

**Factors Affecting the Enrolment Rate of Students in Higher Education  
Institutions in the Gauteng province, South Africa:**

**Based on General Household Survey 2012**

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A thesis submitted in fulfilment of the requirements for the degree of Master of Philosophy in

Population Studies

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## Declaration

I, Tlou Mpho Joyce Matsolo, declare that this work is my own. It has not been previously submitted for a degree or diploma at any other higher education institution. And to the best of my knowledge, it contains no material previously published or written by another person except where due reference is made.

Signature: .....

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## **Dedications**

This thesis is dedicated to my husband, Sizwe Matsolo, and to my beloved boys, Bukho and Theto, for the unwavering love, support and patience they have given me – especially during the hard times. I want them to know that they were the inspirational forces behind my studies.



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## Abstract

**Background:** In South Africa, many students are not able to register at higher education institutions after receiving their high school diploma. The majority of those who do register do not even complete their tertiary studies. The purpose of this research project is to investigate and analyse higher education institutions' enrolment and dropout within the Gauteng province, South Africa.

**Data and Methods:** Large-scale secondary data from the General Household Survey (GHS, 2012), obtained from Statistics South Africa were used. The Statistical Package for Social Science (SPSS) and the Statistical Analyst System (SAS) software package were utilised for quantitative analysis. The numerous local and international pedagogical studies synthesised in this research show that finance, unplanned pregnancies, orphanhood and transport to the higher education institutions are some of the main concerns that affect the enrolment rate of students. Further variables such as gender, race, ethnicities and the type of institution have also negatively affected the enrolment rate of students, particularly in sub-Saharan Africa.

**Results:** According to the ICEF Monitor 2015, current higher education enrolment in Sub-Saharan Africa is 8%. The UIS Fact Sheet 2010 revealed that the enrolment ratio is 4.8% for women compared to 7.3% for men. The present study focuses on the Gauteng province's students who have completed their high school education, as well as those who are either registered or not registered within the province's higher education institutions, and are between the ages of 17 and 35 years.

**Conclusion:** This study hopes to be useful to policy-makers, research managers and other decision makers within education.

**Keywords:** Finance, Race, Gender, Dropout Rate, Child Labour, Mode of Transport, Statistics, Higher Education Institutions, Educational Policy, Gauteng, South Africa, Sub-Saharan Africa.

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## List of Acronyms and Abbreviations

ABET	Adult Basic Education and Training
AIDS	Acquired Immune Deficiency Syndrome
ASSAF	Academy of Sciences of South Africa
ATR	Annual Training Report
BRICS	Brazil, Russia, India, China and South Africa
CBO	Community-Based Organisation
CETC	Community Education and Training Centre
CHE	Council on Higher Education
CHET	Centre for Higher Education Transformation
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DST	Department of Science and Technology
DTI	Department of Trade and Industry
EAs	Enumeration Areas
DUs	Dwelling Units
PDU	Primary Dwelling Units
FET	Further Education and Training
HESA	Higher Education South Africa
GHS	General Household Survey
NSFAS	National Student Financial Aid Scheme
NPC	National Planning Commission
NPHE	National Plan for Higher Education
PSUs	Primary Sampling Units
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SAS	Statistical Analyst System
SPSS	Statistical Package for Social Science
Stats SA	Statistic South Africa
TVET	Technical and Vocational Education and Training
UKZN	University of KwaZulu Natal
WCHE	World Conference of Higher Education

WSP

Workplace Skills Plan

UIS

UNESCO Institute for Statistics

ICEF

International Consultants for Education and Fairs



# CHAPTER I

## INTRODUCTION

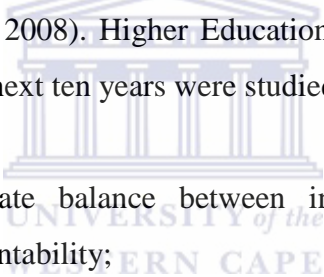
### 1.1. Background to the research

In South Africa, research has revealed that since 1994 the number of students enrolled in the higher education institutions has improved tremendously, (Council of Higher Education, 2004). Higher education and training consists of certificates and diplomas, undergraduate and postgraduate degrees up to the level of the doctoral degrees. South Africa has a vibrant higher education sector, with more than a million students enrolled in the country's 24 state-funded tertiary institutions. Of those institutions, eleven are traditional universities, five are universities of technology, and six are comprehensive institutions. There was also an addition of two new universities in the Northern Cape and Mpumalanga provinces. The two provinces had no higher education institutions previously. The introduction of the two institutions in these provinces will undoubtedly intensify enrolment rate since majority of students will have a higher education institution located in their home province.

Higher education institutions in South Africa are in the process of finding innovative ways of best combining the different qualifications, curricula, teaching and learning styles on their traditional and university of technology constituent parts. Notably, since 2000 South African students' enrolment has grown at a rate of 4.2% per year on average, (Higher Education In Context, 2010). This figure takes into account a negative growth which took place between 2004 and 2005 during the merger of higher education institutions. Subsequent to that, between 2005 and 2009, there was further noticeable decline up to 2.3% per annum. Unexpectedly, between 2010 and 2011 the figure increased up to 6.2% or 55 000 additional students registered in the system, (Higher Education In Context, 2010). The country has acknowledged that it is largely through education that economic growth will improve – giving people a way out of poverty, (Council of Higher Education, 2004). Furthermore, policies on higher education have been outlined in the next phase to get more insight on what the government intends to do in order to improve higher education conditions or concerns.

In 2000, gross enrolment rate in higher education institutions, that is the enrolment in higher education institutions regardless of age as a proportion of 20-24 years old in the population was discovered to be 12.9%, (Statistics South Africa, 2012). Therefore, by 2001 the National Policy for Higher Education – which provided the implementation framework for transforming the higher education system – set participation rate target of 20% over a 10 to 15 years period, (Ministry of Education, 2001). Between 2000 and 2006, higher education enrolment increased by 1.6%. It was therefore 14.5% in 2006, although dropped from a high of 16.1% in 2004 and stood at 16.3% in 2007, (Reviews of National Policies for Education SA, 2008).

While the new higher education policy intends to improve the quality of education programmes offered in the institutions created as a result of mergers, it will also reduce the perceptions of inadequacy in higher education held in the labour market. However, the challenge of resources requires urgent attention particularly in the historically black universities, (Letseka and Maile, 2008). Higher Education South Africa's (HESA) systems and policy considerations for the next ten years were studied and are stipulated as follow:

- 
- To achieve an appropriate balance between institutional autonomy, academic freedom, and public accountability;
  - To arrive at an adequately funded higher education system;
  - To achieve quality levels comparable to the best in the world;
  - To develop institutional diversity in terms of self-differentiation;
  - To advance transformation, social cohesion, non-discrimination and freedom of speech and association;
  - To strengthen institutional responsiveness and relevance

(HESA, 2009)

## 1.2. Statement of the problem

South African higher education institutions face serious challenges; particularly that of low enrolment rate due to high drop-out cases. According to the National Plan for Higher Education (NPHE) compiled by the Department of Education in 2001, the country's graduation rate of approximately 15% is one of the lowest in the world. This is of particular

concern, given the huge number of first year enrolment at higher education institutions and that may also lead to critical shortage of high-level skills in the labour market. In combination, these factors are likely to act as a major impediment to achieve the government's economic development goals.

Various studies have revealed the stark realities of racial inequalities in higher education sector. To emphasise on the low graduation rates alluded above, black students were more affected than others, (Letseka and Maile, 2008). According to the Department of Education (2005), black Africans and coloureds, sections of society that bore the brunt of exclusion by the apartheid education policies and legislation, continue to lag behind in education success rates. For this reason, National Planning Commission (NPC) plan recommended that the participation rate for the blacks be increased to over 30% and that of enrolment in higher education institutions, including private ones, be increased from 950,000 in 2010 to more than 1.62 million in 2030, a 70% increase, (NPC, 2011).

Furthermore as late as 1993, provision of educational funding was racially skewed and quite unequal. In that year, the apartheid regime allocated R4 504 for the education of a white pupil, R3 625 per Indian pupil, R2 855 per coloured pupil and a paltry R1 532 per black African pupil, (Education Statistics in South Africa at a Glance, 2001-2004). In higher education, steep university fees contribute to the continued under-representation of black students and most likely drop out – which threatens to replicate racial inequality in higher education well into the future. National Student Financial Aid Scheme (NSFAS), regarded as successful schemes established by government to assist students from poor disadvantaged families with academic ability, provides loans and bursaries to first-time entering and continuing eligible students at universities and public Technical and Vocational Education and Training (TVET) colleges throughout the country. As a matter of fact, NSFAS loans to students increased fivefold between 1995 and 2005.

Recently, the Higher Education and Training Minister, Dr. Blade Nzimande, has announced that NSFAS has set aside R9.5 billion in bursaries. Briefing journalists in Pretoria, the Minister also said this year's allocation was an increase compared to 2014's R8.3 billion loans. He also continued to mention that NSFAS would fund 205 000 first-time entering and continuing eligible students at universities and 200 000 students at Technical and Vocational Education and Training (TVET) colleges. With this background, further analysis will be done

to learn about the factors affecting enrolment rate at higher education; against lessons learned from the literature review.

Analytical tools will be used to illuminate the current limitations facing the higher education sector. However in order to eliminate the core problems, the government ought to implement stronger educational policies which will address and better the enrolment processes.

### 1.3. Objectives of the study

The main aim of the study is to understand the reasons on why most students in the higher education institutions are unable to enrol or fail to complete their studies. In addition, this study shall attempt to profile such students according to their enrolments as well as drop outs. The study will also look into the enrolment of students according to their designated population groups since some universities enrolled only white students in the yesteryear.

Synthesising from the background of the study, during the apartheid era some population groups were more disadvantaged than the other in terms of getting access to education. Situations have improved radically post-1994. The new, democratic South African government has designed internationally-acclaimed policies to reverse the apartheid constructs pervaded every sphere of the previous South African society. In order to achieve skill distributions, the implementation of such policies needs to be continuous and effective. On yearly basis, not all high school graduates get an opportunity to enrol at a higher education institution mainly due to the financial constraints. The South African government had dedicated itself annually in setting aside a lot of money especially for the higher education – of which a fraction of that is deemed in addressing the issue of resources needed by institutions as well as accommodating the disadvantaged students in need of finances and accommodation to further their tertiary studies.

