

social grants on specific indicators such as school enrolment for children, child labour, child nutrition and well-being. Similarly, Pasha (2016) for the first time studied the impact of social grants on poverty using the Multidimensional Poverty Index (MPI). This MPI framework encompasses a variety of poverty indicators into one whole index.

This dissertation makes a contribution to the empirical literature of measuring the effect of social grants on multidimensional poverty, using the MPI framework at the household level. Instead of analysing the effect on the actual MPI index, this dissertation focuses on the headcount multidimensional poverty. The headcount poverty is the proportion of the population who are MPI-poor (incidence) and excludes the average proportion of weighted indicators in which the MPI-poor are deprived (intensity).

Following the discussion above the question that comes to the fore is, “Do social grants reduce multidimensional poverty for South African households?”

1.3 Objectives of study

- To examine the trends in poverty, transfer payments, and government policies regarding social grants post-1994;
- To determine the effect of the social grants in alleviating multidimensional poverty in South Africa;
- To make policy recommendations based on the outcomes of the study.

1.4 Relevance of the study

“It is not merely the lack of income which determines poverty. In attacking poverty and deprivation, the Reconstruction and Development Programme (RDP) aims to set South Africa firmly on the road to eliminating hunger, providing land and housing to all our people, providing access to safe water and sanitation for all, ensuring the availability of affordable and sustainable energy sources, eliminating illiteracy, raising the quality of education and training for children and adults, protecting the environment, and improving our health services and making them accessible to all” (RSA, 1994:17).

Poverty in the context of South Africa was initially identified as a multidimensional concept and measures introduced to address poverty were formed with the multidimensionality factor in mind, for instance, the Reconstruction and Development Programme (RDP), the Growth, Employment and Redistribution (GEAR) programme and the Accelerated Shared Growth

Initiative of South Africa (ASGISA). Therefore, the changes to and the study of poverty in South Africa should be documented in a multidimensional way. Sen (1981) argued that applying multidimensional measurements are important in developing countries as compared to monetary measurements when studying poverty.

Alkire and Santos (2010:47) documented a study on multidimensional poverty for developing economies. Findings revealed a low percentage of multidimensionally poor people for South Africa when compared to neighbouring African countries. However, this does not equate to success for South Africa, as deprivation still exists. Alkire and Santos (2010:33) proved deprivation to be most dominant in educational attainment and in living standards (access to water, sanitation, ownership of assets, etc.). Likewise, South Africa faces high rates of deprivation on income, living environments, employment, and education, and these rates are severely high in rural areas (Noble and Wright, 2012). Statistics have also recorded that the quality of education, health, nutrition and parenting has not been improving substantially for children (SAHRC and UNICEF, 2014).

With regards to education, Spaul (2011:26) found that in South Africa an education system for the poor is one characterised as low performing, and unable to convert resources into good academic outcomes, thus leading to deprivation in access to education. Advancing health and well-being in countries including South Africa also remains a key objective due to non-diversified diets and high HIV rates leading to poor nutrition, as well as weak health systems which impede the provision of health services (UN, 2015: 9-10). These findings provide a comprehensive overview of deprivations which South African citizens still experience and these findings could pave a way for influence in public policy design and focus.

The validity of studying multidimensional poverty in this dissertation is supported by evidence revealing that South African citizens still experience various deprivations. Secondly, in 1994 poverty in South Africa was identified as multidimensional and a key issue to be addressed in a democratic country. As a result, government saw a need to expand the social security system to cater for the previously marginalised and disadvantaged. It would therefore be vital to assess if the provision of social grants (which were deemed highly important by the government) is effective in the reduction of multidimensional poverty.

1.5 Structure of dissertation

Chapter 2 outlines the social welfare system and poverty trends in South Africa. Chapter 3 presents the literature review, focusing on the theoretical literature as well as the empirical literature. Chapter 4 focuses on the research methodology used in this dissertation. Chapter 5 presents the empirical analysis of the dissertation, whereby the results and findings are discussed. Chapter 6 provides the recommendations and conclusion of the dissertation.



CHAPTER TWO: SOCIAL WELFARE AND POVERTY TRENDS IN SOUTH AFRICA

2.1 Introduction

This section provides an overview of the social welfare in South Africa. Firstly, this section provides definitions of the key concepts. It further provides a brief review of South African social welfare policies and describes the social welfare programmes in place. Secondly, it examines the trends of the social assistance coverage and expenditure. Thirdly, the chapter provides an overview of poverty whereby poverty will be defined. Fourthly, it discusses the methods used to quantify/measure poverty focusing on the monetary approach as well as the non-monetary approach. Finally, the monetary and non-monetary trends of poverty in South Africa are reviewed and then the chapter concludes.

2.2 Definitions

2.2.1 Social welfare system

The White Paper on Social Welfare (RSA, 1997:9) defines social welfare as an integrated and comprehensive system of social services, facilities, programmes and social security to promote social development, social justice and the social functioning of people. As a focus on basic needs and development it includes the right to shelter, health, nutrition, education, housing, employment opportunities, amongst other aspects focusing on the maximum social development of individuals, families and communities (RSA, 1994:55). Services of the social welfare therefore comprise of preventative, developmental and protective services and facilities, social assistance and relief, legal social support, rehabilitative and therapeutic care, amongst other services. The focus groups benefitting from the social welfare services are mainly children, youth, women, the elderly, and the disabled as well as internal refugees (RSA, 2014d).

2.2.2 Social security system

The International Labour Organisation (ILO) standards are the most frequently used instruments when it comes to social security. The ILO defines social security as a safeguard provided by the state for its citizens. Social security is provided through public measures in order to protect citizens from economic and social distress following discontinuation or reduction of earnings. The social security system therefore ensures benefits in the nine

classical social security conventions namely medical care, sickness, unemployment, old-age, employment injury, family, maternity, invalidity, and survivors' benefit (ILO, 2010: 8).

In the context of South Africa, the social security forms part of the social welfare system and it focuses on the developmental aspect of social welfare. In essence, it is vital for successful economic development through lowering high inequality in society, alleviating poverty and promoting active redistribution of income (RSA, 1997:53). The White Paper defines social security as an instrument covering a wide variety of public and private measures. These measures provide cash or in-kind benefits or both, firstly, in the event of an individual's earning power permanently ceasing, being interrupted, never developing, or being exercised only at unacceptable social cost and such person being unable to avoid poverty; and secondly, in order to maintain the well-being of children.

The White Paper of Social Welfare (RSA, 1997:50) identifies the four elements of the social security as "private earnings, social insurance, social relief and social assistance." Private earnings are earnings saved voluntarily by households for unforeseen incidents such as disability and retirement. Social insurance refers to joint contributions made by employers and employees such as pension or provident funds. Social relief is non-contributory and means-tested provided for households during crises.

Similar to social relief, the social assistance grants are non-contributory and means tested provided by the government. Social assistance (transfers or grants) is an instrument to safeguard the poor and vulnerable and those left unprotected by social insurance. However, not everyone who is unprotected by the social insurance benefits from social transfers, as these transfers target certain groups, such as poor children, the old aged, and the disabled (Van der Berg, 1999:15; Van der Berg and Bredenkamp, 2002:4). In addition, social assistance is non-contributory transfers provided to those eligible on the basis of poverty and vulnerability, (Farrington and Slater, 2006:500).

2.3 Policy review

2.3.1 Reconstruction and Development Programme (RDP)

The RDP was introduced in 1994 as the second most important document having an impact on the development of the White Paper of Social Welfare (RSA, 1997:8). The RDP is based on the assertion that growth is linked to development and disregards the fact that the two are

mutually exclusive. The RDP basically suggests that reconstruction and development will lead to growth in all parts of the economy, greater equity through redistribution, and sustainability (RSA, 1994:9). The RDP addresses issues of social, institutional, environmental and macro-economic sustainability with the objective of improving the quality of life of all South Africans, specifically the poor and those in marginalised areas of society (RSA, 1994:7). The social issues are those manifested as poor health, nutrition, education, lack of shelter, water and sanitation.

At its inception, the RDP proposed five key programmes. Provision of basic needs was the first priority of these key programmes and this priority was in line with the main rationale of the RDP: “Attacking poverty and deprivation must therefore be the first priority of a democratic government” (RSA, 1994:7).

In addition, the RDP identified social welfare and security along with other basic needs as suitable strategies for dealing with social issues. The RDP proposed a social welfare system which would correct the imbalances of the past for the previously disadvantaged particularly women, children, youth, the disabled and those in rural and informal settlements. Additionally, the RDP supported a social security system addressing the needs of workers in all sectors, through social insurance as well as the needs of the poor through social assistance (RSA, 1994:55-58).

2.3.2 Growth, Employment and Redistribution (GEAR)

This policy was introduced in 1996, focusing on perpetuating sustainable economic growth. This was to be achieved through the creation of jobs, improved fixed investment and non-gold exports, reduction in the budget deficit, and lowering inflation. The policy also highlighted that it sought to keep up with the objectives of the RDP, thus focusing on job creation, redistributing income, providing health care and education, amongst the identified social development services. In keeping with the RDP objectives, GEAR aimed to successfully lower challenges preventing access to basic needs, human development and those preventing increased participation in institutions as well as the RDP in all its areas (RSA, 1996:1-2).

Improvements in education were to be achieved qualitatively: this pertained to the decentralisation of school governance and management, improving school infrastructure, and

teaching standards. Health was to be improved by collaborating with welfare development organisations placing focus on the poor and vulnerable. Social grants received the greater share of welfare spending and were asserted to be vital for poverty reduction. In terms of water and sanitation, more than 500 projects were proposed, which included the supply of potable water to 12 million people who were without water. The increased housing delivery prior to this policy was to be maintained. This was not only linked with improvements in standards of living but also to job creation through construction (RSA, 1996:15-16).

2.3.3 Accelerated Shared Growth Initiative of South Africa (ASGISA)

ASGISA was conceptualised in 2004 and introduced in 2005 (RSA, 2004a) as an additional strategy towards the development of the South African economy. It further built on the foundations of the RDP's objectives of assuring a united, democratic, non-sexist and non-racial society in an integrated economy. Halving unemployment and reducing poverty by 2014 was ASGISA's envisioned objectives (RSA, 2004a:1). In order to reach its objectives, the strategy firstly, emphasised two targets: achieving an annual growth rate of at least 4.5% and at least 6% between 2005 and 2009 as well as 2010 and 2014 respectively. Secondly, platforms for labour-absorbing economic activities had to be improved which ensured that growth could be distributed in a manner that reduces poverty and inequality. In addition to this, balanced growth was of importance, in order to reduce poverty and redistribute income via social programmes to people who were not benefitting from social grants. Including these individuals into the mainstream economy was seen to be necessary for improving growth (RSA, 2004a:2).

2.3.4 New Growth Path (NGP)

The NGP was introduced in 2010 after the three policies: RDP, GEAR and ASGISA. This policy sought to respond to an inefficient economy, characterised by high levels of inequality despite improved growth, and joblessness. This policy assumes the creation of jobs as a remedy to reduce poverty, inequality and underdevelopment. Therefore, the NGP placed its emphasis primarily on job creation (aiming to create 5 million jobs), thereafter growth, equity (reducing inequality and poverty) and environmental outcomes (RSA, 2010b:6). This policy, in line with the other policies such as the RDP, supported equity as a determinant of long-term development and growth. Furthermore, GEAR had placed an emphasis on job creation, redistribution of income and poverty reduction. In terms of social goals regarded as employment enhancing, the NGP firstly, identified investment in education and health as a

tool to determine equality, access to employment and competitiveness. In addition, investing in health would address the pandemic of HIV/AIDS (RSA, 2010b:8). Secondly, the government committed to maintain the real value of social grants received by the poor as well as the social wage amongst the poor (housing, healthcare and education) (RSA, 2010b:26).

2.3.5 National Development Plan (NDP)

The NDP of 2010 is a multidimensional framework drafted after the realisation that South Africa still remained a highly unequal society characterised by poverty and unemployment. Therefore, the plan aimed to eliminate poverty and inequality by 2030. To be specific, individuals earning below R419 were expected to be reduced to zero from 39% and reduce the Gini-coefficient from 0.69 to 0.6. That was to be achieved by targeting the determinants of both poverty and inequality (RSA, 2012b: 24).

The NDP, like the previous policies also identified social welfare and security as a target area in order to meet its respective objectives. The plan's initiation was driven by a system that was fragmented and administratively inefficient. Thus, the objectives introduced were those of improving efficiency related to service delivery, exclusions and targeting. The plan envisioned a better standard of living for all. That was to be achieved through a social protection system that ensures that the poor of all ages are provided with social needs. (RSA, 2012b: 359-362).

2.4 Social welfare programmes in South Africa

The discussion below focuses on some of the social welfare programmes that South Africa has introduced to reduce poverty and improve living standards.

2.4.1 National Schools Nutrition Programme (NSNP)

This programme was introduced in 1994 by the democratic government as part of the Reconstruction and Development Programme (RDP). The programme was initially designed for primary schools. However, due to an identified need at the secondary level, the programme was then extended to cover secondary school learners in 2008. The goals of the NSNP are: (i) to enhance the learning capability; (ii) to enhance school gardens as well as production activities; and (iii) to improve healthy living for pupils (RSA, 2012a:2). In the period 2013/14 the programme had benefitted an average of 9 131 836 learners from quintile 1 to 3 schools with an average of 194 feeding days (RSA, 2014f:14).

2.4.2 The Expanded Public Works Programme (EPWP)

The EPWP was introduced in 2003 to tackle unemployment, reduce poverty, improve skills and social services in order to promote economic growth and create sustainable development (RSA, 2010a:3). The EPWP was implemented at all three tiers of government in four sectors, namely the infrastructure, social, non-state and environmental and cultural sectors (RSA, 2013a:1). The creation of jobs by the EPWP was based on two conditions: (i) engaging in labour intensive occupation in order to provide infrastructure and public works of the society; and (ii) using fiscal spending to create jobs. The programme focused mainly on training, labour intensity, and the involvement of society (RSA 2013a:136).

2.4.3 Municipal Infrastructure Grant (MIG)

The MIG, established in 2003, had a vision of providing all South Africans with at least one basic level of service by 2013 through the provision of infrastructure grant finance for the poor. The MIG is a grant inclusive of all capital grants for municipal infrastructure. The formation of this grant was motivated by the disorganisation of departments in handling infrastructure grants thus leading to poor service delivery. Therefore, this grant acts as a tool of supporting the poor to have access to infrastructure services such as water supply, electricity, roads, refuse removal, etc. Additionally, through its programmes, the MIG included a focus on basic services, food security, and HIV/AIDS. The MIG thus forms part of the government's strategy of alleviating poverty and creating conditions for local economic development. This is aimed at creating employment opportunities and enterprise development (RSA, 2004b:6-7).

2.4.4 Social assistance

Social assistance is an instrument to safeguard the poor and vulnerable and those left unprotected by social insurance. Social assistance is targeted at certain groups, primarily children, the elderly, and the disabled (Van der Berg, 1999:15; Van der Berg and Bredenkamp, 2002:4). This social welfare programme will be the main focus of this study and will therefore be thoroughly evaluated in the following sections.

2.5 Overview of social assistance

The current social assistance provided by the government provides financial support for children, the elderly (60 years and over) and the disabled. However, no financial provision is made for people between 18-59 years of age who are unemployed and under-employed (RSA, 2016d; 2016e). The government provides the Child Support Grant (CSG), old age pension, also known as the State Old Age Grant (SOAG), disability grant, foster care grant, grant-in-aid, war veterans' grant, as well as care dependency. The five major social grants are therefore the SOAG, CSG, foster care grant, and care dependency grant as well as disability grant. The receipt of each grant is dependent on the basis of an income-based means test (Samson *et al*, 2006a:1) except for the foster care grant.

Social grants as a norm increase once or twice on an annual basis and these increases are announced as part of the national budget speech. Table 2.1 below shows the monthly values of the grants as received by beneficiaries from 1998 to 2016. The 2016 values have been deflated to 1998 using the Consumer Price Index (CPI). For the period 2016/17 the deflated SOAG was R541.65, whilst the war veterans received R545.26. Grants paid to children differ, the foster care, care dependency, and CSG beneficiaries received R321.38, R541.65 and R126.38 in real terms for the period of 2016 respectively. For the period 1996 to 2016, the social grant values have increased between 10.5% to 26.38% in real terms. The CSG had the largest increase of 26.38%. The SOAG, disability and the care dependency grants had the second largest increase of 10.5%. The foster care grant was the only grant showing a negative real growth, this indicates that the nominal grant value did not increase above inflation over time.

Table 2.1 The social grant values in rands (1998-2016)

| Type of social grant | 1998 | 2016* | Growth (%) |
|----------------------|------|----------|------------|
| SOAG | 490 | 541.65 | 10.5% |
| War veterans | 508 | 545.2603 | 7.3% |
| Disability | 490 | 541.6494 | 10.5% |
| Foster care | 350 | 321.3786 | -8.18% |
| Care dependency | 490 | 541.65 | 10.5% |
| Child Support Grant | 100 | 126.3849 | 26.38% |

Source: RSA (2013c). *Deflated to 1998 prices using the CPI of 1998 (34.81)

Statistics show that the share of people out of the entire population who benefited from social grants had increased from 12.7% in 2003 to 29% in 2014. Concurrently, the share of households receiving at least one social grant increased from 29.1% to 45.5% respectively (RSA, 2014a:32).

2.5.1 The types of social grants

(a) Social grants for the elderly

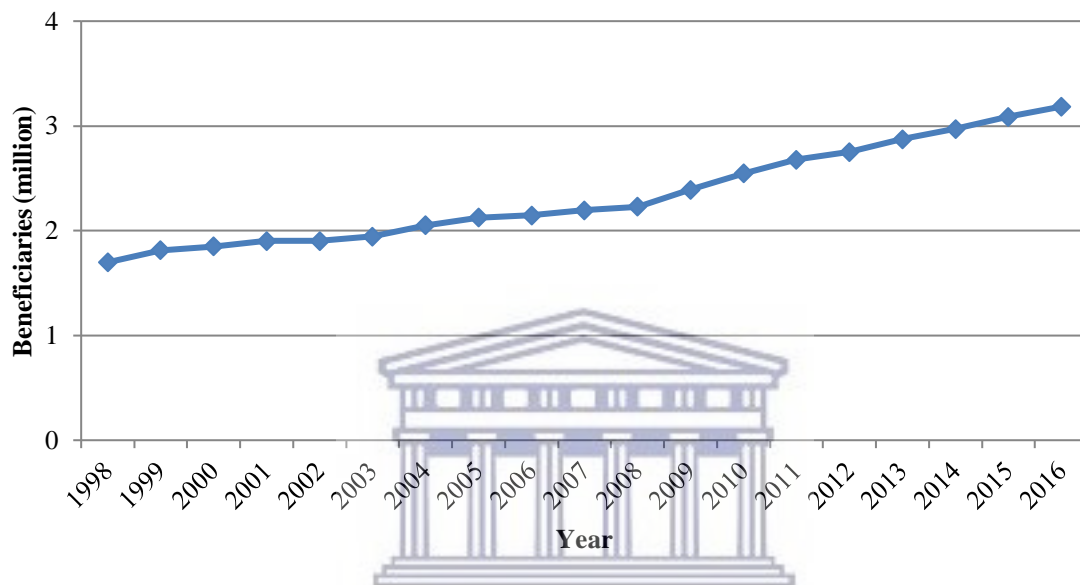
The two main sources of income, which the aged in South Africa rely on, are the old age grant provided by the state and private pensions redeemed at retirement. The goal of the State Old Age Grant (SOAG) is to minimise the risk of negative effect shocks in the short run as well as to make insurance provisions. In addition to this, the SOAG also aims to redistribute resources in the country in order to lower inequality (Woolard *et al* 2011:360). The majority of the aged rely on the SOAG and not on private retirement funding because of the inability of employees to save (Woolard, *et al.*, 2011:360). The inability to save for retirement can be explained by the fact that the elderly in South Africa are discouraged to work due to the means testing system (Barrientos, 2003:702).

