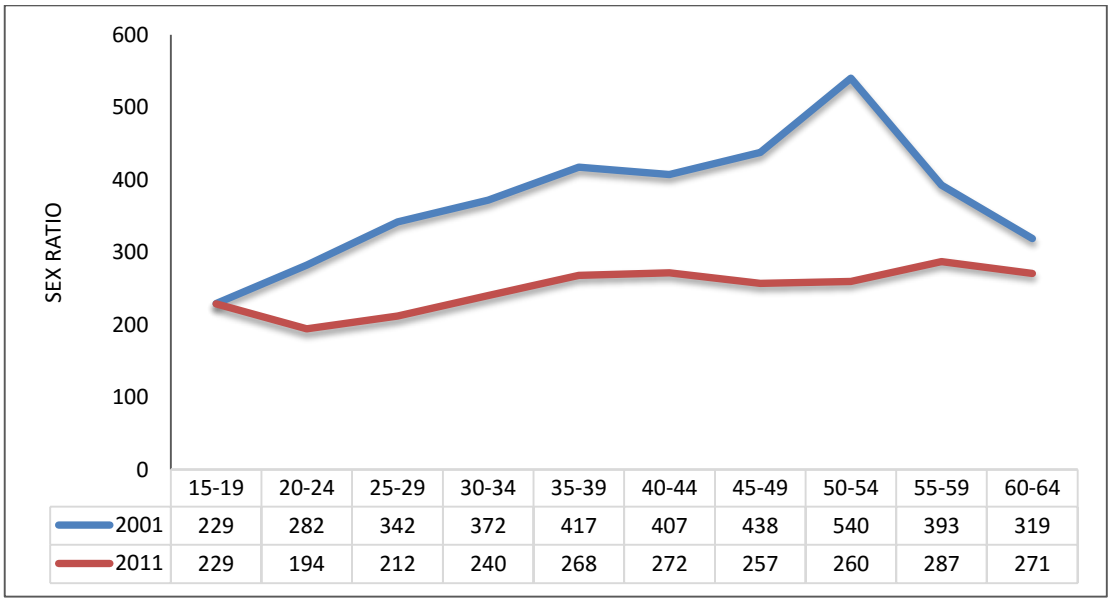


Source: *Own computation using StatsSA 2011 census data*

To gain better insights into the gender distribution of African migrants, sex ratios have been calculated. Figure 3 below shows the gender ratios of African migrants in 2001 and 2011. The sex ratio is calculated by dividing the number of females by the number of males then multiplied by 100. The purpose of the ratio is to ascertain the male per female ratio, that is, the number of male African migrants per 100 female African migrants. Sex ratio is calculated in order to know the magnitude of male population per females over a given period of time.

The results show that there has been a downward trend in sex ratio between the two censuses. The sex ratio in the age group of 15-19 years remained constant at 229 between the two periods. In 2001, the highest sex ratio was 540 males per 100 females in the age group of 50-54 years, while in 2011 the highest ratio was 287 males per 100 females in the age group of 55-59 years.

Figure 3: Sex ratios of African migrants by age group, 2001 and 2011 census



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2001	229	282	342	372	417	407	438	540	393	319
2011	229	194	212	240	268	272	257	260	287	271

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.3.2. Marital Status of African Migrants

Table 4 below shows the marital status of African migrants in South Africa for the periods 2001 and 2011. Based on the 2001 data, the findings reveal that most African migrants were married (45.9%), followed by those who were who never married (35.1%). A similar pattern was observed in 2011 findings where most African migrants in the labour force were married, never married and cohabiting. However, in 2011 the proportion of those that were married decreased from 45.9% in 2001 to 39.6% by 2011, while those that were never married and cohabiting increased. Even though the proportion of those who were widowed, separated and divorced show a slight decline they accounted for a small share of the labour force in both censuses.

There were more males who were married, cohabiting and never married than females in 2001, while we observed that there were more females who were widowed, separated and divorced than males. In contrary, in 2011 there were more females who were married and cohabiting, but males who were never married were still higher in proportion than females. Furthermore, females that were widowed, separated and divorced remained higher than their male counterparts. Inasmuch as the proportion of these females remained higher than males, it is important to note that their share decreased between the

two census periods. These findings indicate that the majority of African migrants living in South Africa who were part of the labour force were married, cohabiting and never married. Moreover, the share of African female migrants who were widowed, separated and divorced shows a marginal decline between two periods.

Table 4: Marital Status of African Migrants in 2001 and 2011

Variable	2001						2011					
	Males	**%**	**Female**	**%**	**Total**	**%**	**Male**	**%**	**Female**	**%**	**Total**	**%**
Marital status												
Married	87 785	47,8	20 095	39,1	107 880	45,9	238 836	39,0	109 407	40,9	348 243	39.6
Cohabiting	27 043	14,7	10 539	20,5	37 582	16,0	103 262	16,9	58 984	22,0	162 246	18.4
Never married	65 963	36,0	16 521	32,2	82 484	35,1	262 946	42,9	85 769	32,1	348 715	39.6
Widowed	1 078	0,6	1 673	3,3	27 51	1,2	2 407	0,4	6 872	2,6	9 279	1.1
Separated	867	0,5	1 004	2,0	1 871	0,8	3 024	0,5	2 662	1,0	5 686	0.6
Divorced	727	0,4	1 548	3,0	2 275	1,0	2 080	0,3	3 824	1,4	5 904	0.7
Total [a]	**183 463**	**100**	**51 380**	**100**	**234 843**	**100**	**612 555**	**100**	**267 518**	**100**	**880 073**	**100**

Source: *Own computation using StatsSA 2001 and 2011 census data.* Note: Cohabiting = Living together like married partners;

[a].Number of valid cases is different from the total count in the cross-tabulation table because the cell counts have been rounded/reduce.

4.3.3. Educational Attainment

Educational attainment is used to measure available skills and creativity in the active population in order to perform labour activities in the labour market. Furthermore, educational attainment has an influence on job opportunities. In the census data, no schooling refers to all persons who did not have any form of formal education. Therefore, from the economically active population those with no schooling are classified as uneducated. Appendices 2 and 3 show educational attainment of African migrants in 2001 and 2011 respectively. The 2001 census data revealed that majority migrants completed secondary schooling (41.6%), followed by those with primary schooling (32.3%) and lastly only 6.1% with tertiary education. Furthermore, the data show that 20% of the migrants had no formal education, they were uneducated.

In comparison to the 2001 findings, the 2011 census data suggest that migrants who were part of the labour force become more educated. The population is still dominated by people with secondary education. There has been a positive change in the 'No schooling' category. The results indicate that there has been a major decline in African migrants with no schooling (uneducated) between the two census periods, from 20% in 2001 to 6.8% in 2011. Initially, the decline in the proportion of those who had no formal was positive because one of the 2015 MDG goals was to make sure that individuals at least complete primary level of schooling. Secondly, it could be that migration brought migrants of quality during the ten-year period. Those with primary schooling also decreased from 32.3% in 2001 to 18.3% in 2011. The proportion of those with secondary or tertiary education increased from 41.6% to 65.2% and 6.1% to 9.7% respectively. Inasmuch as the results show a positive change, only a few have completed tertiary education with an increase of about 3.6% between the two periods. In comparison between the two periods, it seems evident that African migrants who were part of the labour force have become more educated between the two census periods.

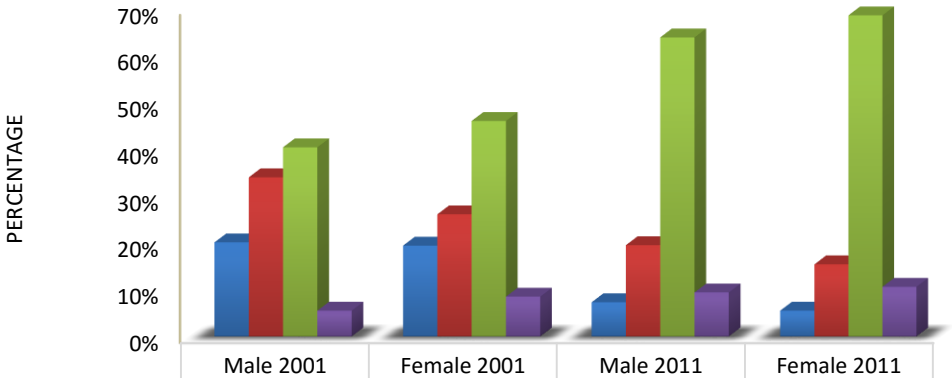
In addition to the information in appendices, Figure 4 and 5 below illustrates educational attainment by gender and by age group respectively, in 2001 and 2011**.** Figure 4 below depicts educational attainment of African migrants by gender for the two census periods.

The 2001 data revealed that there was no huge difference in the proportion of male and female migrants who had no formal education. African male migrants who completed primary education were higher than their female counterparts. However, the proportion of female migrants who completed secondary or tertiary education was higher than male migrants.

In comparing 2011 findings to 2001, the data show that African male migrants who had no formal education or those who completed primary education were higher than females. Similar to 2001, the proportion of female migrants who completed secondary or tertiary education was higher than their male counterparts. Furthermore, the proportion of both males and females with no schooling or primary education has decreased over the censuses while those who completed secondary schooling or tertiary qualification indicated an increase.

One of the Millennium Development Goals (MDG) was to make sure that both males and females complete primary schooling. The decrease of migrants with no schooling or with primary schooling may suggest that migrants have completed primary schooling hence there was an increase in the proportion of those who completed secondary level of schooling and tertiary education. This suggests that African migrants in the labour force became educated or African migration brought educated migrants within the period. On the other hand, the decline in the proportion of no schooling and primary schooling may be due to surge of educated migrants leaving their countries to search for opportunities in South Africa. Moreover, the figure indicates the presence of gender disparities in education with females being educated than their male counterparts.

Figure 4: Educational attainment by gender in 2001 and 2011

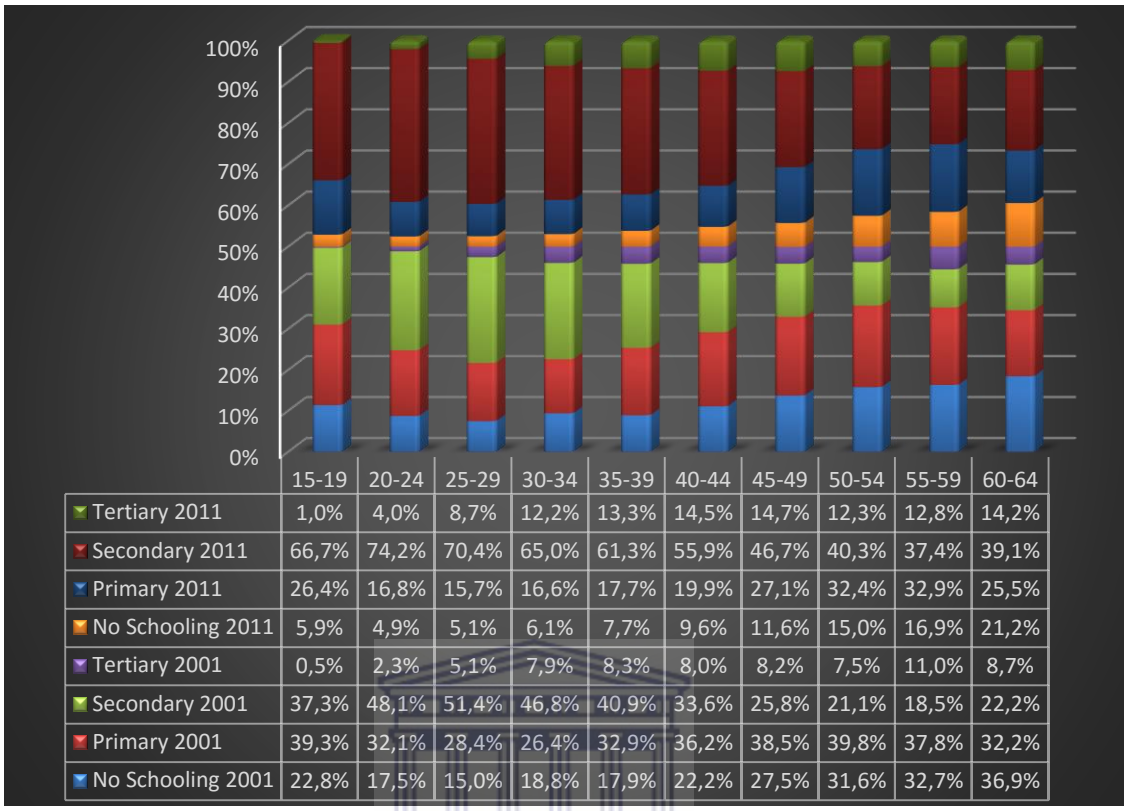


	Male 2001	Female 2001	Male 2011	Female 2011
No Schooling	20,1%	19,4%	7,3%	5,5%
Primary	34,0%	26,1%	19,5%	15,4%
Secondary	40,4%	46,0%	63,8%	68,5%
Tertiary	5,5%	8,5%	9,4%	10,6%

Source: *Own computation using StatsSA 2001 and 2011 census data*

The analysis on educational attainment among African migrants by age assists in understanding the long-term trends in education especially through comparing younger age groups with older age groups. Figure 5 below shows trends in education within the ten-year period. Comparing the two periods, the data revealed that majority of African migrants in older age groups had no formal education than those in the younger age groups. Thus, implying that migrants in the younger age groups are less likely to be uneducated as compared to the older age groups. Furthermore, most of African migrants in the younger age groups completed primary or secondary level of education while majority of migrants who completed tertiary education were those in the older age groups. However, the proportion of those who completed primary, secondary or tertiary education fluctuated with age. To conclude, the findings reveal that the level of educational attainment increased with age among the African migrants.

Figure 5: Educational Attainment by Age Group in 2001 and 2011



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Tertiary 2011	1,0%	4,0%	8,7%	12,2%	13,3%	14,5%	14,7%	12,3%	12,8%	14,2%
Secondary 2011	66,7%	74,2%	70,4%	65,0%	61,3%	55,9%	46,7%	40,3%	37,4%	39,1%
Primary 2011	26,4%	16,8%	15,7%	16,6%	17,7%	19,9%	27,1%	32,4%	32,9%	25,5%
No Schooling 2011	5,9%	4,9%	5,1%	6,1%	7,7%	9,6%	11,6%	15,0%	16,9%	21,2%
Tertiary 2001	0,5%	2,3%	5,1%	7,9%	8,3%	8,0%	8,2%	7,5%	11,0%	8,7%
Secondary 2001	37,3%	48,1%	51,4%	46,8%	40,9%	33,6%	25,8%	21,1%	18,5%	22,2%
Primary 2001	39,3%	32,1%	28,4%	26,4%	32,9%	36,2%	38,5%	39,8%	37,8%	32,2%
No Schooling 2001	22,8%	17,5%	15,0%	18,8%	17,9%	22,2%	27,5%	31,6%	32,7%	36,9%

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.3.4. Province of Enumeration

Province of enumeration may be the same or different from a province of residence. The table below tabulates the province where African migrants were enumerated both in 2001 and 2011. The statistics reveal that in 2001 majority of migrants were enumerated in Gauteng (48.3%) followed by those who were enumerated in North West (15.9%) and Limpopo (10.2%). On the other hand, the 2011 data revealed that majority of migrants were enumerated in Gauteng (55.0%) and those who were enumerated in the Western Cape and Limpopo amounted to 9.6% and 9.5% respectively. Moreover, for both census periods a large proportion of African migrants were enumerated in the Gauteng province whilst a small proportion of migrants were enumerated in Northern Cape. Furthermore, the data in Table 5 below show that provinces that had the highest growth rate within the two periods were the Western Cape and the Eastern Cape Province at 24.9% and 21.9%

respectively. In comparison to the highest growth rate, Free State and North West province had the lowest growth rate of 3.4% and 6.6% respectively.

Table 5: Province of Enumeration for African Migrants in 2001 and 2011

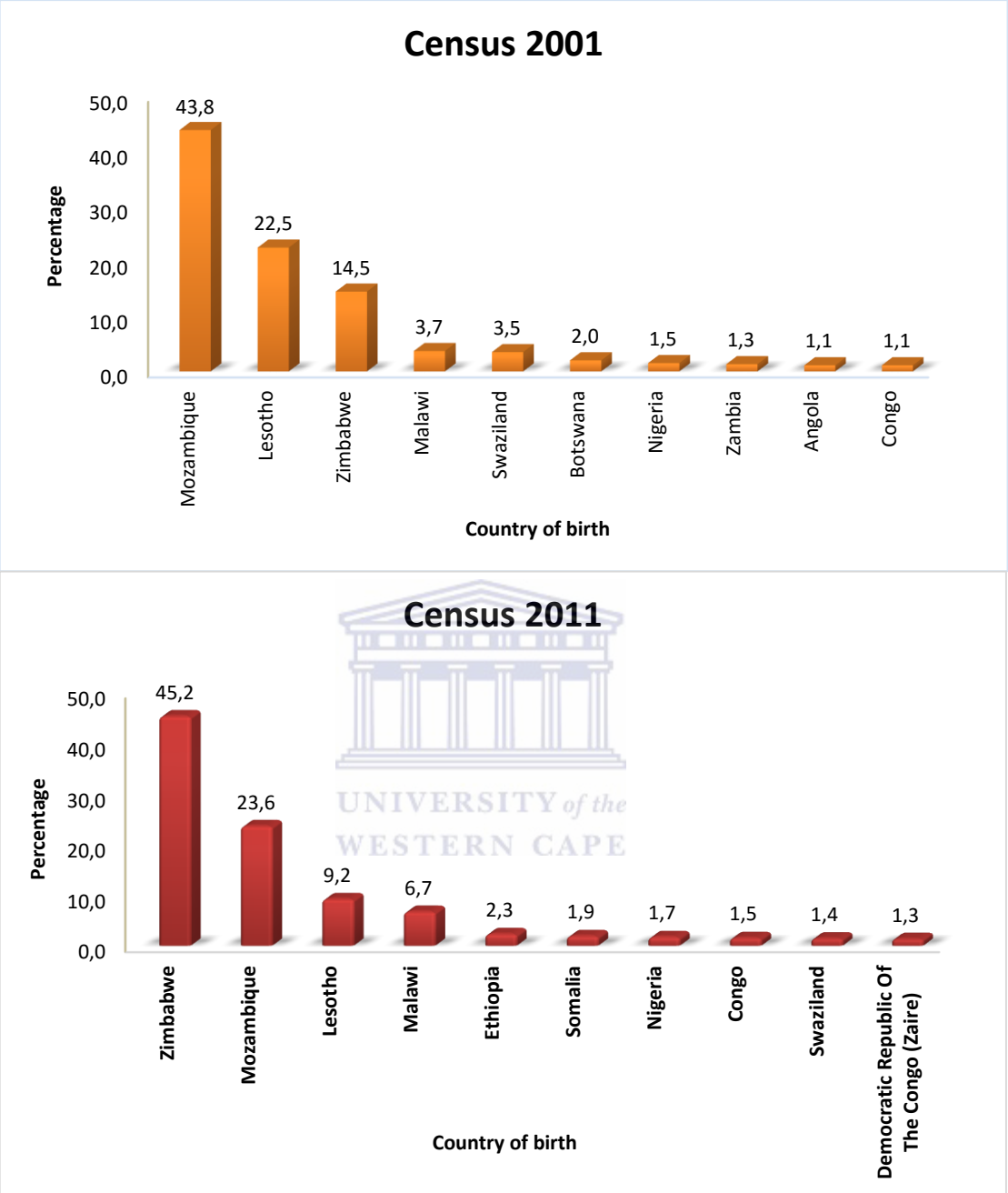
Variable	2001		2011		Annual Average Growth rate (2001-2011)
	N	%	N	%	
Province					
Western Cape	6976	3,0	84250	9,6	24,9
Eastern Cape	2719	1,2	24234	2,7	21,9
Northern Cape	547	0,2	3897	0,4	19,6
Free State	17669	7,5	24716	2,8	3,4
KwaZulu-Natal	8565	3,6	48906	5,5	17,4
North West	37356	15,9	72224	8,2	6,6
Gauteng	113498	48,3	484872	55,0	14,5
Mpumalanga	23501	10,0	54726	6,2	8,5
Limpopo	24011	10,2	83906	9,5	12,5
Total	**234841**	**100,0**	**881732**	**100,0**	**13,2**

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.3.5. Country of Birth

Tracing the country of birth of migrants helps to differentiate between a native-born and foreign-born population over a period of time (UN, 2008). Moreover, the country of birth also helped to identify the countries of origin for the immigrants. Figure 6 below is showing only the top ten African countries sending migrants to South Africa both in 2001 and 2011. A table with all the African countries is reported in Appendix 4 (2001) and Appendix 5 (2011). Figure 6 below show that the main contributing countries between the two censuses were Mozambique, Zimbabwe and Lesotho. Mozambique contributed the largest proportion of immigrants in 2001 with 43.8%, while Zimbabwe contributed the largest in 2011 with 45.2%. The figures show a major increase of immigrants from Zimbabwe from 14.5% (2001) to 45.2% (2011).