The study will also look into the proportion of students receiving bursaries, loans and it will also consider the type of households which pay tuition fees. It is also important for the researcher to understand if unplanned pregnancies, orphanhood and transport problems can have an impact on the enrolment. Distribution of students enrolled in the higher education institutions according to population group, as well as gender will also be investigated.

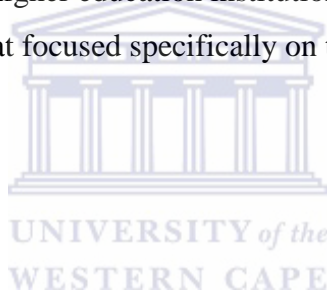
#### 1.4. Research questions

This research attempts to answer the following research questions:

1. Can student finance affect the enrolment or drop-out of students in the higher education institutions?
2. Why many students are not able to register or complete their higher education?
3. How can we eliminate the dropout cases?

#### 1.5. Limitations of the study

The larger limitation of this study is that GHS questionnaire did not ask questions about students' dropout. Subsequently, an additional questionnaire had to be developed to learn more about the drop out cases at higher education institutions. Furthermore, it was difficult to find localised literature review that focused specifically on the Gauteng's higher education institutions.



#### 1.6. Research outline

This research project is divided logically into six chapters.

Chapter 1 aims to introduce and orientate the reader with the background of the research topic, its aims and objectives, the statement of the problem, the research limitations, and concludes with a brief discussion on the research outline.

Chapter 2 presents syntheses of the pedagogical research accounts concerning the research topic – thus providing the reader with rich pedagogical discussions surrounding the topic.

Chapter 3 orientates the reader on the research methodologies used, and tools of conducting the research. It shall also emphasise the role of ethics when conducting research.

Chapter 4 presents the data and findings for analysis.

Chapter 5 discusses and analyses the findings of the research.

Chapter 6 is aimed at presenting the arrived conclusion(s), and suggests recommendations for future studies on the same or similar topic of research.





## CHAPTER II

### LITERATURE REVIEW

#### 2.1. Introduction

This chapter aims to synthesise various pedagogical studies and articles on higher education enrolment. During the apartheid regime, for instance, non-white individuals were seen largely as different as well as inferior to white individuals in South Africa, (Ratele and Shefer, 2003). These apartheid-construct differences brought a lot of discriminations among races since others felt more privileged or superior to others. These apartheid-constructs sense of superiority and inferiority affected many spheres of the South African societies, as well as many arenas of the higher education at the time. Schooling was generally better for white students, whilst Indian and coloured education was comparatively way better than black education, (Morrow, 1990). Whites largely enjoyed the privileges of accessing and enrolling at institutions of their choice whereas their counterparts had less exposure and also struggled to access the institutions.

Lack of funding was one of the biggest issues which faced potential black South African students with the intention of pursuing tertiary studies. Post-apartheid government has made such an enormous transformation by introducing NFSAS (previously called TEFSAs) as a solution to the indigent students who wish to pursue higher education.

#### 2.2. Higher education enrolment

Compared to most countries, education in South Africa gets quite large slice of the public's money, usually around 20% of the total state expenditure. With this, many disadvantaged students can afford the opportunity to in the formally white-only universities, and institutes. More funds are always needed to address the huge backlogs left by the apartheid education system. Education plays a significant and pivotal role in eliminating poverty, since it is the most significant way of investing in one's human capital which could lead to higher earnings, (Nimubona and Vencatachellum, 2007). Tertiary education attainment has numerous benefits, some of which are to contribute to the country's greater skills base, as well as increasing savings and creating greater tax revenue, improving health and technology, and reducing

population growth, (Bloom et al., 2006; Council on Higher Education, 2004; Makoe, 2006; Mubangizi and Mubangizi, 2005).

For South Africa to be on a global scale in terms of its tertiary education, it is necessary for the country to encourage more of its society constituents to enrol at its higher education institutions, (Council on Higher Education, 2004). A restructured higher education system should be socially just and equitable in its distribution of resources and opportunities, (Department of Education, 2002). Furthermore, HESA's report published in 2008 reveals that by 2004 direct first stream funding from the government had dropped to 43% of the university's income; that is from 49% in 2000, while the (dis)proportion of second stream income from fees rose to 29%, that is from 24% in 2000. According to the Department of Higher Education and Training, state funding for South African students grew from R2.375 billion in 2008 to R6 billion in 2011 to R8.3 billion in 2014 to R9.5 billion in 2015.

South Africa will ensure that its funding for poor students as well as strong performers at the country's universities and colleges increase every year. The budget of 2013 compared to that of 2012, states that R5.4 billion had been allocated to the total programme, which was a 5.3% increase. Furthermore, R1.98 billion had been set aside for the bursary allocation and this represented a 7.5% increase. It is also noted that 2015 NFSAS budget is relatively higher to the one of 2014, hence: 9.5 billion and 8.3 billion respectively, (DHET Budget, 2015). Gauteng received the largest allocation, which totalled 23% while the Northern Cape received the lowest allocation of about 2%, (Maharaswana, 2013). The financial instability in one way or another affects the racial profile enrolment in most institutions. It is obvious that majority of white students can afford to pay fees in comparison to black Africans, hence the participation rate between the two races would be incomparable.

Despite the significant progress made in expanding access to education since 1994, the higher education in South Africa remains a "low participation-high attrition" system, (Fisher, 2011). Student outcomes are overall poor and highly unequal across both institutional types and racial groups. The participation rate of whites is well over 50% compared with 13% for Africans, (Fisher and Scott, 2011). According to the South African Higher Education: Facts and Figures (2013), in 1993 nearly half of all students were white, 40% were African, 6% were coloured and 7% were Indian. However, by 2005 the portion of white students had shrunk to 25% and the African share had grown to 61%.

South Africa's student participation rate – the proportion of 18-24 years old in higher education – is fast approaching 20%, (South African Higher Education: Facts and Figures, 2013). But while access to higher education has significantly improved, there are still racial divisions between the participation rates of young people: some 60% of whites and more than half of Indians enter higher education, but the rate for Africans is only around 11% and for coloured it is even lower at 7%. In September 2013, the report submitted to the parliamentary portfolio committee on higher education calculated that it could take more than a dozen years before student enrolments mirrored national demographics (Jenvey, 2013). A joint statement by University of KwaZulu Natal, UKZN, and the transformation oversight committee for public universities showed that South Africa's previously advantaged institutions had poor equity indices, but scored well as high-level knowledge producers, (Jenvey, 2013).

Correspondingly, universities of technology and several formerly disadvantaged institutions produced "little research, but have a good equity profile", (Govender, 2013). Nevertheless, according to the Department of Higher Education success rates in universities have been improving, currently standing at 74% for African, 76% for coloured, 81% for Indian and 85% for white undergraduates, but only around 15% of students graduate each year, far fewer than the government's benchmark of 25%. The 60% participation rate cited above is more likely to be gender disparity, which to a certain extent is still a concern in higher institutions.

### 2.3. Gender disparities in the higher education institutions

Although gender disproportion is evident across a broad range of societal organisations, for this purpose the unit of discussion will be higher institutions. Whilst the researcher acknowledges that the conception of gender is not comparable to women, women are nonetheless at the forefront of nearly all gender debates because of the unequal treatment they have been subjected to over the decades. Gender disparities in various societal organisations and institutions have been a subject of ongoing feminist research initiatives. Institutions of higher learning are no exception to this. In the mid-1990s, gender equity remained a problem in higher education where majority of men than women were enrolled in the South African higher education institutions. Although the apartheid system was a patriarchal, militarised system that oppressed women in general, the treatment of white women was mitigated by their racial affinity. White women were privileged by legal prescriptions during the pre-1994

historical phase, thus putting them above black women in the hierarchical ordering of the people of South Africa then. Majority of white women had access to private education and institutions of their choice, and although they were discriminated against in terms of their gender they were nonetheless relatively better disposed than their black counterparts who had suffered double oppression, (Mathabe, 2006).

It is interesting to note that after 1994, South Africa experienced a large number of female students entering universities. In 1993, the total percentage of women students in South African universities was 43% whilst in 1999 the percentage increased to 53%. Male students constituted 57% in 1993 whilst in 1997 their number decreased to 48%. In the post-1994 era the number of female students surpassed that of male students, especially at an undergraduate level. At this level, it could also be argued that the sharp increase of female students over their male counterparts might not portend well for the future given that the idea of mainstreaming gender in universities is not to decrease the number of male students but to create parity, (Mathabe, 2006).

According to statistics stated during the Commonwealth Association of Universities Conference in Cape Town in May 2010, by 2000 53% of students were women and the proportion rose to 55.5% in 2007. Presenting his findings to the parliamentary committee, Professor Malegapuru Makgoba said the study "surprisingly showed" that gender transformation was happening faster in the higher education. To be more specific, Professor Makgoba cited the indices from Tshwane University of Technology, the University of Cape Town and Stellenbosch University which displayed gender equity indices of 0.6, while North West University was the worst of them all at 20.4 – a figure that was still better than performances on the racial index.

The percentage share of female students has increased faster than that of male students, which was 55% and 44% respectively, (Bunting et al. 2010). Lamdany (2004: 3) asserts that arguments to subsidise higher education to increase female enrolment and academic development are weakened in countries where the gender gap is higher in secondary school than in the higher education. On the other hand, debates on women and higher education at the World Conference of Higher Education (WCHE) posited cultural traditions "as the central and most powerful factor for success or failure of initiatives are to promote gender equality," (1998). It is generally believed that drop out in most females

would be caused by unplanned pregnancies; hence there were more men than women at the higher education at the time.