The SOAG is deemed to be one of the major grants in South Africa and is provided for South African elders or permanent residents residing in South Africa who are over the age of 60, both women and men. In terms of eligibility, the age factor is said to be the main eligibility criterion and the beneficiary of the grant should not benefit from any other grant and should not be benefitting from state institutions (Mabugu *et al*, 2012:85). Additionally, in order to benefit from the grant, the applicant should pass a means test which include asset as well as income criteria, but due to asset assessment complexities, only the income is taken into consideration (RSA, 2009:4).

The formula to determine the value of the grant is $D = 1.3A - 0.5B$, D being the value of the grant per month while A is the maximum value of the grant and B is the applicant's private earning per month (Van der Berg *et al.*, 2010:6). According to the social grants payable in 2014, the conditions for eligibility was that a single household should have earned less than R 64 680 per annum and the assets possessed should have not been worth more than R930 600. If the applicant was married the combined income and assets should have not been more than R129 360 and R1 861 200 respectively (RSA, 2014d: 19). The beneficiaries of the SOAG have been growing steadily, achieving an average annual growth rate of 3.58% since 1998

(Figure 2.1). The periods 1998 to 2009, prior to the age eligibility relief of 60 years for men recorded an annual average growth rate of 3.22%, and from 2010 to 2016, after the relief the growth rate increased to 4.19%. This is an indication that the relief benefitted the poor elderly to access this grant before reaching the age of 65.

Figure 2.1 Number of beneficiaries of the SOAG



Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

McEwen *et al* (2009:11) showed that the beneficiaries of the SOAG are predominantly females as compared to males. In 2009 female beneficiaries of the grant accounted for 71.3% of the total SOAG beneficiaries. The reason behind this finding is that women are associated with high rates of life expectancy as well as labour participation. In addition, Burns *et al.* (2005:108) in their study on social assistance for the elderly found that the receipt of pensions by women leads to positive effects on poverty faced by the entire household. This positive effect also leads to increased household sizes with children constituting a great part of the household (Edmonds, 2004:27). Burns *et al* (2005:109) further found that women who receive pensions assume the role of caregivers as they are able to supply child care and educational needs.

(b) Social grants for children

The social assistance targeted at children can be divided into three categories. The first grant is the foster care grant, which is provided to children residing with foster parents through a

court's affirmation. Secondly, the child dependency grant is provided to caregivers of children who are severely disabled to the extent that they require full-time care. The third category is the Child Support Grant (CSG) which replaced the State Maintenance Grant (SMG).

The objective of the State Maintenance Grant was directed at parents and guardians residing with children not older than 18 years of age. This was on condition that the applicant of the grant was unmarried, widowed or separated, or had been abandoned by their spouse for more than 6 months or had a spouse who received a social grant or had a spouse who was in jail due to drug treatment or in any other similar institutions for more than 6 months. Due to constraints on the receipt of the grant faced by non-parents and on eligibility of children born outside wedlock, the grant was not received by many black children and caregivers. Moreover, the grant was inappropriate due to anticipated fiscal implications and the inappropriateness of the grant in the context of South Africa which implied that the grant was for children living with single mothers (Woolard *et al.*, 2010:6). Due to the limitations of the State Maintenance Grant, the CSG was introduced with the aim of ensuring that the primary caregivers of children living in poverty are able to finance the health and education of their children (Woolard *et al.*, 2011:360).

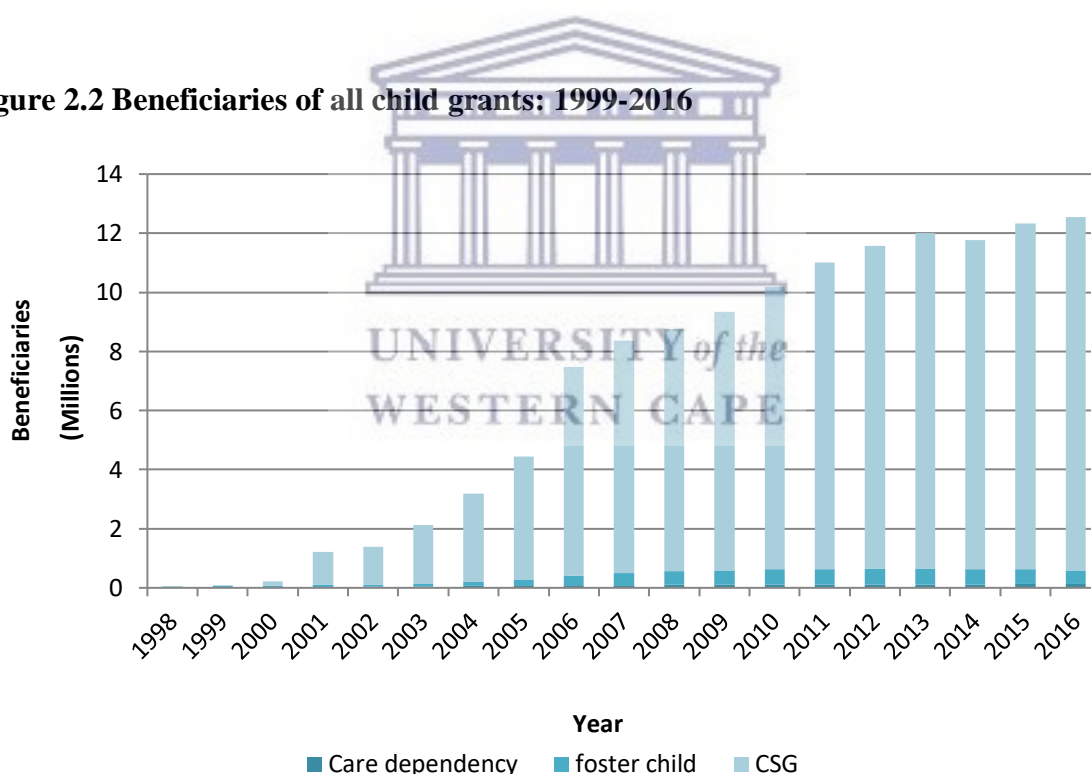
In 1998 when the CSG was introduced, applicants were required to pass the means test and also provide certain documents. The system implemented for the acceptance of the grant was deemed to be inequitable as it disabled many caregivers from obtaining the grant, consequently leading to low take-up rates. Due to these consequences the government introduced a means test which takes into account the income of the caregiver rather than that of the household. The change of the means testing was necessary as the CSG which had replaced the SMG places a specific focus on children and not on the household structure (Woolard *et al.*, 2011:362). Other conditions which resulted in low take up rates were the requirements of applicants to partake in development programmes. This requirement was abolished as such programmes were not present in a number of places (Woolard and Leibbrandt, 2010:9).

When the CSG was introduced, the targeted goal of this grant was to reach 3 million children in 5 years (Samson *et al.*, 2002:6). Including the foster care and care dependency

beneficiaries, this target would have benefitted 5 125 929 instead of 4 925 900 children in 2003. Figure 2.2 shows that the beneficiaries of the CSG have increased progressively since its commencement, with its beneficiaries reaching more than 1000 000 in 2001, 3 years after its commencement. Similar to the CSG, the care dependency beneficiaries have also been increasing from 1998 to 2016. The number of foster care beneficiaries fluctuated slightly from 1998 to 2002. However, after this, it increased and began declining in 2012 to the present.

The inception of the CSG has introduced 11 953 773 poor children into the social assistance programme. The extensive contribution of the CSG can be linked to the frequent extension of the age eligibility and the increased awareness of the grant. The CSG pays the minimum grant value of all social grants yet it has the largest number of beneficiaries, which proves the effectiveness of the grant in reaching the poor.

Figure 2.2 Beneficiaries of all child grants: 1999-2016



Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

The adjustments of the CSG concerning the age eligibility, grant amount and means testing have been modified over the years. At its introduction, the CSG age eligibility was 0-6 years and this was maintained until 2003, and has been expanded to 17 years since 2013 as shown in Table 2.2. The CSG allocated R100 per month at its inception and R350 in 2016/17. In

Table 2.2, the CSG amount payable has a positive growth rate from the period it was introduced. In addition, the grant values have increased above the yearly average inflation rate from 2001 to 2007. However, in the periods 2008 and 2009, the yearly average inflation was above the growth rate of the CSG. This difference may be attributed to the financial crisis that had occurred during this period. Thereafter the growth rate of social grants exceeded the inflation rate from 2010 to 2012, and further declined from 2013 to 2015.

Table 2.2 Adjustments in age eligibility and grant value of the CSG from 1998 to 2016

| Year | Age eligibility (Years) | Grant value (Rand) | Growth in grant value (%) | Average inflation rate (%) |
|-----------|-------------------------|--------------------|---------------------------|----------------------------|
| 1998-2000 | 0-6 | 100 | - | 5.8 |
| 2001/02 | 0-6 | 110 | 10 | 5.7 |
| 2002/03 | 0-6 | 140 | 27.3 | 9.5 |
| 2003/04 | 0-8 | 160 | 14.3 | 5.8 |
| 2004/05 | 0-10 | 170 | 6.3 | -0.7 |
| 2005/06 | 0-13 | 180 | 5.9 | 2.1 |
| 2006/07 | 0-13 | 190 | 5.6 | 3.2 |
| 2007/08 | 0-13 | 200 | 5.3 | 6.2 |
| 2008/09 | 0-13 | 210 | 5 | 10 |
| 2009/10 | 0-14 | 240 | 14.3 | 7.2 |
| 2010/11 | 0-14 | 250 | 4.2 | 4.1 |
| 2011/12 | 0-14 | 270 | 8 | 5.0 |
| 2012/13 | 0-17 | 280 | 3.7 | 5.8 |
| 2013/14 | 0-17 | 290 | 3.6 | 5.7 |
| 2014/15 | 0-17 | 300 | 3.4 | 6.1 |
| 2015/16 | 0-17 | 330 | 10 | 4.5 |
| 2016/17 | 0-17 | 350 | 6.1 | 6.6 |

Source : Van der Berg *et al.* (2010 :40) ; Mabugu *et al.* (2012) ; RSA (2015b, 2016a, 2016d, 2016e, 2016f) ; inflation.eu, 2018.

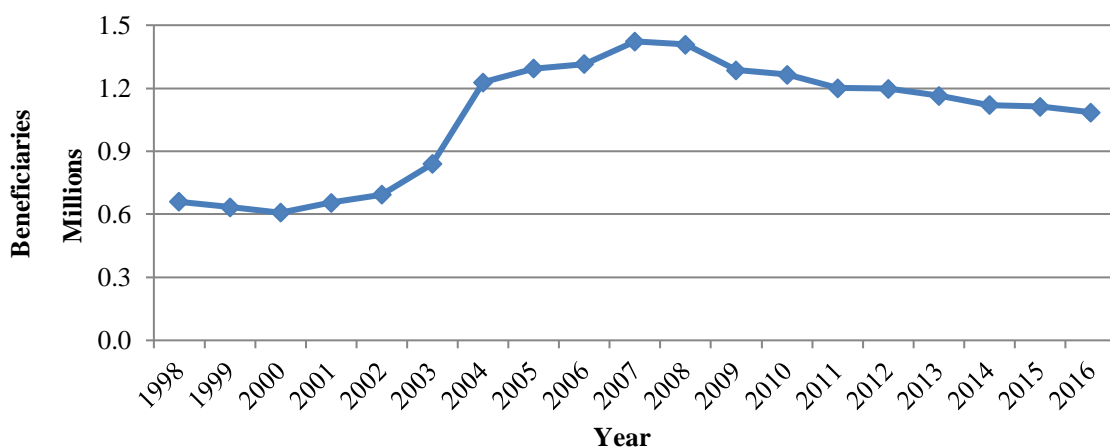
In terms of the means testing, for 10 years the income threshold remained unchanged and it was only 10 years later (2008) where there was a formula introduced to adjust for the means test for inflation (Hall and Sambu, 2015:114). The formula used to calculate the income threshold of applicants fixed at 10 times the amount of the grant is $A = B * 10$, where A is the income threshold and B is the amount of the grant received monthly (Van der Berg *et al.*, 2010:4). Therefore, the threshold for the period 2016/17 was R3 500 on a monthly basis and R39 600 per annum for single applicants and R6 600 per month and R79 200 per annum for married applicants.

(c) Social grants for the disabled

The social grant for the disabled is provided for individuals who have been disabled in situations different from those related to road as well as well work accidents (Van der Berg *et al.*, 2010:5). The grant is payable to individuals who are aged from 18 to retirement age or 60 years, to be precise; this individual should not be benefitting from any other grant and should not be taken care of at any state institution. The disability of the applicant must be permanent and so severe that the applicant cannot be part of the labour market. Therefore, it can be deduced that the grant pays beneficiaries for income loss. In addition, the disability grant uses on a means test for eligibility, and the formula to determine the value of the grant is the same as that of the old age pension. The formula is $D = 1.3A - 0.5B$, with D being the value of the grant per month while A is the maximum value of the grant and B is the applicant's private earning per month (Van der Berg *et al.*, 2010:5). The means testing differs for single beneficiaries as well as for married beneficiaries.

This grant is one of the five major grants, and currently the third largest social grant after the SOAG. Despite this, the numbers of the grant's beneficiaries have been fluctuating since 1998 as shown in Figure 2.3. Before its largest peak recorded in 2007 at 1 422 808 beneficiaries, the beneficiaries of this grant fluctuated fairly since 1998 to 2003 from 660 528 to 840 424. Thereafter, the grant experienced a hike to 1 228 231, gradually increasing to 1 422 808 in 2007. After peaking in 2007, the numbers of beneficiaries began declining, to 1 084 768 beneficiaries in 2016.

Figure 2.3 Number of beneficiaries of the Disability Grant: 1998-2016

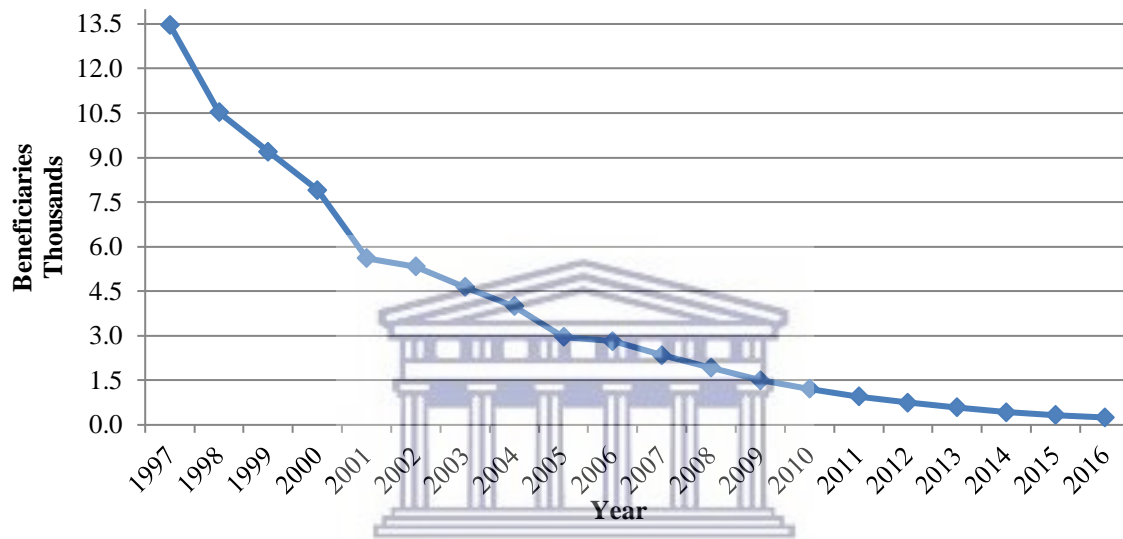


Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

(d) War Veterans' Grant

The eligibility of the war veterans' grant, like most grants, is subject to an income and means test. Moreover, the eligibility of the grant requires an applicant to be disabled, to have served in the Korean War or to be older than 60 years (RSA, 2014d: 26). In 2016, 249 war veterans benefitted from a social grant, and the numbers of beneficiaries have been declining drastically over the years as shown in Figure 2.4.

Figure 2.4 Number of beneficiaries of the War Veterans' Grant: 1997-2016

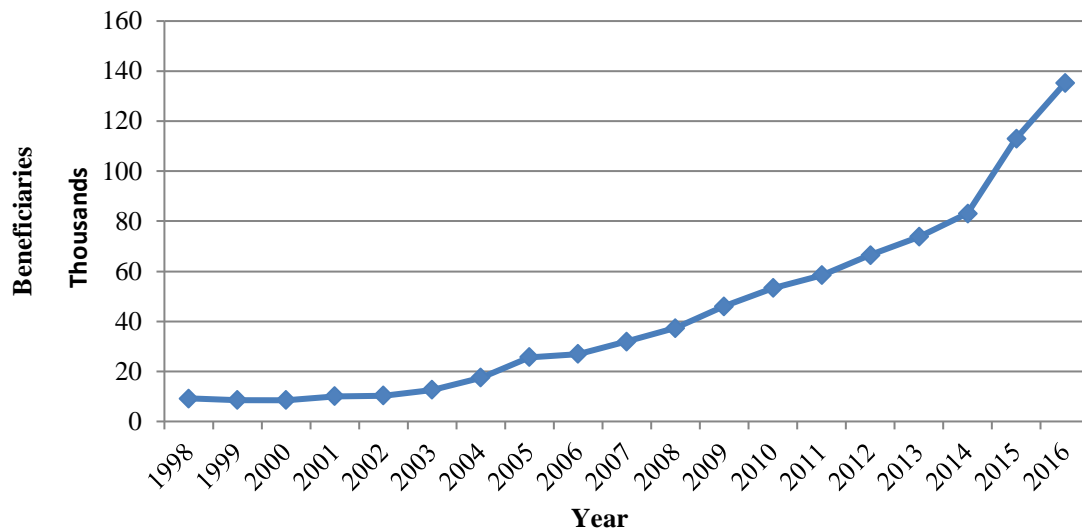


Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

(e) Grants in aid

The grant in aid is made available to an individual already receiving a grant who needs and receives care at their residence, from another individual; therefore, this grant is not payable to individuals who are cared for at an institution, benefitting from a government subsidy (Haarmann, 2000:13). Figure 2.5 shows that the numbers of beneficiaries of this grant have been increasing since 1998, but slightly declined from 2005 to 2006 and immediately increased the year after. The years 2014 to 2015 show a larger increase followed by 2015 to 2016.

Figure 2.5 Number of beneficiaries of the Grant in aid: 1998-2016



Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

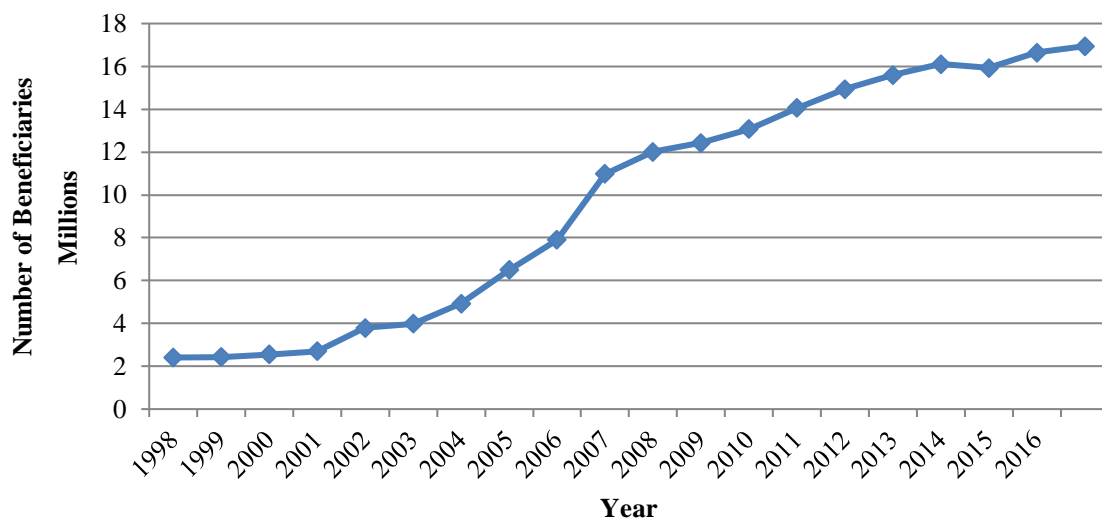
(f) Social relief grant

The social relief grant is payable to individuals who are in need of material provisions. The recipient should be: (i) awaiting an approved social grant; (ii) not being fit medically to be in the labour market for less than 6 months; (iii) not receiving any maintenance. In addition (iv) when a breadwinner has passed on, or when a breadwinner has a lack of resources, or when a breadwinner is admitted to an institution for less than 6 months; and (vi) when a person is affected by a disaster or any other emergency (Haarmann, 2000:13).