Figure 6: Top Ten African Countries Contributing Migrants to South Africa



Source: *Own computation using StatsSA 2001 and 2011 census data*

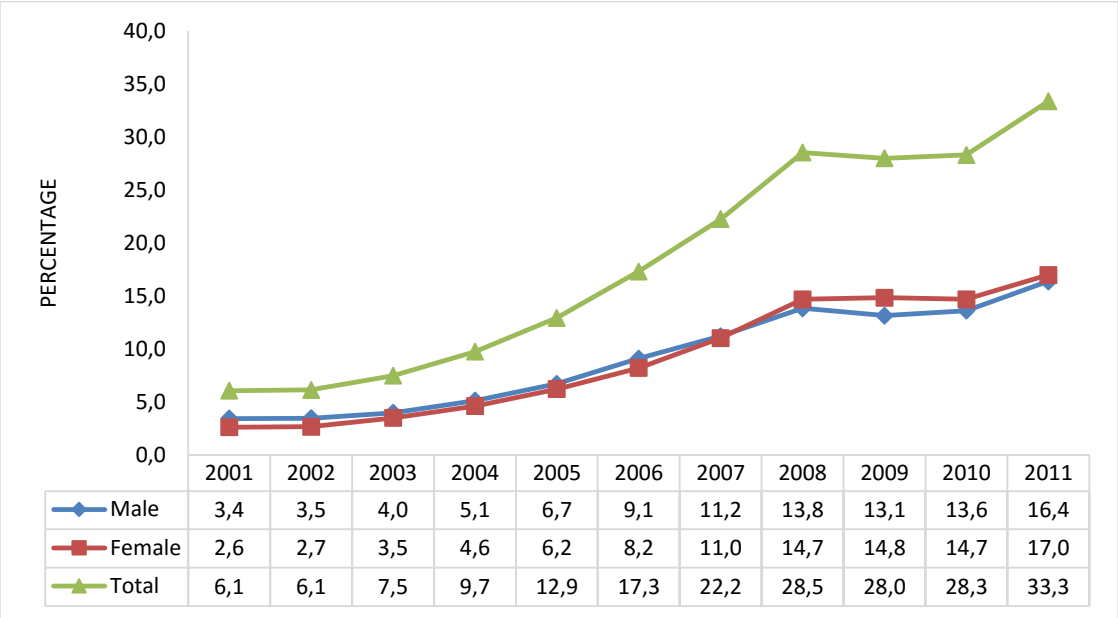
4.3.6. Year Moved to South Africa

Figure 7 below indicates the year in which African migrants moved to South Africa from 2001. Results in the figure below are showing an upward trend from 2001 to 2011. This increase means that there has been an increase in the number of African migrants moving into South Africa. However, between 2008 and 2010, the results have been constant at

an estimated rate of 28% for both sexes meaning that the arrival of migrants increased at a diminishing rate. The xenophobic incidents that happened around 2008 could have been a driving force for such outcome (Crush *et al.*, 2013). The influx of asylum seekers, refugees, and foreign labour in sectors such as mining and agriculture might have caused a panic among South Africans especially for native workers who were unskilled. Therefore, such fear may be result that lead to xenophobic attacks in 2008 where African migrants were hounded and killed by South Africans. The increased number of illegal immigrants have also contributed to xenophobic incidence which have been recorded by the media (Schachter, 2009). Furthermore, from 2010-2011 the number of African migrants moving into South Africa increased by 3.6% – the special permit that was issued to Zimbabweans by the DHA in 2010 may be a driving factor for such increase (DHA online).

Analysing results by sex, the findings reveal that from 2001 to 2007 there were more males than females who moved to South Africa. However, from 2008-2011 there has been a decline in the number of male African migrants moving to South Africa, meaning that there were more females than males who migrated to South Africa. This points to the changing landscape of migration in the African continent, and it also points to the changing sex-selectivity of migration among African migrants. The results previously shown an increase in proportion of migrant females who were married or cohabiting (Section 4.3.2) therefore the Figure below suggests that more females moved into South Africa to join their partners in the labour force.

Figure 7: Percentage of African Migrants Moved to South Africa Since 2001



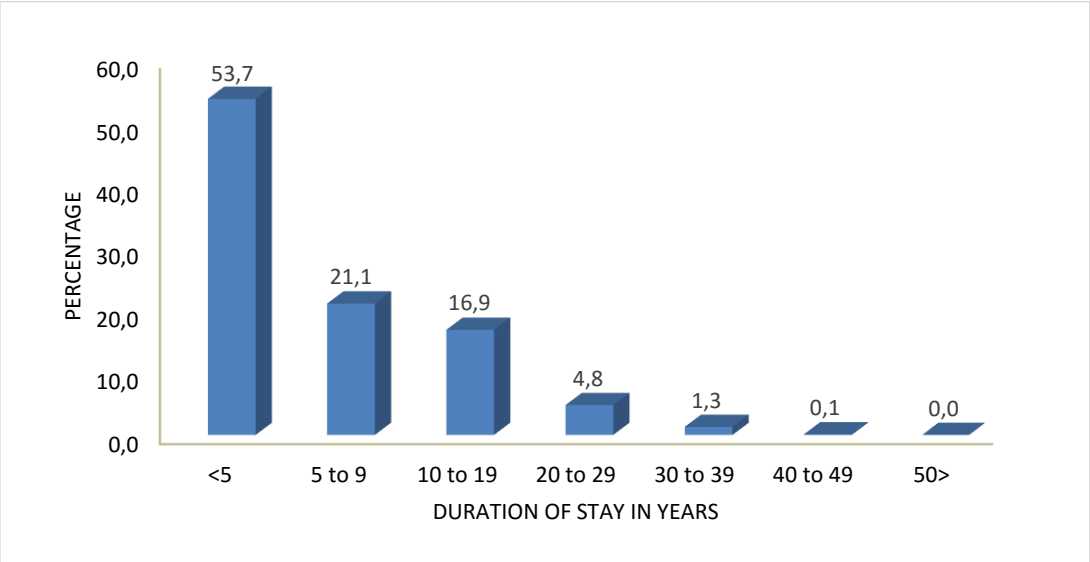
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	3,4	3,5	4,0	5,1	6,7	9,1	11,2	13,8	13,1	13,6	16,4
Female	2,6	2,7	3,5	4,6	6,2	8,2	11,0	14,7	14,8	14,7	17,0
Total	6,1	6,1	7,5	9,7	12,9	17,3	22,2	28,5	28,0	28,3	33,3

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.3.7. Duration of Stay

The duration of stay represents the number of years that a given African migrants has stayed in South Africa. Figure 8 below shows results for African migrant's duration of stay and Appendix 7 provides more details on duration of stay of migrants. The Figure indicates that majority (53.7%) of African migrants who were part of the labour force stayed for less than five years, with 12.8% arriving in 2011 (the census year). A proportion of 21.1% have stayed for 5-9 years and 16.9% migrants have stayed for 10-19 years. Furthermore, a small share (1.4%) of African immigrants has stayed for 30 years and above.

Figure 8: African Migrants Duration of Stay, Census 2011



Source: *Own computation using StatsSA 2001 and 2011 census data*

4.4. Trends for Labour Force Participation

The labour force incudes the total number of all the employed and unemployed African migrants of working age population. This section profiles the socioeconomic characteristics of African migrants who were part of the labour force in South Africa between 2001 and 2011. The analysis of the socioeconomic characteristics is in terms of employment status, monthly income, occupation, industry, type of sector and reasons for not working. Statistical relationships for the 2011 data between variables is also tested as presented in appendix 28. Chi-square, Lambda, Phi and Cramer's V are used to test association between variables. This study uses the Chi-square test to assess the significance of relationships with the Lambda, Phi and Cramer's V measuring the strength between variables.

4.4.1. Employment Status

This section focuses on analysing labour market variables, that is, employment rate, unemployment rate, share of unemployment, labour force participation rate (LFPR), and employment-to-population ratio (labour absorption rate). The section provides highlights

on trends and structural changes in terms of gender, age group, marital status, and educational attainment.

Table 6 below shows the results for the African migrants working age population and labour force in 2001 and 2011. The findings reveals an increase in the number of the working age population and for those in the labour force (both the employed and unemployed increased). There was a small decrease of 0.1% in the LFPR from 78.9% in 2001 to 78.8% in 2011, while a share of the unemployed African migrants decreased only by 2.2% over the two census periods. Furthermore there was a decrease in the unemployment rate from 23% to 20.1% while the employment rate increased from 77% (2001) to 79.9% (2011). The decrease in the unemployment rate complimented by an increase in employment rate suggests that the South African labour market was able to accommodate new African migrants in the labour market between the two periods.

Table 6: Working Age Population and Labour Force Details, Census 2001 and 2011

	2001	**2011**
Working age	297 827	1 116 401
Employed	180 924	702 763
Unemployed	53 917	177 308
Labour Force	234 841	880 071
Employment rate	77,0	79,9
Unemployment rate	23,0	20,1
Labour Force Participation Rate	78,9	78,8
Labour Absorption Rate	60,7	69,9

Source: *Own computation using StatsSA 2001 and 2011 census data*

The subsections below profile the employment status by demographic characteristics of the economically active population among African migrants. Appendices 8 and 9 presents a detailed table of key labour market indicators by demographic characteristics of the economically active population of African migrants between 2001 and 2011.

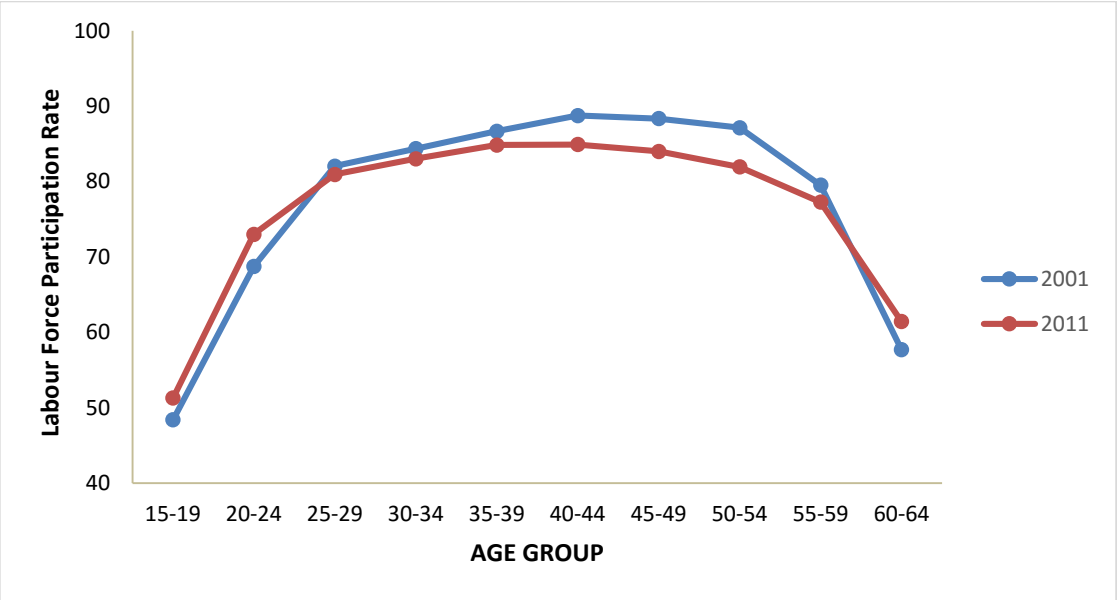
4.4.1.1. Employment Status by Gender and Age Group

Appendices 10 and 11 present employment status by gender and age group for 2001 and 2011 respectively. Findings for 2001 reveal that the proportion of employed males was higher than that of females in all age groups thus resulting in high proportion of unemployed female migrants. Inasmuch the proportion of employed males was higher than females; the results further indicate that employment increased with age for both sexes. Additionally, the majority of African migrants who were part of the labour force were employed because the proportion of those who were employed was higher than those who were unemployed.

In comparison to the 2001 findings, the 2011 data as illustrated in Appendix 11 revealed a similar trend as that of 2001 with a proportion of employed males being higher than their female counterparts in all age groups. Furthermore, the 2011 results revealed that there were fluctuations in the employment of migrants between the two periods. There has been an increase in the proportion of the employed population while the proportion of those who were unemployed decreased in all age groups.

Figure 9 below portrays the LFPR of African migrants by age group within the ten-year period. Between the two census periods, the participation rate of those aged 15-24 and 60-64 years old increased whereas the LFPR of those aged 25-59 years decreased. This suggests that a higher proportion (25-59 years) of African migrants who were available to engage in the production of goods and services in the South African labour market decreased within the period. Additionally, as presented in appendixes 8 and 9, the unemployment rate among African migrants slightly decreased for those aged 15-44 and 60-64 years while there has been an increase in unemployment rate in ages of 45 to 59 years. Between the two censuses, the labour absorption rate increased by 2.2 points from 60.7% to 62.9%.

Figure 9: Labour Force Participation Rate by Age Group, 2001 and 2011 census



Source: *Own computation using StatsSA 2001 and 2011 census data*

When exploring the statistical relationship between employment status and age group. The bivariate statistical test results (P=0.000<0.05) reveal that there is a positive association between employment status and age group. The Chi-square test revealed that the relationship is significant. Lambda, Phi and Cramer's V revealed that the relationship is strong between variables.

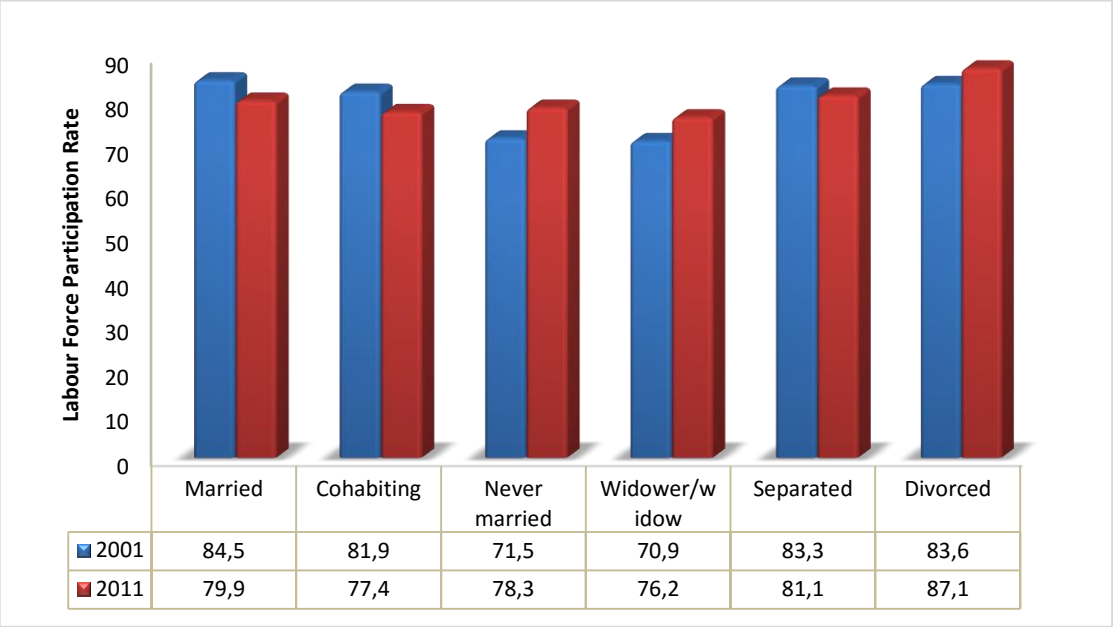
4.4.1.2. Employment Status by Gender and Marital Status

Appendices 12 and 13 illustrate the employment status by gender and marital status for 2001 and 2011 respectively. The results in Appendix 12 reveals that in 2001 a higher proportion of females in most marital status categories were employed than males, only married males were more than females. This higher proportion of females who were employed suggests that there was a higher proportion of unemployed males in other marital status categories except for those who were married. A high proportion of married males were employed than the never married and separated. Moreover, a high proportion of widows and divorced women were employed than any other woman in each of the remaining marital status categories. A high percentage of the economically active population in each of the marital status categories were employed in 2001.

For comparison purposes, the results in Appendix 13 reveal that between the two periods there has been a decrease in the proportion of employed widowed males and the divorced remained the same, as the share of unemployed males decreased in each of the marital status categories. On the other hand, the share of employed females decreased over the two censuses thus resulting to an increased percentage of the unemployed females in each of marital status categories.

Illustrated in figure 10 below are results of the LFPR according to marital status. The labour participation rate of African migrants who were never married, widowed and divorced increased in 2011. In contrast, there was a decrease in the participation of those who were married, cohabiting and separated. The increase in the labour participation of those were never married, widowed and divorced migrants imply that they were more available to provide their labour in the labour market as compared to other African migrants in each of the remaining marital status categories. Furthermore, the increase in the LFPR among the widowed and the divorced suggests that they increased their supply of labour to take care of families as their household are single headed. In addition, Appendices 8 and 9 present results for unemployment rate and labour absorption rate. The results indicate that the unemployment rate among the never married, widows, separated and divorced decreased within the period, further there was an increase for those who were married and cohabiting. However, for those who were cohabiting, the increase was minimal. As a result, the labour absorption rate decreased among those who were married and those cohabiting while the other marital status categories showed an increase between the two census periods.

Figure 10: Labour Force Participation Rate by Marital Status



	Married	Cohabiting	Never married	Widower/widow	Separated	Divorced
2001	84,5	81,9	71,5	70,9	83,3	83,6
2011	79,9	77,4	78,3	76,2	81,1	87,1

Source: *Own computation using StatsSA 2001 and 2011 census data*

The statistical relationship between employment status and marital status was tested by means of the bivariate analysis. The results revealed that the association between employment status and marital status is significant and strong at P=0.000<0.05. Inasmuch as the Lambda tests reveal that the results is P=0.001<0.05, the relationship is still strong between employment status and marital status. This strong correlation implies that marital status is related to participation in labour force.

4.4.1.3. Employment Status by Gender and Educational Attainment

As noted in Section 4.3.3, educational attainment is used to measure available skills in the labour market and creativity of the economically active population in order to perform labour activities. Thus, this section analyses employment status by sex and educational attainment. Appendices 14 and 15 demonstrate African migrant's employment status by sex and educational attainment for 2001 and 2011 respectively.