#### 2.4. Students' enrolment and dropout

South African higher education faces a number of challenges; among them is a high student dropout rate. A very disturbing 45% dropout rate among students, undermining the access gains of universities. Financial difficulties are among the country's largest reasons given by poor black students for not pursuing their tertiary education. According to the student pathways study done by Letseka and Maile (2008), 'First generation' students from low income, less educated families are most likely to drop out. Loans and bursaries do not cover the full costs of study, leaving students struggling to cover living and other costs. This is especially true to those students on the NSFAS loan scheme where approximately 35% of those students do not complete their studies, (HESA report, 2008).

In 2005, the Department of Higher Education reported that of the 120 000 students who enrolled in higher education in 2000, 36 000 (30%) dropped out in their first year of study. A further 24 000 (20%) dropped out during their second and third years. Of the remaining 60 000, 22% graduated within the specified three years duration for a generic Bachelor's degree. Subsequently, the department issued a public statement lamenting that the dropout rate was costing the National Treasury R4.5 billion in grants and subsidies to higher education institutions without a commensurate return on investment. It has since emerged that at some institutions the dropout rate is as high as 80%. Fowler (2003) argues that one of the main reasons for student dropout is the fact that students are often not academically and psychologically prepared for tertiary study – transition from high school to tertiary, for example, is quite gruesome especially on how to handle tertiary life socially and academically.

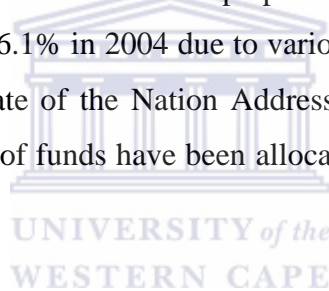
Pierrakeas and Xenos (2004) argue that unplanned pregnancy or childbearing could be the reason for drop out. Likewise, National Campaign (2009) highlights that unplanned pregnancies increase the risk of dropping out of universities or colleges, as 61% of the registered students who happen to have children do not finish their education, which is 65% higher than the rate for those who did not have children. Macfarlane (2006) argues that even when the movement of students between institutions is taken into account, close to 50% of

undergraduates drop out. About one in three university students and one in two Technikon students dropped out between 2000 and 2004, (Letseka, 2008).

Improvement of throughput rates must be the top strategic priority of university education. Among other things, this will allow education to increase the number of graduates disproportional to the increase in the relatively modest projected expansion of university enrolments, (DHET, 2012).

## 2.5. Summary

Higher education in South Africa is a vibrant sector with thousands of students enrolling yearly. In 2001, policy set participation rate target was 20% over 10 to 15 years. Subsequently, the set rate in enrolment rate elicited a need to build 2 new institutions of higher education in Mpumalanga and Northern Cape provinces. However, in 2006 there was a drop to 14.5% from a high of 16.1% in 2004 due to various reasons, with finance being the key. Considering the SONA (State of the Nation Address) budgets from previous years to current, it is evident that billions of funds have been allocated to the higher education sector, especially through its NFSAS.



NFSAS serves as a financial solution to the poor, but strangely every year millions of students fail to enrol due to outstanding fees. Gauteng province received the largest allocation of funds towards higher education, totalled 23%, while the Northern Cape received the lowest allocation of 2%, (Maharaswana, 2013). These funding continues to make a huge impact to the top performing students and largely more helpful to students from underprivileged background. Finances can in one way or another lead to racial discrimination towards enrolment. Most authors in the synthesised literature have reiterated that registration fee would be a non-issue to white students in comparison to black students. This happened mostly in the apartheid era and gradually deteriorating since 1994.

In terms of gender disparity, apartheid had impacted heavily on that issue where white women, for instance, were privileged by legal prescriptions – thus hierarchically putting white women above black women. Majority of white women had access to private education and institutions of their choice and were better disposed than their black counterparts who had suffered double oppression.

Gender equity has been a critical issue in the past where majority of men were eligible to enrol at the higher education than females. It could be that women oppression was so ripe that they also felt that going to work or staying at home after school was all that they could opt for. With observation from 2000 to 2007, percentage of female enrolment happened to increase faster than that of men. Some studies have revealed that gender and race are more likely to influence high dropout cases. It has been argued that females' unplanned pregnancies could be the reasons for dropout or may increase the risk of dropping out. Equally, students from low income households, as well as less educated families, mostly black Africans, were more likely to drop out – since the financial aid received through loans and bursaries do not cover full study cost. It is reported that such dropout cases eventually cost the National Treasury R4.5 billion in grants and subsidies to higher education institutions without a commensurate return on investment.

Moreover, findings from other authors claim that the high dropout among students is simply because students are often not academically prepared for tertiary study, referring to the transition from high school to tertiary. Subsequently, HESA established a Working Group on Teaching and Learning, which have recommended that a Charter be drawn to improve teaching and learning, recommending that three-year degrees be changed to four years, and also emphasising that academic support programs and NFSAS assistance be more strengthened.

## CHAPTER III

### DATA AND METHODOLOGY

#### 3.1. Introduction

The focus of this research project is to investigate and analyse the enrolment and dropout rates of higher education institutions within the Gauteng province of South Africa. The high dropout rate of higher education institutions in South Africa as a whole can be attributed to a variety of factors, some of which will be discussed in the analysis chapter. This chapter is divided into the following five sections: data and methods, methodology, sampling, selected variables, and ethical considerations.

#### 3.2. Data and Methods

The data used in this study is based on the General Household Survey (GHS) 2012 produced by Statistics South Africa. The GHS is an annual survey that utilises a face-to-face interview method to collect national data.

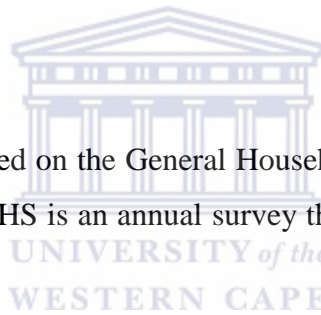
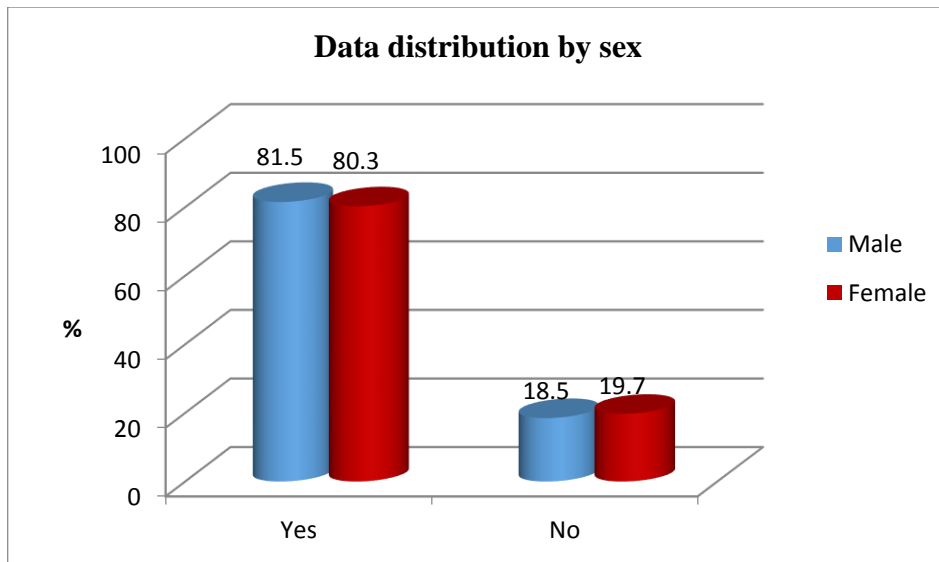


Table 3.1 *Percentage data distribution of enrolment by sex*

		Enroll		
Sex		Yes	No	Total
Male	No. of students	2004	454	2458
	Enrolled	81.53	18.47	100.0
Female	No. of students	1976	486	2462
	Enrolled	80.26	19.74	
Total	Enrolled	3980	940	4920
	Percent	80.89	19.11	100.00

Source: Statistics South Africa – GHS 2012





Source: Statistics South Africa – GHS 2012

Figure 3.1 Percentage of data distribution by sex

Table 3.1 and Figure 3.1 illustrate the data distribution of sex by enrolment. In 2012, the percentage of enrolled males was 81.5%, and the percentage of enrolled females was 80.3%. In order to determine whether the two percentages are statistically different, the Chi-Square test provided below in Table 3.2 was used.

Table 3.2 *Chi-Square test statistics*

Statistic	DF	Value	Prob
Chi-Square	1	1.2831	0.2573

Source: Statistics South Africa – GHS 2012

The Chi-Square test indicates that there is a 1.2831 value and associated P-value of 0.2573. If the alpha value is 0.05 and the degree of freedom is 1, there is no difference between the proportion of males and females enrolled. We therefore accept a null hypothesis, because the calculated value is smaller than the critical value of 0.05. It can then be concluded that the data did fit the model and the relationship is significant. This paper attempts to unearth the factors affecting the enrolment rate of higher education institutions in Gauteng, focusing on demographics and variables such as finance, distance, and transport. The expectation is that these variables will provide constructive results upon completion of the study. This goal will be achieved using the GHS, one of South Africa’s largest surveys,

which is conducted with a focus on various variables, including education. The study took an empirical approach and primarily used descriptive and inferential statistics for data analysis.

### 3.3. Methodology

For this study, the following approach was adopted: first, relevant pedagogical literature was synthesised to provide in-depth information on the enrolment and dropout rates of higher education institutions in South Africa's turbulent context. Two of the key issues that arose while researching the high dropout rate were the lack of finances and unplanned pregnancies. Secondary data from General Household Survey (GHS) was also utilised for quantitative study. The survey used a multi-stage design, which is based on a stratified design with a probability proportional to size (PPS) selection of primary sampling units (PSUs) at the first stage and sampling of dwelling units (DUs) with systematic sampling at the second stage. After allocating the sample to the provinces, the sample was further stratified by geography (primary stratification) and by population attributes (secondary stratification) using Census 2001 data.