2.5.2 Social grant beneficiaries

Figure 2.6 below is an illustration of the growth of the number of beneficiaries from 1998 to 2016. The graph shows an upward trend from 1998 to 2016. However, from 1998 to 2001, the curve is relatively flat and begins increasing rapidly thereafter. The growth of the numbers of beneficiaries has been linked with the reduction of poverty, since grants are provided mainly for the poor (RSA, 2014c:20). According to Department of Social Development (RSA, 2014d: 19) in 2012, the 15 million beneficiaries represented 30% of the population. The largest number of beneficiaries was children, with more than 11 million children benefitting, enabling them to meet their basic needs and overcome the burden of hunger and impoverishment. The grant with the lowest number of beneficiaries was the war veterans' grant.

Figure 2.6 Growth of beneficiaries of all social grants (excluding social relief): 1998-2016



Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

Table 2.3 below shows the average number of beneficiaries per grant type. The SOAG, CSG, care dependency grant, foster care grant as well as the grant in aid have contributed to the growth of beneficiaries. This is evident as these grants revealed consistency in the growth of the number of beneficiaries. However, the disability grant has been fluctuating over the years, whilst the war veterans' grant has been constantly declining.

The CSG had the greatest share of beneficiaries from 2002 to 2016 and this share has been increasing successively, followed by the SOAG. By the end of 2016, (February) the average annual growth rate of all social grants beneficiaries amounted to 11.47% while the compounded annual growth rate amounted to 10.25%. These results signify the success of the government in targeting and providing for those in need, and it may also indicate the fiscal importance that the government has placed on alleviating child poverty.

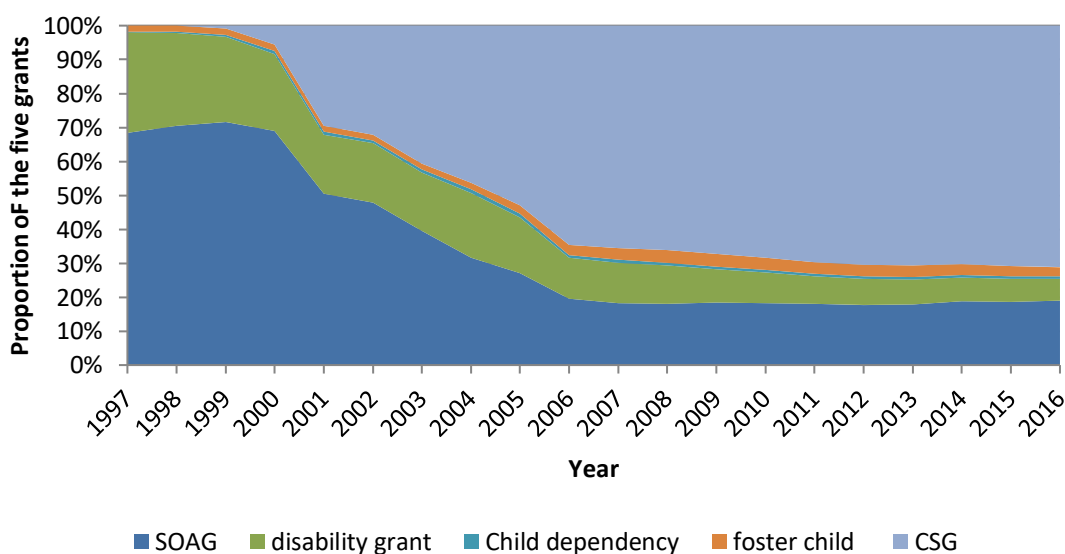
Table 2.3 Average number of beneficiaries by grant type: 1998-2016

| Type of grant | 1998-2001 | 2002-2005 | 2006-2009 | 2010-2013 | 2014-2016 |
|------------------------|------------------|------------------|-------------------|-------------------|-------------------|
| Social Old Age Grant | 1 814 888 | 2 005 487 | 2 240 364 | 2 712 316 | 3 080 420 |
| War Veterans' Grant | 8 312 | 4 233 | 2 145 | 879 | 335 |
| Disability Grant | 639 416 | 1 014 042 | 1 358 323 | 1 206 925 | 1 105 950 |
| Grant in Aid | 9 089 | 16 538 | 35 573 | 62 966 | 110 436 |
| Child Dependency Grant | 20 343 | 60 186 | 99 525 | 114 544 | 125 976 |
| Foster Child Grant | 51 707 | 116 854 | 411 724 | 523 885 | 488 720 |
| Child Support Grant | 320 994 | 2 609 650 | 7 973 609 | 10 552 989 | 11 594 295 |
| Total | 2 864 748 | 5 826 990 | 12 121 262 | 15 174 503 | 16 506 132 |

Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

Analysing the share of beneficiaries according to the five major grants shown in Figure 2.7 below, the share of the CSG has had the largest proportion since 2003 accounting for more than 40%. Prior to 2003, the SOAG had the greatest share compared to the other four grants, recording its greatest share of 70% in 1999. The share of SOAG beneficiaries decreased from 70% (1999) to 18.8% (2016) while the share of the CSG increased from 0.9% (1999) to 70.05% (2016). Nonetheless, the number of SOAG beneficiaries has recorded positive growth rates from 1998 to 2016 and this positive growth can be linked with the awareness of the grant, age eligibility being reviewed from 65 to 60 years for men in 2010, or it may be an indication of some of the elderly being dependent on private pensions.

Figure 2.7 Beneficiaries of the five major grants: 1997-2016



Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

Table 2.4 below shows the percentage of beneficiaries according to province. KwaZulu-Natal and Eastern Cape are the two provinces that had the greatest share of beneficiaries over the entire six-year period. This is no surprise as 26.3% (more than a quarter) of all poor people in 2011 resided in KwaZulu-Natal followed by Eastern Cape taking a share of 18.3% (RSA, 2014c:30-31). These provinces have remained the two main provinces with higher poverty shares (RSA, 2015b:64-66).

Table 2.4 Beneficiaries by province: 2010-2016

| Province | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Eastern Cape | 17.5% | 17.3% | 17.1% | 16.7% | 16.4% | 16.3% | 16.2% |
| Free State | 5.9% | 6.0% | 6.0% | 5.9% | 5.9% | 5.8% | 5.7% |
| Gauteng | 12.0% | 12.2% | 12.5% | 13.7% | 13.7% | 13.9% | 14.3% |
| KwaZulu-Natal | 25.2% | 24.8% | 24.6% | 23.9% | 23.6% | 23.4% | 23.1% |
| Limpopo | 14.4% | 14.5% | 13.1% | 13.4% | 14.0% | 13.9% | 14.0% |
| Mpumalanga | 7.4% | 7.3% | 8.7% | 8.7% | 8.3% | 8.3% | 8.3% |
| Northern Cape | 2.6% | 2.6% | 2.6% | 2.6% | 2.7% | 2.7% | 2.7% |
| North West | 7.7% | 7.5% | 7.5% | 6.9% | 7.0% | 7.0% | 7.0% |
| Western Cape | 7.4% | 7.7% | 8.0% | 8.2% | 8.4% | 8.6% | 8.7% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Source : RSA (2008, 2009, 2014d, 2016d, 2016e).

The findings in Table 2.4 also prove that individuals in these provinces have a high reliance on social grants. In 2011, 21% and 16% of households receiving social grants as a source of income resided in KZN and in the Eastern Cape respectively. These figures remained relatively unchanged in 2013, at 19% and 14% respectively. In 2014, the figures dropped to 15% and 11% respectively. The Northern Cape and Free State had the lowest percentage of beneficiaries as depicted above and these provinces, as compared to the other provinces, have recorded the lowest numbers of households relying on social grants as a source of income in 2011, 2013 and 2014.

2.5.3 Government spending on social grants

The general expansion of government spending after 1994, according to Van der Berg and Moses (2012:128), was associated with better revenue collection, significant fiscal discipline and a broadened tax base. This expansion was also triggered by the need to include and benefit all racial groups (Van der Berg, 1997:10). Van der Berg *et al.* (2010:16) found that after 1994, social spending by government increased by 21% per person from R1643 in 1995 to R1987 in 2000 and further grew by 42% after six years from the year 2000.

The rise in government spending on social grants since the democratic government came to power is evident in Table 2.5 and Figure 2.8 below. Government spending on social grants increased from R11 539 million in 1995 to R148 934 million in 2016, representing an increase of more than 10 times. The growth rate of government spending on social grants has substantially increased since democracy. The highest increase occurred in the period 2001 to 2004, showing a rise of more than 100%.

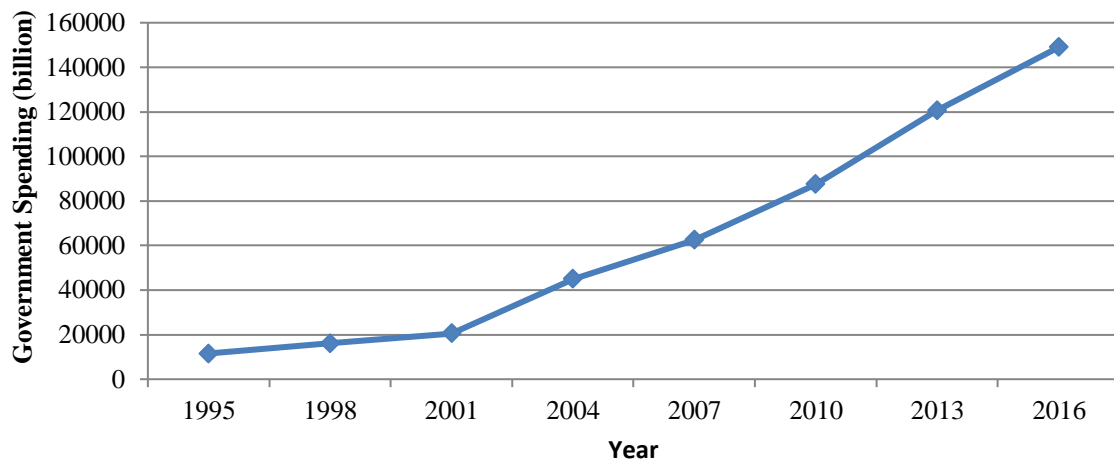
Table 2.5 Government spending on social grants: 1995-2016 (million)

| Year | R (million) | Growth % |
|------|-------------|----------|
| 1995 | 11,539 | - |
| 1998 | 16,027 | 38.9% |
| 2001 | 20,553 | 28.4% |
| 2004 | 44,885 | 118.4% |
| 2007 | 62,467 | 39.2% |
| 2010 | 87,493 | 40.1% |
| 2013 | 120,702 | 38.0% |
| 2016 | 148,934 | 23.4% |

Source: RSA (2013c).

Figure 2.8 above shows government expenditure, graphically. This figure shows a consistent upward trend, which means that the government has been committed in tackling poverty by providing for the poor. Moreover, this highlights the success of the government in this area, as increasing spending on social needs, specifically for the poor, was the government's priority after 1994. This increase can be attributed to the elimination of racial disparities after 1994, adjustments of grant values, the inception and growth of the CSG, the equalisation of the SOAG age eligibility for men and women as well as frequent adjustments in the age eligibility of the CSG.

Figure 2.8 Government spending on social grants: 1995-2016



Source: RSA (2013c).

Social spending on social grants differs. Out of the five major grants, the SOAG has received the greatest share over the years. This grant has had a share of more than 35% of social assistance spending for the past 15 years. The second largest expenditure is on the CSG. However, this only occurred after 2005, whereas prior to 2005 the disability grant was the second largest grant the government spent on. The disability grant has therefore been the third largest grant after the CSG, followed by foster care and lastly, care dependency.

Expenditure on the SOAG and the CSG shows a minimal difference, even though the SOAG pays beneficiaries more than three times the CSG. The large social spending on the SOAG is highly influenced by the value of the grant payable, whilst the number of beneficiaries influences the high spending on the CSG.

2.6 Definitions of poverty

The definition of poverty is articulated in different ways. Poverty can be defined as absolute, relative, or both absolute and relative (Hagenaars and De Vos, 1988). Absolute poverty is a condition in which an individual does not have the minimum amount of money required to meet human basic needs. These basic needs are identified as food, shelter, clean water, sanitation, health and schooling (UN, 1995:9). Absolute poverty according to Gordon *et al* (2003:26) is not explained by income only, but by access to social services as well.

Relative poverty on the other hand is determined by society's standards and differs between economies (Davis and Martinez, 2014:14), focusing on an income level below a given

average national income (Triegaardt, 2006:2). Putting it differently, Townsend (1979:31) states that the relative approach views poverty as the lack of resources required to obtain a standard of living, participation in activities, customs, and diets, mainly approved by society.

The absolute and relative poverty definitions confine poverty to the lack of income required to meet basic needs. The idea of poverty being regarded as a deprivation of income makes it unidimensional. However, poverty is also regarded as having a variety of deprivation dimensions which are beyond income deprivation. These deprivations include the exclusion of people from social life (De Haan (1999), vulnerability, voicelessness and powerlessness (World Bank, 2000:15). Moreover, deprivation also occurs through the lack of assets such as human assets (capacity for basic labour skills), natural assets (land), physical assets (infrastructure), and financial assets (savings and access to credit) as well as social assets (networks of contacts and political influence over resources) (World Bank, 2000:15). Ahmed *et al.* (2007:69) also speak of the concept of “inherited poverty” occurring when poverty and hunger is passed on from one generation to the next.

There is no universally accepted definition of poverty (Akindola, 2009:123). However, from the above discussion it can be established that poverty is multidimensional, going beyond the deprivation of income. The multidimensionality of poverty validates the need to measure poverty using different methods, to formulate better poverty alleviating policies. The following section explores the different methods used in measuring poverty.

2.7 Measurements of poverty

2.7.1 Monetary poverty

Identifying and measuring poverty using the income or expenditure approach has been extensively used and this approach is characterised as a pillar of analysing quantitative poverty. Furthermore, since data beyond income is collected, this approach therefore ensures a greater overview of well-being and also examines the associations of poverty and tests premises on the effect of policy intervention (World Bank, 2000:16). This approach is regarded as being easy to quantify and useful as it summarises the number of the poor below a certain income threshold, known as a poverty line. The premise behind monetary poverty is that people are deemed to be poor if their income or expenditure lies below a poverty line acceptable in society (Dessallien, 2000: 10). The use of a poverty line does not only

determine the number of poor people but also provides the ability to measure the breadth as well as the depth of poverty.

Poverty lines

There are two types of poverty lines, namely absolute and relative lines. Absolute poverty lines are anchored in some standard of what households should be able to count on in order to meet their basic needs. For monetary measures, these poverty lines are based on estimates of the cost of a fixed basket, that is, the cost of a nutritional basket considered minimal for the health of a typical family, to which a provision is added for non-food needs (Coudouel *et al.*, 2004:33). This approach however has a drawback as using a fixed basket of commodities updated only to take into account inflation implies that the absolute poverty line does not account for changes in living standards (RSA, 2007:5).

Conversely, relative poverty lines are defined in relation to the overall distribution of income or consumption in a country, for instance a poverty line can be set at 50% of a country's mean income or consumption (Coudouel *et al.*, 2004:33). In countries like South Africa, the relative poverty line is set at the level including households living below 40% of national income. In contrast with the absolute poverty line, a relative poverty line is set in relation to changing living standards and it is relatively simple to compute and takes into account that standards of suitable household well-being shift with rising prosperity, over time. However, if the aim is to measure progress in meeting basic needs, reducing poverty and vulnerability, a relative measure is therefore inappropriate regardless of its simplicity when calculated (RSA, 2007:5).

In 2012, South Africa issued a set of three poverty lines, the food poverty line (FPL), lower bound poverty line (LBPL) and upper-bound poverty line (UBPL) to be utilised for measuring poverty (RSA, 2014b:8). These poverty lines were R321, R443, and R620 respectively adjusted according to the CPI.

- The FPL is the level of expenditure below which individuals are not able to buy sufficient food providing them with a satisfactory diet. People falling under this line are either consuming inadequate calories for their nutrition or they should alter their expenditure patterns from those acceptable by low income households.
- The LBPL comprises of non-food items; however, it requires individuals to sacrifice food so that these items are obtainable.

- The UBPL is that which includes individuals who can purchase both food and non-food items.

The significance of poverty lines is that they distinguish between the poor and non-poor households (RSA, 2014b:7) and they also monitor progress in poverty reduction (RSA, 2007b:1). However, the poverty line is no more than a crude and simplified index of a living standard, and it is no substitute for more detailed statistics and analysis of poverty and household welfare (RSA, 2007:3).

The drawback or limitation of the monetary approach is that it excludes social indicators such as access to public goods, health care and education. Such indicators are of great importance in explaining poverty, especially in developing countries (Gordon *et al.*, 2003:6). Sen (1981) argued that in developing economies poverty is quantified better when using indicators of standards of living as compared to income or consumption measures. Additionally, the monetary approach is argued to be inefficient as it is derived from national accounts data which excludes an individual or household's socio-economic status. Also, large differences in living and income conditions exist within and between most economies (Gordon *et al.*, 2003:3). Laderchi *et al.* (2003) state that a weakness of the monetary approach is that it focuses on the physical or moral character of the poor rather than the real causes of poverty.

2.7.2 Non-monetary poverty

When poverty was defined, it was apparent that poverty is not limited to monetary deprivation but it is rather a multidimensional concept. Also, the limitations and criticisms of monetary poverty gave momentum to the exploration of measuring poverty in a multidimensional way (Berenger *et al.*, 2009; Tsui, 2002; Bourguignon and Chakravarty, 2003; Alkire and Sarwar, 2009). As much as there has been an increase in the multidimensionality of poverty it does not however impose a framework of measuring poverty (Suppa, 2016:1).

The tools that are useful to measure the social indicators that are non-monetary deprivations are thus multidimensional, but are not limited to the Physical Quality of Life Index (PQLI), Human Poverty Index (HPI), and the Multidimensional Poverty Index (MPI). The PQLI is a measure of the quality of life, which combines the average of three dimensions: basic literacy

rate, infant mortality, and life expectancy at age one, which are weighted on a 0 to 100 scale (Alkire and Sarwar, 2009:6).

The HPI is related to the Human Development Index (HDI). The HPI measures deprivation in three dimensions captured by the HDI. The first dimension is a long and healthy life and it is explained by the exposure to death at a young age (measured by the likelihood of not surviving age 40 at birth). The second dimension is knowledge. Deprivation in this dimension occurs when there is exclusion from reading and communications (measured by adult literacy rate). The last dimension is a proper standard of living, and its deprivation is not having access to public provision. This dimension is measured by the percentage of the population without improved water sources and the percentage of children underweight for their age (Makoka and Kaplan, 2005:21).