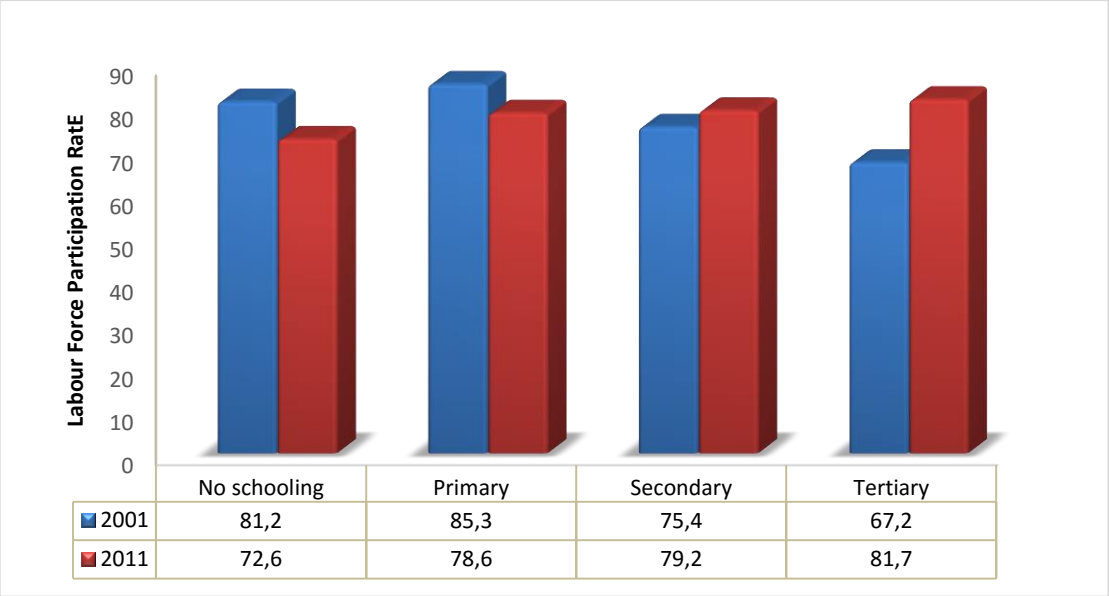
Appendix 14 indicates that in 2001 the proportion of employed males was higher than females regardless of educational attainment. The proportion of employed increased with the level of education up to secondary education for both sexes. A large proportion of females with tertiary qualification were employed than those with no formal schooling.

In addition, the proportion of unemployed males and females decreased as they get more educated, that is, unemployed African migrants with no formal education was higher than those who had completed tertiary education.

In comparison to the 2001 results, Appendix 15 provides the results for 2011 census. In terms of those with no formal education, the statistics shows that the proportion of employed and unemployed males with no schooling decreased over the period. In contrast, there was a decrease in the proportion of employed females with no schooling and the proportion of the unemployed increased between the two censuses.

Figure 11 below provides results of the labour participation rate by educational attainment. Between 2001 and 2011, the labour participation rate of African migrants who had no formal schooling or those who completed their primary education decreased. However, there was an increase in the labour participation rate of African migrants who completed secondary or tertiary education. Labour participation of those who attained tertiary education increased by 14.5 points within the ten years from 67.2% (2001) to 81.7% (2011). The 2011 census data suggest that African migrants with higher educational attainment were likely to be in the labour force supplying their labour for economic activities. However, the 2001 census results revealed that a high proportion of migrants who supplied their labour in the labour market were those who were uneducated (no schooling) and those who had completed primary schooling. Thus, over the year's education become an important tool for African migrants to be in the labour force.

Figure 11: Labour Force Participation Rate by Educational Attainment



	No schooling	Primary	Secondary	Tertiary
2001	81,2	85,3	75,4	67,2
2011	72,6	78,6	79,2	81,7

Source: *Own computation using StatsSA 2001 and 2011 census data*

The statistical tests such as Chi-square, Lambda, Phi and Cramer's V were utilised to test the statistical relationship between employment status and educational attainment while controlling for gender. Bivariate statistical test results (P=0.000<0.05) revealed that there is association between employment status and educational attainment. The Chi-square revealed that the relationship is significant. The Lambda, Phi and Cramer's V showed that the relationship is strong between the variables. These findings therefore imply that educational attainment of African migrants is related to participation in labour force.

4.4.2. Monthly Income Category

The neoclassical economics of migration theory suggest that labour migration is driven by income differences between countries, individuals migrate because of high expected income in the country of destination. However, upon arrival at destination countries, migrants might not earn what they expected. The monthly income category is in nominal terms meaning that the income does not adjusted in terms of inflation. This section aims to provide results of migrant's income between the two censuses. The category with 'No income' covers African migrants who did not receive any type of income. Moreover, those in this category were either unemployed or employed but did not receive any

income in monetary terms. In comparison, African migrants classified as 'unspecified' are those who did not disclose their earnings during the time of the census.

4.4.2.1. Monthly Income Category by Sex and Age Group

Appendix 16 shows monthly income distribution by age group for both males and females for 2001. The appendix indicates that there were both males and females who did not earn any monetary income in all age groups. African migrants (both sexes) with no income in the age category of 15-29 years were substantially higher (more than doubles) than those in the age category of 50-64 years. Furthermore, the proportion of females with no income was higher than males. For those in the income group of R1 – R400, the proportion of males was higher in the category 15-24 years while females in the 25-64 years category there were more females than their male counterparts. Nonetheless, from the monthly income of R401-R3200 males in all age groups were higher in proportions than females. Moreover, in the income group of R3201- R6400 there were more female migrants than males in the age category of 45-64 years. A small proportion of African migrants were represented in the higher income groups (R25601+) and the difference between sexes was minimal. Generally, migrants were not presented in some income groups but where they were represented, males had a higher proportion than their female counterparts.

Differences between monthly income and age groups have been observed during the ten-year period. In the first category (no income), results for 2011 as shown in Appendix 17 reveal a similar trend to the 2001 results. The proportion of females was higher than that of males. African migrants earning no income decreased from over the period across all ages. For the monthly income of R1 to R400, females are more than males in the age group 30-64 years however, males in the 15-29 years earn relatively higher. The proportion of young male migrants aged 15-34 years earning between R401 and R1600 were higher than females, whereas females in the category 35-64 years were higher than males. Moreover, males in the income group of R1601 to R12800 are more than females in this category across all age groups. For the monthly income of R12801 and above, males tend to be higher than females across all age groups however in some age groups females were higher. In addition, in this monthly income of R12801 and above migrants

were not always presented in some age groups. Furthermore, the 2011 results reveal that in all age groups there are African migrants who did not disclose their monthly income, denoted by the 'unspecified' category.

In highlighting some structural changes between the two censuses, the findings show that African migrants who reported to have no income decreased from 61.6% (2001) to 51% (2011). The 2011 census shows that a proportion (4%) of migrants did not disclose their earnings. The results also show that income among African migrants increases with age even though females earn generally lower than males. Additionally, the proportion of those earning no income seems to decline with age, that is, there was a higher proportion of African migrants in the younger age categories. These results imply that there are gender inequalities in earnings among African migrants. Majority of males' earnings were in the higher income groups while many of the females were highly concentrated in the lower earnings category or in the category of those with no income.

The statistical relationship between monthly income and age group controlled for gender is tested by means of the bivariate analysis. As illustrated in Appendix 26. Statistical test results ($p=0.000<0.05$) reveal that there is a positive correlation between the monthly income category and age group variables. Chi square reveals that the relationship these two variables is significant. Lambda, Phi and Cramer's V show that the relationship is strong between employment status and age among African migrants.

4.4.2.2. Monthly Income Category by Gender and Marital Status

Tables in Appendices 18 and 19 illustrate monthly income of African migrants by gender and marital status. The results in Appendix 18 results indicate that African migrants with no income were distributed in each marital status, with females initially being higher than their male counterparts. For the income group of R1-R400, the results indicate that African migrants who are separated and never married account for a major proportion (above 50%) than the other marital categories. Furthermore, females earning in this income bracket (R1-R400) were higher than males irrespective of their marital status. African male migrants in each marital status with earnings between R401 and R6400 have a higher proportion than that of females. African migrants who were widows and

those who were separated were less represented in the income bracket of R12800 and above. However, migrants who were married accounted for a higher proportion than the other marital categories.

Differences between monthly income and marital status have been observed during the ten-year period. As illustrated in Appendix 19 the 2011 results indicate an overall decrease in migrants with no income. Furthermore, females with no income dropped across all marital status while the proportion of males is showing an increase between the two periods. In the income bracket of R1-R400 there was a major decline in the proportion of migrants earning in this category. Even though the results are indicating that the proportion of females was higher than that of males however the difference between the sexes is minimal. Irrespective of marital status, the proportion of migrants earning in the income group of R401-800 decreased during the period. These results are showing that the proportion of African migrants earning in the lower monthly income decreased during the period moreover, there has been an increase in the higher income groups.

The results of the bivariate analysis as depicted in Appendix 26 indicated that there is a positive correlation ($P=0.000<0.05$) between income group and marital status. The Chi-square test showed that the relationship is significant. In addition, Lambda, Phi and Cramer's V revealed that the relationship is strong between variables. These results suggest that migrants' monthly income is related to their marital status.

4.4.2.3. Monthly Income Category by Sex and Educational Attainment

Generally, in the labour market education is related to income, that is, individuals who completed the highest level of education have the probability of earning higher incomes than those who have lower levels of education. According to Ghatak, Levine, & Price (1996) migrants who have completed higher levels of education have higher earnings and increased employment probabilities than other immigrant workers. Appendices 20 and 21 are showing monthly income distribution by educational attainment for both males and females for 2001 and 2011 respectively.

As illustrated in Appendix 20, the results for 2001 census revealed that there were African migrants (both sexes) who did not earn any monetary income in all levels of education, with females initially being higher than their male counterparts. Regardless of educational attainment, migrants who reported to have no income were either employed or unemployed. Suggesting that there was a proportion of migrants who were employed who did not receive any income in monetary value. About 26.3% migrants who have attained tertiary level of education reported to have no income. Female African migrants either with no schooling, primary and secondary level of education earning in the income bracket of R1-R400 were higher than males, while the proportion of males with tertiary qualification were higher.

The proportion of males who had no formal schooling and those who completed primary or secondary level of education earning in the income bracket of R401 to R25600 was more than that of females. However, the proportion of females who attained tertiary level of education was higher than their male counterparts. These results suggest that for females to earn in the higher income bracket they need to be highly educated. For the income category of R51201 and more, both males and females with no schooling or with primary education were less represented than those with secondary or tertiary level. The proportion of males with secondary or tertiary education was higher than females even though there was a minimal difference. Nonetheless, males were more represented in higher earnings than their female counterparts.

As shown in Appendix 21, a similar trend with the 2001 results has been observed where both males and females migrants with no income are represented in all levels of education. Between the two census periods the results indicate that there has been a decrease in the proportion of males with no schooling or primary education earning no income whereas females who attained the tertiary level of education indicate a sharp increase. In the income group of R1 – R400 there were more males than females in 2011 however, the proportion of both males and females earning this income bracket decreased during the ten-year period. Males earning in the income bracket of R401 – R51200 were higher in proportion than their female counterparts. Furthermore, the results reveal that males were actually earning higher than females in higher income category regardless of

their educational attainment. Additionally, African migrants who had no schooling and those who completed primary or secondary education did not disclose their monthly income.

Overall the results reveal that income earned by both males and females increases with level of education. This suggests that migrants who completed secondary schooling or tertiary education are more represented in the higher income brackets (from R3201 and above).

Statistical test such as Chi-square, Lambda, Phi and Cramer's V were utilized to test the statistical relationship between monthly income and educational attainment controlled for gender. Statistical test results ($P=0.000<0.05$) indicated that there is a positive association between these two variables. Chi square revealed that the relationship is significant. Lambda, Phi and Cramer's V revealed that the relationship is strong between monthly income and educational attainment among African migrants.

4.4.3. Employment by Occupation

Table 7 below presents findings for employed migrants by occupation in 2001 and 2011. Comparing the two periods, the statistics in the table below reveal that there has been an increase in African migrants who were employed in high skilled occupation namely; managers, professionals, technicians, clerks, and service workers. Moreover, a proportion of those employed in the low skilled occupations have decreased. Therefore, this means that during the period there were more African migrants who joined the high skilled occupation. Looking at 2001 results, majority of African migrants were employed in elementary occupations (32.4%), followed by craft workers (26.7%) and machine operators (14.1%). Inasmuch there results indicate a decrease in these occupations, a similar trend is observed in 2011 where majority of migrants were employed in elementary occupations (19.3%), craft workers (17.7%), service workers (17.8%) and domestic workers accounted for 11.5%. Nonetheless, a proportion of migrant workers who are employed as service workers and as craft workers in 2011 is equivalent.

Table 7: Employment by Occupation in 2001 and 2011

Occupation	2001		2011	
	Frequency	**Percent**	**Frequency**	**Percent**
Managers	4405	2,6	44424	6,3
Professionals	7893	4,6	35234	5,0
Technicians	4874	2,9	41758	5,9
Clerks	5407	3,2	59232	8,4
Service workers	15461	9,1	125031	17,8
Skilled agricultural	7675	4,5	5987	0,9
Craft workers	45558	26,7	124468	17,7
Machine operators	23975	14,1	49686	7,1
Elementary occupations	55152	32,4	135714	19,3
Domestic works			81058	11,5
Total	**170 402**	**100**	**702 592**	**100**

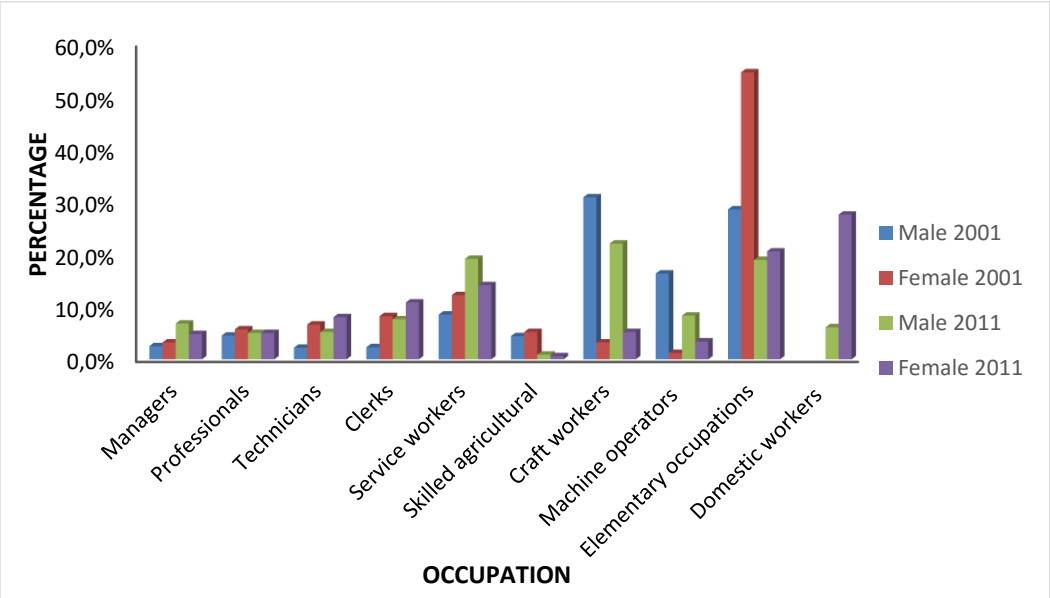
Source: *Own computation using StatsSA 2001 and 2011 census data*

Excludes undetermined (2001) and missing (2011)

To gain a better insight on the above section, Figure 12 below has been presented in terms of occupation and sex. Both sexes employed in high skilled occupation have increased during the period of 2001–2011 however females who were employed as professionals indicated a decrease. Females who worked as managers, professionals, technicians, clerks and service workers were higher than males in 2001. Nonetheless, the 2011 results indicate that males employed as managers and service workers were higher in proportion than females.

In contrast to the high skilled occupation, the results for low skilled occupation reveal that the proportion of both males and females decreased during the period. However, females in the elementary occupation show an increase. Furthermore, 2011 results show that there were African migrants who worked as domestic workers (in 2001 the variable was not available). The proportion of females who worked as domestic workers was higher than that of males.

Figure 12: Employment by Occupation and Gender in 2001 and 2011



Source: *Own computation using StatsSA 2001 and 2011 census data*

4.4.3.1. Occupation by Sex and Educational Attainment

Appendices 22 and 23 depicts information on occupation by gender and educational attainment for 2001 and 2011, respectively. The results in Appendix 22 reveal that majority of migrants who were employed in skilled occupation such as managers, professionals, technicians and clerks have attained tertiary education followed by those who completed a secondary education. Therefore, migrants with no formal education or with primary education accounted for a small share in the high skilled occupation. Regardless of the level of education, the proportion of African male migrants who were employed as managers and professionals was predominantly higher than that of females while majority of females were employed as technicians and clerks. Furthermore, majority of African migrants who were employed as craft workers, skilled agricultural, machine operators and in elementary occupations had no schooling, followed by those who completed primary and secondary education. In addition, migrants with tertiary education accounted for a small proportion. A higher proportion of females worked in the elementary occupations except for those who completed tertiary level of education.

As shown in Appendix 23, a similar trend with the 2001 results has been observed. Majority of African migrants who completed a tertiary level of education worked as managers, professionals, technicians and clerks. Furthermore, majority of migrants with no schooling, primary and secondary education were employed in the remaining occupations. Moreover, the 2011 results reveal that more males than females were still employed as managers and professionals while more females were employed as technicians and clerks. There has been a decline in the proportion of those with a tertiary education (both male and female) who were employed as professionals and technicians during the period. Migrants who were employed as clerks have increased across all levels of education. Results in the appendix also show that there has been a small increase in the proportion of African migrants who had primary, secondary and those with no education who entered the high skilled occupation. Furthermore, migrants in the elementary occupations have decreased. The occupation "domestic workers" was not available in 2001 however in 2011 this occupation was available. Henceforth, majority of migrants who were employed as domestic workers had no schooling, primary and those with secondary education; a small share had tertiary education. This indicate that there were difficulties for migrants who attained tertiary to find better jobs as a result they ended up working as domestic workers in order to make a living.

4.4.4. Employment by Industry

Table 8 below presents findings for employed African migrants by industry in 2001 and 2011. The results reveal that in 2001 majority of African migrants were employed in mining (34.8%), agriculture (19.2%) and 13% were employed in wholesale. In contrast to the 2001 results, there were variations in the employment of migrants within the industries. The 2011 census results reveal that majority of migrants were employed in wholesale (20.6%), private household (14.6%), community service (14.1%), financial services (13%) and 12.7% of African migrants were employed in the construction industry. Overall, there was a sharp decline in the proportion of African migrants who were employed in the agriculture and mining industries during the ten-year period. Moreover, employment in the last eight industries indicates an increase. Therefore, this

could mean that migrants who were employed in agriculture and mining moved to other industries.