For the purposes of data collection, survey officers employed and trained by Stats SA visited all the sampled dwelling units in each of the nine provinces. During the first phase of the survey, survey officers visited sampled dwelling units and informed the residents about the coming survey as part of the publicity campaign. Thereafter, the interviews took place over a period of four weeks. A total of 25,330 households (including multiple households) were successfully interviewed via face-to-face interviews. According to Kothari (2004), qualitative research (like the research conducted using the above-mentioned method) is more concerned with qualitative phenomenon, i.e. phenomena relating to or involving quality or kind. The key respondents were comprised of South African residents with higher education institutions students as the population of interest. Finally, the information obtained through the questionnaire was carefully selected for the purpose of this study, and then analysed and verified against the information obtained from the literature review.

Subsequently, a qualitative study was executed to analyse the dropout data. Qualitative research, according to Kothari (2004), is [more] concerned with qualitative phenomena, i.e. phenomena relating to or involving quality or kind. It is especially useful when investigating the reasons for human behaviour "i.e. why people think or do certain

things” (2004: 3). Quantitative research methodology, on the other hand, refers to the type or kind of research that is “based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity” (Kothari, 2004: 3).

Because the GHS does not provide information on dropout rates, a questionnaire was developed separately to acquire the respondent’s feelings and perceptions of the dropout rate within the Gauteng province. A sample of 10 people were approached at random and provided with the questionnaire to do a self-administered interview. The population of interest included both employed and unemployed persons, as well as pensioners and students from the age of 17 and above.

### 3.4. Sampling

A multi-stage design was utilised for this study. As mentioned in the methodology section, this study is based on a stratified design with PPS selection of (PSUs) at the first stage and then in the second stage, sampling of (DUs) with systematic sampling. Once the sample was allocated to the provinces, it was then further stratified by geography (primary stratification) and then by population attributes (secondary stratification).

The Census enumeration areas (EAs) delineated for the 2001 Census formed the basis of the PSUs. The following additional rules were used:

- Where possible, PSU sizes were kept between 100 and 500 DUs.
- EAs with fewer than 25 DUs were excluded.
- EAs with between 26 and 99 DUs were pooled to form larger PSUs and the criteria used were the same settlement type.
- Virtual splits were applied to large PSUs: 500 to 999 split into two; 1 000 to 1 499 split into three; and 1 500 plus split into four PSUs.
- Informal PSUs were segmented.

### 3.5. Selected variables

The following variables were selected for the purpose of this study:

Dependent variables

- Enrolment rate

### Independent variables

- Mode of transport
- Reasons for not enrolling
- Bursary/Fee reduction
- Annual fees paid
- Distance to the institution

### 3.6. Ethical considerations

The study used secondary data from Statistics South Africa, which is public-domain information accessed via the website. This study does not identify any individual, group, society or community. The information provided in this study can prove useful for both policy makers and planners. Data used for this study is fully available without restriction.



## CHAPTER IV

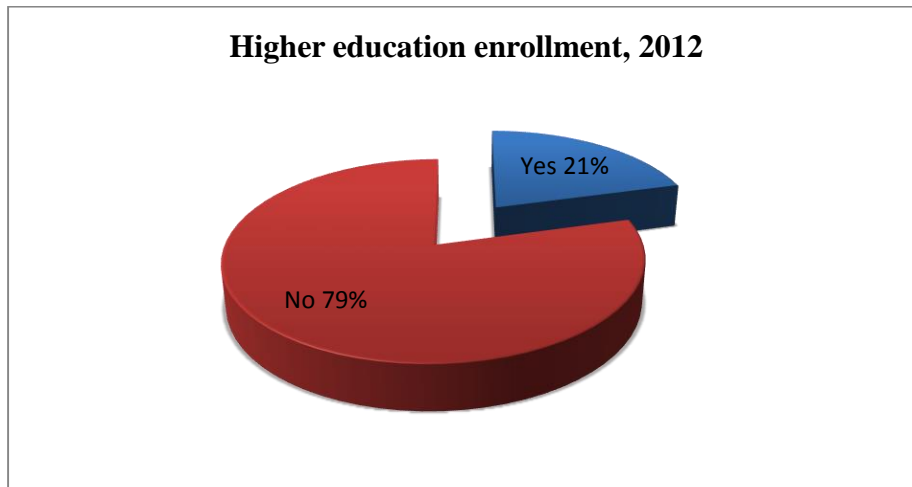
### DATA ANALYSIS

#### 4.1. Introduction

In this chapter, the empirical analysis and interpretation of tables and graphs are carried out. Variables outlined in Chapter 4 analysed and interpreted using suitable statistical tools, namely Statistical Analyst System (SAS). Statistical techniques will be used to measure the quality of results obtained from the sub-sample of the study. These results were obtained using the GHS 2012 data.

The General Household Survey (GHS) is a household survey that has been executed annually by Statistic South Africa (Stats SA) since 2002. The survey in its present form was instituted as a result of the need identified by the Government of South Africa to determine the level of development in the country and the performance of programmes and projects on a regular basis. The survey was specifically designed to measure multiple facets of the living conditions of South African households, as well as the quality of service delivery in a number of key service sectors. The GHS covers six broad areas, namely education, health, social development, housing, household access to services and facilities, and food security and agriculture. However, for the purpose of this report, the study will be concentrating on education – focusing specifically on questions addressing higher education in the Gauteng province. According to 2011 South African National Census, Gauteng is the smallest province with almost 25% of the total South African population. Gauteng Province is also the fastest growing province, experiencing a population growth of over 33% between the 1996 and 2011 censuses; thus making it the province with largest population in South Africa. Stats SA census 2011 has also revealed that in overall, 40.6% of residents have completed high school and 34.3% managed to complete some higher education, hence an in-depth analysis on the topic.

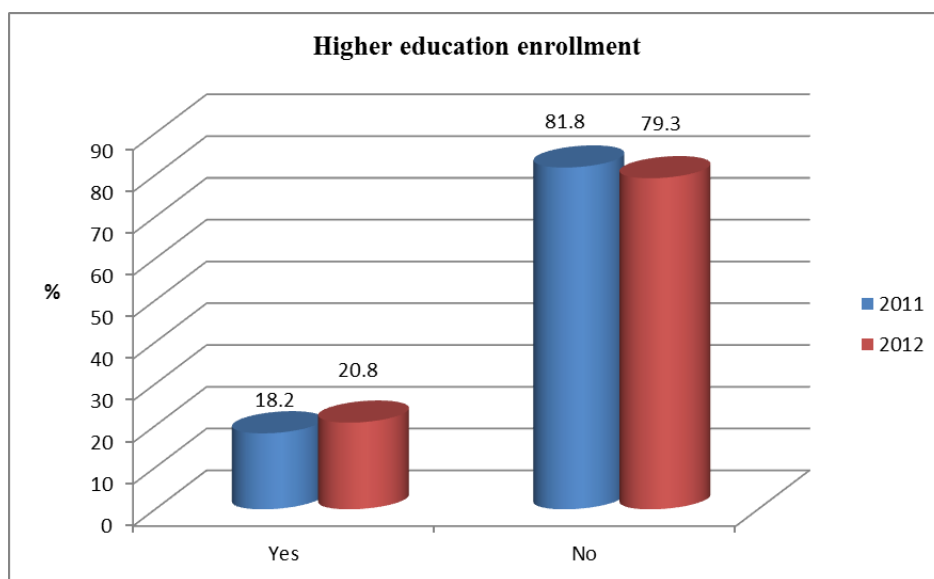
4.2. Below is the analysis in tabular and graphical format focusing on a number of variables to be measured



Source: Statistics South Africa – GHS 2012

Figure 4.1 Enrolment in the higher education institutions

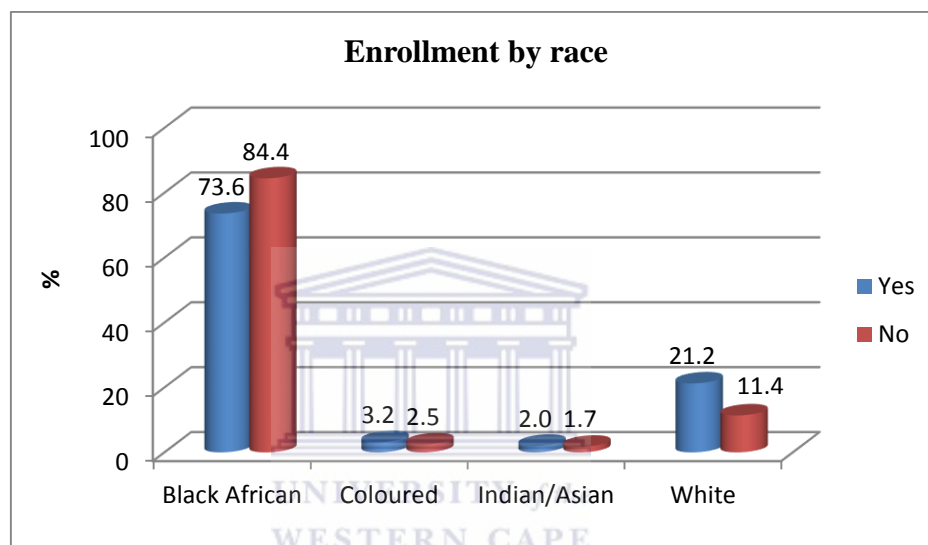
The figure above illustrates the percentage of students who were currently enrolled in 2012. Approximately 79% of the students declared not enrolled whilst 21% stated that they were enrolled. The above results raised concerns as to why such a high percentage of young people were not enrolled in the higher education institutions. This could be as a result of various factors which will be measured against enrolment in the report.



Source: Statistics South Africa – GHS 2012

Figure 4.2 Comparison of higher education enrolment in 2011 and 2012 academic years respectively

Figure 4.2 above illustrates the enrolment comparison between 2011 and 2012 academic years respectively. The results show that approximately 21% of the students reported that they were enrolled in the 2012 academic year whilst 18% were enrolled in the 2011 academic year. The comparison between the two years clearly shows that there is a problem concerning enrolment. The state of enrolment rate appears similar despite a slight improvement in 2012. The huge percentage of unregistered potential students in both years is alarming and unacceptable.