The MPI proposed by (Alkire and Foster, 2009) measures poverty using two features. Firstly, it recognises multiple deprivations at the household level in various indicators in line with international standards. These indicators may include school attainment; school attendance; good nutrition; access to electricity; access to drinking water and access to sanitation. Secondly, the MPI introduces an adjusted Foster Greer Thorbecke (FGT) measure that focuses on the breadth, depth and severity of poverty (Alkire and Foster, 2009:2). The ability of the MPI to measure the breadth of poverty enables the tool to identify people who suffer multiple deprivations simultaneously (Santos, 2014:2).

In simple form, the construction of the MPI using the FGT approach reflects the headcount ratio (H) and intensity of poverty (A). The headcount ratio is the ratio that measures the proportion of the multidimensional poor in the population. The intensity of poverty reflects the proportion of the weighted component indicators, in which on average poor people are deprived. In order to obtain the MPI value, the headcount ratio and intensity of poverty values are multiplied ($H \cdot A$). In this method of measuring poverty, the contribution of each dimension to multidimensional poverty is also measured which is regarded as the strength of the MPI (Finn *et al.*, 2013:5).

2.8 Trends of South African Poverty

2.8.1 Monetary poverty trends

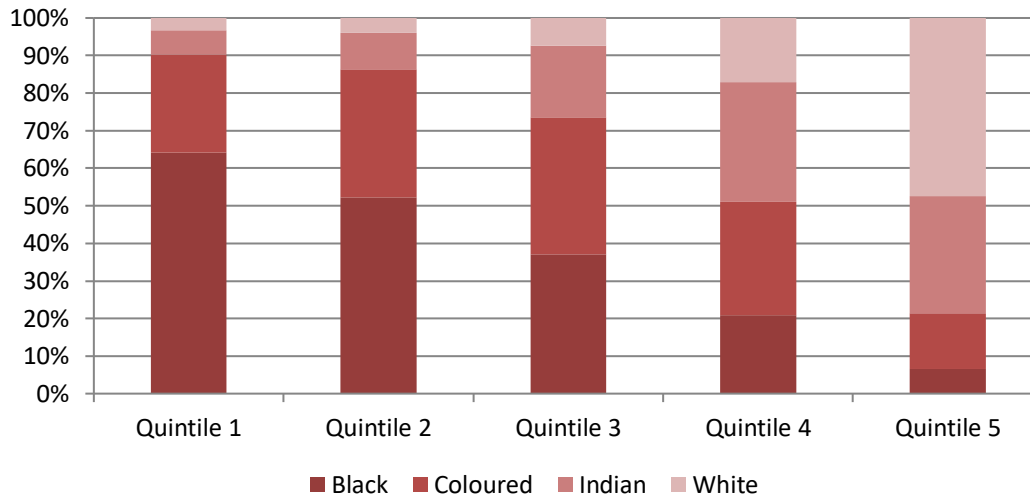
This sub-section of the chapter looks at the poverty trends of South Africa post-1994. The Income and Expenditure Survey (IES), General Household Survey (GHS), and Stats SA poverty trends report were used to highlight poverty trends by race, gender, age and province. The headcount poverty line was used as a measurement to determine poverty levels. In addition, the upper bound poverty line of R575 (2006), R709 (2009), R779 (2011) and R992 (2015) was used. The headcount poverty in 2006 was 52.1%, 47.2% in 2009 and further decreased to 38.3% in 2009 with a slight increase to 40% in 2015.

(a) Poverty by race

Figure 2.9 below depicts the average number of households in each quintile for 1995, 2000, 2005 as well as 2010. As seen in this figure, the black households dominate in the first quintile, whilst the white population dominates in the fifth quintile. The black represented more than 60% of households in the first quintile and represented less than 10% in the fifth quintile.

Almost 50% of households earning an annual income falling under the fifth quintile were white households, followed by Indians representing more than 30% in this quintile. Thus, these households represented approximately 80% in this quintile. The white and Indian households represented approximately 10% in the first quintile, whilst the black and coloured households had a share of 90%.

Figure 2.9 Proportion of households in each quintile by race: 1995- 2010

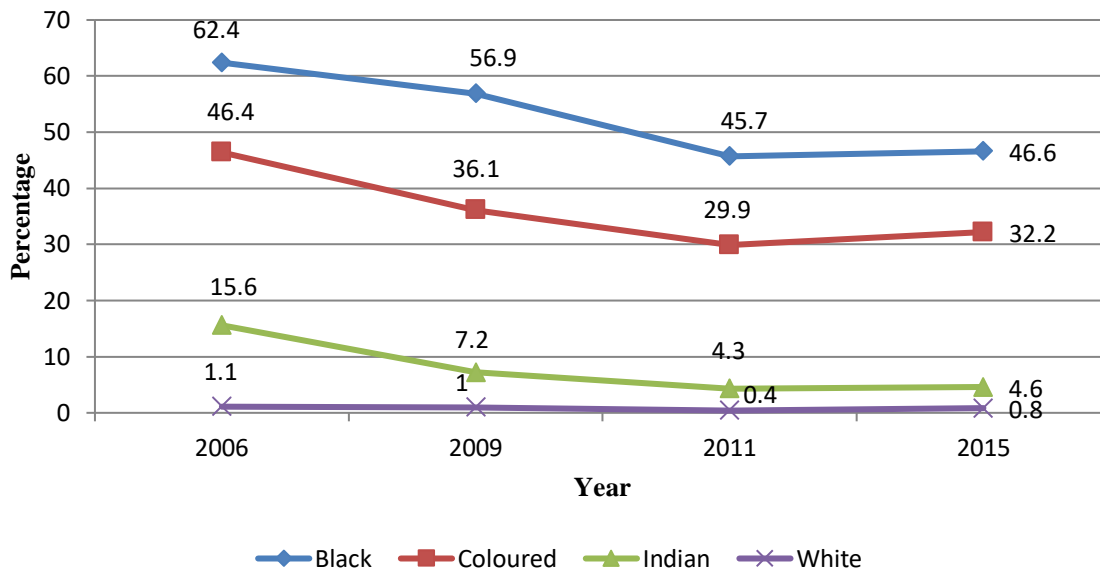


Source: RSA, (2005, 2008b and 2012c)

In the second quintile, the white households were left unchanged at 1.1%, black households declined whilst the Indian and coloured households saw an increase. Approximately 60% of households earning an annual income in the fourth quintile were coloureds and Indians, while blacks and whites both had a share of 20%.

The above findings show that the share of black households tends to decline as the quintile increased. However, the share of white and Indian households increased as the quintile increased. These findings prove that poverty levels in 2010 were more or less the same as they were 15 years before.

Figure 2.10 Headcount poverty of household head by race: 2006-2015



Source: RSA, 2017b.

Figure 2.10 depicts the headcount poverty of household heads according to race. In 2006, 62.4% of households headed by black people were poor. This declined to 45.7% in 2011; while in 2015 poverty levels saw a slight increase to 46.6%. Households headed by black people had the highest poverty levels for the 3 periods as compared with the other groups. Households headed by coloureds experienced progressive declines in the poverty levels. In 2006, 46.4% of these households were poor, declining to 29.9% in 2011.

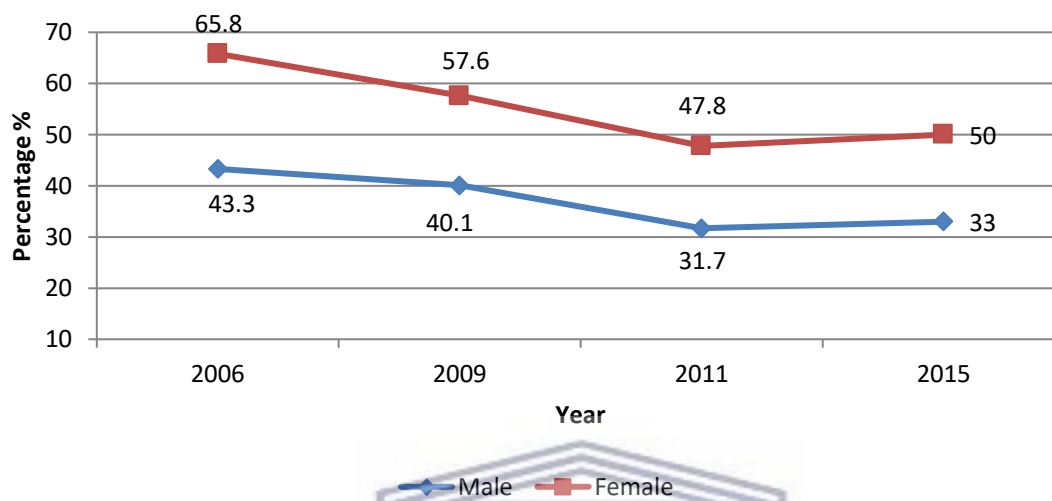
Households headed by white people experienced low levels of poverty since 2006 as depicted in the figure. In 2006, 15.6% of households headed by Indians fell below the upper-bound poverty line. This declined to 7.2% in 2009 and to 4.6% in 2011. The general trend of poverty declined for all race groups. Despite this, high disparities in racial poverty still exist. The black population has been the group with high poverty levels, whilst the white population has very low levels.

(b) Poverty by gender

In 2006, 65.8% of female-headed households were poor, versus 43.3% of male-headed households (Figure 2.11). The general trend for both female- and male-headed households was a decline in poverty levels from 2006 to 2015. Female-headed households experienced a

15.8% decline from 2006 to 2015, whilst males experienced a lesser decline of 10.3%. Nonetheless, female-headed households as compared with those headed by males still experience higher poverty levels.

Figure 2.11 Headcount poverty of household heads by gender: 2006-2015



Source: RSA (2017b).

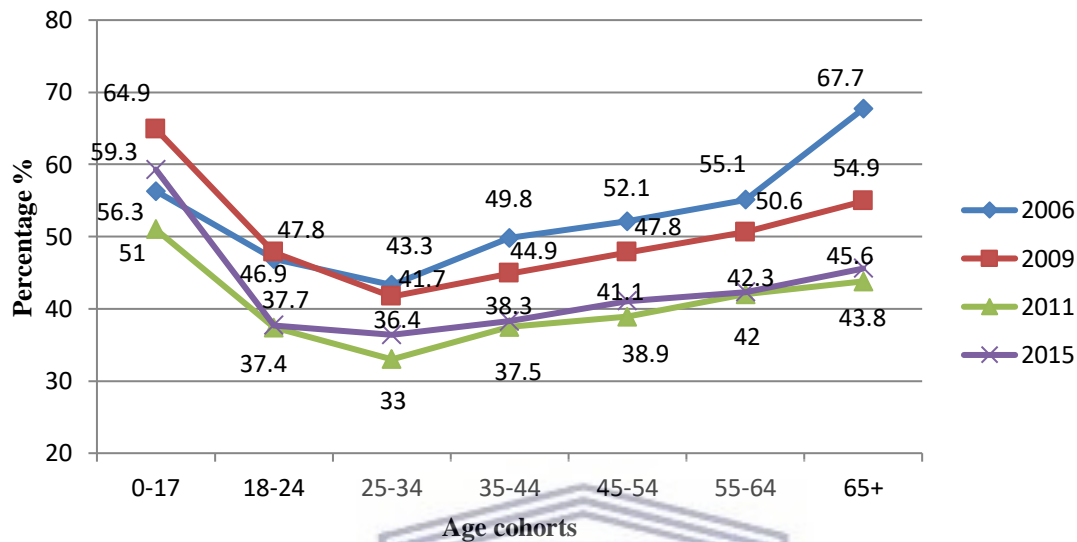
(c) Poverty by age

The following figure (2.12 below) shows that poverty levels are at their highest for children (0-17) as well as for the elderly and this has been evident from 2006 to 2015. The poverty trend according to age, is high for children and then decreases for those aged from 18-34 and thereafter it increases. The high poverty rates for children and the elderly coincide highly with the large number of beneficiaries benefitting from the CSG as well as the SOAG. The poverty levels for those aged 18-34 could also coincide with the unemployment epidemic in South Africa prevalent among the youth. In addition, poverty levels for the 19-59 age range could be attributed to government grants targeted only for children, the disabled and the elderly, excluding middle-aged groups.

The results also reveal that the aged (65+) are poorer than those aged 55-64. This could be because those aged 55-64 include the working age and thus there is still a dependence on employment income, while the 65+ group are those dependent on social grants as well as private pensions. We can also deduce that the high poverty levels for the 65+ group could

indicate that South Africans do not rely on personal investments such as private pensions but they rather depend on government grants.

Figure 2.12 Headcount poverty by age



Source: RSA (2017b).

(d) Poverty by province

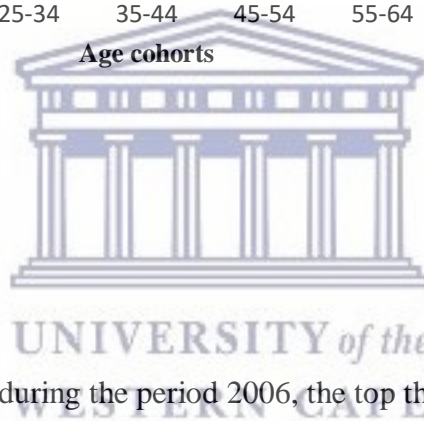
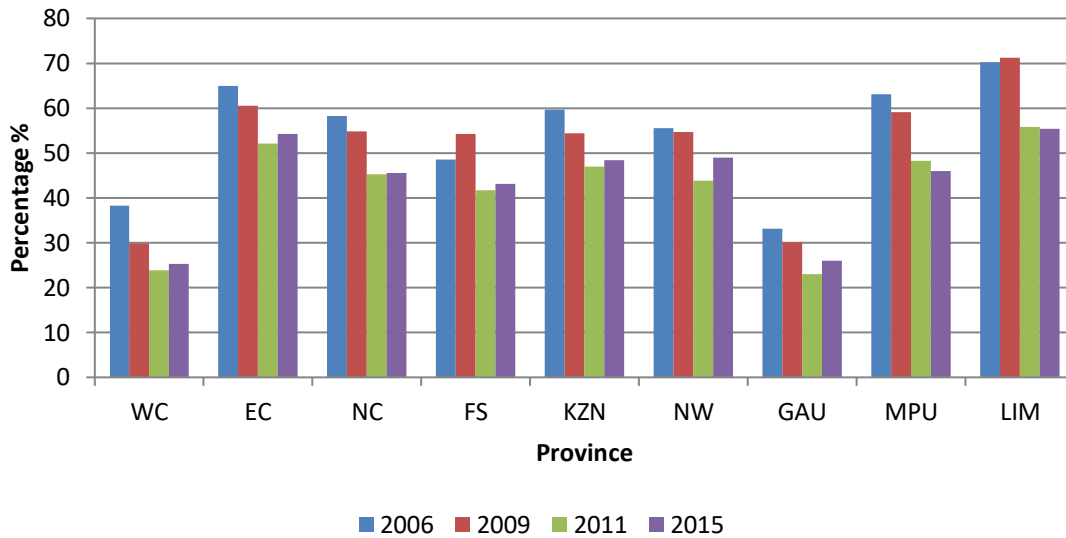


Figure 2.13 below shows that during the period 2006, the top three provinces with the highest poverty levels were Limpopo, Eastern Cape, and Mpumalanga with 70.2%, 64.9% and 63.1% households respectively, living under the upper-bound poverty line. These findings remained the same in 2009. During this period Mpumalanga experienced a rise in poverty levels while the other two provinces experienced minor declines. The Gauteng and Western Cape provinces had the lowest poverty rates from 2006 to 2015.

Figure 2.13 Headcount poverty of households by province: 2006-2015



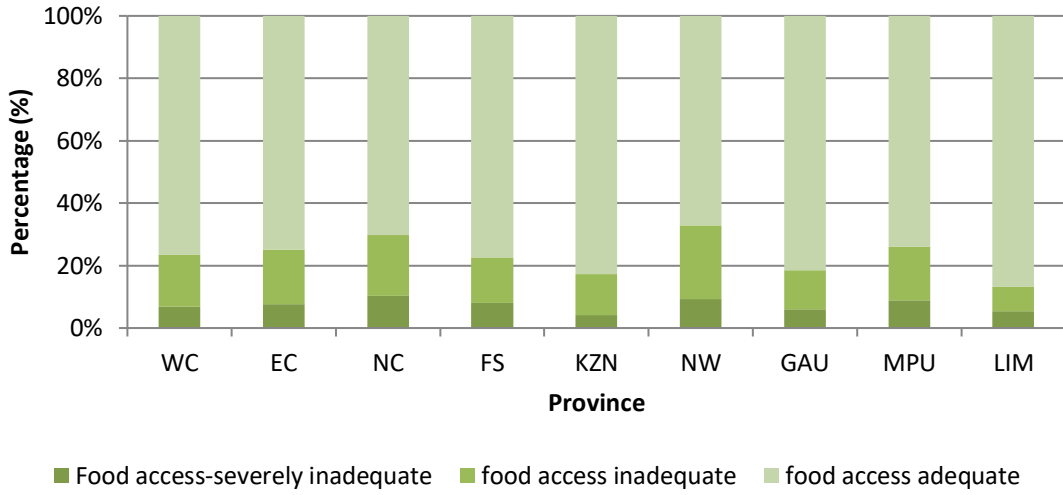
Source: RSA (2017b).

2.8.2 Non-monetary poverty trends

(a) Access to food

In 2011, 32.9% households in North West province faced inadequate and severely inadequate access to food (see Figure 2.14). This province was followed by the Northern Cape with 29.7% households, Mpumalanga and Eastern Cape with 26.1% and 25% households respectively, as well as Free State and Western Cape with 22.6% and 22.4% respectively. Surprisingly, Limpopo as the province with the highest poverty rate had the highest percentage of households (86.8%) with adequate access to food (see Figure 2.15). This may be linked with the fact that the majority of households in this province rely greatly on agriculture and that households treat agricultural activity as a source of food. Overall, the majority of households in all the provinces have adequate food access (RSA, 2011b:42).

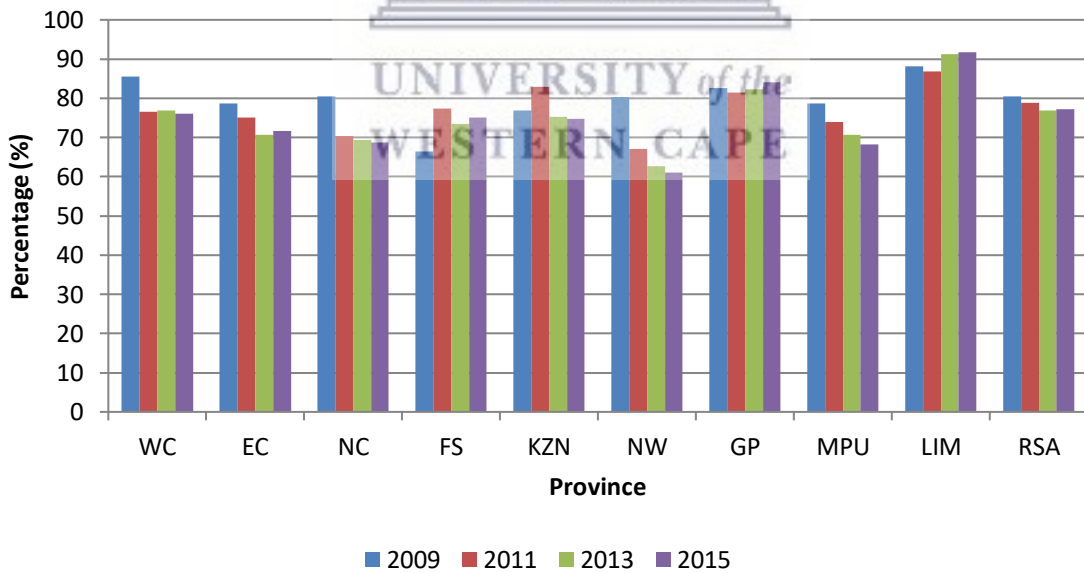
Figure 2.14 Access to food by province



Source: RSA (2011b).