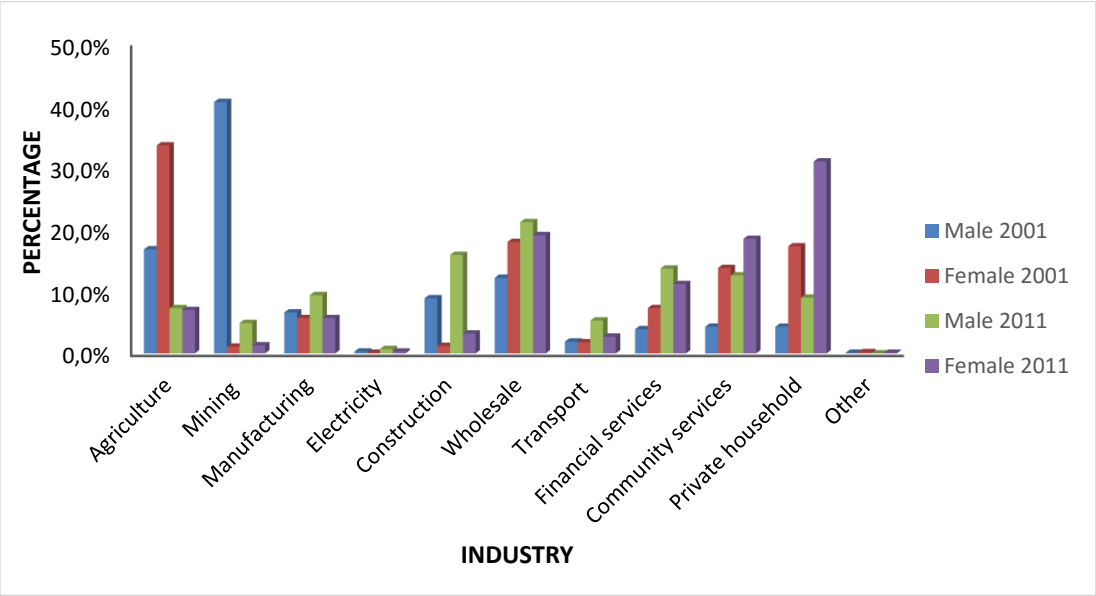
Table 8: Employment by Industry in 2001 and 2011

Industry	2001		2011	
	Frequency	**Percent**	**Frequency**	**Percent**
Agriculture	32176	19,2	50932	7,2
Mining	58216	34,8	28008	4,0
Manufacturing	10851	6,5	59346	8,4
Electricity	424	0,3	4079	0,6
Construction	13010	7,8	88969	12,7
Wholesale	21807	13,0	144932	20,6
Transport	3193	1,9	32785	4,7
Financial services	7356	4,4	91614	13,0
Community services	9576	5,7	98913	14,1
Private household	10386	6,2	102672	14,6
Other	198	0,1	342	0,0
Total	167195	100	702592	100

Source: *Own computation using StatsSA 2001 and 2011 census data*
Excludes undetermined (2001) and missing (2011)

In addition to the information in the table above, Figure 13 below illustrate results for industries and gender. 2001 results reveal that majority of males were employed in in mining, manufacturing, electricity, construction and transport as compared to their female counterparts. Moreover, females were higher than males in the remaining industries. The 2011 findings revealed that females who were employed in community services and private households industries were higher than males whilst the share of males was higher than females in the remaining industries. However, the proportion between males and females who were employed in the some industries were minimal. Inasmuch there has been an increase in the proportion of migrants who were employed in most the industries except in agriculture and mining, females employed in manufacturing remained constant at 5.7% during the period. Furthermore, females in the mining industry increased in a small share from 1.1% to 1.3%.

Figure 13: Employment by Industry and Gender in 2001 and 2011



Source: *Own computation using StatsSA 2001 and 2011 census data*

4.4.4.1. Industry by Gender and Educational Attainment

Appendices 24 and 25 depicts statistics on industry by gender and educational attainment for 2001 and 2011, respectively. Appendix 24 illustrates that African female migrants who were employed in agriculture, community and private households industries were higher in proportion than males in all levels of education. Regardless of educational attainment a proportion of African male migrants employed in mining, manufacturing, electricity and construction industries was higher compared to females. The 2001 results also revealed that females who had no formal education and those with primary or secondary level of education were not employed in the electricity industry. However, only a small share of those who completed tertiary education were employed in this industry. These results suggest that females had little access to the electricity industry, this may be due to the nature of skills required to perform the job.

In comparison to the 2001 findings, the results illustrated in Appendix 25 suggest that there has been an increase in the proportion of African migrants (both sexes) who were employed in construction, transport, financial, community and private household industries across all levels of education. Moreover, changes in the proportion of migrants

who were employment in the following industries: agriculture, mining, manufacturing, and electricity varied according to the level of educational attainment.

4.4.5. Employment by Type of Sector

The statistics in Table 9 below indicate that African migrants were employed in all three sectors. The table show that majority (58.0%) of African migrants were employed in the formal sector, followed by 21.4% of migrants who were employed in the informal sector. On the other hand, 20.6% were employed in the private households. Nonetheless, the difference between those in the informal sector and private household was minimal. In addition the share of males employed in the formal sector and informal sector was higher than that of females. On the other hand, females who worked in the private household were higher in proportion than males.

Table 9: Employment by Type of Sector and Gender in 2011

Type of sector	Male	Female	Total
Formal sector	297750 58,9%	96434 55,5%	394184 58,0%
Informal sector	114318 22,6%	30780 17,7%	145098 21,4%
Private household	93649 18,5%	46466 26,8%	140115 20,6%
Total	**505717 100%**	**173680 1000%**	**679397 100%**

Source: *Own computation using StatsSA 2011 census data*

4.4.5.1. Type of Sector by Gender and Educational Attainment

The statistics in Table 10 below depicts results for the type of sector by gender and educational attainment among African migrants in 2011. The results indicate that majority of African migrants who were employed in the formal sector completed tertiary education, followed by those who completed secondary level of education. Furthermore, majority of migrants who were employed in the informal sector had no formal schooling and those who completed primary education. The proportion of males employed in the

formal and informal sector was higher than females regardless of their level of educational. Irrespective of the level of education, majority of females were employed in the private sector. The results show that a share of migrants employed in the private households completed primary and secondary level of education. Shown by the results, is that males (13.5%) and females (15.4%) who completed tertiary education were employed in private households. Therefore, this suggest that some of the African migrants still found it difficult to assess better jobs in decent working environment.

Table 10: Type of Sector by Gender and Educational Attainment in 2011

Type of Sector	Educational attainment							
	No schooling		Primary		Secondary		Tertiary	
	Male	Female	Male	Female	Male	Female	Male	Female
Formal sector	17993	4325	52685	11107	187483	63604	39589	17397
	49.1%	47.6%	52.9%	45.3%	56.0%	52.3%	74.3%	74.1%
Informal sector	10713	2538	25175	5262	73032	20925	5399	2056
	29.2%	27.9%	25.3%	21.5%	21.8%	17.2%	10.1%	8.8%
Private household	6443	2016	18456	7321	61568	33511	7182	3618
	17.6%	22.2%	18.5%	29.9%	18.4%	27.6%	13.5%	15.4%
Do not know	1521	203	3364	807	12478	3517	1084	393
	4.1%	2.2%	3.4%	3.3%	3.7%	2.9%	2.0%	1.7%
Total	**36670**	**9082**	**99680**	**24497**	**334561**	**121557**	**53254**	**23464**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2011 census data*

4.4.6. Reasons for Not Working

Table 11 below highlights reasons why African migrants were not working both in 2001 and 2011. African migrants in this section are not part of the labour force however this is included in order to paint a picture of why they were not part of the labour force. The results for 2001 results revealed that 61.2% of African migrants could not find work while 17% was still studying (students). However, the results for 2011 indicated that majority (43.8%) of migrants were unemployed because there were no jobs available where they were located. Furthermore, 15.5% were waiting for seasonal work suggesting

that these migrants were probably employed in industries such as agriculture (farming) and lastly, 6.9% were students hence they were not working.

The statistics results for not working as portrayed in Table 11 below include voluntary and involuntary unemployment. Voluntary unemployment include reasons such as; housewife, choose not to work and no jobs available in the area. Migrants who had these reasons for not working were regarded as voluntary unemployed because those who indicated that they were housewives could have been working if they were looking and wanted to work. Furthermore, those who said that there were no jobs in the area could have searched for employed in other areas.

In a sharp contrast to the voluntary reasons for not working, involuntary unemployment were also identified. Involuntary unemployment include reasons such as; health reasons, pregnancy, Awaiting the season for work (seasonal workers) and Lack of money to pay for transport to look for work. Migrants who had these reasons were involuntary unemployed meaning that they wanted to work however due to circumstances were unable to work. Furthermore, migrants who were not working due to pregnancy and those who were awaiting the season for work were temporary unemployed. Lastly, people with fewer resources often have little access to information about available employment opportunities. Lack of resources includes lack of money pay for transport to look for work and no transport available. Therefore, fewer resources affected migrants pro activity in looking for jobs.

Table 11: Reasons for Not Working in 2001 and 2011

2001			2011		
Reasons	**Frequency**	**%**	**Reasons**	**Frequency**	**%**
Scholar or Student	19885	17.0	Awaiting the season for work	10339	15.5
Home-maker or housewife	10231	8.8	Waiting to be recalled to former job	1854	2.8
Pensioner or retired person/too old to work	1711	1.5	Health reasons	1051	1.6
Unable to work due to illness or disability	1577	1.3	Pregnancy	1969	2.9
Seasonal worker not working presently	1514	1.3	Disabled or unable to work	255	0.4
Does not choose to work	10402	8.9	Housewife/homemaker	3970	5.9
Could not find work	71582	61.2	Undergoing training to help find work	528	0.8
Total	**116902**	**100.0**	No jobs available in the area	29245	43.8
			Lack of money to pay for transport to look for work	2009	3.0
			Unable to find work requiring his/her skills	3932	5.9
			Lost hope of finding any kind of work	1472	2.2
			No transport available	118	0.2
			Scholar or student	4634	6.9
			Retired	150	0.2
			Too old/young to work	565	0.8
			Did not want to work	548	0.8
			Other	4179	6.3
			Total	**66818**	**100.0**

Source: *Own computation using StatsSA 2001 and 2011 census data*

4.5. Multivariate Analysis

In the previous sections of this analysis chapter, descriptive and bivariate analyses were performed. Regards to the bivariate analysis, relationships between the dependent and independent variables were examined by means of cross tabulations. Therefore, this part of the analysis makes use of binary logistic regression to examine relationship between the dependent variable (employment status) and independent variables (demographic characteristics).

4.5.1. Logistic Regression Analysis for African Migrants Employment Status

Table 12 below depicts multivariate analysis results for African migrant's employment status for 2001 and 2011. The results show that age, sex and educational attainment are significantly associated (p-value<0.05) with employment status. With regards to the 2001 results, sex and age are strongly associated with employment status. Table 12 below revealed that African female migrants were 0.202 less likely to be employed than their male counterparts. As far as age is concerned, the probability of African migrants to be employed varied with age. African migrants who were at age 20-29 years were 1.154 times more likely to be employed than those who were 15-19 years old. Migrants who were 30-39 years were 2 times more likely to be employed. Furthermore, those who were in the ages 40-44 and 60-64 years were 3 times more likely to be employed than those who were 15-19 years. African migrants who were in the ages of 45-59 years were 4 times more likely to be employed compared to migrants who were 15-19 years old.

Marital status showed a significant relationship with the employment status. The results indicated that African migrants who were cohabiting (OR=0.700), never married (OR=0.563), widows (OR=0.788), separated (OR=0.591) and divorced (OR=0.879) were less likely to be employed than those African migrants who were married.

Educational attainment indicated a very strong significant relationship with employment status. The likelihood of being employed among the African migrants increased with educational attainment, implying that African migrants who are more educated had a greater chance to find work in South Africa. African migrants who have completed primary education were 1.461 more likely to be employed that those who were not educated. Furthermore, African migrants with secondary attainment were 1.647 time more likely to be employed than those who had no schooling. Finally, African migrants who had completed tertiary level of education were 3.489 more likely to be employed compared to African migrants who had no formal schooling.

The results for the province of enumeration indicated that there were variations between provinces for African migrants to be employed. African migrants who were enumerated

in Free State (OR=0.899) and Gauteng (OR=0.752) were less likely to be employed compared to African migrants who were enumerated in the Western Cape. Furthermore, those whore were enumerated in Northern Cape (OR=1.442), Limpopo (OR=1.808) and Mpumalanga (OR=3.053) were more likely to be employed compared to those who were enumerated in Western Cape. Moreover, those who were enumerated in Mpumalanga had a greater likelihood of being employed compared to those who were enumerated in Northern Cape and Mpumalanga.

The multivariate results for 2011 were reported in the last column of Table 12. The outcome of binary regression revealed a strong significant relationship between sex, age, marital status, educational attainment and province of enumeration. In 2011 the odds ratio (OR=0.338) of African female migrants to be employed was still less compared to African male migrants. Contrary to 2001 results, in 2011 the probability of African migrants to be employed increased with age. African migrants who were at age 20-24 years were 1.642 more likely to be employed than those at age 15-19 years. Migrants at age 25-34 years were 2 times more likely to be employed. Furthermore, African migrants who were at age 35-49 years were 3 times more likely to be employed than African migrants who were at age 15-19 years. Lastly, the probability of African migrants who were 50-64 years old was 4 times more likely to find employment compared to African migrants who were at age 15-19 years old.

Changes in marital status variables have been observed between the two periods. Contrary to 2001, the results for marital status revealed that the likelihood to be employed among African migrants who were never married, widows, separated and divorced increased. Nonetheless, African migrants who were cohabiting were still less likely to be employed than the married. African migrants who were never married (OR=1.061), widows (OR=1.631) and separated (OR=1.162) were more likely to be employed compared to their married counterparts. Moreover, the divorced were 2.864 more likely to be employed than African migrants who were married. Finally, those who were cohabiting indicated to be 0.770 less likely to find work compared to those were married.

A same trend was observed in educational attainment. African migrant's opportunity to be employed in South Africa increased with education. African migrants who completed primary schooling were 1.212 more likely to be employed than African migrants who had no education. Whilst those who have completed secondary schooling were 1.585 more likely to be employed compared to those who did not go to school. To conclude, African migrants who completed tertiary level of education had a greater chance of being employed at 3.049 more compared to African migrants who had no formal schooling.

Results for the province of enumeration on 2011 revealed that there were variations between provinces for African migrants to be employed. Between the period of 2001 and 2011 there were some changes in the opportunity of African migrants to be employed within the provinces. African migrants enumerated in Free State (OR=0.544), North West (0.876) and Gauteng (0.744) were less likely to be employed compared those who were enumerated in the Western Cape Province. However, those who were enumerated in Eastern Cape (OR=1.401), Northern Cape (OR=1.848), KwaZulu-Natal (OR=1.137), Mpumalanga (OR=1.141) and Limpopo (OR=1.264) were more likely to be employed than African migrants who were enumerated in Western Cape.

Table 12: Binary Logistic Regression for African Migrants Employment Status

Variable	2001				2011			
	B	**Wald**	**Sig**	**Exp (B)**	**B**	**Wald**	**Sig**	**Exp (B)**
Constant	**0.869**	**401.021**	**0.000**	**2.386**	**0.632**	**1023.967**	**0.000**	**1.882**
Sex								
Male ®				1				1
Female	-1.601	17535.155	0.000	0.202	-1.083	35696.200	0.000	0.338
Age								
15-19 ®	1	4786.050	0.000	1	1	13024.391	0.000	1
20-24	0.144	34.382	0.000	1.154	0.496	1299.362	0.000	1.642
25-29	0.614	621.579	0.000	1.847	0.876	4089.112	0.000	2.402
30-34	0.720	751.542	0.000	2.055	1.061	5515.603	0.000	2.889
35-39	1.003	1269.616	0.000	2.727	1.192	6011.483	0.000	3.293
40-44	1.129	1416.748	0.000	3.093	1.223	4981.759	0.000	3.396
45-49	1.456	1858.087	0.000	4.291	1.358	4441.423	0.000	3.887
50-54	1.486	1421.065	0.000	4.420	1.462	3713.358	0.000	4.316
55-59	1.498	743.042	0.000	4.473	1.499	2335.143	0.000	4.479
60-64	1.278	363.959	0.000	3.590	1.468	1019.810	0.000	4.341
Marital Status								
Married ®	1	1807.029	0.000	1	1	2773.837	0.000	1
Cohabiting	-0.356	480.429	0.000	0.700	-0.261	1166.494	0.000	0.770
Never married	-0.575	1761.202	0.000	0.563	0.059	76.958	0.000	1.061
Widowed	-0.238	24.287	0.000	0.788	0.489	266.880	0.000	1.631
Separated	-0.526	92.356	0.000	0.591	0.150	17.735	0.000	1.162
Divorced	-0.130	6.150	0.013	0.879	1.052	506.380	0.000	2.864
Educational attainment								
No Schooling ®	1	2073.261	0.000	1	1	6494.875	0.000	1
Primary	0.379	596.347	0.000	1.461	0.192	259.329	0.000	1.212
Secondary	0.499	1085.152	0.000	1.647	0.461	1767.353	0.000	1.585
Tertiary	1.250	1717.984	0.000	3.489	1.115	5135.693	0.000	3.049
Province								
Western Cape ®	1	4925.972	0.000	1	1	6001.287	0.000	1
Eastern Cape	-0.053	0.842	0.359	0.948	0.337	224.598	0.000	1.401
Northern Cape	0.366	7.307	0.007	1.442	0.614	115.352	0.000	1.848
Free State	-0.106	7.806	0.005	0.89	-0.609	1166.994	0.000	0.544
KwaZulu-Natal	-0.037	0.769	0.381	0.964	0.129	61.793	0.000	1.137
North West	-0.050	1.972	0.160	0.951	-0.132	89.262	0.000	0.876
Gauteng	-0.285	74.182	0.000	0.752	-0.295	801.349	0.000	0.744
Mpumalanga	1.116	804.729	0.000	3.053	0.132	71.604	0.000	1.141
Limpopo	0.592	252.342	0.000	1.808	0.234	286.528	0.000	1.264

Source: *Own computation using StatsSA 2001 and 2011 census data.* ® *= reference*

CHAPTER FIVE: DISCUSSION OF RESULTS

5.1. Introduction

The purpose of this study was to demonstrate structural changes in the participation of African migrants in labour force of South Africa between 2001 and 2011. The population of interest in this study were African migrants aged 15-64 years who were considered to be economically active at the time of the census periods. This chapter aims to interpret and discuss the various characteristics of the migrants as outlined in Chapter Four. To ensure consistence, this chapter is also divided into different sections similar to the structure in Chapter Four.

5.2. Research Design Procedures

This study on participation of African migrants in the labour force of South Africa was a cross-sectional quantitative research. Due to nature of the analysis, this study used correlation analysis in order to estimate and understand the relationship between different variables (migrant characteristics). The 2001 and 2011 national population census obtained from Statistics South Africa was used to achieve objective of the study. The focus of this study was to demonstrate changes in the participation of African migrants in the labour force of South Africa within the ten-year period. Furthermore, the 2001 and 2011 population census was used to access information on African migrant's demographic and socioeconomic characteristics. In order to perform the correlation analysis in Chapter Four, the dependent and independent variables were identified. The independent variables are the characteristic variables such as sex, age, marital status, educational attainment, industry, income and occupation while the dependent variable is the employment status. These variables were defined and tested using statistical methods to test relationships between variables and the significance of those relationships.

Census files were obtained from Statistics South Africa in SPSS format, which made it possible to run the necessary statistical analysis. Furthermore, the context of the analysis incorporated all nine provinces of South Africa. This study used SPSS software to

perform descriptive, bivariate and multivariate analysis. The significance between variables was tested using Chi-square, Lambda, Phi and Cramer's V. These tests were performed in attempt to answer the research questions and to test the hypotheses mentioned in Chapter One of this thesis.

5.3. Discussion of Results

5.3.1. Size and Composition of African Migrants

The previous chapter (Chapter Four) begins with outlining the size and composition of African migrants in South Africa between 2001 and 2011. To ascertain the population size of African migrants, the following research question was formulated; '*Has there been an increase in the number of African migrants who entered the South African labour force between 2001 and 2011?*' This question made it possible to determine whether the number of African migrants who entered the South African labour force increased between the two census periods. According to the findings of the data analysis in the preceding chapter, the results revealed that the number of African migrants who were part of the labour forced increased within the ten-year period as shown in Table 2 in Chapter Four with an average annual growth rate of 13.2%. A possible reason for this increase could be the fact that there has been various administrative boundary changes between 2001 and 2011. Inasmuch there was an increase in the proportion of African migrants in the labour force over the period, the results further revealed that the proportion of males decreased while that of females increased. However, African male migrants still constitute a higher proportion. The increase in females may be due to feminisation of migration in Africa that is, women have started migrating more to seek employment opportunities and other various reasons. Altogether, migrant women are not homogenous therefore their reasons to migrate to South Africa vary. Other than joining the labour force, others migrate for reasons such as seeking better education and social networks.

Furthermore, there was an increased rate of married and cohabiting African female migrants between the periods as depicted in Table 4. This increase may be the consequence of male out-migration in the past, who migrated to South Africa to be farm

and mine labourers in order to provide for their families. The ongoing out-migration of males from their home countries caused many families to be women-headed, which later led to some women to migrate in order to join their male counterparts. Results in Table 4 are in line with the migration selectivity theory which postulates that single persons tend to migrate more than the married people as they do not have family responsibilities. This theory is confirmed by the increase in proportion of migrants who were never married in the census data.