Source: Statistics South Africa – GHS 2012

Figure 4.3 Enrolment percentage by race

Due to the racial disparity experienced in our institutions, a question was asked to identify the percentage difference of enrolment by race. Consequently, the above figure illustrated the percentage of students enrolled in the Gauteng province according to their race. Referring from Figure 4.1, amongst 21% of the students who were enrolled 74% of them were black Africans, followed by 21% of whites. Coloureds and Indian/Asian represented the least percentage of the enrolled students in our institutions – represented by 3% and 2% respectively. Moreover, it is noticed that 79% of the potential students who were not enrolled in Figure 4.1 above 84% of them were of black African race, followed by 11% of whites whilst coloureds and Indians/Asians were 3% and 2% respectively.

The above outcomes are not surprising as it is known that the majority of the country's population are of black African race followed by white population. Coloureds and

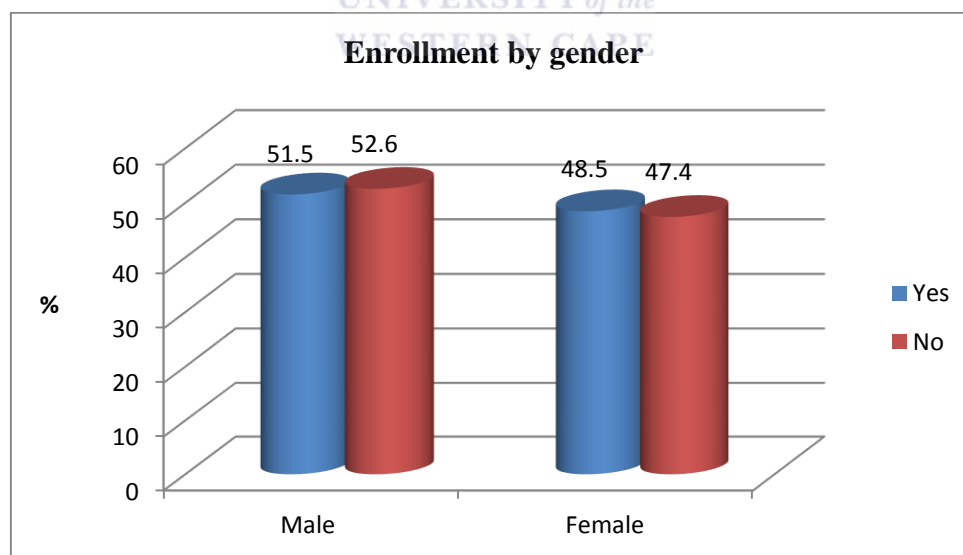
Indians/Asians are the minorities; hence they are represented in few percentages. Overall, the results show that there is huge improvement in black African students' enrolment within the country's and province's higher education institutions compared to the yesteryears.

Table 4.1 *Comparison of higher education institutions enrolment according to race in the 2011 and 2012 academic years respectively*

Enrolment	Black African		Coloured		Asian/Indian		White	
	2011	2012	2011	2012	2011	2012	2011	2012
Yes	78.2	73.6	4.1	3.2	3.4	2.0	14.4	21.2
No	82.3	84.4	2.9	2.5	2.3	1.7	12.5	11.4

Source: Statistics South Africa – GHS 2012

Table 4.1 above, shows a decline in the higher education institutions enrolment across all South African races with exception to white which has just increased from 14% in 2011 to 21% in 2012. Black African higher education institutions enrolment has revealed a vast drop from 78% in 2011 to 73% in 2012, which lead to an increase in enrolment rate of 2.1% between the two years. Once again, black Africans will most likely show high percentages as they are the majority.



Source: Statistics South Africa – GHS 2012

Figure 4.4 Enrolment percentage by gender

It is important to also check the gender equality in terms of enrolment given the country's history. Figure 4.4 above displays the higher education enrolment percentage of

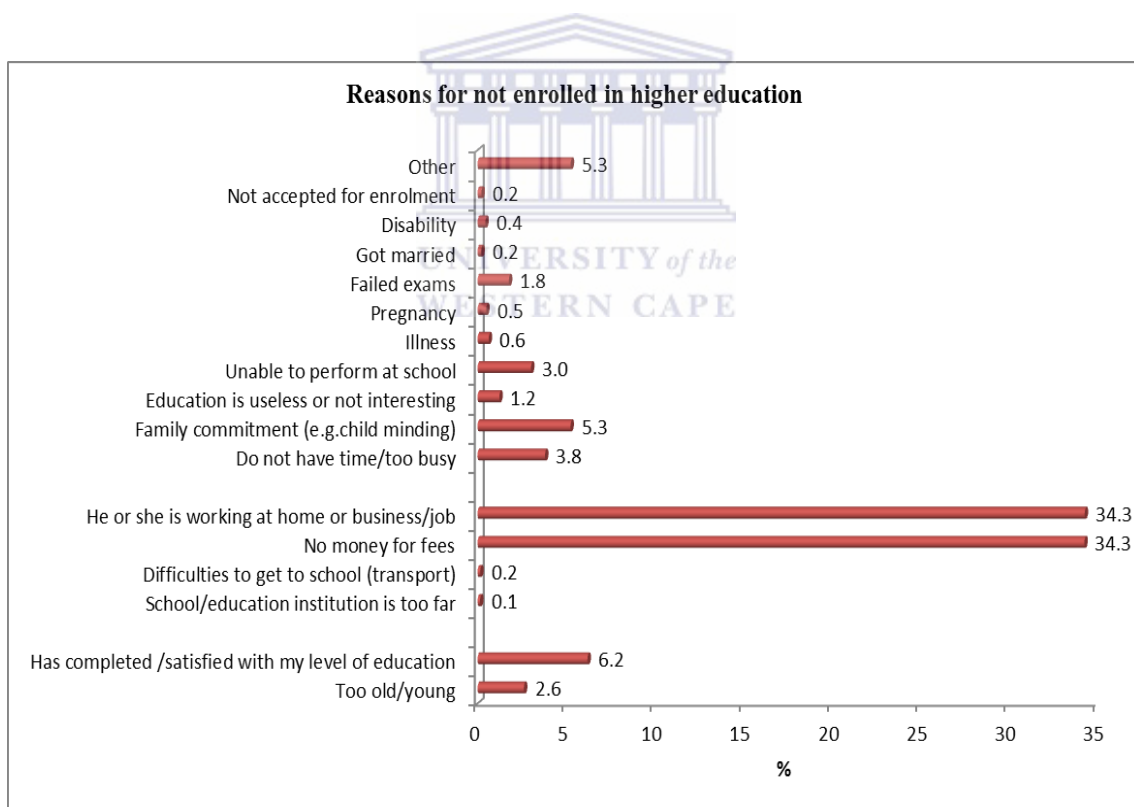


students according to their gender preferences. Amongst the students who were enrolled in Gauteng, 52% were male whilst 49% were female. Furthermore, 53% of male and 47% of female were amongst those students who either dropped out or were never registered. In comparison of gender enrolment between 2011 and 2012, Table 4.2 below demonstrates an improvement in male enrolment, about 1.5% increase compared to the percentage of females which seemed to have dropped from 50% to 49% respectively.

Table 4.2 Comparison of higher education institutions enrolment by gender between the 2011 and 2012 academic years respectively

Enrolment	Male		Female	
	2011	2012	2011	2012
Yes	50.0	51.5	50.0	48.5
No	51.4	52.6	48.6	47.4

Source: Statistics South Africa – GHS 2012



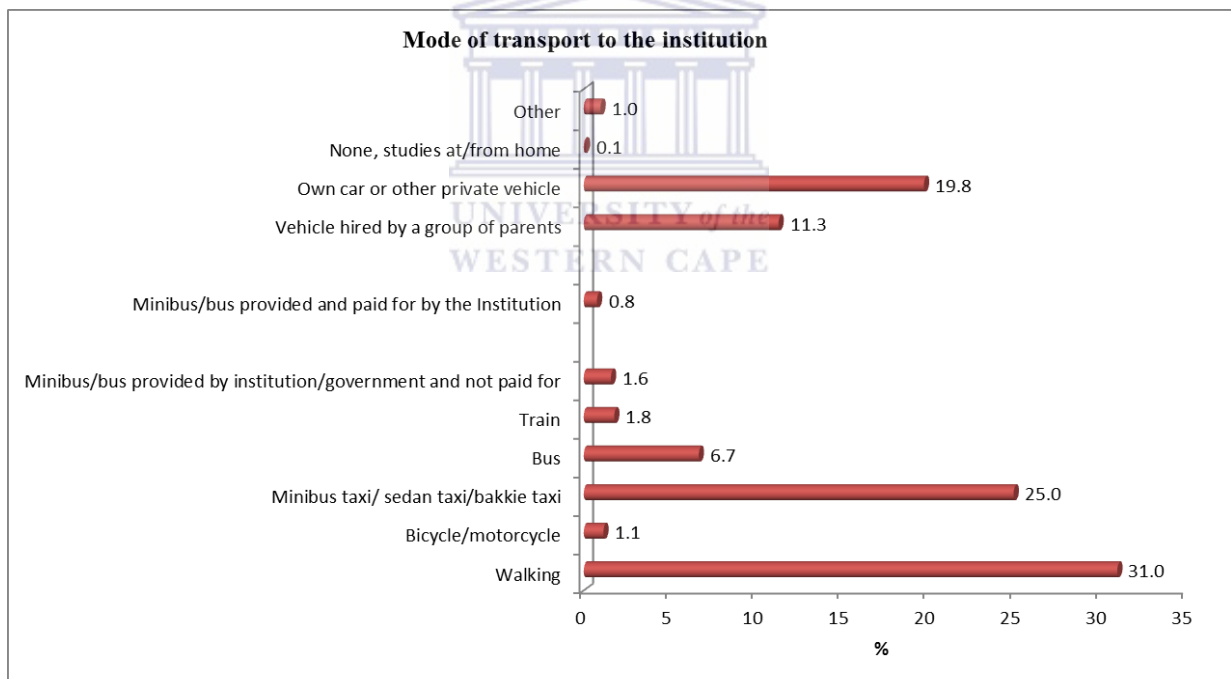
Source: Statistics South Africa – GHS 2012

Figure 4.5 Reasons for not registering in higher education institutions

A further question was asked following the outcome in Figure 4.1 above, for respondents to state reasons why they were not enrolled with higher education. As illustrated

on figure 4.2 above, majority of respondents, 34.3% to be specific, could not enrol at any higher education institutions due to their household responsibilities, work or businesses they were involved in. Precisely the same percentage, 34.3%, indicated that the main reason for not registering themselves at the higher education institutions is due to the lack of finance. It is interesting to note that 6.2% of the respondents saw no need to further their studying, as they were convinced that they were satisfied with their level of education.