Figure 2.15 “Adequate food access” by province: 2009-2015

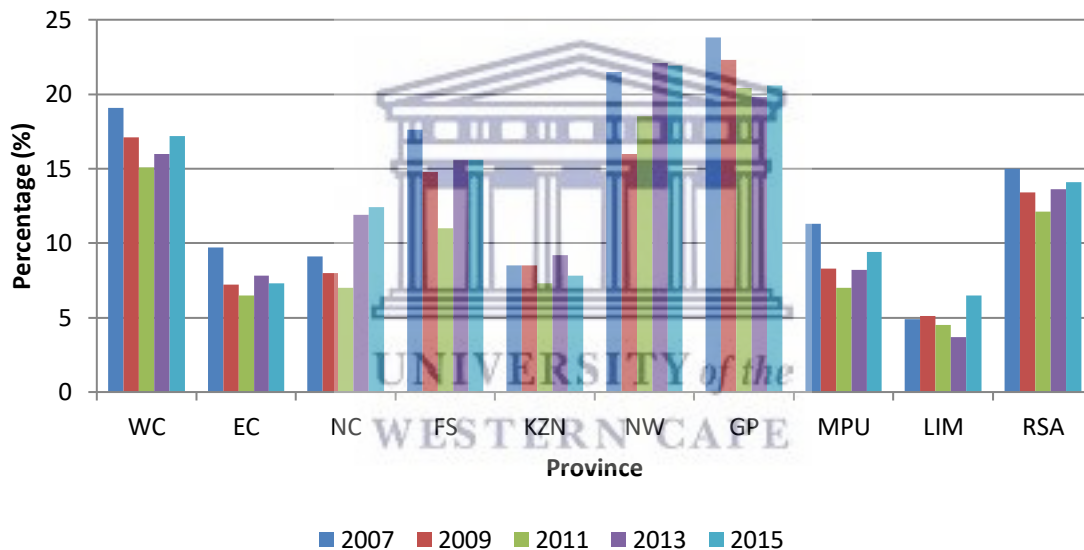


Source: RSA (2011b, 2013b, 2015a).

(b) Dwelling type

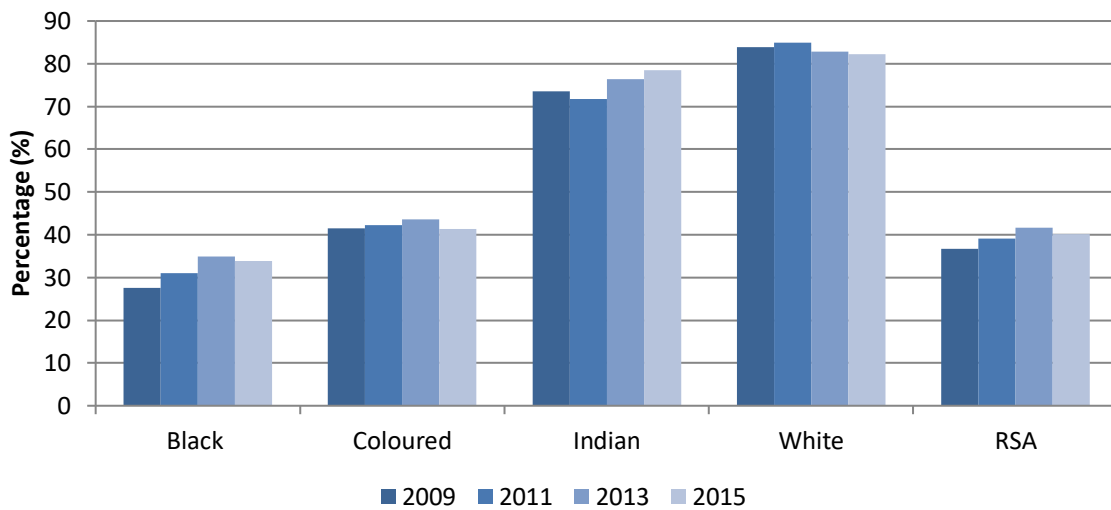
Figure 2.16 below shows that Gauteng is the province with the highest number of informal dwellings when compared with other provinces; it has however experienced declines over the years. Following this province is North West and the Western Cape. Eastern Cape, Mpumalanga, KwaZulu-Natal, and Limpopo are the provinces with relatively low numbers of informal dwellings. In Figure 2.17 above, the percentage of dwellings units with six rooms or more was highest for the white households, followed by Indians, coloureds and lastly black households. Thus, black households are likely to own smaller houses as compared to their counterparts.

Figure 2.16 Informal dwelling by province: 2007-2015



Source: RSA (2011b, 2013b, 2015a).

Figure 2.17 Percentage of dwelling units with 6 rooms+ by race of household head: 2009-2015

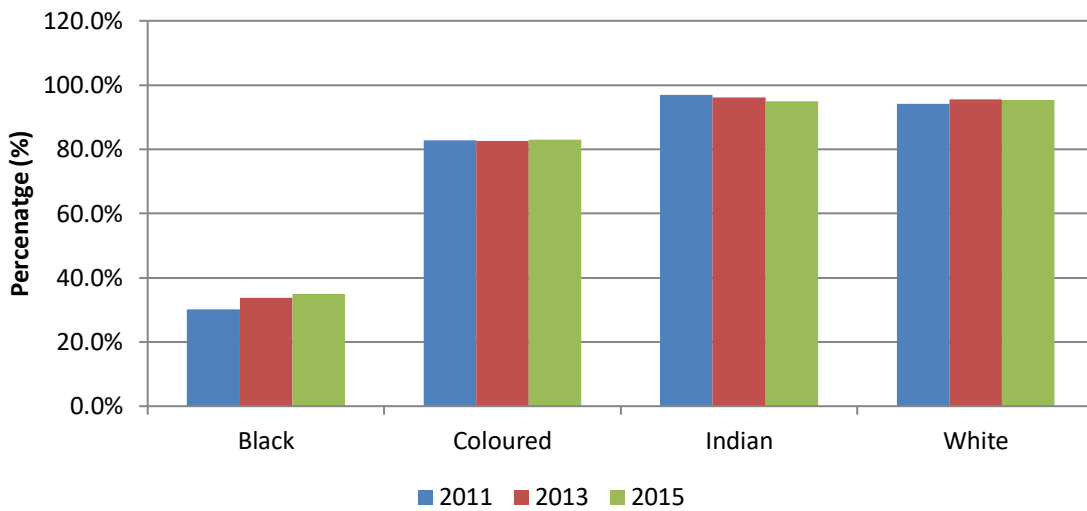


Source: RSA (2011b, 2013b, 2015a).

(c) Water access

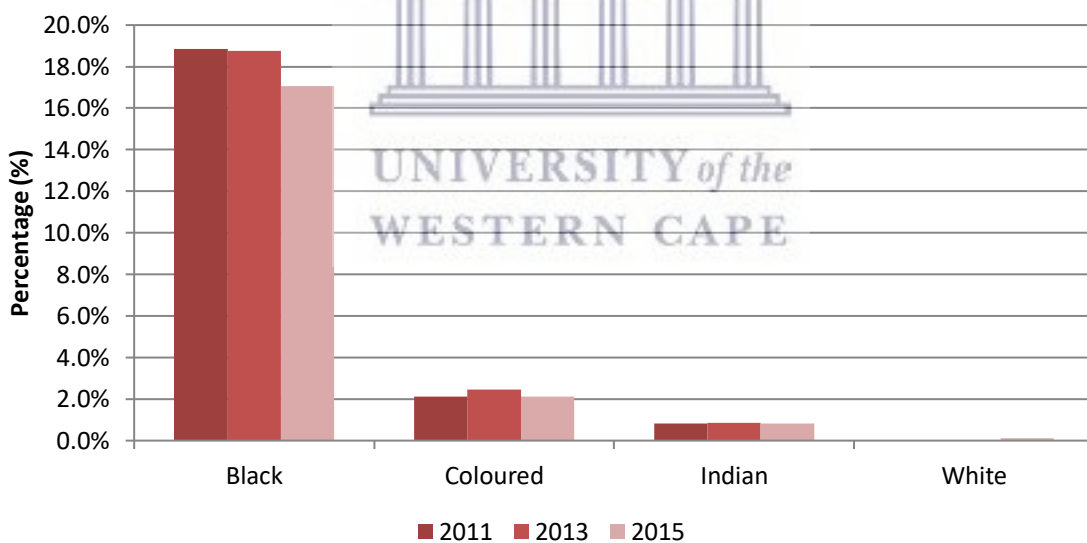
The ease of access to water as measured by piped water in one's dwelling as shown in Figure 2.18 below is most apparent for white and Indian households. Since 2011, more than 90% of white households had access to piped water. The Indian households followed with approximately similar results. The coloured households also had a great proportion with more than 80% in the three years having access to piped water. With low proportions for all three years, black headed households had less than 40% of households relying on piped water, nationally (see Figure 2.19).

Figure 2.18 Percentage of households using piped water in dwelling, by race of household head: 2011-2015



Source: RSA (2011b, 2013b, 2015a).

Figure 2.19 Percentage of households using a public tap, by race of household head: 2011-2015



Source: RSA (2011b, 2013b, 2015a).

(d) *Multidimensional Poverty Index*

Table 2.6 below shows the multi-dimensional assessment of poverty in South Africa. The number of multidimensionally poor individuals declined from 18% in 2001 to 8% in 2011. In both 2001 and 2011 multidimensionally poor individuals were more deprived in standards of living indicated by fuel for lighting, heating, cooking, access to water, sanitation, dwelling type as well as asset ownership.

Table 2.6 Headcount poverty by indicators of the MPI

| Dimension | Indicator | Headcount 2001 | Headcount 2011 |
|---------------------|---------------------------|---------------------------|---------------------------|
| Health | Child mortality | <1.0 | <1.0 |
| Education | Years of schooling | 19 | 11 |
| | School attendance | 4 | 2 |
| Living standards | Fuel for lighting | 29 | 15 |
| | Fuel for heating | 49 | 38 |
| | Fuel for cooking | 45 | 22 |
| | Water access | 38 | 27 |
| | Sanitation type | 47 | 40 |
| | Dwelling type | 30 | 22 |
| | Asset ownership | 40 | 15 |
| Economic activity | Unemployment (all adults) | 14 | 11 |
| South Africa | | 18 | 8 |

Source: RSA (2014e).

Table 2.7 below shows that the total population of South Africa that was multidimensionally poor decreased from 37% in 1993 to 3% in 2011. Contributing to these results, were the unemployment rate, inadequate years of schooling, and poor standards of living (RSA, 2014e:10). The three top provinces attributing to this decline were Limpopo, Eastern Cape and KwaZulu-Natal. These provinces had the highest multidimensional households as well as greater declines from 1993 to 2011. Deprivation of households residing in rural areas is 50% higher than in urban areas, represented by 61% of households. This percentage declined to 15% in 2010 coinciding with only 2% of households in urban areas experiencing deprivation in the same period. The MPI by race provides similar results to income poverty highlighted earlier in the dissertation; black households are more deprived than their counterparts are and this has remained significantly high from 1993 to 2010.

Table 2.7 Multidimensional headcount poverty: 1993-2016

| | 1993 | 2001 | 2010 | 2011 | 2016 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Province | % | % | % | % | % |
| E.C | 53 | 13 | 14 | 6 | 5 |
| KZN | 47 | 10 | 15 | 5 | 3 |
| LIM | 65 | 9 | 9 | 4 | 5 |
| NW | 43 | 8 | 6 | 4 | 4 |
| MPU | 36 | 8 | 5 | 3 | 3 |
| NC | 14 | 5 | 4 | 3 | 3 |
| FS | 37 | 8 | 2 | 2 | 2 |
| GAU | 7 | 5 | 2 | 2 | 2 |
| WC | 6 | 8 | 1 | 2 | 1 |
| | | | | | |
| Rural | 61 | | 15 | | |
| Urban | 10 | | 2 | | |
| | | | | | |
| Race | | | | | |
| Black | 47 | | 9 | | |
| Coloured | 6 | | 2 | | |
| Indian | 0 | | 0 | | |
| White | 1 | | 0 | | |
| RSA | 37 | 8 | 8 | 3 | 3 |

Source : Finn *et al.*, (2013); RSA (2014e).

2.9 Conclusion

This chapter gave an overview of the social welfare in South Africa. The chapter defined social welfare and social security, presenting its different programmes aimed at improving the standards of living of the poor. Social grants have expanded successfully since 1994 reaching approximately 17 million poor individuals in 2016. In 2014, almost 50% of South African households benefitted from social grants. The growth of the social grants was mainly due to the CSG whereby this grant saw a massive growth of beneficiaries, with a proportion of approximately 70% amongst all grants in 2016.

These successes are also reflected in government expenditure has been proven to be increasing consistently since 1995. Findings show that government expenditure has increased by approximately more than 13 times from 1995 to 2016.

The expansion of social grants and government spending is a reflection of the policy goals reviewed in the chapter. The RDP placed the provision of basic needs to the vulnerable and

needy as a first priority after 1994 and identified the social welfare system as suitable to provide these. This policy has been successful in terms of the social security, whereby the South African government has been able to build and expand a welfare system reaching the poor, particularly children, the elderly, and the disabled. This system has enabled the poor to have their basic needs met through the provision of social grants.

The other policies namely, GEAR, ASGISA, NGP, and the NDP placed an emphasis on sustained and increased economic growth and therefore believed that growth plays a vital role in poverty reduction. These policies reiterated the goals of the RDP, namely, keeping the real value of social grants and expanding expenditure by the government. ASGISA had a specific poverty goal of reducing poverty by 2014, while the NDP aimed to reduce the number of individuals earning below R419 per month from 39% (2010) to 0 in 2030.

This chapter provided various definitions of poverty that led to the conclusion that poverty is multidimensional. This means that both monetary and non-monetary deprivations that relate to basic needs play a significant role in defining and explaining poverty. The tools to measure the multidimensionality of poverty were captured in this chapter. These tools included poverty lines for monetary poverty and the PQLI, HPI and the MPI for the non-monetary poverty. Considering the various definitions of poverty and that poverty is multidimensional, this dissertation uses the multidimensional approach to define poverty in South Africa as well as to apply the MPI to measure poverty. Therefore, the impact of social grants will be tested on multidimensional poverty in South Africa.

The poverty levels in South Africa have declined over the years, both monetary and non-monetary poverty captured as various deprivations. The total population of South Africa that was multidimensionally poor decreased from 37% in 1993 to 3% in 2011 and according to the monetary approach headcount, poverty declined from 52.1% in 2006 to 40% in 2015. Findings revealed that the main indicators contributing to multidimensional poverty were the unemployment rate, inadequate years of schooling, and poor standards of living (access to water, sanitation, and dwelling type, etc.)

Poverty assessed according to race showed that the black population has been the group with high monetary poverty and non-monetary poverty levels. The white population on the other hand, has extremely low levels; and this has been consistent over the years. For instance, access to water according to race showed that less than 40% of black households had access

to piped water over a period of three years, whilst their counterparts (coloured, Indian and white households) had more than 80% of households benefitting from piped water. Findings for households by race also showed that the share of black households tends to have a substantial share in the first quintile and this share declines as the quintile increases. However, the white population tends to have a greater share in the fifth quintile and had less than 10% in the first, second and third quintiles.

In terms of gender, female-headed households saw a decline in their poverty levels as compared to their counterparts; however, poverty levels remained high for female-headed households. Poverty by age clearly depicted poverty to be prevalent for children as well as the elderly. It was assumed that the high poverty levels and successive poverty declines coincide with the fact that a large number of beneficiaries benefitting from social grants are the children and elderly through the CSG and SOAG respectively. From this it can be deduced that social grants are well targeted and have played a notable role in poverty alleviation. Poverty among the youth aged from 18-34 was found to be correlated with the high youth unemployment rate in South Africa, prevalent in the age group of 15-34. Also, the high poverty levels were linked to the fact that the 19-59 age group was not catered for by the government in terms of social assistance as social grants cater for children, the disabled and the elderly.

The headcount poverty by provinces was high for Limpopo, Eastern Cape as well as Mpumalanga for the periods 2006 to 2015 and it was low for the Gauteng and Western Cape provinces. The top five provinces experiencing inadequate and severely inadequate access to food were the North West, Northern Cape, Mpumalanga and Eastern Cape as well as the Free State. Limpopo as one of the provinces with high levels of poverty ironically had the highest percentage of households with adequate access to food. In essence, this province is monetary poor and yet it is less deprived in food adequacy. Provinces experiencing high levels of monetary poverty, namely Limpopo, Eastern Cape and KwaZulu-Natal were found to be amongst those with low numbers of informal dwellings when compared to their counterparts. Ironically, less monetary poor provinces like Gauteng, and the Western Cape provinces were provinces with a greater proportion of informal dwellings. Once again, it can be deduced that some provinces/households may be better off in the monetary sense, yet they could be deprived in other indicators of poverty.

CHAPTER THREE: LITERATURE REVIEW

3.1 Introduction

This chapter presents the literature review of the study. The first part of this chapter reviews the different theories of poverty. The second section of the chapter outlines the empirical evidence on the relationship between social grants and poverty. In the empirical evidence section, the study discusses the different methods applied by previous studies in assessing social grants as an anti-poverty tool. Lastly, Section 3.4 concludes the chapter.

3.2 Theoretical literature

Different theories view and explain poverty in various ways and these different views have contributed to the understanding of poverty. This section therefore seeks to provide a discussion on the *status quo* of theories of poverty. The early explanations of poverty were rooted in classical economics which was developed around the 18th and 19th centuries, and it included theories on value and distribution. In explaining poverty, the classical theory asserts that poverty is a result of poor choices made by individuals such as lack of self-control and these poor choices, in turn, lead to a negative effect on productivity or the creation of lone-parent families. The main deduction from this theory is that people are responsible for their own destiny (Davis and Martinez, 2014:17).

In addressing poverty, the classical theory follows a *laissez faire* approach in that governments are supposed to only intervene minimally in the economy. The proposition for minimal government intervention is informed by the belief that welfare provisions aimed at reducing the prevalence of poverty are inefficient and can lead to a misalignment of social benefits between the poor and society (Austin, 2006:7). Therefore, instead of interpreting government intervention as a mechanism for reducing poverty, it is rather a mechanism that reinforces poverty. The theory, however, acknowledges that government intervention is justified when the poor need support to correct for perverse economic incentives. The main aim of these interventions is to uplift the vulnerable with the aim of increasing the labour force participation (Davis and Martinez, 2014:17).

The formation of the classical view on poverty is based on behavioural or decision based theory and sub-culture theory. Following the classical assumption of *laissez faire*, the behavioural theory asserts that people maximise their well-being and are not constrained in

decision-making. Therefore, poverty experiences faced by people are completely their responsibility (Davis and Martinez, 2014:18).

The causes of poverty, in accordance with the classical theory, are not sufficient in analysing poverty in developing countries like South Africa. This is due to poverty in South Africa being an epidemic problem that is highly perpetuated by the country's past policies and not necessarily households' poor choices as asserted by the classical theory. Consequently, the state and dimensions of poverty in South Africa compel the government to intervene. As such, the formulation of effective and efficient poverty alleviation strategies has been one of the key objectives of the government in the post-1994 period. The South African government's active role in fighting poverty is a direct contradiction of the propositions by the classical theory (*laissez faire* approach). This contradiction means the classical theory cannot be used to paint an accurate landscape of the poverty incidence in South Africa.

Another theory, which is a development from the classical theory, is the neoclassical theory. The neoclassical theory emphasises that human capital development (talent, skills and capital of talents) contributes to a person's productivity and high productivity ensures better labour market returns (Jung and Smith, 2007:5). As opposed to the classical theory, the neo-classical theory views the reasons of poverty as beyond an individual's control by including reasons such as lack of assets, market failures, and lack of access to education, employment as well as poor health.