Even though there was an increase in the number of African migrants who entered the South African labour force, there were fluctuations and incidents that took place within the period. The period was marked by economic, social and political events. According to Industrial Development Corporation (2013) in 2007 there was a global financial and economic crises which later led to a recession to the South African economy in 2009. This recession led to an increased unemployment rate as business had to shut down. Furthermore, in 2008 South Africa experienced a xenophobic violence that left many African migrants dead and drove some back to their countries (Crush, 2013). Lastly, the South African government continued to amend the immigration policy in order to control the migration flows. Despite all this, South Africa still managed to attract many migrants within this period (2001 – 2011) as the number of African migrants increased in absolute numbers and in proportion.

Since 1994 South Africa has been experiencing high influxes of migrants. As a consequence the government introduced Immigration Act 13 of 2002 to attract migration of qualities and, to govern and control immigration. Over the years, the Immigration Act of 2002 became inadequate to manage migration in this South Africa, as a result the government promulgated amendments to the Act to increase control in managing immigration. These amendments were followed by a new Act on migration in 2011 (Immigration Act of 2011) which effectively came into effect in 2014. Based on the new regulation, it is anticipated that the proportion of African migrants is likely to decrease in the coming years. In addition, the recent 2015 xenophobic attacks across South Africa may also drive down the influxes of Africa immigrants.

In line with the size and composition of African migrants the following hypothesis was formulated: *In numbers, the population of African migrants enumerated in 2011 exceeds the number of migrants enumerated in 2001.* The results in Chapter Four confirmed this hypothesis. Table 5 revealed that migrants who were enumerated in 2011 exceeded migrants that were enumerated in 2001. Majority of African migrants were enumerated in Gauteng, Western Cape, North West and Limpopo province in 2011. Moreover, migrants enumerated in Western Cape, Eastern Cape, Northern Cape, Kwazulu-Natal and Gauteng increased in proportion but those enumerated in Free State, North West, Mpumalanga and Limpopo decreased in proportion between the two periods. This change between provinces may be explained in line with the neoclassical economics of migration; that people tend to move because of economic and/or labour market differences between areas. Gauteng and Western Cape and Kwazulu-Natal are known to be more developed compared to other provinces. For both years majority of African migrants were enumerated in Gauteng, this may be as a result of its strong economic activities as majority of African migrants are concentrated in that province (StatsSA, 2012). Additionally, the proportion of African migrants enumerated in North West, Mpumalanga and Limpopo province could be driven by mining activities in these provinces.

The results for the logistic regression as depicted in Table 12 showed that there was a significant relationship between the province of enumeration and employment status. However, in 2001 there were provinces such as Eastern Cape, KwaZulu-Natal and North West showed insignificant relationship with employment status. There were variations in the employment of African immigrants within the provinces. The statistics in the table illustrated that migrants were more concentrated in provinces that presented better opportunities for them.

5.3.2. Age Distribution of African Migrants

Age is central to any study of migration. Age is important when analysing the labour force or the labour market because only persons aged 15 to 64 years are considered. A person who joins the labour force at early ages stays longer however when a person joins the labour force in the advanced ages the shorter the time they spend as they will soon

retire. Therefore, to understand the age distribution of African migrants who were part of the labour force, the following research question was proposed; '*Does migration bring more migrants in the early working age than in the advanced working age?*' The purpose of this question was to identify the age distribution of African migrants and assisted to understand the most represented working age population group that migration brings in the South African labour force.

The results in Table 3 revealed that migrants who were part of the labour force were relatively of younger ages; aged 15-34 years. Moreover, African immigrants in this category increased between the two periods. African migrants aged 35-64 years who were part of the labour force accounted for a small share both in 2001 and 2011. Therefore, from the outcome of these results it is evident that migration is selective when it comes to age, that is, migration brings more migrants in the early working age than those in the advanced ages. The possible explanation is that young people migrate more than those in the older age groups to search for employment opportunities while others migrate to obtain education and possibly seek work upon completing their studies. From the results it can be said that African migrants in the labour force increases with age; meaning that young people are more likely to be economical active. Moreover, the total proportion of males was higher than female's nevertheless the proportion of African female migrants was only higher than males in the ages of 15-29 years.

In line with the age distribution of African migrants the following hypothesis was formulated; '*Migration brings more young people than older people in the South African labour market'*. The results confirmed the hypothesis. The results in Table 3 proved that migration brings people of younger ages (15-34 years) than people of advanced ages (35-64 years). The results further revealed that there was an increase in the proportion of young population of African migrants while there has been a decrease in migrants of the older population during the period.

The results for the logistic regression as depicted in Table 12 show that age is significantly associated ($P=0.000<0.05$) with the employment status. The 2001 census data reveal that the likelihood for the African migrants to be employed varied with age

however the 2011 census data revealed that the probability to be employed increased with age. Suggesting that as migrants advance in age, the likelihood to be employment increased. This increase may be explained by the fact that older people have work experience, skills and probably have higher level of education which increases their employment probability than younger people. Differences between the two censuses have been identified that is the likelihood of getting employed in each of the age groups were higher in 2011.

5.3.3. Educational Attainment

In the labour market, education is often used as a proxy to measure available skills in order to perform labour activities therefore it plays a critical role in the labour market. The research question related to the variable was; '*What is the highest educational level of African migrants who are employed in the formal sector?*' The results in Table 10 illustrated that majority of migrants employed in the formal sector have tertiary education, followed by those with secondary level of education. This means that between the two periods migration brought migrants of quality which is consistent with the framework of the Immigration Act of 2002 that focused on attracting skilled migrants. Irrespective of educational attainment, male African migrants employed in the formal sector were higher in proportion than their female counterparts. Nonetheless, the proportion of male and female African migrants who have tertiary education attainment was minimal. Some studies argue that a high proportion of African migrants in South Africa worked in the informal sector due to lack of skills (human capital) required in the formal sector. In contrast to this view, the results in Chapter Four indicated that there have been changes in the employment status of African migrants over the years, that is, an increasing proportion of African migrants are now finding employment in the formal sector. This increase could be a result of the regulations which was enacted by the government over the years to attract more skilled migrants to South Africa.

The results in Figure 4 revealed that during the period there were gender inequalities with regard to the education attainment of the African migrants. Generally, African female migrants seemed to be more educated than their male counterparts. However, this could

be driven by gender inequalities within the labour market because males who were employed tend to be more than females regardless of their educational attainment. Alternatively, it could be due to the fact that females studied further so as to gain access and better opportunities in the labour market. Regardless of gender, the outcome of results as illustrated in Figure 5 revealed that education among African migrants increased with age.

In terms of education, the following hypothesis was formulated; '*there has been substantial changes in overall education of migrants*'. Results in Section 4.3.3 confirmed this hypothesis. The results show that education of African migrants who were part of the labour force improved between the two census periods. This improvement means that migrants progressed in their level of schooling; the proportion of migrants with no schooling or primary education decreased while the proportion of those with secondary and tertiary education increased. The possible reason of this increase in education of migrants is that it is often difficult for African migrants to find decent jobs especially in the formal sector unless if they are educated. Therefore, the increase in education could be the driven desire to improve their human capital skills in order to find decent jobs within the formal sector. On the other hand, the improvement in the education of migrants could be that between two census periods South Africa attracted more educated migrants which caused the increase in the proportion of those who completed secondary and tertiary education. As the migration selectivity theory on education suggests that educated people tend to migrate more, the results on education revealed that migration brought migrants of quality within the period. Education increases the probability of employment and it may also lead to higher income. Microeconomics model shows that investment in education significantly affects productivity in the labour market (Lucas, 1988; Dae-Bong, 2009).

As illustrated in Table 12, the odds ratio in the multivariate analysis showed that in both censuses, migrant's likelihood to be employed in the South Africa labour market increased with the level of education attainment. The relationship between education and employment status is significant suggesting that education is correlated with the employment status. Generally, education is used as a proxy to measure the level of human

capital skill in the labour market. Therefore, education increases the probability of African migrants to be employed because there is a general assumption that educated people perform better and their productivity increases.

5.3.4. Country of Birth

This section attempts to answer the following research question; '*What are the most represented countries in the origin of migrants?*' The purpose of this question was to determine which African countries contributed the biggest share of migrants to South Africa as well as which countries were more represented in the South African labour market. The results on the country of birth portrayed in Appendix 4 and 5 reveals that majority of African countries were represented in the statistics of origin of migrants in both censuses. In the 2001 census migrants migrated from 42 countries and the number increased by 4 countries to 46 in the 2011 census.

Figure 6 reveals the top ten African countries from which most of the migrants originated from to South Africa. From these results, it is evident that migrants came all over Africa but SADC countries contributed the biggest proportion of African migrants moving to South Africa. Between the two census periods, there were changes in the representation of these countries; some have been replaced by others. However countries such as Mozambique, Zimbabwe, Lesotho and Malawi constituted a consistently high proportion in both censuses. In 2001, majority of the migrants were born in Mozambique however, by 2011 the biggest proportion of migrants were from Zimbabwe. As previously mentioned in Section 5.3.1 that the period was marked with series of economic, social and political events, it is no surprise that we notice such a variation in countries of origin for African migrants. Figure 6 shows a sharp increase in the number of Zimbabwean born immigrants; their proportion rose from around 14.3% in 2001 to approximately 44% in 2011. There are two possible factors which can explain this sharp increase. Firstly, 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 with the crisis highlighting in 2008 is likely to be the main reason why the proportion of Zimbabwean migrants increased sharply between the two periods.

Regardless of the series of events that have been mentioned, the year moved of the African migrants to South Africa in Figure 7 reveals an upward trend. Meaning that despite these events that took place between the two periods; the number of African migrants coming into the country increased. However, from 2008 to 2010 migrants moving to South Africa increased at a diminishing rate. This outcome might have resulted from the 2008 xenophobic attack which left many African immigrants dead while others feared for their lives which might have caused fear to potential immigrants from Africa. Furthermore, between 2010 and 2011 the rate of migrants moving to South Africa sharply increased; majority came to South Africa during the census year (2011). Figure 8 shows that a high proportion of African immigrants have stayed for a period of less than five years. This could be explained by the sharp increase in Zimbabwean immigrants from the later 2000s possibly due to the two factors discussed above.

Relating to country of birth, the hypothesis formulated was that '*Southern Africa remains the main area supplying migrants to South Africa'*. The hypothesis was confirmed by the results of country of birth in Figure 6. The results confirmed that Southern Africa is still the main source of migrants to South Africa. For both censuses, the majority of immigrants came from the SADC region even though there were changes in the countries contributing migrants to South Africa between 2001 and 2011. Inasmuch the results indicate a decrease in the proportion of migrants coming from the SADC region however it still remain the main area contributing migrants to South Africa.

5.3.5. Employment Status

The results presented in Section 4.4.1 revealed that the number of employed and unemployed migrants increased between the periods 2001 to 2011. Generally, African migrants are active in finding jobs and they have a tendency to accept jobs in the low occupations in order to make a living. As a consequence of African migrants generally

willing to accept even low paying jobs, their rate of employment increased while the level of unemployment declined during the ten-year period. The concurrent increase in the rate of employment and decline in unemployment suggests that the South African labour market managed to absorb the immigrants who joined the labour market between the two periods.

As depicted in Table 12, the multivariate analysis shows that in the 2001 census the probability of African migrants to be employed varied with age however in 2011 the likelihood of migrants to be employed increased with age. This increase may be explained by the fact that older people have work experience, skills and probably have high level of educational attainment which increases their employment probability than younger people. Moreover, the likelihood of African migrants to be employed also increased with education. Generally, education is used as a proxy to measure the level of skills of an individual in the labour market and highly educated people are assumed to have a greater chance of being employed than those who have no formal education or are less educated. As highlighted in Section 5.3.3 that the education of African migrants increased during the ten-year period. The improvement in their level of education increases their chance of finding work in the formal sector. However, the fact that results indicate that there are migrants who have tertiary education but unemployed. There are two possible factors which can explain the proportion of migrants who have tertiary education but unemployed. Firstly, this results implies that some African migrants still found it difficult to gain access to the South African labour market. The second factor could imply that this was a frictional unemployment meaning that these migrants could have been moving between jobs or they have recently move to South Africa which means they recently joined the labour market.

There are noticeable variations in the employment of African immigrants within the provinces. Since some provinces are economically developed than others, people are usually attracted to areas that have better employment opportunities and level of development. As a result, the statistics show that migrants are more concentrated in provinces that present better opportunities for them. In South Africa, these provinces include Western Cape, Gauteng and Mpumalanga province.

5.3.6. Employment by Industry

This section aims to address the following research question; '*How are African migrants distributed across the economic sectors?*' The purpose of this question was to understand how African migrants were distributed across the economic sectors. The importance of this knowledge is that it helped to understand which industries or sectors attracted majority of the migrants in South Africa during the two census periods. The results in Table 8 reveal that migrants were distributed across all industries in the South African labour market however there were changes in the distribution of migrants during the ten-year period. In some industries there has been an increase whilst in some there has been a decrease. For instance, the 2001 statistics reveal that majority of migrants were concentrated only in the mining, agriculture and wholesale industries. However, in 2011 majority of African migrants were employed in five industries namely; wholesale, community services, private households, financial services and construction industries.

To further ascertain a more accurate representation of migrants across industries the following hypothesis was formulated and tested; '*There are more African migrants in the nonindustrial sector than the industrial sector'*. The results in Table 8 confirmed this hypothesis. The majority of the migrants were employed in the nonindustrial sector both in 2001 and 2011. The findings for 2001 revealed that just above one third of African immigrants were employed in the mining industry, followed by a proportion of those in agriculture. During and after the apartheid era mining companies and farmers relied on immigrants because they were willing to work for lower remuneration (cheap labour). However, variations in the agriculture and mining industries have been highlighted during the ten-year period. There has been a sharp decline in the proportion of African migrants employed in these two industries between the two periods.

The 2011 census results revealed that majority of the African migrants worked primarily in the service sectors namely; the wholesale, financial services, community services and private households. Further job losses among migrants in the mining sector may be expected to further decrease among the African migrants as a result of the wage protest that has recently occurred and the new Immigration Act may also make it difficult for mining companies to employ migrant workers. Nonetheless, the mining industry still

remains the main employment destination for immigrants. According to the African, Caribbean and Pacific Group of States (ACP, 2011) male migrants originating from Lesotho, Mozambique and Swaziland are still predominantly employed in the mines. Furthermore, Appendices 24 and 25 reflects that migrants who were employed in the nonindustrial sector were generally more educated than their counterparts who were employed in the industrial sector.

The statistical tests such as Chi-square, Lambda, Phi and Cramer's V were utilised to test the statistical relationship between industry and educational attainment. Gender was used as a controlling variable. Results in Appendix 26 revealed that there was a positive correlation between industry and educational attainment. The Chi-square revealed that the relationship between these two variables was significant. The Lambda, Phi and Cramer's V showed that the relationship was strong. These findings therefore imply that educational attainment of African migrants is related to their employment within the industries.

5.3.7. Employment by Occupation

The results in Table 7 aims to answer the following research question; '*Are African migrants more represented in the higher occupation than the lower occupation?*' This question was also analysed in terms of sex and educational attainment. The purpose of this question was to determine in which occupation are majority of migrants employed. The evidence from the results revealed that African migrants are more represented in the lower occupations than the higher occupation. The statistics in Table 7 show that during the ten-year period majority of migrants who were employed in the lower occupations declined as a result there was an increase in the proportion of immigrants employed in higher occupations. Inasmuch there has been an increase in African migrants employed in higher occupation during the period, the biggest proportion was still represented in the lower occupations.

The 2001 census results revealed that majority of African female migrants were represented in the higher occupation while majority of males were represented in the

lower occupation. However, in 2011 the proportion of males and females who were employed in higher occupation and lower occupation was almost equal. For both censuses, majority of migrants who were employed in higher occupations have tertiary education and those who were employed in lower occupation have mostly secondary education. For the Zimbabwean cohort of immigrants, the higher proportion of qualified male migrants are employed in professional and service occupations while others are involved in the trade sector (ACP, 2011).

The bivariate analysis in Appendix 26 revealed that there was a positive relationship ($P=0.000<0.05$) between occupation and educational attainment. Gender was used as controlling variable. This positive correlation between occupation and educational attainment suggest that the employment of migrants within the occupations depended on the level of education. Chi square revealed that there was a significant relationship. Lambda, Phi and Cramer's V revealed that the relationship was strong between these two variables.

5.3.8. Type of sector

The results in Table 9 aims to address the following research question; '*Are African male migrants more represented in the informal sector than African female migrants?*' The purpose of this question was to investigate whether or not African male migrants were more represented than African female migrants in the informal sector. The results in Chapter Four reveal that males were more represented in the informal sector than African female migrants. When the private household sector is included in the informal sector instead of analysing it as a separate sector the outcome of results differ. The latter therefore reveals that female migrants were predominately higher in proportion than males in the informal sector. Females tend to work in the private households (informal sector) as domestic workers. Women migrants were employed in different occupations and they were less likely to be employed in the formal sector. As a result, they usually engage in trade, domestic services and informal sector production (Dodson *et al*., 2008; ACP, 2011).

Additionally, the proportion of male migrants employed in the formal sector was higher than that of females regardless of educational attainment. The majority of migrants who were employed in the formal sector predominantly have tertiary education whilst those who are in the informal are less educated. The probability of employment in the formal sector for the African migrants increases with education and vice versa for employment in the informal sector. This implies that the more educated are the African immigrants the higher their probability to be employed in the formal sector.

The bivariate analysis in Appendix 26 revealed that there was a positive correlation ($P=0.000<0.05$) between the type of sector and educational attainment. In performing this test, gender was used as controlling variable. This positive correlation between the type of sector and educational attainment suggest that the employment of migrants within these three sectors depended on education. Thus, implying that majority of educated migrants were employed in the formal sector. Chi square revealed that the relationship was significant. Lambda, Phi and Cramer's V revealed that the relationship was strong between the type of sector and educational attainment among African migrants.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

This study set out to examine the participation of African migrants in the labour force in South Africa based on 2001 and 2011 population census data. Therefore, this section of the thesis summarises the overall empirical outcome from the research relating to this study and how it was carried out. The overall objective was to demonstrate structural changes in the participation of African migrants in the labour force of South Africa from 2001 to 2011. This was profiled through demographic and socioeconomic variables such as sex, age, marital status, and educational attainment, country of birth, employment status, income and occupation. These characteristics helped in addressing the research questions and hypotheses set out in Chapter One of this study.

6.2. General Conclusion

Through the analysis of the statistical data, it can be concluded that from 2001 to 2011 there has been changes in the participation of African migrants in the labour force of South Africa. It can be noted from the findings in the analysis chapter that the participation of African male and female migrants differs across the different socioeconomic variables. Furthermore, there were gender inequalities between sexes in relation to education, employment and income. Despite the increasing rate of females over the period, the results revealed that African male migrants still form a bigger proportion of those in the labour force. The results in this study further indicated that majority of the African migrants were younger than those in the older age groups. Given the apartheid history in this country, this outcome is no surprise as African male migrants migrated to South Africa to work in mines in order to provide for their families. With regards to marital status, majority of the African migrants who were economically active were married and those that were never married.

The results also showed that the education of African migrants in the labour force has improved between the periods. Moreover, African migrants in general acquired more years of education this was verified by the decline in the proportion of migrants with no schooling and primary education. Furthermore, the results also showed the presence of gender disparities for instance African female migrants were more educated than African male migrants. In addition, the outcomes indicated that the highest ration of African migrants has stayed in South Africa for a period of less than 5 years then followed by those who stayed a duration of 5 to 9 years.