Of the remaining participants, 5.3% of them had home or communal commitments such as child-minding whilst 3.8% revealed that they had no time to study as they were occupied. Pregnancies did not seem to be playing any significant role in preventing potential students to further their studies, hence 0.5%. The same goes for transportation and distance to institutions with 0.2% and 0.1% respectively. Beyond other reasons provided on the above figure, lack of finance and work commitments appears to be main hindrances for many potential students to further their studies at the tertiary level.

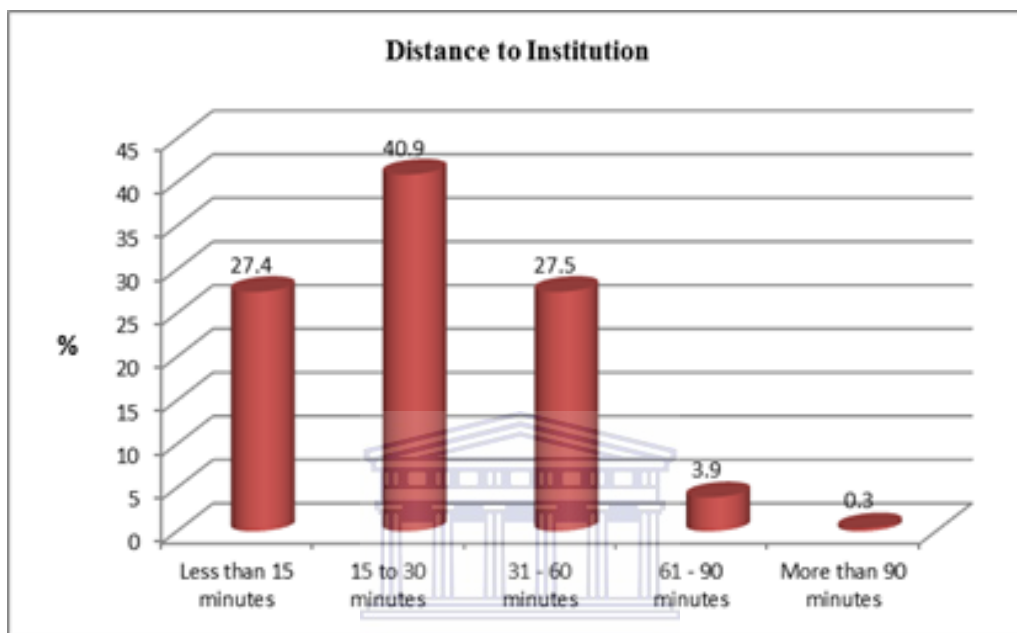


Source: Statistics South Africa – GHS 2012

Figure 4.6 Students’ mode of transportation to the higher education institutions

Respondents were asked in Figure 4.6 about the mode of transport they use to their registered higher education institutions. Majority of the respondents, about 31%, indicated that they normally walk, whilst 25% specified that they make use of minibuses taxis. Quite a

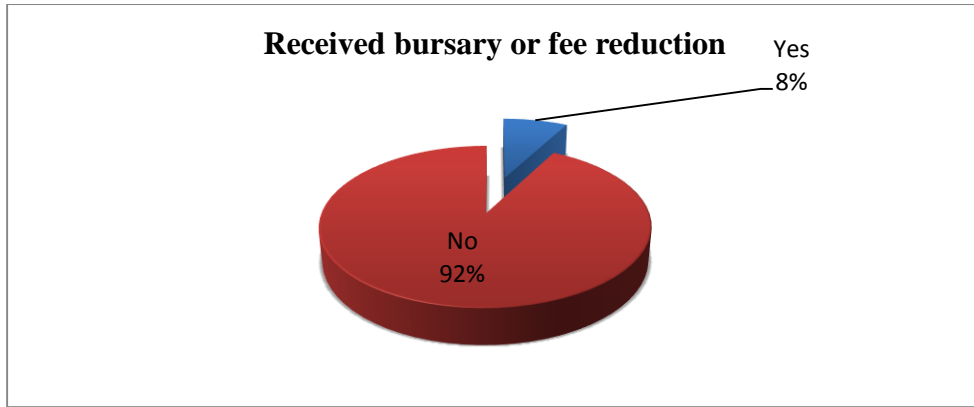
significant number of people, about 20% of them, use their own private vehicles to get to their institutions. Approximately 11% of students are reported to use private vehicle hired by their parents, taking them to and from their designated institutions on a daily basis. It is strange enough to find that only a percent of students use the buses provided and paid for by their respective institutions whilst 2% use similar kind of buses but not funded by the institutions.



Source: Statistics South Africa – GHS 2012

Figure 4.7 Distance travelled to the institution

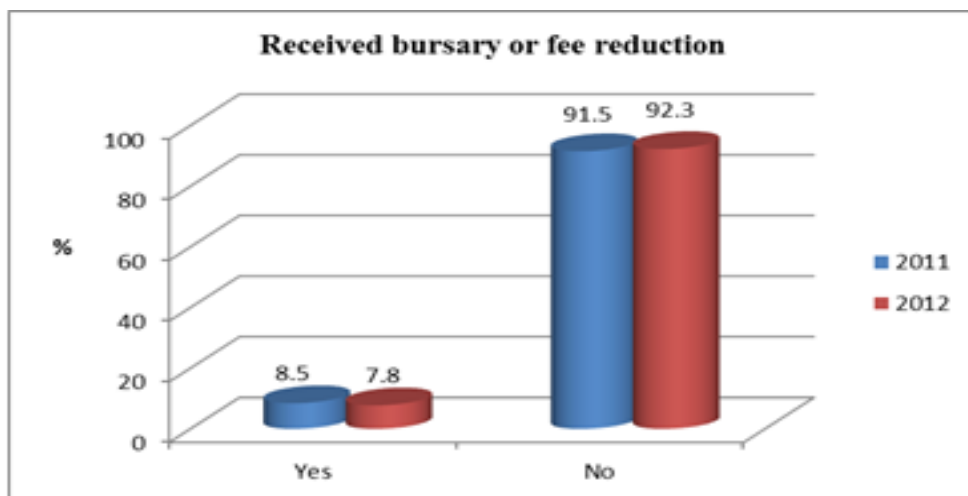
The graph above shows the distance travelled by the respondents to their institutions of learning. Notably, 41% of the respondents travel a distance of 15-30 minutes to their institutions. Approximately 28% of the respondents travel for about 31-60 minutes to their institutions, whilst 27% of the respondents claim to live closer to their institutions as it takes less than 15 minutes for them to arrive at their institutions. Only 0.3% of the respondents mentioned that it normally takes more than 90 minutes for them to arrive at their higher education institutions. The above indicates that majority of students are not residing too far from their institutions. Figure 4.7 above proved that it is most unlikely for potential students not to register for their studies based on the distance of the institution.



Source: Statistics South Africa – GHS 2012

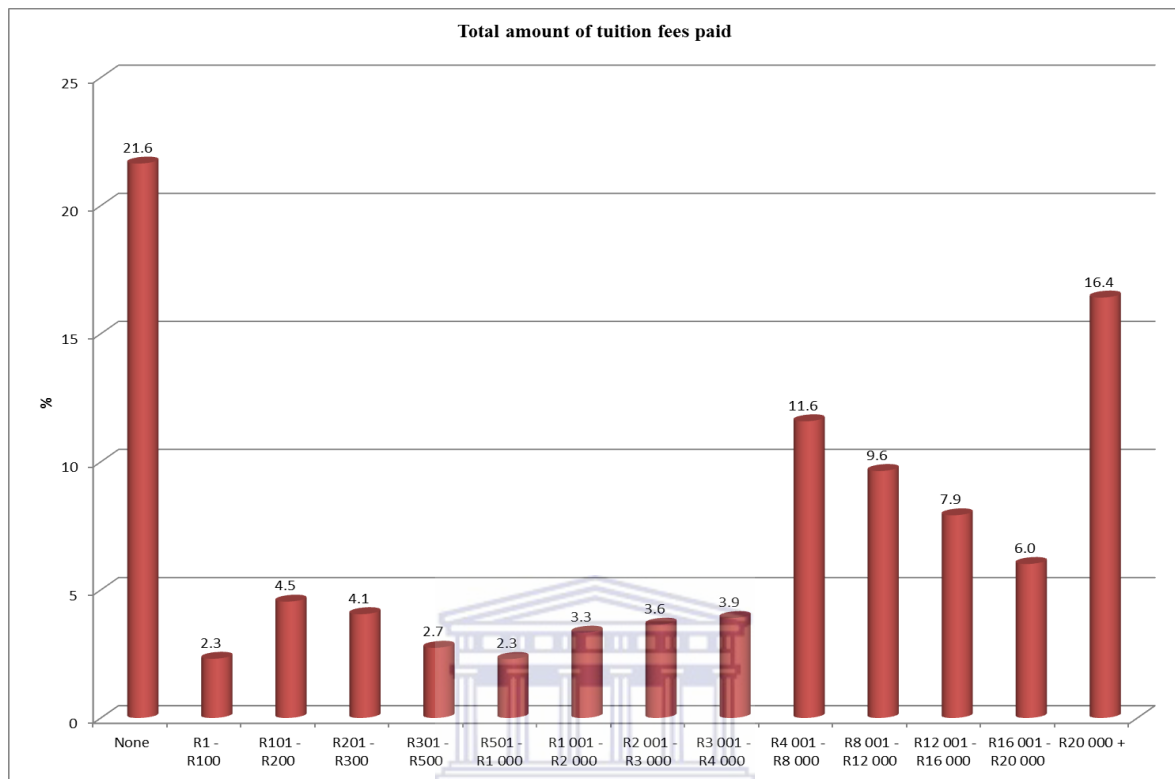
Figure 4.8 Percentage of students who received bursary or fee reduction

The graph above illustrates the percentage of students who received bursaries or somehow had fee reduction at their institutions. According to the data gathered, 92% of the respondents reported that they did not receive any financial assistance whilst 8% declared that they did. The above result indicates that majority of students paid their fees out of their own pockets. Lack of sufficient finance could be seen as the reason for many students dropping out of their academic programmes, and being unable to return to school in the following academic year. When making a comparison between 2011 and 2012 academic years, Figure 4.9 below shows that generally there are very few students who received their financial assistance in both academic years. Among those who were enrolled, only 7.8% received bursary or fees reduction in 2012 compared to 8.5% in 2011. It appears that the rest of students had to depend on either family, loans or other means of funding for their studies.