This theory, however, is in line with the classical view on the need for minimal intervention by the government in the economy, but supports intervention where there is a need to address market failures through policies (Davis and Martinez, 2014:22). The neoclassical theory incorporates the multidimensionality of poverty and this coincides with the definition of poverty used in this dissertation. Since the neoclassical theory assumes minimal government intervention to eradicate poverty, the theory is therefore inadequate to be applied in this dissertation since minimal government intervention acts as a limitation as social grants in South Africa are a tool introduced and utilised by the government to eradicate poverty.

The above theories, namely classical and neoclassical emphasised the limited role that government should play in uplifting the poor, which is in sharp contrast with the proposition of the Keynesian theory. According to the Keynesian theory, the government simply intervenes in the economy through fiscal and/or monetary policy with the aim of bolstering

economic growth. This focus also explains the reason why the proposer of the theory, Keynes, considered growth as an important factor in alleviating poverty. Indeed, Keynes believed that economic growth is a useful instrument to eliminate poverty. In terms of the causes of poverty, contrary to the classical view, Keynes' approach considers unemployment to be involuntary, which he asserts is the major cause of poverty. Therefore, the government has to intervene to address the poverty in an economy. Other causes of poverty include extreme inflation, macroeconomic factors such as asset bubbles and sovereign debt (Davis and Martinez 2014:36-37).

In the context of South Africa, the Keynesian theory could be applicable to an extent in that it advocates for government intervention to eradicate poverty. According to the theory government improves the lives of the poor through fiscal and monetary policies. Thus, the provision of social grants in South Africa represents government intervention through the fiscal policy.

According to Keynes, the motivation of government intervention (fiscal and monetary policies) aims to bolster economic growth that in turn reduces poverty. This acts as a limitation as growth is an inadequate tool of measuring changes in poverty levels. The Gross Domestic Product (GDP) measures economic growth and is thus a measurement of the productivity of the economy. This tool fails to capture the human development component of individuals and since human development is a determinant of whether a person will be in poverty or not, GDP/growth alone becomes an ineffective variable for poverty analysis. In addition, South Africa is an economy focusing primarily on reducing poverty, inequality and unemployment as part of its constitutional mandates and does not have a particular focus on growth (Burger, 2014:5).

The Marxist theorist takes on a different view, away from the mainstream economics highlighted by the three theories above. The founder of the theory ascribes the causes of poverty to capitalism, discrimination and class (Cunningham and Cunningham, 2014:51-52). Under a capitalist environment, Marxists argue that poverty favours the superior class since it ensures that there are always people willing to work for low wages (Cunningham and Cunningham, 2014:52). Furthermore, Marxists argue that capitalists accumulate wealth and surplus (surplus of a labourer's production) through exploiting labourers. As a result of exploitation, a labourer is considered to live a life of poor quality (Calhoun *et al.*, 2002:34).

The existence of poverty according to Karl Marx, is evident in inequality faced by people and in the lack of access to resources, due to their ethnic origins, class, gender, age and geographical areas (urban-rural differences). These factors, combined with social issues (e.g., crime, education, health, housing and occupation), are considered to be beyond the control of individuals (Davis and Martinez, 2014:36-37). In support of this view, De Haan (1999) finds that poverty can be a function of discrimination (exclusion of people from social life), a process that denies individuals complete participation in material exchange or relations. Additionally, Ahmed *et al.* (2007:76-77) found that the poor face discrimination by the incapability to access secure jobs offering rising mobility in the long-run as they are subject to inferior jobs paying low remuneration. It is evident that the Marxist theory, in contrast with the classical theory, does not recognise individuals as the cause of poverty, but instead poverty is caused by the results of a capitalist society.

In contrast with the Keynesian theorist, Karl Marx emphasises the insufficiency of economic growth to lift the poor people out of poverty. Karl Marx finds that the reason for growth to be insufficient is that individuals from certain classes may not benefit from the overall income growth. Thus, the remedy to eradicate poverty proposed by the Marxist theory is through regulation, e.g., minimum wages, antidiscrimination laws and labour market reforms (Blank, 2001:8). The deduction from the remedies to eradicate poverty explained above supports the fact that Marx views poverty as a moral concept and a matter of justice to those suffering from poverty. This view of poverty is a contribution since this thinking is often excluded from mainstream economics (Davis and Martinez, 2014).

Marx also highlighted that poverty is an essential element in a capitalist society and will always be present regardless of government intervention through welfare systems (Cunningham and Cunningham, 2014:52). The welfare systems under capitalism according to Jones and Novak (1999:17) are not designed to assist people out of poverty. Instead, they are systems used to maintain and manage poverty, which is an important factor for a capitalist society. The role of welfare systems for the poor offers only partial remedies (Jones and Novak, 1999:17) and has a trait of maintaining inequalities of wealth, leaving some people in dreadful destitution with little possibilities of escaping poverty. Marxists argue that poverty cannot be eradicated unless the proletariat (working-class) removes the bourgeoisie (capitalist) and the capitalist society is exchanged for an egalitarian socialist society that promotes equality amongst all people (Cunningham and Cunningham, 2014:52).

The notion of Marx's theory when it comes to poverty resulting from inequality and that poverty is thus a matter of justice, may be applicable in the context of South African poverty. It is applicable due to past policies of the apartheid era as well as the legacy of apartheid affecting the previously marginalised groups as well as later generations of these groups. The remedies of poverty provided by Karl Marx advocate for social justice and support complete equality. Accordingly, the reduction of poverty can be achieved through welfare systems for the poor and developing countries such South Africa. Brazil has used these systems for poverty eradication. Marxists however, argue against government intervention through welfare systems but believe in a transition from a capitalist to an egalitarian socialist society in order to eradicate poverty. Socialism however, has been criticised historically for not improving the living conditions of the poor (Meier and Stiglitz, 2000: 29-33).

The basic needs approach is grounded on the Rawls' Theory of Justice founded on philosophical and ethical foundations. The Rawls' theory of justice maintains that it is socially just to distribute goods fairly to society and believes that the state is responsible for achieving this goal. The basic needs approach focuses on a set of primary commodities required or necessary for well-being and for one to live a happy life (Streeten and World Bank 1981). The basic needs approach explains poverty as the deprivation of needs, in particular, materials required to obtain basic needs and these materials include access to nutrition, housing, education, health facilities, clean water and sanitation, employment and societal involvement (Dessallien, 2000:33).

When compared with the income approach, the basic needs approach is regarded as being ahead in obtaining outcomes. Moreover, the basic needs approach adds a variety of dimensions to income measures. A major advantage of the basic needs approach is that it captures goods and services on the basis of human welfare. For instance, an increase in housing costs will be regarded as a decrease in well-being but the income approach will consider it as an increase (Dessallien, 2000:33). This approach is also consistent with the multidimensional concept of poverty and indicators that are used to measure it. Also, the approach allows for poverty to be captured structurally whereas the income method may capture a segment of the structurally poor (Santos et al., 2010:2).

The basic needs theory has, however, faced criticisms. Sen (1985:47) argued that the theory focuses on obtaining commodities and ignores the relationship between the commodities and

individuals. Sen also highlights the fact that it is a limitation in analysing poverty based on inter-personal comparisons as the theory does not consider the varying individual characteristics. As an example, the need for food (the means) can differ greatly from person to person when considering individual characteristics such as body size, gender, age, environment, etc. As a result, the different individual characteristics cause ambiguity in determining the end (well nourished). In essence, the basic needs approach focuses on means, namely commodities, to achieve ends and not on the ends or the liberty to achieve (Sen, 1985:47).

According to Saith (2001; 5), proponents of the basic needs theory (Streeten and World Bank, 1981; Stewart, 1985) state that commodities are considered as means leading to an end. Also, the basic needs approach was not focused on the possession of commodities. However, it was rather based on providing people, specifically the poor, with opportunities of a good quality life (Streetan *et al.*, 1981:21). Therefore, the criticism of differing individual characteristics by Sen does not hold firmly according to the findings of Hicks (1982) and Stewart (1985, as stated in Saith, 2001). In actual fact, the basic needs approach and Sen's capability approach (an extension and response to the basic needs approach) are considered to be similar (Clark, 2005:2; Saith, 2001:5).

In response to the limitations of the basic needs approach, Sen extends this concept and introduces the capability approach. The capability approach sees human well-being as a set of doings and beings (thus functionings) and regards a functioning to be the best indicator of human well-being. A functioning can be defined as an achievement of a person: what that individual can do or become (e.g., preventing morbidity and mortality, being well nourished, being happy, having self-respect and confidence to appear in public, being able to participate meaningfully in community life). The capability of a person reflects about the different combinations of the functionings they can achieve. Capability on also reflects an individual's liberty to choose between various ways of living (Sen, 2003:43).

Capabilities and functionings defined by Sen are associated with the innate characteristics of human beings, namely age, gender, health and disability conditions as well as environmental circumstances (household environment) (Chiappero-Martinetti, 2000:4). Majumder (2009, as cited in Oni and Adepoju, 2011:6) regards these factors as three conversion factors: individual factors (age, physical condition, sex, and skills); social factors (gender, marital

status, political inclination, religion, caste); and physical factors (geographical locations, climate). These factors are important in the process of converting resources into well-being. In short, utilising resources for well-being is determined by an individual's gender, age, occupation, household size, amongst other factors.

Freedom and development depends not only on the characteristics of the individual, but also on the social arrangements that are in place to achieve those functionings that promote freedom and development. Thus, the capability set represents the real freedom that a person has to choose between the alternative ways of life that he or she may lead (Sen, 2003).

The theorist asserts that development is based on human capabilities rather than the maximisation of utility or monetary resources. Sen argued that the monetary approach emphasises utility of a commodity (Saith, 2001:6) and is a tool necessary to improve a person's well-being (Laderchi *et al*, 2003:253) rather than being a proxy to assess people's well-being (Saith, 2001:6). To be precise, money can be used to buy commodities, which subsequently provides characteristics, such as nutritional benefits (Suppa, 2016:5). Therefore, the capability approach emphasises both monetary resources and other resources to develop or achieve capabilities. From the above discussion, it can be deduced that Sen considers human well-being to be multidimensional, and poverty is thus reflected by deprivations in capabilities faced by individuals (Suppa, 2016:5; Alkire, 2007:2) Alkire and Foster, 2009:5), further state that the capability theory is a multidimensional approach to well-being and poverty.

The benefit of this approach is that it provides a framework that looks beyond poverty and deprivation (Clark, 2005:3). The theory is also responsible for creating a coherent framework through unionising the concerns of the basic needs approach theory (Streeten, 1979; Alkire, 2002, as cited in Clark 2005:3). Alkire (2002:170) highlights that the capability approach has the ability to convert implicit basic needs assumptions to being explicit.

Sen makes no provision for a fixed set of capabilities in his theory (Sen, 1983:47). He states that capabilities should be chosen based on the purpose of a study as well as the population concerned (Alkire, 2007: i). As a result, the capability approach is flexible in relation to the selection of dimensions to be used when studying/measuring welfare (Alkire and Foster, 2009:5).

The use of the theory on inequality, social justice and living standards may also serve to explain the flexibility of the approach (Clark, 2005:5). The flexibility of the approach as stated above also allows for various units such as governments and NGOs to make use of this approach according to their preferences and purposes (Alkire and Foster, 2009:5).

Failure of including or having a fixed set of capabilities by Sen in his framework is seen as a weakness (Qizilbash, 1998:54, as cited in Clark, 2005:5). Sen's capability approach was questioned if it really is an alternative to mainstream economics and to what extent the theory would be effective (Sugden, 1993:1953). Regardless of this, the approach's flexibility still appears to have more benefits.

An additional usefulness of this theory is its application in public policy. This is made possible by targeting human capabilities through health, education and social security support programmes. These programmes improve human capabilities which lead to development. Development achieved through the above mentioned programmes is considered to outweigh development achieved through economic growth (attained through employment, etc.) (Clark, 2005:10). Moreover, Alkire and Deneulin, (2007:22) also mention that development through growth focuses on the economy, making it less superior than growth that puts people first. Development that places people first is desirable since it is built on people's freedom. Additionally, this development is considered as human development and resonates with the capability approach (Alkire and Deneulin, 2007:22).

From the discussion it can be deduced that Sen identifies human well-being as multidimensional and that poverty can be reflected by the deprivation in capabilities faced by individuals. Therefore, the application of this theory is most relevant for applying in this dissertation.

3.3 Empirical literature

The previous section provided the theories of poverty, describing poverty as well as its causes. This section provides the empirical review of poverty.

Armstrong and Burger, (2009) used the normalised FGT index which constitutes the headcount index, poverty gap index and squared poverty gap index to assess the effect of social grants on poverty. These poverty indices were analysed based on household race, the level of education and income. An analysis of household income indicated that income from

wages of formal employment, income from self-employment opportunities and income from social grants were the main sources of income that majorly reduced poverty levels. In measuring the impact of social grants on poverty reduction, the FGT curves were presented before and after introducing social grants. The insertion of social grants caused a decline of poverty levels for all the three indices. The effect of social grants was much more effective when the squared poverty gap index was analysed. However, the impact of social grants declined as the poverty line rand values were increased. This was an indication that social grants are more effective amongst the poor and those with lower incomes.

Woolard *et al.*, (2010) used data from Statistics on Living Standards and Development, Income and Expenditure Survey and the NIDS; this analysis was done for the years 1993, 2000 and 2008. Their aim was to determine whether social grants target the poor and vulnerable individuals. This study adopted a similar approach that was used by Armstrong and Burger, (2009). When analysing the three indices of poverty, the introduction of social grants showed substantial impacts on poverty. This was realised for the poverty gap and squared poverty gap indices, whilst the headcount index changed minimally. The results showed that the presence of social grants reduced poverty levels and this reduction was more substantial between 2008 and 2010, after the CSG was introduced. The receipt of social grants by beneficiaries has also improved health and education levels for households other than the direct beneficiary. This was associated with long-term poverty alleviation.

Nedombeloni and Oyekale (2015) conducted a study looking at the welfare impacts of social grants among rural households in the Limpopo Dopeni Village. In addition to applying the FGT indices, the author also made use of the probit regression. The probit regression was used to determine the probability of a household being poor, considering the welfare of the household. The welfare of households was explained by the following explanatory variables: age, gender, marital status, formal education, employment status, household size, salary, remittances, non-agricultural income and social grants. Remittances, non-agricultural income and social grants were found to decrease the probability of being poor. A male-headed household had a likelihood of not being poor as compared to a female-headed household. Also, an increase in the household size was most likely to lead to increased poverty.

Woolard (2003) focused on the SOAG and the CSG, in essence measuring the impact on poverty amongst the old aged and children. The author defined the poorest 40% of

households as poor, whilst the poorest 20% were regarded as ultra-poor. The author used a microsimulation model and found that 56% of the elderly would be in poverty and 38.2% would be in ultra-poverty without the provision of social grants. After introducing the SOAG, poverty among the elderly fell to 22.6% and ultra-poverty fell to 2.4%. On the other hand, before receiving the CSG, 48% of children were estimated to be poor whilst 23.9% were ultra-poor. However, after receiving the CSG, poverty and ultra-poverty levels among children decreased to 40.8% and 12.9% respectively.

Skoufias and Di Maro (2005) studied the impact of the Programa de Educación, Salud y Alimentación (PROGRESA) programme on labour participation and poverty rates in Mexico. The study applied the difference-in-differences estimator which enables analysis of the programme between the treatment and control groups before and after the start of the PROGRESA programme. The panel data used in this paper consists of 24,000 households from 506 localities in seven states and were surveyed between November 1997 and November 1999. Similar to previous studies (Armstrong and Burger, 2009; Nedombeloni and Oyekale, 2015; Woolard and Leibbrandt, 2010) the FGT indices were applied using two different poverty lines: the basic food basket (*canasta basica*) and the median of the per capita value of consumption in November 1998. Findings show that PROGRESA had a significant impact in poverty alleviation between November 1997 and November 1999. The 50th percentile of the value of consumption per capita as a poverty line revealed a decline of 11%, 33%, and 55% in the headcount poverty, poverty gap and the squared poverty gap respectively, in treatment areas. These results reveal that the largest reductions in poverty of PROGRESA are being achieved in the poorest of the poor population which are measured by the poverty gap and squared poverty gap as it places greater weight on the poorest of the poor.

A study undertaken in China aimed to assess the impact of the Minimum Living Standard Assistance (MLSA) on poverty reduction. Wu and Ramesh (2014) used a panel survey dataset covering the 1993 to 2009 period. The study applied fixed-effects, random-effects logit models and hierarchical liner models (HLMs). As a poverty measurement, the study applied 3 absolute poverty lines, this being the dependent variable. To explore the relationship between MLSA spending and poverty reduction the study used the HLM model. Results revealed strong positive effects of the MLSA on poverty reduction regardless of the MLSA being a small amount.

Osei (2013) investigated the degree of how a universal non-contributory old age pension and a means-tested child grant, would impact on poverty and inequality in Ghana in 2010. This author also used a micro simulation model that allows for the estimation of poverty and inequality. The Ghana Living Standards Survey (GLSS 4) for 1998/1999, a national survey covering 5 998 households and about 25 000 individuals, was used. When analysing the impact of social grants, this study focused on gender (male-headed households and female-headed households), location, quintiles and region. Firstly, the results revealed that overall poverty declined by 5 percentage points, with the rural areas seeing a major impact. In terms of the gender of the household, male-headed households received the most grants and those households were considered to experience higher poverty rates than households headed by females. Furthermore, people residing in rural regions were pushed closer to the poverty line, indicating that their probability of moving out of poverty was increasing. All in all, this study, in line with other studies, concluded that social grants reduce poverty.

Samson *et al.*, (2004) applied a micro simulation approach. The author removed the monetary value of all social grants from the total household income in order to measure poverty in the absence of social grants. The Income and Expenditure Survey (IES) in October 2000, Labour Force Survey (LFS) in September 2000, as well as October Household Surveys were used. The author found that the SOAG and the CSG promote education for both girls and boys. The impact was more substantial for girls with school enrolment being 6% probable for girls, and approximately 50% less for boys. Samson *et al.* (2004) also assessed the impact of social grants on nutrition and health. Households who received social grants (SOAG, CSG and Disability grants) experienced reduced hunger. However, social grants were associated with low spending on health and the author associated this with the fact that social grants lead to other positive outcomes that would lower the need for medical care.

In assessing the impact of the CSG on school enrolment, Case *et al.* (2005) used the KwaZulu-Natal Income Dynamics Study (KIDS). A probit regression was applied to analyse the relationship between receiving a CSG and school enrolment. It was found that children receiving a grant are more likely to be enrolled in school the years after receiving a grant when compared to equally poor children of the same age. The results revealed that enrolment among 6-year old children increases by 8.1 percentage points and a 1.8 percentage point increase among 7 year-olds. The study highlighted that since the CSG may enhance the

health and nutrition of children, improving school readiness may consequently increase school enrolment.

Case and Deaton (1998) found that the SOAG is an effective tool that is able to reach households constituting the poorest children. The author used the 1993 Project for the Study of Living Standards and Development (PSLSD) data. The findings revealed that pension income is spent exactly the same way as other income. However, spending patterns tended to differ amongst households, whereby female-headed households spent less on alcohol and tobacco. Therefore, pensions received by women were more likely to be spent on improving the well-being of children.

Duflo (2003) estimated the effects of the SOAG on the well-being of children from 0-5 years, focusing on the nutrition of children, looking at weight-for-height and weight-for-age. The author compared the effects of the SOAG by gender of the recipient. That was done to determine if the SOAG had different effects on children's health depending if the receiver of the pension was male or female. To measure this, the author applied OLS and 2SLS regressions using a national survey by the World Bank and the Southern Africa Labour and Development Research Unit (SALDRU). The findings showed that if the recipient of the pension is a woman, the weight-for-height and height-for-age specifically for girls, improved. Pensions received by women increased the z-scores of weight-for-height and height-for-age of girls by 1.19 and 1.16 standard deviations respectively. On the contrary, pensions received by men led to no improvements in the nutrition and health of both girls and boys.