In terms of employment status, the outcome from the analysis indicated an increase in the employment rate and a decreased in unemployment rate of African migrants during the ten-year period. Inequalities between genders were evident as the results revealed that majority of males were employed whilst majority of females were unemployed. Despite the increased proportion of employed females, a large share of African male migrants is employed than females. Furthermore, more African male migrants than their female counterparts are employed in decent occupations and industries. Lastly, the 2011 statistics showed that majority of migrants who were unemployed, it was due to unavailability of jobs in the area whilst others were waiting for seasonal work. Migratory trends for African male and female migrants showed differences in terms of demographic and socioeconomic characteristics.

6.3. Confirmation of Hypotheses

The hypotheses were confirmed by running statistical tests such as descriptive, bivariate and multivariate analysis. Chi-square, Lambda, Phi and Cramer's V were performed to test the relationship between variables. These statistical tests helped to answer the research questions and to test the hypotheses presented in Chapter One.

The hypothesis '*in numbers the population of African migrants enumerated in 2011 exceeds the number of migrants enumerated in 2001'*. This hypothesis was answered by utilizing the descriptive analysis as there were no two variables needed to test this hypothesis. The results were tabulated in Table 5 in Chapter Four which confirmed this hypothesis.

The hypothesis '*Migration brings more young people than older people in the South African labour market'*. This hypothesis was also confirmed by conducting the descriptive analysis. Majority of African migrants who were part of the labour force were young, this is in line with the results obtained by UN (2011) that young people often migrate in order to find work and obtain better education.

In terms of the origin of migrants this study tested the hypothesis that '*Southern Africa remains the main area supplying migrants to South Africa'*. The results confirmed this hypothesis. African migrants came all over Africa but both in 2001 and 2011 Southern Africa has been the main area contributing migrants to South Africa. This outcome has always been a trend even during apartheid, immigrants from neighbouring countries (Sothern Africa) came to South Africa to work in mines and agricultural activities.

In terms of education, the following hypothesis was test '*There has been substantial changes in overall education of migrants*'. In order to investigate the change in education of African migrants over the period, a descriptive analysis was performed – a frequency table for the 2001 and 2011 census was conducted using SPSS. The results obtained confirmed the hypothesis. The results show that education of the African migrants improved between the two census periods. This improvement implies that migrants progressed to the next level of education.

In terms of industry, the following hypothesis was formulated and tested '*There are more African migrants in the nonindustrial sector than the industrial sector'*. This hypothesis was answered by utilising Chi-square, Lambda, Phi and Cramer's V to test the relationship between industry and educational attainment controlled for sex. The statistical tests confirmed a significant and strong association between variables. Furthermore, the results revealed a widening gap between industries relation to sex and educational attainment.

6.4. Recommendations and Areas of Future Research

Given the results obtained and the issues discussed in Chapter Four and Five of this thesis, it is recommended that more research in the area of employment of the African

migrants in South Africa should be conducted. Whilst carrying out this study the dearth of literature on African immigrants was also noted. It was difficult to identify how migrants use social networks to find employment in South Africa.

The results revealed that there were African migrants with tertiary education yet they worked in private household. It is therefore recommended that the South African government and Department of Home Affairs should implement strategies that assist highly educated migrants to work in decent occupations or industries.

Some problems were noted with regards to the 2001 and 2011 population census data. The unavailability of some variables made it difficult to analyse some trends therefore some vital variables were not analysed in this study. Some of the variables that were not included in this study is the previous place of residence, in 2011 the variable had the nine provinces and 'outside South Africa' instead of countries as in 2001 census. Changes in the type of sector over the period could not be analysed as this variable was not available in 2001. Lastly, another important variable in the labour market that could not be analysed was work status; this variable was not available in the 2011 census. Therefore, unavailability of these variables made it difficult to demonstrate changes between the two years. Thus, it is suggested when designing future questionnaires for census, Statistics South Africa should avoid removing important variables. In Addition, Statistics South Africa can include immigrant's information when formulating documents such as labour market dynamics and Quarterly Labour Force Surveys in order to close the gap.

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APPENDICES

Appendix 1: Size and Composition of Labour Force in 2001 and 2011

2001						
Age Group	**Male**	**Male %**	**Female**	**Female %**	**Total**	**Total %**
15-19	7465	4,1%	3257	6,3%	10722	4,6%
20-24	29023	15,8%	10289	20,0%	39312	16,7%
25-29	40261	21,9%	11784	22,9%	52045	22,2%
30-34	30118	16,4%	8103	15,8%	38221	16,3%
35-39	25238	13,8%	6046	11,8%	31284	13,3%
40-44	20528	11,2%	5040	9,8%	25568	10,9%
45-49	15411	8,4%	3521	6,9%	18932	8,1%
50-54	9921	5,4%	1837	3,6%	11758	5,0%
55-59	3741	2,0%	953	1,9%	4694	2,0%
60-64	1757	1,0%	551	1,1%	2308	1,0%
Total	**183463**	**100%**	**51381**	**100%**	**234844**	**100%**
2011						
Age Group	**Male**	**Male %**	**Female**	**Female %**	**Total**	**Total %**
15-19	21700	3,5%	9532	3,6%	31232	3,5%
20-24	109658	17,9%	56526	21,1%	166184	18,8%
25-29	166002	27,1%	78419	29,2%	244421	27,7%
30-34	129715	21,1%	53920	20,1%	183635	20,8%
35-39	84373	13,8%	31592	11,8%	115965	13,2%
40-44	46219	7,5%	17072	6,4%	63291	7,2%
45-49	26254	4,3%	10205	3,8%	36459	4,1%
50-54	16686	2,7%	6444	2,4%	23130	2,6%
55-59	9215	1,5%	3232	1,2%	12447	1,4%
60-64	3628	0,6%	1341	0,5%	4969	0,6%
Total	**613450**	**100%**	**268283**	**100%**	**881733**	**100%**

Source: *Own computation using StatsSA 2001 and 2011 census data*

Appendix 2: Educational Attainment by Sex and Age Group for 2001

Gender	Educational attainment	Age group										
		15 - 19	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**	**50 - 54**	**55 - 59**	**60 - 64**	**Total**
Male	No Schooling	1691	4964	6087	5621	4402	4487	4481	3288	1252	685	36958
		22.6%	17.1%	15.1%	18.7%	17.4%	21.9%	29.1%	33.1%	33.5%	39.0%	20.1%
	Primary	3001	9815	11906	8329	8674	8015	6304	4163	1535	608	62350
		40.2%	33.8%	29.6%	27.7%	34.4%	39.0%	40.9%	42.0%	41.0%	34.6%	34.0%
	Secondary	2743	13650	20237	13980	10293	6741	3636	1896	609	336	74121
		36.7%	47.0%	50.3%	46.4%	40.8%	32.8%	23.6%	19.1%	16.3%	19.1%	40.4%
	Tertiary	31	595	2031	2188	1868	1285	991	575	346	128	10038
		0.4%	2.1%	5.0%	7.3%	7.4%	6.3%	6.4%	5.8%	9.2%	7.3%	5.5%
	Total	**7466**	**29024**	**40261**	**30118**	**25237**	**20528**	**15412**	**9922**	**3742**	**1757**	**183467**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Female	No Schooling	759	1918	1735	1582	1193	1184	729	429	282	166	9977
		23.3%	18.6%	14.7%	19.5%	19.7%	23.5%	20.7%	23.4%	29.6%	30.1%	19.4%
	Primary	1218	2788	2879	1773	1605	1249	984	516	242	136	13390
		37.4%	27.1%	24.4%	21.9%	26.6%	24.8%	28.0%	28.1%	25.4%	24.7%	26.1%
	Secondary	1260	5277	6528	3919	2512	1850	1254	589	258	176	23623
		38.7%	51.3%	55.4%	48.4%	41.6%	36.7%	35.6%	32.1%	27.1%	31.9%	46.0%
	Tertiary	20	305	642	829	735	757	553	303	171	73	4388
		0.6%	3.0%	5.4%	10.2%	12.2%	15.0%	15.7%	16.5%	17.9%	13.2%	8.5%
	Total	**3257**	**10288**	**11784**	**8103**	**6045**	**5040**	**3520**	**1837**	**953**	**551**	**51378**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2001 census data*

Appendix 3: Educational Attainment by Sex and Age Group for 2011

Sex	Educational Attainment	Age Group										
		15-19	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**Total**
Male	No schooling	1411	6328	9519	8081	6643	4635	2942	2674	1637	937	44807
		6.6%	5.8%	5.7%	6.2%	7.9%	10.0%	11.2%	16.0%	17.8%	25.8%	7.3%
	Primary	6163	20335	28019	22970	15210	9619	7417	5655	3259	986	119633
		28.8%	18.6%	16.9%	17.7%	18.0%	20.8%	28.3%	33.9%	35.4%	27.2%	19.5%
	Secondary	13586	79190	115569	82945	51140	25195	12317	6460	3166	1181	390749
		63.5%	72.3%	69.7%	64.0%	60.6%	54.6%	47.0%	38.7%	34.4%	32.5%	63.8%
	Tertiary	245	3642	12734	15576	11340	6700	3552	1909	1143	525	57366
		1.1%	3.3%	7.7%	12.0%	13.4%	14.5%	13.5%	11.4%	12.4%	14.5%	9.4%
	Total	**21405**	**109495**	**165841**	**129572**	**84333**	**46149**	**26228**	**16698**	**9205**	**3629**	**612555**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100.0%**	**100%**	**100%**	**100%**	**100%**
Female	No schooling	409	1854	2984	3180	2249	1450	1274	799	455	117	14771
		4.4%	3.3%	3.8%	5.9%	7.2%	8.5%	12.5%	12.4%	14.2%	8.7%	5.5%
	Primary	1959	7526	10369	7573	5299	2943	2464	1846	828	283	41090
		20.9%	13.4%	13.2%	14.0%	16.9%	17.3%	24.1%	28.7%	25.8%	21.1%	15.4%
	Secondary	6935	43922	56402	36338	19820	10114	4679	2854	1482	763	183309
		74.1%	78.0%	72.0%	67.4%	63.0%	59.5%	45.9%	44.4%	46.2%	56.9%	68.5%
	Tertiary	55	3044	8528	6816	4077	2485	1788	934	445	179	28351
		0.6%	5.4%	10.9%	12.6%	13.0%	14.6%	17.5%	14.5%	13.9%	13.3%	10.6%
	Total	**9358**	**56346**	**78283**	**53907**	**31445**	**16992**	**10205**	**6433**	**3210**	**1342**	**267521**
		100%	**100%**	**100.0%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 4: Country of Birth (African Countries) for 2001

	Country of birth (for non-South African)	Frequency	Percent
1	Mozambique	102808	43,8
2	Lesotho	52772	22,5
3	Zimbabwe	34102	14,5
4	Malawi	8643	3,7
5	Swaziland	8206	3,5
6	Botswana	4692	2,0
7	Nigeria	3414	1,5
8	Zambia	3019	1,3
9	Angola	2576	1,1
10	Congo	2649	1,1
11	Namibia	1663	0,7
12	Democratic Republic of The Congo (Zaire)	1475	0,6
13	Kenya	1390	0,6
14	Tanzania	1007	0,4
15	Ghana	910	0,4
16	Ethiopia	658	0,3
17	Senegal	621	0,3
18	Uganda	741	0,3
19	Mauritius	400	0,2
20	Burundi	359	0,2
21	Cameroon	502	0,2
22	Somalia	489	0,2
23	Côte DIvoire	326	0,1
24	Egypt	197	0,1
25	Rwanda	221	0,1
26	Sudan	335	0,1
27	Seychelles	37	0,0
28	Algeria	62	0,0
29	Benin	37	0,0
30	Central African Republic	12	0,0
31	Comoros	36	0,0
32	Eritrea	58	0,0
33	Gabon	25	0,0
34	Guinea	10	0,0
35	Liberia	64	0,0
36	Libyan Arab Jamahiriya	23	0,0
37	Madagascar	49	0,0
38	Mali	36	0,0
39	Morocco	103	0,0
40	Sierra Leone	63	0,0

41	Tunisia	13	0,0
42	Other Africa	39	0,0
	Total	234841	100,0

Source: *Own computation using StatsSA 2001 census data*

Appendix 5: Country of Birth (African Countries) for 2011

	Country of birth (for non-South African)	Frequency	Percent
1	Zimbabwe	397622	45,2
2	Mozambique	207889	23,6
3	Lesotho	81222	9,2
4	Malawi	59235	6,7
5	Ethiopia	20410	2,3
6	Somalia	16353	1,9
7	Nigeria	15178	1,7
8	Congo	12799	1,5
9	Swaziland	12476	1,4
10	Democratic Republic Of The Congo (Zaire)	11714	1,3
11	Zambia	7555	0,9
12	Ghana	4614	0,5
13	Kenya	4116	0,5
14	Botswana	3480	0,4
15	Tanzania	3470	0,4
16	Uganda	3257	0,4
17	Cameroon	3112	0,4
18	Namibia	2955	0,3
19	Burundi	2777	0,3
20	Angola	2466	0,3
21	Egypt	1218	0,1
22	Senegal	1201	0,1
23	Rwanda	922	0,1
24	Mauritius	640	0,1
25	Mali	525	0,1
26	Eritrea	440	0,1
27	Niger	421	0,0
28	Gabon	341	0,0
29	Algeria	299	0,0
30	Cote DIvoire	252	0,0
31	Benin	187	0,0
32	Sudan	183	0,0
33	Liberia	168	0,0

34	Madagascar	99	0,0
35	Other Africa	95	0,0
36	Chad	70	0,0
37	Tunisia	52	0,0
38	Libyan Arab Jamahiriya	50	0,0
39	Guinea	48	0,0
40	Sierra Leone	36	0,0
41	Morocco	35	0,0
42	Gambia	24	0,0
43	Burkina Faso	23	0,0
44	Mauritania	21	0,0
45	Togo	12	0,0
46	Sao Tome And Principe	11	0,0
	Total	**880072**	**100%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 6: Year Moved to South Africa Since 2001

Year move to South Africa	Male	Male %	Female	Female%	Total	Total %
2001	15807	3,4	5757	2,6	21564	3,2
2002	15958	3,5	5828	2,7	21786	3,2
2003	18291	4,0	7652	3,5	25943	3,8
2004	23565	5,1	10100	4,6	33665	5,0
2005	30877	6,7	13593	6,2	44470	6,6
2006	41810	9,1	17985	8,2	59795	8,8
2007	51534	11,2	24151	11,0	75685	11,2
2008	63547	13,8	32166	14,7	95713	14,1
2009	60417	13,1	32474	14,8	92891	13,7
2010	62556	13,6	32138	14,7	94694	14,0
2011	75220	16,4	37175	17,0	112395	16,6
Total	**459582**	**100**	**219019**	**100**	**678601**	**100**

Source: *Own computation using StatsSA 2011 census data*

Appendix 7: African Migrants Duration of Stay, Census 2011

Duration of stay in years	Frequency	Percent	Duration of stay in years	Frequency	Percent
-7988.00	20428	2,3	30.00	1715	0,2
.00	112395	12,8	31.00	2232	0,3
1.00	94694	10,8	32.00	996	0,1
2.00	92891	10,6	33.00	931	0,1
3.00	95714	10,9	34.00	783	0,1
4.00	75685	8,6	35.00	834	0,1
5.00	59795	6,8	36.00	756	0,1
6.00	44470	5,1	37.00	860	0,1
7.00	33665	3,8	38.00	449	0,1
8.00	25943	2,9	39.00	502	0,1
9.00	21785	2,5	40.00	394	0
10.00	21563	2,5	41.00	700	0,1
11.00	31982	3,6	42.00	432	0
12.00	19800	2,2	43.00	253	0
13.00	16709	1,9	44.00	207	0
14.00	12182	1,4	45.00	235	0
15.00	13310	1,5	46.00	126	0
16.00	9820	1,1	47.00	165	0
17.00	9756	1,1	48.00	118	0
18.00	5765	0,7	49.00	109	0
19.00	7740	0,9	50.00	120	0
20.00	6727	0,8	51.00	138	0
21.00	7891	0,9	52.00	10	0
22.00	6123	0,7	53.00	43	0
23.00	4369	0,5	54.00	11	0
24.00	3101	0,4	55.00	38	0
25.00	3377	0,4	56.00	12	0
26.00	2751	0,3	59.00	24	0
27.00	2424	0,3	61.00	24	0
28.00	1711	0,2	64.00	11	0
29.00	2276	0,3	**Total**	**880072**	**100**

Source: *Own computation using StatsSA 2011 census data*

Appendix 8: Key Labour Market Indicators by Demographic Characteristics, Census 2001

Variable	Working Age	Employed	Unemployed	Not Economical Active population	Economical Active population	Employment rate	Unemployment rate	Share of unemployed	Labour Participation Rate (LFPR)	Labour Absorption Rate
Sex										
Male	210358	153275	30187	26896	183462	83,5	16,5	14,4	87,2	72,9
Female	87469	27649	23730	36090	51379	53,8	46,2	27,1	58,7	31,6
Total	**297827**	**180924**	**53917**	**62986**	**234841**	**77,0**	**23,0**	**18,1**	**78,9**	**60,7**
Age Group										
15-19	22159	6415	4307	11437	10722	59,8	40,2	19,4	48,4	28,9
20-24	57197	24818	14494	17885	39312	63,1	36,9	25,3	68,7	43,4
25-29	63438	38799	13246	11393	52045	74,5	25,5	20,9	82,0	61,2
30-34	45307	29689	8532	7086	38221	77,7	22,3	18,8	84,4	65,5
35-39	36092	26059	5224	4809	31283	83,3	16,7	14,5	86,7	72,2
40-44	28806	21687	3881	3238	25568	84,8	15,2	13,5	88,8	75,3
45-49	21429	16783	2149	2497	18932	88,6	11,4	10,0	88,3	78,3
50-54	13495	10515	1243	1737	11758	89,4	10,6	9,2	87,1	77,9
55-59	5904	4192	502	1210	4694	89,3	10,7	8,5	79,5	71,0
60-64	4000	1969	339	1692	2308	85,3	14,7	8,5	57,7	49,2
Total	297827	180926	53917	62984	234843	77,0	23,0	18,1	78,9	60,7
Marital Status										
Married	127741	91145	16735	19861	107880	84,5	15,5	13,1	84,5	71,4
Cohabiting	45879	27811	9771	8297	37582	74,0	26,0	21,3	81,9	60,6
Never married	115363	56945	25539	32879	82484	69,0	31,0	22,1	71,5	49,4
Widowed	3878	2054	696	1128	2750	74,7	25,3	17,9	70,9	53,0
Separated	2247	1287	584	376	1871	68,8	31,2	26,0	83,3	57,3
Divorced	2719	1683	591	445	2274	74,0	26,0	21,7	83,6	61,9
Total	297827	180925	53916	62986	234841	77,0	23,0	18,1	78,9	60,7
Educational Attainment										
No schooling	57811	35342	11591	10878	46933	75,3	24,7	20,0	81,2	61,1
Primary	88815	59401	16338	13076	75739	78,4	21,6	18,4	85,3	66,9
Secondary	129718	73579	24164	31975	97743	75,3	24,7	18,6	75,4	56,7
Tertiary	21481	12601	1824	7056	14425	87,4	12,6	8,5	67,2	58,7
Total	297825	180923	53917	62985	234840	77,0	23,0	18,1	78,9	60,7

Source: *Own computation using StatsSA 2001 census data*

Appendix 9: Key Labour Market Indicators by Demographic Characteristics, Census 2011