Source: Statistics South Africa – GHS 2012

Figure 4.9 Comparison of students who received bursary or fee reduction in 2011 and 2012 academic years respectively



Source: Statistics South Africa – GHS 2012

Figure 4.10 Total amount of tuition fees paid per year

Figure 4.10 above displays the annual amount paid by each household towards the required higher learning education tuition fees. Approximately 22% of the households reported to have paid absolutely nothing towards their children’s fees. This percentage of households might be having no students attending the higher education institutions or they might have received full bursaries or scholarships. It is noted that among those who pay the fees, majority of households, 16%, paid R20 000 and above whilst 12% was paid between R4001 – R8000. Roughly 24% of households paid between R8 000 – R20 000, and slightly 2% of households paid the minimum amount of R1 – R100. Figure 4.10 above confirms that higher education in South Africa is quite expensive and if households are not well financially their children might end up be in the percentage of the unnecessary dropouts facing each higher learning institutions yearly.

Table 4.3 *Correlation between dependent and independent variables*

<b>Pearson's Correlation Coefficients, N = 4754</b>					
Prob >  r  under H0: Rho=0					
	<b>Transport</b>	<b>Reason</b>	<b>Bursary</b>	<b>Fees</b>	<b>Distance</b>
Enrol	0.80042	-0.07016	0.24323	0.82160	0.79428
	<.0001	<.0001	<.0001	<.0001	<.0001

Source: Statistics South Africa – GHS 2012

Table 4.3 above shows the correlation of variables which tests the strength and direction of a linear relationship between two variables on a scatterplot. Considering the above figures, it appears that tuition fees and transportation might have strong relationship with the enrolment given the correlation coefficient of 0.82 and 0.80 respectively. This means that certain amount of fees are to be paid as well as the mode of transportation to the registered institution can either drop or raise the enrolment rate. It is assumed that students with private transportations will find it easier to reach at their institution than those using public transportations. Distance to the institution also proves that it plays a very significant role towards enrolment. Bursaries or fees reduction shows a very poor association towards enrolment rate given the correlation of 0.24 on the above table.

Table 4.4 *Predictor of enrolment rate in the higher education institutions using logistic regression*

<b>Analysis of Maximum Likelihood Estimates</b>						
<b>Parameter</b>		<b>DF</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Wald Chi-Square</b>	<b>Pr &gt; ChiSq</b>
Intercept		1	31.0195	213.7	0.0211	0.8846
Transport	Walking	1	-3.7347	290.9	0.0002	0.9898
Transport	Bicycle/Motorcycle	1	-2.743	425.3	0	0.9949
Transport	Public vehicle	1	12.078	174.4	0.0048	0.9448
Transport	Private vehicle	1	12.1985	173.1	0.005	0.9438
Fees	None	1	-19.7281	33.8676	0.3393	0.5602
Fees	R1 -R1 000	1	0.8126	82.1418	0.0001	0.9921
Fees	R1 001 -R4 000	1	3.048	86.0153	0.0013	0.9717
Fees	R4 001 -R12 000	1	4.659	107.3	0.0019	0.9654
Fees	R12 000-R20 000	1	4.247	78.3552	0.0029	0.9568
Fees	R20 000+	1	4.0413	91.8081	0.0019	0.9649
Distance	Less than 15 min	1	13.1545	381.9	0.0012	0.9725
Distance	15-30 min	1	17.1309	189.5	0.0082	0.928
Distance	31-60 min	1	-2.5933	186.1	0.0002	0.9889
Distance	61-90 min	1	-1.5853	238.1	0	0.9947

Source: Statistics South Africa – GHS 2012

Table 4.4 above shows the constructs of logistic regression model that identify the best combination of variables to predict circumstances which will affect the enrolment at the higher education institutions. According to the above, it is noted that public and private transport are more likely to affect higher education institutions enrolment rate, meaning that if majority of students utilise such transportation the rate of enrolment will ultimately peak. The model estimates a significant number of students who will pay fees between R4001 – R12000 per annum as the ones who are more likely to enrol. These students will make a positive impact to the enrolment rate in comparison to others. Students who will spend 30 minutes or less in transportations to their institutions are more likely to be enrolled than the rest. The advantage being that they will arrive faster for their classes. Consequently, such predictions will escalate the enrolment rate if taken into consideration.

Table 4.5 *Percentage distribution of reasons for not attending the higher education institution in the study area*

Reasons for not attending the higher education institutions	Black African	Coloured	Indian/Asian	White
Too old/young	81.3	3.7	0.0	15.0
Has completed education/satisfied with my level of education	77.1	2.0	0.1	20.8
School/education institution is too far	75.1	0.0	0.0	24.9
Difficulties to get to school (transport)	100.0	0.0	0.0	0.0
No money for fees	94.8	1.3	0.6	3.4
He or she is working at home or business/job	75.8	3.0	3.6	17.6
Do not have time/too busy	57.7	10.0	0.6	31.7
Family commitment (e.g. child minding)	84.6	2.2	0.0	13.2
Education is useless or not interesting	87.6	8.5	0.0	3.9
Unable to perform at school	98.2	1.8	0.0	0.0
Illness	100.0	0.0	0.0	0.0
Pregnancy	100.0	0.0	0.0	0.0
Failed exams	95.6	0.0	0.0	4.4
Got married	70.3	12.1	0.0	17.7
Disability	80.8	0.0	0.0	19.2
Not accepted for enrolment	74.0	0.0	12.7	13.4
Other	89.4	1.4	5.2	4.0

Source: Statistics South Africa – GHS 2012

Table 4.5 above shows some of the reasons on as to why the study's respondents could not enrol, that is, according to their racial groups. Black Africans, for example, had higher percentage of unregistered potential students in comparison to the remaining racial groups. It has also been noted that whites, Indians/Asians and coloureds have not experienced any major transportations difficulties, illnesses or unexpected pregnancies whilst 100% of the black Africans have had such limitations facing them – making them unable to register for a tertiary education. From the above table, it seems that all races experienced financial difficulties which prevented some of them from enrolling with black Africans having 95% of the share, whilst whites have had 3%, coloureds had 1% and Indian/Asian with 0.6%. Approximately 58% of black Africans appeared to have no interest in pursuing their tertiary studies, followed by 31% of the whites, 10% of the coloureds and 0.6% of Indians/Asians.

#### 4.3. Summary

In conclusion, having discovered the high unregistered percentage of potential students during the 2012 academic year, a further analysis was done to investigate the racial disproportions based on the results. It has been found that among South Africa's four racial groups, black Africans lead with approximately 84% and the least among them are Indians/Asians with 1.7%. Nevertheless, the results equally indicate that there are major improvements on black Africans registering for tertiary education. On average, the trend analysis also shows the progress in enrolment during the 2012 academic year in comparison to the 2011 academic year. It was therefore noted that the enrolment rate by gender was also found to be relatively similar between the two academic years.

Furthermore, various reasons were cited as causes for tertiary students' dropouts or cease to study after their high school graduation. The results observed from this study specified that lack of finance for the tuition fees and being occupied with work responsibilities are regarded as major hindrances for many potential students to continue with their higher education studies. The 2012 academic year's findings revealed that annually majority of households in Gauteng pay an average of R20 000 towards their children's university tuition fees. One of the concerns raised during this study was that almost 90% of students could not receive a bursary or fee reduction despite the huge amount of finances were and are still being allocated to the NFSAS annually. Based on this background, dropouts was more likely to be aggravated.



Supplementary analysis was also being done using Pearson's correlation model which emphasised the strong relationship between students' transportation and fees. The relationship between these variables can either drop or intensify the participation rate. Upon testing Logistic regression model, private and public transportation were identified as some of the reasons for an increase in the enrolment rate.



## CHAPTER V

### FINDINGS

#### 5.1. Introduction

In this chapter, the researcher will analyse the dropout and enrolment data. As for the dropout data, a separate questionnaire instrument was developed to elicit the respondents' feelings or perceptions on the dropout rate within the higher education institutions in the Gauteng province, South Africa. Higher Education is vital in promoting the employment opportunities, social equality and justice, and economic progress. Higher achievement level within the higher education institutions is a key priority in any country. The National Planning Commission (NPC) recommended that enrolments in the higher education institutions, including private ones, be increased from 950,000 in 2010 to more than 1.62 million in 2030, a 70% increase. To achieve this target, all South African society constituents should have access to the higher education, and also be enabled to succeed in their studies – including those who were previously marginalised.

Furthermore, to achieve completion the issue of high dropout rates in higher education need to be addressed. Dropout from the higher education institutions is seen as a threat to above outlined targets, particularly amongst the racial groups such as those from the low socio-economic and socio-political backgrounds, ethnic minorities and people with disabilities, (European Commission, 2013). Dropout can also be seen as a drain on public finance and a waste of valuable resources. Equally, it can also be seen as a symptom that shows one of the ways in which universities are not capable to address and meet the contemporary public needs.