Interestingly, Edmonds (2004), using data from the 1999 Survey of the Activities of Youth in South Africa (SAYP) and OLS regressions revealed that households with a male eligible for an SOAG increased schooling for children and decreased child labour when compared to a household with a female eligible individual. The child labour hours were reduced by 2 hours when a female was eligible for a pension, if there was no eligible male in the household, and the hours reduced by 6 when a male was pension eligible with no eligible female in the household. Also, male pension eligibility was linked with a 35% reduction in weekly working hours and an increase of close to 100% in school attendance.

Using the same data and method Edmonds (2005) found similar results, with male eligibility increasing school attendance of boys. This was also true for child labour whereby hours worked by boys residing with a pension eligible male declined. The importance of this study

is that it compares child labour and school attendance of children who reside with a *pension eligible* person, with children residing with a *nearly eligible* person. Findings showed that a child living with a nearly eligible elderly male, spent more hours working than a child residing with an eligible elderly person.

Coetzee (2014) estimates the effect of the CSG on the well-being of children on three dimensions: child health, nutrition and education. The National Income Dynamics Study (NIDS) 2008 data was used. The study estimated the impact of the grant as a continuous treatment using the propensity scores on six different indicators of the above dimensions: Height-for-age z-score (HAZ), Weight-for-age z-score (WAZ), food expenditure, adult expenditure, child's school attendance, and school progress (whether a child has ever repeated a grade or not).

This paper expanded on previous studies by adding school progress (if a child has ever repeated a grade), an additional indicator of education. The findings revealed positive treatment effects. However, the findings were insignificant and therefore not convincing to prove that the CSG is guaranteed to improve the well-being of eligible children. Nonetheless, the study concluded that a portion of the CSG is spent on improving health and nutrition as well as the education of children.

Previous to this study, Agüero *et al.* (2007) used the KwaZulu-Natal Income Dynamics Study (KIDS) data to assess child nutrition measured by the HAZ. The study applied the OLS regressions treating the CSG as a continuous treatment. This study also finds that the CSG has positive outcomes on child nutrition, more especially when the child receives the CSG at an earlier age.

A new study by Pasha, (2016) looks at the impact of cash grants on multidimensional poverty. This study is the first of its kind, in that it measures poverty using the MPI, which looks at the overall dimensions of deprivation as one index. The study used the NIDS data (2008, 2010, and 2012) and probit regressions to find the impact of the CSG and the SOAG on the MPI. The findings of the study show that social grants actually lead to an increase in the MPI. These results led to the conclusion that grants are too small to depict and impact on multidimensional poverty and thus they may not be efficient in the reduction of multidimensional poverty.

3.4 Conclusion

The theories of poverty in section 3.2 identified economic theories that help to describe the presence of poverty. In this section, the classical theory concludes that individuals are responsible for being poor, which provided a foundation for the assumption that government should have limited intervention in the economy. On the contrary, neo-classical theorists asserted that individuals have no control of being poor, thus poverty is influenced by the lack of assets, education and market failures, amongst other factors. Keynesian theorists contend that the government should intervene in the economy in order to address poverty. The Keynesian view also contends the necessity of economic growth in alleviating poverty. The lack of government intervention as asserted by the classical and neo-classical theory to eradicate poverty as well as the notion of poverty being caused by poor choices of individuals disqualified the use of these theories in this dissertation. These theories were irrelevant in the South African context as poverty in South Africa stems from the epidemic of apartheid and not from poor choices of individuals. The Keynesian theory on the other hand vouched for government intervention; however, this was motivated by bolstering economic growth. This acted as a limitation in this study as economic growth fails to incorporate human development, and focuses mainly on economic productivity.

The Marxist theorists pointed out the insufficiency of growth as a tool to eradicate poverty. These theorists believe that poverty is caused by capitalism, social and political factors and thus a remedy for it is through regulation of the market (minimum wages, antidiscrimination laws as well as labour market reforms). A contribution made by these theorists in economics is that they view poverty as a moral concept, a matter of justice and not just efficiency in use of resources and this acted as a contribution as it was a shift from mainstream economics.

The chapter also reviewed the basic needs and capability approaches. The basic needs approach explains poverty as the deprivation of needs, in particular material required to acquire basic needs. Material deprivations are not limited to access to nutrition, housing, education, health facilities, clean water and sanitation. The basic needs approach faces limitations in that it fails to convert means to ends accurately. The capability approach acts as an extension of the basic needs approach. The capability approach sees human well-being as a set of doings and beings, thus functionings. In this theory capability reflects an individual's liberty to choose between various ways of living. The quality of well-being is measured through the evaluation of the functionings and the capability to function. Thus, human well-

being is regarded as multidimensional and poverty is therefore reflected by the deprivation in capabilities faced by individuals. Therefore, the application of this theory in this dissertation was found to be relevant.

The last section of the chapter focused on the empirical literature. In this section studies focusing on social grants as an anti-poverty tool revealed that social grants were effective in alleviating poverty, both monetary and multidimensional poverty; that pertains to improvements in educational attainment, health as well as nutrition. Thus social grants were proven to be effective in addressing poverty.



CHAPTER FOUR: METHODOLOGY

4.1 Introduction

This chapter presents the methodology applied in this dissertation as well as the data set utilised. The first section introduces the chapter. The second section explains the theoretical model applied in multidimensional poverty while the third section explains the empirical model as well as the variables of interest in this dissertation. Section 4.4 explains the econometric technique, whereby the application of the empirical model is explained as well as the goodness of fit tests. The data concerned is presented afterwards, followed by a discussion of the limitations. The last section concludes the chapter.

4.2 Analytical framework

The empirical analysis draws on the capability approach regarding poverty analysis. The capability approach regards poverty as a multidimensional phenomenon and defines it as deprivation in capabilities (Suppa, 2016:5). These capabilities refer to a set of functionings that individuals would desire to achieve; these can range from attaining good nutrition, education, assets, being happy and confidence to appear in public. Sen however, does not make a list of fixed capabilities in his theory (Sen, 1983:47) but believes that capabilities should be chosen based on the purpose of a study as well as the population concerned (Alkire, 2007: i). As a result, the capability approach is flexible to the selection of dimensions to be used when studying/measuring welfare (Alkire and Foster, 2009:5).

In this regard, poverty can be defined as follows: -

$$\begin{aligned} \text{Poverty} = & \\ & \text{Health status, Education level, Income, Ownership of assets,} \\ & \text{Level of happiness, Percieved household status (4.1)} \end{aligned}$$

4.3 Empirical model

The main research objective of this dissertation is to determine the effect of social grants in multidimensional poverty alleviation. The relationship of poverty and social grants as well as

other independent variables will be explored through a regression analysis as shown in equation 4.2.

$$Y_i = B_0 + B_1X_{1i} + B_2X_{2i} + \dots \dots B_kX_{ki} + u_i \dots \dots (4.2)$$

The classic linear regression is the common model and has been widely applied in the field of social sciences. This is due to its simplicity in estimation, formulation and interpretation (Alkire *et al.*, 2015:2).

The common assumption of the classic linear regression follows a normal distribution for the dependent variable. This assumption is limited in this dissertation, given the fact that the dependent variable is binary, taking a value of 1 for multidimensional poor households and 0 otherwise. The Linear Probability Model (LPM) and the Logit as well as Probit regression model by contrast, are appropriate models to apply given a binary dependent variable (Gujarati, 2004:582).

Additionally, the analysis of the multidimensional poverty can be analysed through micro and macro regressions. Micro regression refers to poverty analysis at the individual or household level whereby the main focus variable is a deprivation score; taking a value of 1 if a household is poor and 0 if non-poor. Macro regressions, on the contrary, are used when analysing poverty at a provincial, regional or state level and in macro regressions the focus variable is the multidimensional headcount (H) and the MPI. Micro regressions apply the logit regression model, whilst the macro regressions apply the probit model (Alkire *et al.*, 2015:2-14). Accordingly, given that the dependent variable is one of a binary, whereby 1 represents multidimensionally poor households and non-multidimensionally poor households are represented by 0; the logistic regression model is utilised. The logistic regression is an extension of the logit model and basically a non-linear transformation of the linear regression, since it follows a Bernoulli distribution while a linear regression follows a Gaussian probability distribution (Alkire *et al.*, 2015:7-9).

4.3.1 Dependent variable

This sub-section aims to describe the construction of the dependent variable. Table 4.1 below presents the MPI deprivation dimensions and indicators as well as their respective weightings. As shown in table 4.1, the maximum deprivation score is 100% with equal weighted dimensions at 33.33%. The 33.33% is also divided equally yielding the proportions for the respective indicators, e.g. health has two indicators: nutrition and infant mortality and each indicator weighs equally ($33.33/2= 16.7\%$).

Table 4.1 Deprivation dimensions, indicators and weights of the MPI

| Dimensions and Indicators | Deprived if... | Weight |
|----------------------------------|---|---------------|
| Education | | 33,33% |
| Years of schooling | No household member has completed nine years of schooling.* | 16,67% |
| School attendance | Any school-aged (7-15) child is not attending school** | 16,67% |
| Health | | 33,33% |
| Nutrition | Any adult or child for whom nutritional information is malnourished*** | 16,67% |
| Infant mortality | A baby has died in the family. | 16,67% |
| Standards of Living | | 33,33% |
| Electricity | The household has no electricity. | 6,67% |
| Safe drinking water | The household does not have access to piped tap water in dwelling, site or yard. | 6,67% |
| Improved sanitation | The household does not have its own flush toilet. | 6,67% |
| Flooring | The household has a mud/earth floor. | 6,67% |
| Cooking fuel | The household does not use electricity, paraffin, gas and solar energy to cook. | 6,67% |
| Assets | The household does not own 2 or more of these assets (radio, television, car, cell phone, and/or fridge) | 6,67% |

Alkire and Santos (2010)

* A household is considered deprived if no adult has completed schooling up to 9 years, which is equivalent to Adult Basic Education and Training (ABET) qualification. ABET is also equivalent to Grade 9 which is known as the General Education and Training stage in South Africa. In this stage, an individual is skilled in various subjects such as literacy, life skills, language, communication, mathematics literacy, mathematics, natural sciences, technology, economic and management sciences as well as technology.

** In South Africa school is compulsory from the beginning of the year when a child turns 7 until grade 9 or in the year when the learner turns 15.

*** Adults (18 and older) are considered malnourished if their BMI < 18.5 m/kg. Children (under 5 years) are considered malnourished if their z-score of weight-for-age is less than minus two standard deviations from the median of the reference population.

The above table presented the dimensions as well as their indicators; the following subsection describes how the multidimensional poor households are determined. The MPI is constructed through the Alkire Foster (AF) Method, developed by Sabina Alkire and James

Foster. The method builds on the FGT poverty measures whereby the AF method counts the various types of deprivations faced by people. Through these deprivations the poor are identified. The FGT measure incorporated in this method also serve to reveal the breadth, depth and severity of multidimensional poverty. This method is a powerful tool of measuring multidimensional poverty. However, this dissertation only measures the breadth of poverty as depth and severity is beyond the dissertation's scope.

(a) Notation

Matrix $y = [y_{ij}]$ contains the $n \times d$ which shows for each individual the score in each respective dimension; n is a representative of the number of people, and d the respective dimensions. Thus $y_{ij} \geq 0$ is the score of person $i = 1, 2, 3, 4 \dots n$ in dimension $j = 1, 2, 3, 4 \dots d$. the row vector in the matrix gives person i 's scores while the column vector gives the distribution of dimension j scores across the set of people. Notation z , represents the row vector of dimension-specific cut-offs, and $z_j > 0$ represents the deprivation cut-offs j which gives the achievements required to be not considered as deprived in the respective dimension. After obtaining this data, the deprivation vector c is obtainable. This vector is obtainable by counting individual deprivations of people thus, $c_i = \sum_{d=1}^D \mathbb{1}(y_{id} < z_d)$ (Suppa, 2016:3).

(b) Identifying the poor

According to Bourguignon and Chakravarty (2003) identifying the poor is dependent on dimensional scores and respective cut-offs. Thus identification can be stated as $p(y_i, z)$ as dimension cut-offs are not sufficient to distinguish the poor and the non-poor. Therefore, to identify the poor, a method of looking across dimensions is needed (Suppa, 2016:3). In multidimensional poverty the most used approach as an identification method is the union approach, notated as $p(y_i, z) = \mathbb{1}(c_i \geq 1)$. This stipulates that a person is deemed to be poor if they are deprived in at least one dimension ($p(y_i, z) = 1$) if and only if ($c_i \geq 1$). This approach has various drawbacks. One drawback is that given a large number of deprivations, the application of this approach would identify the majority of people as poor, thus making it inappropriate.

The second identification method is the intersection approach. This method states that person i is multidimensionally poor if the person is deprived in all the respective dimensions; therefore $p(y_i, z) = 1$ if and only if $(c_i = d)$. As much as this approach is able to identify as poor a group of deprived persons, it does however fail to track people experiencing extensive deprivation. Alkire and Foster thus identify a dual cut-off which lies between two extremes of 1 and d . For $k=1, \dots, d$, let p_k be the identification method describing that a person is multidimensionally poor when the number of dimensions in which the person is deprived are at least k and non-poor when the number of dimensions in which the person is deprived are less than k , thus $p_k(y_i; z) = 1$ if $c_i \geq k$, and $p_k(y_i; z) = 0$ when $c_i < k$ (Alkire and Foster, 2009:9).

4.3.2 Independent variables

The independent variables (X_i) drawn from the capability approach theory highlighted in section 4.2 are: health status, education level, ownership of assets, income, level of happiness, perceived classification of household status. Health status, education level, ownership of assets will be omitted as they form part of the MPI indicators already. In addition, functionings and capabilities in the capability approach are related to conversion factors classified as personal factors; social factors and physical factors (Majumder, 2009, as cited in Oni and Adepoju, 2011:6).

This dissertation will also be considering these conversion factors as independent variables, obtainable from the NIDS data. The **individual household factors** are race, gender of household head and household size, **social factors** are marital status and level of happiness of household head, presence of an individual receiving income from employment/self-employment, perceived household status and **environmental factors** are province and geographical type of household head.

Social grant income, X_1

The aim of social grants is to reduce poverty faced by those identified through a means test to be eligible. Studies using different methods (Osei 2013; Nedombeloni and Oyekale, 2015; Wu and Ramesh, 2014) have shown that receiving a social grant reduces monetary poverty levels significantly. Other studies have stated that social grants are not sufficient in the effective reduction of multidimensional poverty (Coetzee, 2014, and Pasha, 2016). This variable is a continuous variable which gives the household monthly income from social grants. Since social grants are a form of income for individuals and households, receipt of social grants is therefore likely to lead to a reduction in poverty.

Household income, X_2

Household income reflects regular income received by the household on a monthly basis (net of taxes). In the NIDS data, household income is determined using the following sources: labour market income, government grant, other government grant, investment income, remittances, subsistence agricultural income, as well as imputed rental income from owner-occupied housing. In this dissertation, government grants will be excluded from the household income since the effect of social grants is one of the key variables of focus. The relationship between monthly household income and poverty is likely to be negative, implying that an increase in income of households would cause a decrease in poverty levels. This has also been found to be true in various studies such as Nedombeloni and Oyekale (2015), and Pasha (2016).

Income from employment/self-employment X_3

This variable is a dummy variable, taking the value of 1 if there is a member in a household receiving income from employment/self-employment and 0 otherwise. Income poverty has been widely used in the study and measurement of poverty, and lack of income is highly regarded as an indicator of poverty. The expected outcome of the relationship between income and poverty is expected to be negative. Thus as income increases, poverty is expected to decrease.

Gender of household head, X_4

This variable is a dummy variable, taking a value of 0 for male heads and 1 otherwise. Several studies have found female-headed households to be more multidimensionally poor versus male-headed households (Rogan, 2014; Mahoozi, 2015; Alkire *et al.*, 2015). Thus it can be expected for poverty and female-headed households to have a stronger correlation compared to male-headed households.

Race of household head, X_5

Poverty amongst the different races shows significant disparities, whereby blacks and coloureds face high poverty levels when compared with the Indians and Whites. Nef (2007) looked at non-monetary indicators and found similar results whereby blacks are mostly deprived, followed by coloureds, Indians and whites. Race is thus a variable of significance as it gives a clear overview about who may be in urgent need of attention when it comes to poverty reduction. Blacks and coloureds are expected to have higher coefficients in relation to poverty as compared to whites and Indians. This is a categorical variable taking 1=Black, 2=Coloured, 3=Indian, 4=White.

Marital status of household head, X_6

Various studies have found marital status to be an important factor when studying poverty (Davids, 2010; Anyanwu, 2013). Marital status of the household head takes a value of 1 if the head is married and 0 if not married. The married group is made up of “married and living with partner” heads, while the not married are divorced/separated, widowed/widower, and never married heads. Multidimensional poverty studies found that a household with a married head is less likely to be poor than a household headed by an unmarried individual (Silber and Deutsch, 2005; Oni and Adepoju, 2011). Thus it is expected that households headed by unmarried heads to be poor.

Province of household head, X_7

Poverty levels vary from province to province. Provinces like Limpopo, the Eastern Cape, and KwaZulu-Natal face high levels of poverty looking at both the monetary and non-monetary measures of poverty when compared to the Gauteng and the Western Cape provinces. This was evident in sub-section 2.8.2. Also, David *et al.* (2018) found these three provinces to have high poverty rates for the period 2011. Thus poverty is likely to be prominent in KwaZulu-Natal, Eastern Cape, and Limpopo.

Geographical type of household head, X_8

This variable looks at the type of area in which a household head dwells that is either an urban or rural area. It will take a dummy variable, 0 for rural and 1 for urban. Rural is defined as rural formal and tribal authority whilst urban is defined as urban formal and urban informal. It is mostly common that the poor are found more in rural and remote areas. A study conducted by Alkire and Housseini (2014:2) revealed that multidimensional poverty in 103 countries had high significant poverty rates for rural areas compared to urban areas. Therefore, the relationship between area status and poverty is likely to be a positive one for both households residing in rural areas and urban areas; however, it is expected to be higher for rural as compared to urban areas.

Level of happiness, X_9

The capability approach identified being happy as a proxy of well-being. This variable is a categorical variable showing the level of happiness in comparison to 10 years ago. It takes 1 if the household head is happier, 2 if the head's happiness level has not changed since 10 years ago, and 3 if the head is less happy. The expected outcome is for poverty to decline, the happier the individual becomes.

Household size, X_{10}

Household size is constructed as a categorical variable, category 1= 1 to 5 members, category 2= 6 to 10 members and category 3= greater than or equal to 11. Acar, (2014:13) found that larger household sizes are found to increase the likelihood of being poor. The World Bank (1995) found that in South Africa, large households are likely to experience

poverty. A reason for this can be linked to the fact that households with larger sizes require more resources to provide for its members (HSRC, 2004:4), due to more spending on food, clothing, education and health.

Perceived household status, X_{11}

This variable is constructed based on the perception of household members. Additionally, the perception is based on household income relative to income of households in the neighbourhood. It is categorised as 1=much above and above average income, 2=average income, 3=below average income, 4=much below average income. A household perceived to have income above average is likely to be less poor compared to households with an income perceived to be below average.

4.4 Econometric technique

This section highlights the econometric techniques applied in the analysis of the data in order to answer the research objectives of this dissertation. To perform the data analysis of this dissertation, the NIDS Wave 4 data sets were appended, merged, recoded, and analysed using the STATA Version 14.0 software. Firstly, the univariate analysis was performed to determine the frequencies, percentages and summary of statistics (median, minimum, maximum, interquartile range) of the variables of interest. Secondly, to test the statistical association and significance between the dependent variable and independent variables the bivariate analysis was done. Lastly, the multivariate analysis was done.