Variable	Working Age	Employed	Unemployed	Not Economical Active population	Economical Active population	Employment rate	Unemployment rate	Share of unemployed	Labour Participation Rate	Labour Absorption Rate
Sex										
Male	715352	524164	88390	102798	612554	85,6	14,4	12,4	85,6	73,3
Female	401049	178599	88918	133532	267517	66,8	33,2	22,2	66,7	44,5
Total	1116401	702763	177308	236330	880071	79,9	20,1	15,9	78,8	62,9
Age Group										
15-19	59975	19606	11155	29214	30761	63,7	36,3	18,6	51,3	32,7
20-24	227166	120238	45604	61324	165842	72,5	27,5	20,1	73,0	52,9
25-29	301649	193316	50807	57526	244123	79,2	20,8	16,8	80,9	64,1
30-34	221010	151299	32179	37532	183478	82,5	17,5	14,6	83,0	68,5
35-39	136474	97848	17929	20697	115777	84,5	15,5	13,1	84,8	71,7
40-44	74371	53677	9465	11229	63142	85,0	15,0	12,7	84,9	72,2
45-49	43370	31396	5037	6937	36433	86,2	13,8	11,6	84,0	72,4
50-54	28230	20125	3006	5099	23131	87,0	13,0	10,6	81,9	71,3
55-59	16065	10901	1513	3651	12414	87,8	12,2	9,4	77,3	67,9
60-64	8090	4356	613	3121	4969	87,7	12,3	7,6	61,4	53,8
Total	1116400	702762	177308	236330	880070	79,9	20,1	15,9	78,8	62,9
Marital status										
Married	435702	285330	62912	87460	348242	81,9	18,1	14,4	79,9	65,5
Cohabiting	209637	119832	42414	47391	162246	73,9	26,1	20,2	77,4	57,2
Never married	445094	279742	68972	96380	348714	80,2	19,8	15,5	78,3	62,9
Widowed	12177	7840	1439	2898	9279	84,5	15,5	11,8	76,2	64,4
Separated	7014	4640	1046	1328	5686	81,6	18,4	14,9	81,1	66,2
Divorced	6777	5379	525	873	5904	91,1	8,9	7,7	87,1	79,4
Total	1116401	702763	177308	236330	880071	79,9	20,1	15,9	78,8	62,9
Educational Attainment										
No schooling	82112	45751	13827	22534	59578	76,8	23,2	16,8	72,6	55,7
Primary	204461	124177	36547	43737	160724	77,3	22,7	17,9	78,6	60,7
Secondary	724977	456118	117937	150922	574055	79,5	20,5	16,3	79,2	62,9
Tertiary	104854	76718	8998	19138	85716	89,5	10,5	8,6	81,7	73,2
Total	1116404	702764	177309	236331	880073	79,9	20,1	15,9	78,8	62,9

Source: *Own computation using StatsSA 2011 census data*

Appendix 10: Employment Status by Sex and Age for 2001

Sex		Age Group									
		15-19	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**
Male	**Employed**	5143	20529	32605	25433	22670	18545	14274	9131	3395	1551
		3.4%	13.4%	21.3%	16.6%	14.8%	12.1%	9.3%	6.0%	2.2%	1.0%
	Unemployed	2322	8494	7656	4684	2567	1983	1137	790	346	206
		7.7%	28.1%	25.4%	15.5%	8.5%	6.6%	3.8%	2.6%	1.1%	0.7%
	Total	7465	29023	40261	30117	25237	20528	15411	9921	3741	1757
		4.1%	15.8%	21.9%	16.4%	13.8%	11.2%	8.4%	5.4%	2.0%	1.0%
Female	**Employed**	1272	4289	6194	4255	3389	3142	2509	1384	797	418
		4.6%	15.5%	22.4%	15.4%	12.3%	11.4%	9.1%	5.0%	2.9%	1.5%
	Unemployed	1985	6000	5590	3848	2657	1898	1011	453	156	133
		8.4%	25.3%	23.6%	16.2%	11.2%	8.0%	4.3%	1.9%	0.7%	0.6%
	Total	3257	10289	11784	8103	6046	5040	3520	1837	953	551
		6.3%	20.0%	22.9%	15.8%	11.8%	9.8%	6.9%	3.6%	1.9%	1.1%

Source: *Own computation using StatsSA 2001 census data*

Appendix 11: Employment Status by Sex and Age for 2011

Sex		Age group									
		15-19	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**
Male	**Employed**	15556	89315	141541	113318	74178	40492	23304	14989	8240	3230
		3.0%	17.0%	27.0%	21.6%	14.2%	7.7%	4.4%	2.9%	1.6%	0.6%
	Unemployed	5848	20181	24299	16253	10154	5658	2925	1709	965	398
		6.6%	22.8%	27.5%	18.4%	11.5%	6.4%	3.3%	1.9%	1.1%	0.5%
	Total	21404	109496	165840	129571	84332	46150	26229	16698	9205	3628
		3.5%	17.9%	27.1%	21.2%	13.8%	7.5%	4.3%	2.7%	1.5%	0.6%
Female	**Employed**	4050	30923	51775	37981	23669	13185	8092	5136	2661	1126
		2.3%	17.3%	29.0%	21.3%	13.3%	7.4%	4.5%	2.9%	1.5%	0.6%
	Unemployed	5307	25423	26507	15926	7776	3807	2112	1298	548	215
		6.0%	28.6%	29.8%	17.9%	8.7%	4.3%	2.4%	1.5%	0.6%	0.2%
	Total	9357	56346	78282	53907	31445	16992	10204	6434	3209	1341
		3.5%	21.1%	29.3%	20.2%	11.8%	6.4%	3.8%	2.4%	1.2%	0.5%

Source: *Own computation using StatsSA 2011 census data*

Appendix 12: Employment Status by Sex and Marital Status for 2001

Sex		Marital status					
		Married	**Cohabiting**	**Never married**	**Widowed**	**Separated**	**Divorced**
Male	**Employed**	79914	23164	47987	991	645	574
		52.1%	15.1%	31.3%	0.6%	0.4%	0.4%
	Unemployed	7870	3879	17976	87	222	153
		26.1%	12.8%	59.5%	0.3%	0.7%	0.5%
	Total	87784	27043	65963	1078	867	727
		47.8%	14.7%	36.0%	0.6%	0.5%	0.4%
Female	**Employed**	11231	4647	8958	1063	642	1109
		40.6%	16.8%	32.4%	3.8%	2.3%	4.0%
	Unemployed	8864	5893	7563	610	362	438
		37.4%	24.8%	31.9%	2.6%	1.5%	1.8%
	Total	20095	10540	16521	1673	1004	1547
		39.1%	20.5%	32.2%	3.3%	2.0%	3.0%
Labour Force	**Employed**	91145	27811	56945	2054	1287	1683
		50.4%	15.4%	31.5%	1.1%	0.7%	0.9%
	Unemployed	16734	9772	25539	697	584	591
		31.0%	18.1%	47.4%	1.3%	1.1%	1.1%
	Total	107879	37583	82484	2751	1871	2274
		45.9%	16.0%	35.1%	1.2%	0.8%	1.0%

Source: *Own computation using StatsSA 2001 census data*

Appendix 13: Employment Status by Sex and Marital Status for 2011

Sex		Marital status					
		Married	**Cohabiting**	**Never married**	**Widowed**	**Separated**	**Divorced**
Male	**Employed**	213980	87811	215911	2011	2519	1932
		40.8%	16.8%	41.2%	0.4%	0.5%	0.4%
	Unemployed	24856	15451	47035	396	505	147
		28.1%	17.5%	53.2%	0.4%	0.6%	0.2%
	Total	238836	103262	262946	2407	3024	2079
		39.0%	16.9%	42.9%	0.4%	0.5%	0.3%
Female	**Employed**	71350	32021	63832	5829	2121	3446
		39.9%	17.9%	35.7%	3.3%	1.2%	1.9%
	Unemployed	38056	26963	21937	1043	541	378
		42.8%	30.3%	24.7%	1.2%	0.6%	0.4%
	Total	109406	58984	85769	6872	2662	3824
		40.9%	22.0%	32.1%	2.6%	1.0%	1.4%
Labour Force	**Employed**	285330	119832	279743	7840	4640	5378
		40.6%	17.1%	39.8%	1.1%	0.7%	0.8%
	Unemployed	62912	42414	68972	1439	1046	525
		35.5%	23.9%	38.9%	0.8%	0.6%	0.3%
	Total	348242	162246	348715	9279	5686	5903
		39.6%	18.4%	39.6%	1.1%	0.6%	0.7%

Source: *Own computation using StatsSA 2011 census data*

Appendix 14: Employment Status by Sex and Education Attainment for 2001

Sex		Educational Attainment				Total
		No schooling	**Primary**	**Secondary**	**Tertiary**	
Male	**Employed**	30067	52992	61451	8765	153275
		19.6%	34.6%	40.1%	5.7%	100.0%
	Unemployed	6889	9357	12668	1273	30187
		22.8%	31.0%	42.0%	4.2%	100.0%
	Total	**36956**	**62349**	**74119**	**10038**	**183462**
		20.1%	**34.0%**	**40.4%**	**5.5%**	**100.0%**
Female	**Employed**	5275	6409	12128	3837	27649
		19.1%	23.2%	43.9%	13.9%	100.0%
	Unemployed	4702	6981	11496	551	23730
		19.8%	29.4%	48.4%	2.3%	100.0%
	Total	**9977**	**13390**	**23624**	**4388**	**51379**
		19.4%	**26.1%**	**46.0%**	**8.5%**	**100.0%**

Source: *Own computation using StatsSA 2001 census data*

Appendix 15: Employment Status by Sex and Education Attainment for 2011

Sex		Educational attainment				Total
		No Schooling	Primary	Secondary	Tertiary	
Male	Employed	36669	99680	334561	53254	524164
		7.0%	19.0%	63.8%	10.2%	100%
	Unemployed	8138	19954	56187	4112	88391
		9.2%	22.6%	63.6%	4.7%	100%
	Total	**44807**	**119634**	**390748**	**57366**	**612555**
		7.3%	**19.5%**	**63.8%**	**9.4%**	**100%**
Female	Employed	9082	24497	121557	23464	178600
		5.1%	13.7%	68.1%	13.1%	100%
	Unemployed	5689	16593	61750	4886	88918
		6.4%	18.7%	69.4%	5.5%	100%
	Total	**14771**	**41090**	**183307**	**28350**	**267518**
		5.5%	**15.4%**	**68.5%**	**10.6%**	**100%**
Labour Force	Employed	45751	124177	456118	76718	702764
		6.5%	17.7%	64.9%	10.9%	100%
	Unemployed	13827	36547	117937	8998	177309
		7.8%	20.6%	66.5%	5.1%	100.0%
	Total	**59578**	**160724**	**574055**	**85716**	**880073**
		6.8%	**18.3%**	**65.2%**	**9.7%**	**100.0%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 16: Monthly Income Category by Sex and Age Group for 2001

Monthly Income in Rands (R)	Age group																			
	15 - 19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No income	2311	2035	8474	5846	7684	5416	4715	3596	2648	2551	2059	1785	1158	1072	792	487	327	193	205	122
	31.0%	62.5%	29.2%	56.8%	19.1%	46.0%	15.7%	44.4%	10.5%	42.2%	10.0%	35.4%	7.5%	30.4%	8.0%	26.5%	8.7%	20.3%	11.7%	22.1%
R1-R400	3205	846	8290	2600	8000	3242	4300	1866	2484	1329	1901	1232	1399	934	1075	538	481	274	224	122
	42.9%	26.0%	28.6%	25.3%	19.9%	27.5%	14.3%	23.0%	9.8%	22.0%	9.3%	24.4%	9.1%	26.5%	10.8%	29.3%	12.9%	28.8%	12.7%	22.1%
R401-R800	1118	230	5020	779	7735	1201	4578	793	3514	656	2162	471	1514	326	957	159	279	123	303	91
	15.0%	7.1%	17.3%	7.6%	19.2%	10.2%	15.2%	9.8%	13.9%	10.9%	10.5%	9.3%	9.8%	9.3%	9.6%	8.7%	7.5%	12.9%	17.2%	16.5%
R801-R1600	626	66	5149	512	10212	953	8363	717	7591	493	5938	448	4808	179	2868	163	1059	23	481	23
	8.4%	2.0%	17.7%	5.0%	25.4%	8.1%	27.8%	8.8%	30.1%	8.2%	28.9%	8.9%	31.2%	5.1%	28.9%	8.9%	28.3%	2.4%	27.4%	4.2%
R1601-R3200	123	58	1478	266	4719	378	5527	349	6124	265	5855	263	4664	256	3023	127	967	83	287	24
	1.6%	1.8%	5.1%	2.6%	11.7%	3.2%	18.4%	4.3%	24.3%	4.4%	28.5%	5.2%	30.3%	7.3%	30.5%	6.9%	25.8%	8.7%	16.3%	4.3%
R3201-R6400	34	21	263	96	1030	357	1305	328	1457	466	1195	324	793	271	522	154	230	138	93	136
	0.5%	0.6%	0.9%	0.9%	2.6%	3.0%	4.3%	4.0%	5.8%	7.7%	5.8%	6.4%	5.1%	7.7%	5.3%	8.4%	6.1%	14.5%	5.3%	24.6%
R6401-R12800	37	0	147	81	449	159	625	240	705	170	552	315	458	341	302	139	143	70	85	34
	0.5%	0.0%	0.5%	0.8%	1.1%	1.3%	2.1%	3.0%	2.8%	2.8%	2.7%	6.3%	3.0%	9.7%	3.0%	7.6%	3.8%	7.4%	4.8%	6.2%
R12801-R25600	0	0	150	61	316	28	460	118	450	82	487	138	286	104	164	37	180	25	50	0
	0.0%	0.0%	0.5%	0.6%	0.8%	0.2%	1.5%	1.5%	1.8%	1.4%	2.4%	2.7%	1.9%	3.0%	1.7%	2.0%	4.8%	2.6%	2.8%	0.0%
R25601-R51200	0	0	26	13	54	25	207	32	171	23	202	40	273	38	156	34	63	11	20	0
	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.7%	0.4%	0.7%	0.4%	1.0%	0.8%	1.8%	1.1%	1.6%	1.8%	1.7%	1.2%	1.1%	0.0%
R51201-R102400	0	0	0	0	14	10	0	22	32	11	85	10	34	0	21	0	0	0	0	0

	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.3%	0.1%	0.2%	0.4%	0.2%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
R102401-R204800	10	0	27	13	38	15	0	0	36	0	55	13	11	0	41	0	0	0	10	0
	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.3%	0.3%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.6%	0.0%
R204801 or more	0	0	0	23	11	0	39	42	26	0	35	0	13	0	0	0	12	11	0	0
	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	0.5%	0.1%	0.0%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.3%	1.2%	0.0%	0.0%
Total	7464	3256	29024	10290	40262	11784	30119	8103	25238	6046	20526	5039	15411	3521	9921	1838	3741	951	1758	552
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: *Own computation using StatsSA 2001 census data*

Appendix 17: Monthly Income Category by Sex and Age Group for 2011

Monthly Income in Rands (R)	Age group																			
	15 - 19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No income	6107	5326	20968	26261	25697	28702	17239	17167	10524	8646	5859	4472	3131	2508	1904	1502	1072	662	433	214
	28.5%	56.9%	19.1%	46.6%	15.5%	36.7%	13.3%	31.8%	12.5%	27.5%	12.7%	26.3%	11.9%	24.6%	11.4%	23.3%	11.6%	20.6%	11.9%	16.0%
R1-R400	1323	436	6149	2104	8283	3125	5021	2474	2949	1623	1438	742	905	549	600	307	252	208	130	50
	6.2%	4.7%	5.6%	3.7%	5.0%	4.0%	3.9%	4.6%	3.5%	5.2%	3.1%	4.4%	3.5%	5.4%	3.6%	4.8%	2.7%	6.5%	3.6%	3.7%
R401-R800	3571	797	13459	4080	15549	5656	10480	4345	6012	2688	2925	1458	1274	845	1082	721	388	185	271	84
	16.7%	8.5%	12.3%	7.2%	9.4%	7.2%	8.1%	8.1%	7.1%	8.5%	6.3%	8.6%	4.9%	8.3%	6.5%	11.2%	4.2%	5.8%	7.5%	6.3%
R801-R1600	6078	1363	31599	10517	41264	16670	28561	11639	17100	7019	8319	3870	3637	2209	2547	1254	1302	658	572	255
	28.4%	14.6%	28.9%	18.7%	24.9%	21.3%	22.0%	21.6%	20.3%	22.3%	18.0%	22.8%	13.9%	21.6%	15.3%	19.5%	14.1%	20.5%	15.8%	19.0%
R1601-R3200	2429	490	24466	6975	42836	12468	33579	8853	19990	5872	9874	3298	5269	1742	3105	850	1888	442	631	213
	11.3%	5.2%	22.3%	12.4%	25.8%	15.9%	25.9%	16.4%	23.7%	18.7%	21.4%	19.4%	20.1%	17.1%	18.6%	13.2%	20.5%	13.8%	17.4%	15.9%
R3201-R6400	472	56	6652	1771	17375	4093	17501	3167	13623	1732	8453	953	6192	667	3934	442	2305	216	640	84
	2.2%	0.6%	6.1%	3.1%	10.5%	5.2%	13.5%	5.9%	16.2%	5.5%	18.3%	5.6%	23.6%	6.5%	23.6%	6.9%	25.0%	6.7%	17.6%	6.3%
R6401-R12800	105	34	1442	716	5688	2292	7013	1639	6198	1059	3827	695	2292	388	1177	439	726	177	251	118
	0.5%	0.4%	1.3%	1.3%	3.4%	2.9%	5.4%	3.0%	7.3%	3.4%	8.3%	4.1%	8.7%	3.8%	7.0%	6.8%	7.9%	5.5%	6.9%	8.8%
R12801-R25600	145	11	447	300	2936	1116	3825	1045	3575	935	2167	472	1528	524	842	357	498	303	225	70
	0.7%	0.1%	0.4%	0.5%	1.8%	1.4%	3.0%	1.9%	4.2%	3.0%	4.7%	2.8%	5.8%	5.1%	5.0%	5.5%	5.4%	9.4%	6.2%	5.2%
R25601-R51200	11	0	305	60	1129	318	1918	634	1385	472	1306	390	829	303	575	162	354	155	248	59
	0.1%	0.0%	0.3%	0.1%	0.7%	0.4%	1.5%	1.2%	1.6%	1.5%	2.8%	2.3%	3.2%	3.0%	3.4%	2.5%	3.8%	4.8%	6.8%	4.4%

R51201-R102400	0	0	84	12	74	61	609	156	588	118	424	69	313	82	323	57	191	47	70	24
	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.5%	0.3%	0.7%	0.4%	0.9%	0.4%	1.2%	0.8%	1.9%	0.9%	2.1%	1.5%	1.9%	1.8%
R102401-R204800	0	0	0	25	77	34	74	72	117	11	71	23	172	12	96	24	24	0	29	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.2%	0.1%	0.7%	0.1%	0.6%	0.4%	0.3%	0.0%	0.8%	0.0%
R204801 or more	18	0	16	12	57	24	111	12	89	0	35	12	35	54	82	0	24	12	24	0
	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.5%	0.5%	0.0%	0.3%	0.4%	0.7%	0.0%
Unspecified	1144	845	3909	3513	4875	3724	3640	2704	2180	1272	1452	538	653	322	430	320	181	144	104	170
	5.3%	9.0%	3.6%	6.2%	2.9%	4.8%	2.8%	5.0%	2.6%	4.0%	3.1%	3.2%	2.5%	3.2%	2.6%	5.0%	2.0%	4.5%	2.9%	12.7%
Total	21403	9358	109496	56346	165840	78283	129571	53907	84330	31447	46150	16992	26230	10205	16697	6435	9205	3209	3628	1341
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: *Own computation using StatsSA 2011 census data*