Assessing the scale and nature of dropout is particularly difficult mainly because of the fact that data are not readily available when the researcher requires it, and it is available the complexities and dynamics of such data can be defined and measured in different ways. Together with the available data on tertiary students' enrolment, extra data were collected to assess the respondents' perceptions regarding the higher education dropout, and below are the findings.

From the acquired data, it appears that more than 30% of the employed people felt that dropout in the higher education institutions is not a problem whilst the rest, 70% thought that dropout is a huge concern within the province's universities. Majority of the respondents stated that the main reason for university dropout is due to the lack of financial support towards students' fees, leaving at least of the respondents, about 20% thinking that lack of ambition or focus as well as peer pressure are some of the reasons for high dropout. Subsequently, a question was further asked to the participants on what can eliminate the high dropout cases within the higher education. Majority of pensioners emphasised on the need for students to stay away from drugs, bad company of friends, receive parental support; that is apart from general feeling that government's financial support will serve as a remedy to a high dropout rates on higher learning institutions. Very few respondents indicated that early career guidance could eliminate dropout since it will guide most students in entering the higher education institutions well informed regarding their career choices and future opportunities. Having received that insight, it is assumed that many students will pursue their studies with passion and dedication.

As indicated in the previous chapters, the discussions follow will centre around the Gauteng province, in reference with the pedagogical literature review based on the national findings and the data analysed. Various studies and articles synthesised in the previous chapters presented different perspectives based on their findings regarding the enrolment rate within their respective higher education institutions. The enrolment rate in Gauteng was discovered to be 21% in the 2012 academic year, which was very low although it was an improvement in comparison to the 2011 academic year. From the synthesised literature, it has been noted that the enrolment rate has been growing at a very slow rate between the 2005 and 2009 academic years respectively, but unpredictably peaked between the 2010 and 2011 academic years respectively. In reference to the data analysis, Gauteng province did not appear that impressive in terms of the tertiary enrolment – although there was a slide progress. The challenge facing the province may have been that the pressures experienced by young people in this province are relatively huge. Majority of young, potential high school graduates seem to be looking forward to tertiary opportunities. However, due to the hard living conditions most of them opt for the emerging work opportunities to make ends meet rather than prioritising on furthering their education.

During the apartheid and gradually changing since 1994, racial disparities have created numerous challenges within the higher education institutions. Majority of the individuals who had access to the universities at the time were purely white students. Such racial disparity was way larger and beyond any other race groups in South Africa. One of the studies published in 2011 outlined the participation rate of white students during the apartheid era to be 50% higher in comparison to the 13% of black Africans. The outcome as per the 2012 academic year depicts that higher education access by black Africans has significantly improved, however there was still a huge racial divisions in the participation rate, such as 74% black Africans were able to have access to the higher education in comparison to the 21% white students, followed by 3% of coloureds and 2% Indians/Asians.

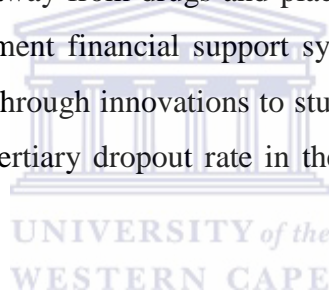
As of 2012 academic year's analysis, data indicates that considering students' enrolment in terms of racial groups, the racial group with the highest unregistered potential students is of black African race with 84%. It is also worth for the reader to note that Gauteng has the largest percentage of black African population in the country. Once again, students' lack of finance or focus in furthering their education appear to be the driving forces for many to quit their tertiary education or seek available jobs in the Gauteng province. Further observations on pedagogical literature regarding gender enrolment indicates that female enrolment rate is progressively increasing as from the 2010 academic year – similar statistics were also obtained in the 2007 academic year. It appears that in mid-90's there was high enrolment rate of men within the higher education institutions than that of women. According to the statistics published for the 2012 academic year, female students' enrolment rate in Gauteng was slightly lesser in comparison to that of males.

Looking into the potential students' reasons for not pursuing the tertiary education, the findings emerged out of the 2012's study indicates that majority of respondents declare that there was no money for fees while others stated that they had businesses arrangements or working. Lack of finance or pressures from the domestic environment are some of the findings which emerged out of this study, and are in par with the synthesised literature on the topic. Approximately 92% of the Gauteng students in the 2011 and 2012 academic years respectively are reported to have received neither bursaries nor reduction in fees. However, an article published by Department of Higher Education and Training reported that funding for South African students grew from R2.375-billion in 2008 to R6-billion in 2011, as well as 8.3 billion in 2014 to 9.5 billion in 2015. The department re-assured its constituents that such

funding are for the eligible students from the poor backgrounds as well as strong performers at the country's universities and colleges, and such funds will increase every year. Given a high percentage of students without financial assistance, it becomes worrisome for the future of the country's higher learning education despite the substantive amount of money being allocated to eradicate the problem.

## 5.2. Summary

In conclusion, the general feeling shared among the study's respondents was that higher education students dropout seemed to be a huge concern in the Gauteng province. In this section, lack of finance was seen as the key reason for many tertiary students dropout – which correlates with the quantitative analysis section of this study. Among the key points raised during this study, the researcher recommends that to eliminate high tertiary students' dropouts students ought to stay away from drugs and place emphasis on their students, and make a good use of the government financial support systems placed to assist them. It is commonly-held belief that breakthrough innovations to students financial aid would serve as a remedy to the recurring high tertiary dropout rate in the province, and across this multi-racial country of South Africa.



## CHAPTER VI

### CONCLUSION

The national policy for the higher education provided the implementation framework for transforming the higher education system, which set a target participation rate of 20% over a 10 to 15 year period in the higher education, (Ministry of Education, 2001). The introduction of two public universities in the Northern Cape and Mpumalanga provinces will guarantee the increase in the participation rate which will ultimately achieve target set by the higher education and training department. The enrolment rate revealed in the 2012's study was extremely undesirable. However, with the addition of a new university in Gauteng in 2015 the participation rate in the higher education institutions in the province is expected to improve. Furthermore, high school alumni need extensive career guidance on the importance of furthering their education. Tertiary education will not only benefit its alumni, but will ultimately make a huge impact in transforming the economy of the country through skills acquisition and retention. Following that, a slight improvement in the enrolment rate was noticed by 2.6% in the 2012 academic year in comparison to the 2011 academic year.

It is further revealed from the findings that lack of finance appeared to be one of the biggest challenges which avert majority of potential students from furthering their studies within the higher education institutions or dropping out before the completion of their studies. With 8% of students received bursaries or fee reduction, it is evident that lack of finance is one of the leading reasons for dropouts. This sound contrary as the government always prioritise higher education in the annual budget for funding. The institutional views on funding principles published in 2011 proposed that tuition costs must be shared between the state and students. Furthermore, universities have the autonomy to determine their own fees levels. Given the above principle in practice, it is worth noting of any tertiary students been granted fee reduction. As the researcher has reiterated from above, 92% of tertiary students had to find ways to fund their studies. Based on the 2012 study results, the enrolment rate based on racial groupings as well as gender disparities were still not appealing. During the 2012's academic year, it appeared that black African students' enrolment percentage was slightly lower in comparison to that of 2011's. On the other hand, an improvement in participation rate was noted with white students during the 2012's academic year.

Furthermore, tertiary male students were found to be more in numbers than female students in the higher education institutions in Gauteng province. This outcome seems not to vary that much to the findings from the synthesised pedagogical literature. The study concludes with the findings on logistic regression model. Public and private transportations, for example, are more likely to affect enrolment. The prediction primarily denotes that students who will spend 30 minutes or less to their higher learning institutions – whether utilising public or private transport – are more likely to escalate the enrolment rate than the rest. Clearly, the model emphasises the importance of residing near to the institution of study.

## 6.2. Recommendations

Following the limitations observed in this study, it is recommended that the future research focus should extensively be in time-series analysis on the higher education institutions dropout. This type of studies could provide comparisons over the years and will certainly give enhanced results on the dropout trend. It is advisable that the primary data be collected directly from the institutions' records to avoid biasness. Furthermore, it is also recommended that information concerning the new enrolment and racial proportion could be gathered from the institutions under study in order to obtain accurate outcomes. In addition, one of the subjects to be explored could be the one of adding extra year to the curriculum, meaning four (4) year's instead of three (3) year's degree, that is, for a better higher education transition, as reiterated by other studies. Similar suggestion was shared by Ian Scott (2013) by arguing that “[o]ur structure of education was inherited from Scottish over a century ago. We have to adjust our curriculum to meet the top end of schooling by adding an extra year to the curriculum to enable all kinds of developmental learning”. This suggestion was made to the Council of Higher Education for consideration, believing that it will resolve the issue of dropout and reduce costs within that designated area of research. The study may be of assistance to the Council of Higher Education by informing them on whether that which is feasible or not.

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# APPENDICES

## Appendix A: Questionnaire

### ADDITIONAL INFORMATION

#### Dropout Questionnaire

##### HOW CAN I HELP?

Please assist in completing this questionnaire for academic purposes and kindly note that your response is confidential. Your input will be appreciated.

##### DROP OUT AT HIGHER EDUCATION INSTITUTIONS

Please mark the applicable block (s) with an "X"

1. GENDER	MALE	<input type="checkbox"/>	FEMALE	<input type="checkbox"/>		
2. AGE CATEGORY	13-18	19-25	26-40	41-55	56-65	65+
3. CAPACITY	Scholar	Student	Unemployed	Employed	Job- seeker	Pensioner
4. DO YOU THINK STUDENTS DROP OUT OF HIGHER EDUCATION	YES	NO				
5. WHAT DO YOU THINK IS THE REASON FOR DROP OUT e.g. pregnancy, finance, sickness etc.	Specify.....					
6. HAS ANYONE IN YOUR FAMILY EVER DROPPED OUT OF UNIVER, TECH etc?	YES	NO				
7. DO YOU KNOW REASONS FOR STUDENTS DROP OUT?	YES	NO				
8. IF YES, GIVE THE REASON	.....					
9. WHAT DO YOU THINK CAN BE DONE TO ELIMINATE THESE DROP OUT CASES?	Specify.....					

Thank you for your participation. I value your input