Appendix 18: Monthly Income Category by Sex and Marital Status for 2001

Monthly Income in Rands	Marital status											
	Married		Cohabiting		Never married		Widowed		Separated		Divorced	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No income	8029	8572	3928	5709	17955	7487	107	589	187	306	165	440
	9.1%	42.7%	14.5%	54.2%	27.2%	45.3%	9.9%	35.2%	21.6%	30.5%	22.7%	28.4%
R1 - R400	7965	4255	5454	2901	17465	4648	227	477	212	468	36	235
	9.1%	21.2%	20.2%	27.5%	26.5%	28.1%	21.1%	28.5%	24.5%	46.6%	5.0%	15.2%
R401 - R800	10904	1923	4963	878	10999	1649	127	222	133	77	54	80
	12.4%	9.6%	18.4%	8.3%	16.7%	10.0%	11.8%	13.3%	15.3%	7.7%	7.4%	5.2%
R801 - R1600	27650	1405	7281	566	11683	1269	198	123	184	70	99	146
	31.5%	7.0%	26.9%	5.4%	17.7%	7.7%	18.4%	7.3%	21.2%	7.0%	13.6%	9.4%
R1601 - R3200	23244	1115	3984	153	5045	596	293	55	92	33	107	117
	26.5%	5.5%	14.7%	1.5%	7.6%	3.6%	27.2%	3.3%	10.6%	3.3%	14.7%	7.6%
R3201 - R6400	4287	1488	956	162	1450	315	99	122	21	12	108	191
	4.9%	7.4%	3.5%	1.5%	2.2%	1.9%	9.2%	7.3%	2.4%	1.2%	14.9%	12.3%
R6401 - R12 800	2438	848	228	86	739	340	13	34	13	10	73	232
	2.8%	4.2%	0.8%	0.8%	1.1%	2.1%	1.2%	2.0%	1.5%	1.0%	10.0%	15.0%
R12 801 - R25 600	1878	312	130	38	487	90	0	41	0	28	50	83
	2.1%	1.6%	0.5%	0.4%	0.7%	0.5%	0.0%	2.4%	0.0%	2.8%	6.9%	5.4%
R25 601 - R51 200	977	142	71	23	112	36	0	0	0	0	11	14
	1.1%	0.7%	0.3%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	1.5%	0.9%
R51 201 - R102 400	151	10	14	10	0	22	0	0	12	0	10	11
	0.2%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	1.4%	0.0%	1.4%	0.7%
R102 401 - R204 800	151	13	11	0	27	28	14	0	13	0	14	0
	0.2%	0.1%	0.0%	0.0%	0.0%	0.2%	1.3%	0.0%	1.5%	0.0%	1.9%	0.0%
R204 801+	111	12	25	13	0	40	0	11	0	0	0	0
	0.1%	0.1%	0.1%	0.1%	0.0%	0.2%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%
Total	87785	20095	27045	10539	65962	16520	1078	1674	867	1004	727	1549
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: *Own computation using StatsSA 2001 census data*

Appendix 19: Monthly Income Category by Sex and Marital Status for 2011

Monthly Income in Rands	Marital Status											
	Married		Cohabiting		Never married		Widowed		Separated		Divorced	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No income	26943	41741	15988	28677	48863	22903	373	1163	560	556	207	421
	11.3%	38.2%	15.5%	48.6%	18.6%	26.7%	15.5%	16.9%	18.5%	20.9%	9.9%	11.0%
R1 - R400	8376	3855	4395	2591	13894	4346	155	538	149	149	82	138
	3.5%	3.5%	4.3%	4.4%	5.3%	5.1%	6.4%	7.8%	4.9%	5.6%	3.9%	3.6%
R401 - R800	16593	7314	8955	4745	28783	7740	198	668	378	214	106	179
	6.9%	6.7%	8.7%	8.0%	10.9%	9.0%	8.2%	9.7%	12.5%	8.0%	5.1%	4.7%
R801 - R1600	46520	19768	24942	10748	68356	21385	338	1887	454	714	370	952
	19.5%	18.1%	24.2%	18.2%	26.0%	24.9%	14.0%	27.5%	15.0%	26.8%	17.8%	24.9%
R1601 - R3200	56763	15628	27077	6189	58579	16116	530	1565	632	567	487	1138
	23.8%	14.3%	26.2%	10.5%	22.3%	18.8%	22.0%	22.8%	20.9%	21.3%	23.4%	29.8%
R3201 - R6400	40736	5858	12897	1680	22394	4850	463	376	352	100	307	314
	17.1%	5.4%	12.5%	2.8%	8.5%	5.7%	19.2%	5.5%	11.6%	3.8%	14.8%	8.2%
R6401 - R12 800	16970	4252	3945	616	7300	2108	139	201	140	151	226	229
	7.1%	3.9%	3.8%	1.0%	2.8%	2.5%	5.8%	2.9%	4.6%	5.7%	10.9%	6.0%
R12 801 - R25 600	10589	2929	1625	437	3638	1356	119	186	103	58	114	168
	4.4%	2.7%	1.6%	0.7%	1.4%	1.6%	4.9%	2.7%	3.4%	2.2%	5.5%	4.4%
R25 601 - R51 200	5728	1499	529	218	1637	666	24	23	35	12	107	133
	2.4%	1.4%	0.5%	0.4%	0.6%	0.8%	1.0%	0.3%	1.2%	0.5%	5.1%	3.5%
R51 201 - R102 400	1964	389	244	49	361	141	47	11	24	0	38	35
	0.8%	0.4%	0.2%	0.1%	0.1%	0.2%	2.0%	0.2%	0.8%	0.0%	1.8%	0.9%
R102 401 - R204 800	472	94	48	48	115	49	0	10	0	0	25	0
	0.2%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	1.2%	0.0%
R204 801+	403	45	11	48	64	32	0	0	12	0	0	0
	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
Unspecified	6779	6033	2607	2939	8961	4078	23	244	186	140	12	118
	2.8%	5.5%	2.5%	5.0%	3.4%	4.8%	1.0%	3.6%	6.1%	5.3%	0.6%	3.1%
Total	**238836**	**109405**	**103263**	**58985**	**262945**	**85770**	**2409**	**6872**	**3025**	**2661**	**2081**	**3825**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 20: Monthly Income Category by Sex and Education Attainment for 2001

Monthly Income in Rands (R)	Educational attainment							
	No Schooling		Primary		Secondary		Tertiary	
	Male	Female	Male	Female	Male	Female	Male	Female
No income	6915	4431	9441	6869	12784	11188	1230	615
	18.7%	44.4%	15.1%	51.3%	17.2%	47.4%	12.3%	14.0%
R1 - R400	10060	4334	11943	4217	9043	4352	314	81
	27.2%	43.4%	19.2%	31.5%	12.2%	18.4%	3.1%	1.8%
R401 - R800	5479	705	9978	1518	11274	2374	448	233
	14.8%	7.1%	16.0%	11.3%	15.2%	10.0%	4.5%	5.3%
R801 - R1600	8265	333	16752	592	21210	2337	868	316
	22.4%	3.3%	26.9%	4.4%	28.6%	9.9%	8.6%	7.2%
R1601 - R3200	5483	77	12711	104	13416	1291	1156	596
	14.8%	0.8%	20.4%	0.8%	18.1%	5.5%	11.5%	13.6%
R3201 - R6400	472	39	1190	46	3999	1182	1261	1022
	1.3%	0.4%	1.9%	0.3%	5.4%	5.0%	12.6%	23.3%
R6401 - R12 800	151	27	138	0	1233	643	1982	879
	0.4%	0.3%	0.2%	0.0%	1.7%	2.7%	19.7%	20.0%
R12 801 - R25 600	106	0	116	11	723	141	1599	440
	0.3%	0.0%	0.2%	0.1%	1.0%	0.6%	15.9%	10.0%
R25 601 - R51 200	25	11	71	33	283	58	792	114
	0.1%	0.1%	0.1%	0.2%	0.4%	0.2%	7.9%	2.6%
R51 201 - R102 400	0	10	0	0	32	21	155	22
	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	1.5%	0.5%
R102 401 - R204 800	0	0	10	0	96	13	123	28
	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	1.2%	0.6%
R204 801 or more	0	10	0	0	24	24	112	42
	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	1.1%	1.0%
Total	**36956**	**9977**	**62350**	**13390**	**74117**	**23624**	**10040**	**4388**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2001 census data*

Appendix 21: Monthly Income Category by Sex and Education Attainment for 2011

Monthly Income in Rands (R)	Educational attainment							
	No Schooling		Primary		Secondary		Tertiary	
	Male	Female	Male	Female	Male	Female	Male	Female
No income	8497	6366	20979	17971	58123	64890	5335	6233
	19.0%	43.1%	17.5%	43.7%	14.9%	35.4%	9.3%	22.0%
R1 - R400	2932	1209	7658	2729	15403	7297	1058	382
	6.5%	8.2%	6.4%	6.6%	3.9%	4.0%	1.8%	1.3%
R401 - R800	6058	1611	14703	4665	32840	13970	1411	613
	13.5%	10.9%	12.3%	11.4%	8.4%	7.6%	2.5%	2.2%
R801 - R1600	14178	3916	33260	9278	89917	40064	3624	2195
	31.6%	26.5%	27.8%	22.6%	23.0%	21.9%	6.3%	7.7%
R1601 - R3200	7011	795	23430	3789	105529	32750	8097	3869
	15.6%	5.4%	19.6%	9.2%	27.0%	17.9%	14.1%	13.6%
R3201 - R6400	3433	163	13471	563	50200	8227	10043	4227
	7.7%	1.1%	11.3%	1.4%	12.8%	4.5%	17.5%	14.9%
R6401 - R12 800	901	23	2413	175	16058	2981	9349	4377
	2.0%	0.2%	2.0%	0.4%	4.1%	1.6%	16.3%	15.4%
R12 801 - R25 600	216	11	478	47	5653	1293	9840	3782
	0.5%	0.1%	0.4%	0.1%	1.4%	0.7%	17.2%	13.3%
R25 601 - R51 200	136	24	325	36	1858	545	5741	1947
	0.3%	0.2%	0.3%	0.1%	0.5%	0.3%	10.0%	6.9%
R51 201 - R102 400	11	0	62	23	501	84	2103	519
	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	3.7%	1.8%
R102 401 - R204 800	0	0	24	24	123	47	513	130
	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.9%	0.5%
R204 801 or more	0	0	28	0	212	48	250	77
	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.4%	0.3%
Unspecified	1435	650	2803	1790	14330	11112	0	0
	3.2%	4.4%	2.3%	4.4%	3.7%	6.1%	0.0%	0.0%
Total	**44808**	**14768**	**119634**	**41090**	**390747**	**183308**	**57364**	**28351**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 22: Occupation by Sex and Education Attainment for 2001

Occupation	No education		Primary		Secondary		Tertiary	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Managers	315	33	374	11	1548	418	1363	343
	1.1%	0.7%	0.7%	0.2%	2.7%	3.8%	17.1%	10.2%
Professionals	445	36	1134	24	1933	257	2950	1114
	1.5%	0.7%	2.2%	0.4%	3.4%	2.3%	36.9%	33.2%
Technicians and associate professionals	357	68	405	47	1517	682	925	872
	1.2%	1.4%	0.8%	0.8%	2.6%	6.2%	11.6%	26.0%
Clerks	456	113	972	98	1575	1421	341	433
	1.6%	2.2%	1.9%	1.7%	2.7%	12.9%	4.3%	12.9%
Service workers, shop and market sales workers	1409	282	2688	555	7158	1940	1122	309
	4.9%	5.6%	5.3%	9.4%	12.5%	17.6%	14.0%	9.2%
Skilled agricultural and fishery workers	1814	541	2567	401	1882	352	93	25
	6.3%	10.8%	5.0%	6.8%	3.3%	3.2%	1.2%	0.7%
Craft and related trades workers	8345	111	17196	222	18649	415	547	73
	29.0%	2.2%	33.8%	3.8%	32.5%	3.8%	6.8%	2.2%
Plant and machine operators and assemblers	5044	72	9692	100	8785	99	158	24
	17.5%	1.4%	19.0%	1.7%	15.3%	0.9%	2.0%	0.7%
Elementary occupations	10576	3771	15920	4454	14351	5420	494	165
	36.8%	75.0%	31.2%	75.3%	25.0%	49.3%	6.2%	4.9%
Total	**28761**	**5027**	**50948**	**5912**	**57398**	**11004**	**7993**	**3358**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2001 census data*

Appendix 23: Occupation by Sex and Education Attainment for 2011

Occupation	No schooling		Primary		Secondary		Tertiary	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Managers	2214	359	4318	799	20244	4486	9021	2985
	6.0%	4.0%	4.3%	3.3%	6.1%	3.7%	16.9%	12.7%
Professionals	908	280	2432	490	10317	3245	12589	4971
	2.5%	3.1%	2.4%	2.0%	3.1%	2.7%	23.6%	21.2%
Technical and associate professionals	1624	404	4342	964	16558	8365	4960	4540
	4.4%	4.4%	4.4%	3.9%	4.9%	6.9%	9.3%	19.4%
Clerks	2390	522	5715	1321	27043	13638	4748	3855
	6.5%	5.7%	5.7%	5.4%	8.1%	11.2%	8.9%	16.4%
Service workers, shop and market sales workers	5418	694	16132	2268	70792	19430	7554	2743
	14.8%	7.6%	16.2%	9.3%	21.2%	16.0%	14.2%	11.7%
Skilled agricultural and fishery workers	717	136	1120	369	2624	549	377	95
	2.0%	1.5%	1.1%	1.5%	0.8%	0.5%	0.7%	0.4%
Craft and related trades workers	7391	725	24351	1365	77246	6300	6179	909
	20.2%	8.0%	24.4%	5.6%	23.1%	5.2%	11.6%	3.9%
Plant and machine operators and assemblers	3818	355	11338	844	26257	4221	2275	577
	10.4%	3.9%	11.4%	3.4%	7.8%	3.5%	4.3%	2.5%
Elementary Occupation	9755	3200	23117	6804	62326	25332	3885	1295
	26.6%	35.2%	23.2%	27.8%	18.6%	20.9%	7.3%	5.5%
Domestic workers	2434	2405	6778	9272	21144	35885	1657	1484
	6.6%	26.5%	6.8%	37.9%	6.3%	29.5%	3.1%	6.3%
Total	**36669**	**9080**	**99643**	**24496**	**334551**	**121451**	**53245**	**23454**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Own computation using StatsSA 2011 census data*

Appendix 24: Industry by Sex and Education Attainment for 2001

Industry	No education		Primary		Secondary		Tertiary	
	Male	Female	Male	Female	Male	Female	Male	Female
Agriculture, hunting, forestry and fishing	8077	3122	9420	2854	6281	2250	158	13
	28.4%	62.9%	18.8%	48.9%	11.2%	21.7%	2.0%	0.4%
Mining and quarrying	11715	21	24903	108	21034	99	301	35
	41.2%	0.4%	49.6%	1.9%	37.4%	1.0%	3.9%	1.0%
Manufacturing	1507	178	2663	187	4241	766	1053	256
	5.3%	3.6%	5.3%	3.2%	7.5%	7.4%	13.5%	7.7%
Electricity, gas and water supply	27	0	108	0	146	0	117	26
	0.1%	0.0%	0.2%	0.0%	0.3%	0.0%	1.5%	0.8%
Construction	2479	74	4263	81	5684	97	292	40
	8.7%	1.5%	8.5%	1.4%	10.1%	0.9%	3.7%	1.2%
Wholesale and retail trade	2138	651	4203	827	9463	2410	1592	522
	7.5%	13.1%	8.4%	14.2%	16.8%	23.2%	20.4%	15.6%
Transport, storage and communication	277	37	696	13	1339	248	448	136
	1.0%	0.7%	1.4%	0.2%	2.4%	2.4%	5.7%	4.1%
Financial Services	483	65	832	60	2819	837	1437	825
	1.7%	1.3%	1.7%	1.0%	5.0%	8.1%	18.4%	24.7%
Community services	443	178	1084	301	2474	1537	2201	1357
	1.6%	3.6%	2.2%	5.2%	4.4%	14.8%	28.2%	40.6%
Private household	1306	637	2029	1406	2721	2130	86	71
	4.6%	12.8%	4.0%	24.1%	4.8%	20.5%	1.1%	2.1%
Other	0	0	0	0	25	0	115	58
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	1.7%
Total	28452	4963	50201	5837	56227	10374	7800	3339
	100%	100%	100%	100%	100%	100%	100%	100%

Source: *Own computation using StatsSA 2001 census data*

Appendix 25: Industry by Sex and Education Attainment for 2011

Industry	Educational attainment							
	No schooling		Primary		Secondary		Tertiary	
	Male	Female	Male	Female	Male	Female	Male	Female
Agriculture, hunting, forestry and fishing	5808	1808	10525	3165	21029	7168	1063	366
	15.8%	19.9%	10.6%	12.9%	6.3%	5.9%	2.0%	1.6%
Mining and quarrying	2100	228	8761	455	13465	1386	1342	272
	5.7%	2.5%	8.8%	1.9%	4.0%	1.1%	2.5%	1.2%
Manufacturing	3622	654	9167	1392	32305	6695	4154	1357
	9.9%	7.2%	9.2%	5.7%	9.7%	5.5%	7.8%	5.8%
Electricity, gas and water supply	120	0	431	23	2293	377	658	177
	0.3%	0.0%	0.4%	0.1%	0.7%	0.3%	1.2%	0.8%
Construction	5449	559	19067	943	54532	3479	4258	682
	14.9%	6.2%	19.1%	3.8%	16.3%	2.9%	8.0%	2.9%
Wholesale and retail trade	7456	1360	16569	3181	77027	26574	9819	2945
	20.3%	15.0%	16.6%	13.0%	23.0%	21.9%	18.4%	12.6%
Transport, storage and communication	1242	232	4269	550	19212	2858	3216	1206
	3.4%	2.6%	4.3%	2.2%	5.7%	2.4%	6.0%	5.1%
Financial intermediation, insurance, real estate and business	3452	625	10398	1603	46589	12355	11241	5351
	9.4%	6.9%	10.4%	6.5%	13.9%	10.2%	21.1%	22.8%
Community, social and personal services	3599	952	10053	2898	37094	19893	15089	9333
	9.8%	10.5%	10.1%	11.8%	11.1%	16.4%	28.3%	39.8%
Private households	3822	2662	10391	10287	30945	40629	2264	1672
	10.4%	29.3%	10.4%	42.0%	9.2%	33.5%	4.3%	7.1%
Other	0	0	12	0	60	37	140	92
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%
Total	36670	9080	99643	24497	334551	121451	53244	23453
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: *Own computation using StatsSA 2011 census data*

Appendix 26: Summary of Statistical Relationship for 2011

Bivariate relationship	Variable of control	Chi-square	Lambda	Phi	Cramer's V
Employment status and age	Gender	V=16304.086 P= .000 P<0.05	V=.000 P=.000 P<0.05	V=.136 P=.000 P<0.05	V=.136 P=.000 P<0.05
Employment status and marital status	Gender	V=5190.987 P= .000 P<0.05	V=.008 P=.001 P<0.05	V=.077 P=.000 P<0.05	V=.077 P=.000 P<0.05
Employment status and educational attainment	Gender	V=6035.651 P=.000 P<0.05	V=.000 P=.000 P<0.05	V=.083 P=.000 P<0.05	V=.083 P=.000 P<0.05
Income and age	Gender	V=69932.372 P=.000 P<0.05	V=.015 P=.000 P<0.05	V=.282 P=.000 P<0.05	V=.094 P=.000 P<0.05
Income and marital status	Gender	V=35427.248 P=.000 P<0.05	V=.052 P=.000 P<0.05	V=.201 P=.000 P<0.05	V=.090 P=.000 P<0.05
Income and educational attainment	Gender	V=220738.535 P=.000 P<0.05	V=.032 P=.000 P<0.05	V=.501 P=.000 P<0.05	V=.289 P=.000 P<0.05
Occupation and educational attainment	Gender	V=100149.228 P=.000 P<0.05	V=.023 P=.001 P<0.05	V=.378 P=.000 P<0.05	V=.218 P=.000 P<0.05
Industry and educational attainment	Gender	V=57037.359 P=.000 P<0.05	V=.016 P=.000 P<0.05	V=.285 P=.000 P<0.05	V=.165 P=.000 P<0.05
Type of sector and educational attainment	Gender	V=14536.549 P=.000 P<0.05	V=.000 P=.000 P<0.05	V=.144 P=.000 P<0.05	V=.083 P=.000 P<0.05

Source: *Own computation using StatsSA 2011 census data*