4.5 Bivariate analysis

The bivariate analysis was done using cross tabulation between the dependent variable as well as the independent variables. The Chi-square was used to test for significance differences in the categorical independent variables. The Chi-square basically tests if the distribution in a categorical variable is statistically different in two or more groups. The test gives a Yes and No answer, a p-value of less than 0.05 means there are differences between the two groups. The Wilcoxon rank-sum test was done for the continuous independent

variables in place of a t-test since the variables were not normally distributed. A p-value of less than 0.05 means there exist a significant association between the variables.

4.6 Multivariate analysis

The logistic regression model can be expressed as below, which involves regressing the binary dependent variable Y_i on a set of independent variables X_i .

Firstly, the binary logistic regression model defines the dependent as follows:

$$y_i = \begin{cases} 0 & \text{if a household is not multidimensionally poor} \\ 1 & \text{if a household is multidimensionally poor} \end{cases}$$

The following is a logit function defining the logistic regression, where X_i represents a set of independent variables and β_i represents a set of regression coefficients.

$$\text{logit}(p_i) = \ln\left(\frac{p_i}{1-p_i}\right) = \widehat{\beta}_0 + \widehat{\beta}_1 X_i + \dots + \widehat{\beta}_k X_k \dots \dots \dots (4.2)$$

The probability of a household being multidimensionally poor is given by the following:

$$\Pr(Y = 1) = \frac{1}{1 + \exp(-Z)} \dots \dots \dots (4.3)$$

$$Z = \widehat{\beta}_0 + \widehat{\beta}_1 X_i + \dots + \widehat{\beta}_k X_k \dots \dots \dots (4.4)$$

Equation 4.4 can be applied to determine the probability (equation 4.3) of a household being multidimensionally poor $Y=1$ given the independent variables: race, gender, marital status, province, geographical type, level of happiness of household head, household monthly income, income from employment/self-employment, household monthly income from social grants, household size, as well as perceived household status.

To determine the degree in which the independent variables affect the poverty status of households, i.e. $Y_i = 1$, the odds ratio ($\exp(\widehat{\beta}_i)$) is the econometric measure utilised (Worku, 2008:114), while $\widehat{\beta}_i$ denotes the estimated regression coefficient corresponding to X_i .

An odds ratio of 1 implies that an independent variable has no effect on the probability of a household being multidimensionally poor. An odds ratio greater than 1 implies that an increase in the independent variable increases the likelihood of a household being

multidimensionally poor. An odds ratio that is less than 1 indicates that an increase in an independent variable reduces the likelihood of a household being multidimensionally poor (Gujarati, 2004:596).

4.6.1 Model diagnostics

The use of a multiple regression model, a regression with more than 2 independent variables can result in the issue of multicollinearity. This issue occurs when there is a present linear relationship between the independent variables. To detect this, the variance inflation factor ($VIF = \frac{1}{1-R^2}$) is checked. Generally, a VIF greater than 10 implies high multicollinearity (Gujarati, 2015:82). As a remedy to multicollinearity, dropping or transforming an independent variable in the model will be applied (Yu, 2013:5).

The assumption in an econometric analysis is that a regression model is correctly specified, and that no additional independent variables omitted should be found significant. To check for a model specification error, a linktest is computed. This test is computed after a logistic regression output has been done. The linktest uses the linear predicted value (\hat{y}) and a linear predicted value squared (\hat{y}^2) as independent variables to reconstruct the model. A correctly specified model is one that has a significant \hat{y} since \hat{y} represents the predicted variable from the existing model. An incorrectly specified model is one which will have a \hat{y}^2 which has much predictive power and significant. A significant \hat{y}^2 implies a significant linktest, and this usually means that a relevant variable has been omitted or the chosen link function is not accurate (IDRE, 2017).

4.7 Data

This dissertation made use of the National Income Dynamics Study (NIDS). The NIDS is the first household panel data set in South Africa which began in 2008. The study was conducted by the Southern Africa Labour and Development Research Unit (SALDRU, 2016) based at the University of Cape Town's School of Economics. The NIDS is a panel data set which currently has 4 waves. The panel data is performed every two years. Thus the first wave was conducted in 2008, the second wave in 2010, the third wave in 2012 and the fourth wave in 2014.

When the study began it had a sample of over 28 000 individuals situated in 7 300 households nationally, and in Wave 4, 37 396 individuals in 11 895 households were successfully interviewed (Chinhema *et al.*, 2016:7).

In its nature, the data set does not track a household over time; instead, it tracks an individual over time, specifically every two years, providing information on how households deal with negative and positive shocks. In addition, the data set also covers the changes in poverty and well-being, household composition and structure, fertility, mortality, migration, labour market participation, economic activity, health and education, vulnerability and social capital. This data set is an appropriate tool for tracking and understanding poverty (NIDS, 2018).

The NIDS has four sets of questionnaires: Child questionnaire, Adult questionnaire, Household questionnaire and Proxy questionnaire. The questionnaires were designed to take less than 60 minutes for the household questionnaire and 45 minutes for the adult questionnaire and between 15 and 20 minutes for the child and proxy questionnaires (Leibbrandt *et al.*, 2009:4).

NIDS makes use of a stratified, two-stage cluster sample design in order to create a sample of households for the base wave. The first stage selected 400 Primary Sampling Units (PSUs) from Stats SA's 2003 Master Sample of 3000 PSUs. The NIDS population consists of private households from all nine provinces as well as members in workers' hostels, convents and monasteries. Individuals at students' hostels, old age homes, hospitals, prisons and military barracks are excluded from the sample (Leibbrandt *et al.*, 2009:9).

The NIDS data set has two sets of weights, namely the design weights and the post stratification weights. Two calculations were done to derive the design weights, firstly, the calculation of the probability of sampling each PSU and secondly, the probability of including each specific household in each PSU in the NIDS sample. This second calculation accounts for household non-response. The second set of weights, the post stratification weights, aim to adjust the design weights so that the age-sex-race marginal totals in the NIDS data match the population estimates provided by Stats SA (Leibbrandt *et al.*, 2009:28).

For the purpose of this mini-thesis, wave 4 of the NIDS data was used. Consequently, the nature of the Wave 4 data set was recognised and analysed as a cross-sectional data since data was collected for the sample units at a specific point in time (Gujarati, 2004:636).

4.8 Limitations

One of the main limitations in social sciences is the nature of the data being non-experimental. This limitation results in several setbacks such as observational error which can be displayed as omission or commission. Additionally, errors of measurement from approximations and round offs become an issue. Selectivity bias can act as a limitation due to the issue of non-responses by the sample units (Gujarati, 2004:29) as well as when the sample is not randomly drawn from the population (Hsiao 2003:8-9).

In the NIDS data Wave 4, selectivity bias was found, whereby 37 396 individuals in 11 895 households were successfully interviewed (Chinhema, *et al.*, 2016:7) and a total of 4 548 individuals did not respond. Table 4.2 below shows the reasons for non-responses. 'Refused/not available' is the reason, with 43.05% contributing mostly to the non-response rates followed by 'not tracked' at 33.99%.

Table 4. 2 Reasons for non-responses in Wave 4

| WAVE 4 | Value | Percent |
|-----------------------|-------------|-------------|
| Refused/Not available | 1958 | 43,05% |
| Not located | 817 | 17,96% |
| Not tracked | 1546 | 33,99% |
| Whole HH dead | 189 | 4,16% |
| Moved outside RSA | 38 | 0,84% |
| Total | 4548 | 100% |

Source: Chinhema *et al.* (2016:9)

Despite the above mentioned biasness, NIDS has in place various measures for data quality and collection issues. Such measures include tracking systems; revisiting of temporary away respondents; verifying of the validity of a non-response through non-response call backs; respondent understanding and measurement error; translation (questionnaires offered in 11 official languages); early identification and cleaning of mismatches and the returning of incorrect data to field amongst others.

Additionally, a setback arising from cross-sectional data is that of heterogeneity bias. Heterogeneity is a result of omitting important individual characteristics resulting in vague estimates of parameters (Hsiao 2003:8-9). Subjective and perception-based questions found in NIDS may exacerbate the issue of heterogeneity.

The use of cross-sectional data fails to make inferences about the dynamics of change; in essence it omits the time factor, thereby disabling the data to provide proper analysis of the observations (Hsiao, 2003:4). In particular, using one wave of the NIDS data being a panel data set acts as a limitation since Wave 4 alone will not highlight the powerful element of NIDS being able to track the multidimensionality of poverty dynamics over time of the individuals concerned.

4.9 Conclusion

The analytical framework developed in this dissertation is based on the fact that poverty is multidimensional and thus a deprivation in human capabilities. The capabilities identified to be useful for this dissertation are health, education level, income, ownership of assets, level of happiness, perceived classification of household status. Health, education and ownership of assets were omitted in the empirical model, as these variables are indicators of the dependent variable. Furthermore, other independent variables used in the empirical analysis are: gender, race, marital status, province, geographical area, level of happiness of household head, household size, as well as perceived household status.

The odds of a household being multidimensionally poor will be estimated using social grants, household head demographics and household characteristics using a multivariate logistic model.

While the NIDS data set remains a suitable panel data, for tracking an individual rather than a household over time, the ability to understand the multifaceted nature of poverty etc., this dissertation however used NIDS as cross-sectional data by using one wave, namely Wave 4. The choice of Wave 4 was due to the limited scope of this mini-thesis as well as time constraints. Despite its limitations, NIDS remains valid, easy to access and a good representation of the South African population.

The next chapter presents the data analysis whereby descriptive statistics of the dependent and independent variables are presented. The empirical analysis, results as well as the discussions are included in the next chapter.

CHAPTER FIVE: EMPIRICAL ANALYSIS

5.1 Introduction

Chapter five begins by introducing the chapter. Secondly, the descriptive statistics of the variables of interests are presented. The analysis in this dissertation is conducted at the household level rather than at individual level and thus analysis is done according to the household head characteristics. Section 5.3 analyses the association between poverty and the respective independent variables. This is done by firstly highlighting the bivariate relationship of the independent variables with the dependent variable in order to check the significance of each variable. Secondly, the multivariate logistic regression results are presented and thirdly, the model specification tests are shown. The last section concludes the chapter.

5.2 Descriptive statistics

The aim of this section is to provide descriptive statistics variables used in the estimation. South Africa, according to the Stats SA census (RSA, 2016:19) has a population of 55 653 654 people and 16 923 309 households. The NIDS data set Wave 4 has a sample of 42 337 individuals and 11 732 households. In the analysis the household size is reduced from 11 732 to 6 626 due to the fact that only households with reported household heads were analysed. It should be noted that the NIDS data recognises a household head as self-defined by the household and the definition is not necessarily done according to the eldest, highest income earner or gender. The household head is primarily chosen to determine the relationship status of individuals in a household. Since analysis is at the household level, heads aged younger than 18 were excluded and only those regarded as adults according to the South African law are analysed.

Table 5.1 below shows the descriptive statistics of the categorical variables. As shown in the table, household heads are nearly equally distributed between male (57%) and female (43%). The trend of the proportion of heads by race groups is similar to the trend found by Stats SA (RSA, 2015b:10), whereby blacks (78%) have a greater proportion, followed by coloureds (7%), whites (12%) and lastly Indians (3%). This variable was converted to a dummy variable, taking 1 for only black heads and 0 for all other 3 race groups. This was done to have a fair distribution thus to allow for comparison when analysing.

In the sample, 33% of the household heads are married while 67% are unmarried. The distribution of heads according to geographical type reveals that almost 70% of households are situated in urban areas. Household heads in the province of KwaZulu-Natal (25%) represent the most in the data and are mostly situated in rural areas (67%); this is similar for heads in the North West and Limpopo provinces. On the contrary, Gauteng, the province with the second highest number of heads after KZN, has most of its heads residing in urban areas (92%). Similarly, 12% of all heads live in the Western Cape and are mostly (83%) situated in urban areas. Evidently, poverty is mostly higher in rural areas. Thus, it is expected for provinces such as KZN, Limpopo and North West to have higher poverty rates as most of their households are in rural areas.



Table 5.1 Descriptive statistics of categorical variables

| Independent variable | (n) | Percentage |
|-----------------------------------|------------|-------------------|
| Multidimensionally poor | 1292 | 20% |
| Non Multidimensionally poor | 5334 | 80% |
| Gender | | |
| Male | 3763 | 57% |
| Female | 2861 | 43% |
| Race | | |
| Black | 5142 | 78% |
| Coloured | 492 | 7% |
| Indian | 168 | 3% |
| White | 823 | 12% |
| Marital status | | |
| Not married | 4554 | 67% |
| Married | 2502 | 33% |
| Province | | |
| Western Cape | 776 | 12% |
| Eastern Cape | 762 | 16% |
| Northern Cape | 164 | 2% |
| Free State | 346 | 5% |
| KwaZulu-Natal | 1167 | 18% |
| North West | 502 | 8% |
| Gauteng | 1961 | 30% |
| Mpumalanga | 489 | 7% |
| Limpopo | 458 | 7% |
| Geographical type | | |
| Rural | 2036 | 31% |
| Urban | 4590 | 69% |
| Level of happiness | | |
| Happier | 3682 | 60% |
| The same | 1497 | 24% |
| Less Happy | 983 | 16% |
| Household size | | |
| HHsize (1-5) | 5960 | 90% |
| HHsize (6-10) | 599 | 9% |
| HHsize (>=11) | 67 | 1% |
| Perceived household status | | |
| Above average | 3154 | 14% |
| Average | 9931 | 44% |
| Below average | 5578 | 25% |
| Much below average | 3682 | 16% |

| Income from employment | 6525 | |
|-------------------------------|-------------|-----|
| No | 2318 | 35% |
| Yes | 4303 | 65% |

Source: Own computation using NIDS Wave 4 and Stata Version 14.

Most of the households in the dataset have a household size of fewer than 5 members, while only 9% have sizes of 6-10 members and lastly 1% of the households have more than or equal to 11 members. The household size was also re-categorised into two categories, whereby category 1 has 1-3 members and category 2 has more than or equal to four members. Statistics reveal that 65% of the households have at least one member earning income from employment and self-employment, and 35% of the households do not have this member. It is probable that these households (35%) rely on other sources of income such as social grants, remittances and rent income, etc.

Table 5.2 below presents the descriptive statistics for the continuous variables. The income from social grants has a minimum of R210, and a maximum income of R8 070. The median is R1 350, and an interquartile range of R1 320, while the minimum household income is R0, with a maximum of R104 781.1. The interquartile range is R4 710.77 and the median is R2520.74.

Table 5. 2 Descriptive statistics on continuous independent variables

| Statistics | Social grant income | Household income |
|---------------------|----------------------------|-------------------------|
| Median | 1350 | 2520,74 |
| Minimum | 210 | 0 |
| Maximum | 8070 | 104781,1 |
| Interquartile range | 1320 | 4710,77 |

Source: Own computation using NIDS Wave 4 and Stata Version 14.

5.3 Econometric analysis

5.3.1 Bivariate analysis

The bivariate analysis is shown in Table 5.3 below. Applying the Chi-square, the distribution in all the categorical variables with the exception of the marital status of household head is statistically different. The insignificant variable means that the proportion of poor households headed by married individuals is not significantly different from the proportion of poor households headed by non-married individuals. The Wilcoxon rank sum test was applied in checking statistical significance for the continuous independent variables. This test

substituted the t-test as the continuous variables did not have a normal distribution. Findings show significance at $p < 0.05$ for the household monthly income, however, the main variable of interest income from social grants is insignificant at 5% level.

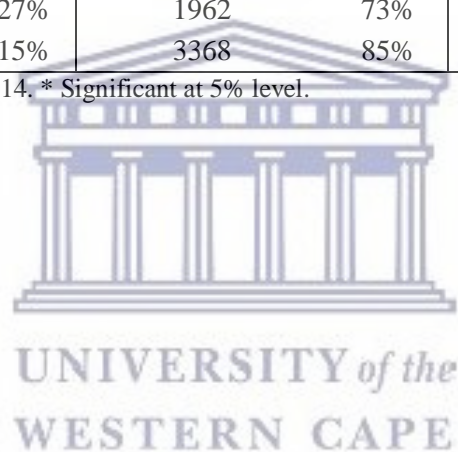


Table 5.3 Cross tabulation of the multidimensional poverty and independent variables

| Bivariate Analysis | Poor | | Non-poor | | Chi-2 | P-value |
|------------------------------|-------------|----------|-----------------|----------|--------------|----------------|
| Independent variables | (n) | % | (n) | % | | |
| Gender | 1292 | | 5332 | | 419.30 | 0.000* |
| Male | 285 | 9% | 2867 | 91% | | |
| Female | 1007 | 29% | 2465 | 71% | | |
| Race | 1292 | | 5334 | | 71.99 | 0.000* |
| Black | 1165 | 21% | 4271 | 79% | | |
| Other | 127 | 11% | 1063 | 89% | | |
| Marital status | 1289 | | 5317 | | 0.333 | 0.564 |
| Not married | 880 | 19% | 3674 | 81% | | |
| Married | 409 | 20% | 1643 | 80% | | |
| Province | 1292 | | 5334 | | 317.18 | 0.000* |
| Western Cape | 85 | 10% | 758 | 90% | | |
| Eastern Cape | 267 | 33% | 537 | 67% | | |
| Northern Cape | 62 | 15% | 351 | 85% | | |
| Free State | 52 | 13% | 355 | 87% | | |
| KwaZulu-Natal | 415 | 26% | 1206 | 74% | | |
| North West | 130 | 23% | 443 | 77% | | |
| Gauteng | 79 | 8% | 946 | 93% | | |
| Mpumalanga | 62 | 15% | 355 | 85% | | |
| Limpopo | 140 | 26% | 383 | 73% | | |
| Geographical type | 1292 | | 5334 | | 560.19 | 0.000* |
| Rural | 941 | 33% | 1944 | 67% | | |
| Urban | 351 | 9% | 3390 | 91% | | |
| Level of happiness | 1256 | | 4906 | | 55.81 | 0.000* |
| Happier | 627 | 17% | 3004 | 83% | | |
| The same | 411 | 26% | 1175 | 74% | | |
| Less happy | 218 | 23% | 727 | 77% | | |

| | | | | | | |
|-----------------------------------|-------------|-----|-------------|-----|--------|--------|
| Perceived household status | 1244 | | 4833 | | 144.51 | 0.000* |
| Above average | 100 | 14% | 614 | 86% | | |
| Average | 400 | 15% | 2197 | 85% | | |
| Below average | 401 | 24% | 1240 | 76% | | |
| Much below average | 343 | 30% | 782 | 70% | | |
| Household size | 1292 | | 5334 | | 98.79 | 0.000* |
| Household size (1-3) | 656 | 16% | 3503 | 84% | | |
| Household size (>=4) | 636 | 26% | 1831 | 74% | | |
| Income from employment | 1291 | | 5330 | | 150.08 | 0.000* |
| No | 716 | 27% | 1962 | 73% | | |
| Yes | 575 | 15% | 3368 | 85% | | |

Source: Own computation using NIDS Wave 4 and Stata Version 14. * Significant at 5% level.



Continuation of table

| Independent Continuous variables | Prob> z |
|----------------------------------|---------|
| Household monthly income | 0.0000* |
| Social grant income | 0.3871 |

Source: Own computation using NIDS Wave 4 and Stata Version 14. * Significant at 5% level.

The table does not only show the significance of the variables of interest, however it also shows the headcount poverty according to socio-demographics of household heads and household characteristics. The descriptive statistics demonstrated that 20% (1 292) of the households in the sample are multidimensionally poor. To recap, these households (20%) are those with a weighted deprivation score of more than or equal to 33.33%. These households are mostly deprived in the health dimension (43%), followed by standards of living (38%) and lastly educational dimension (19%) (refer to Appendix 1). In addition, indicators in which households are mostly deprived in are education years, nutrition, infant mortality, improved sanitation, and access to water (refer to Appendix 2).

The results above reveal that amongst male-headed households, only 9% are poor, while 29% of female-headed households experience poverty. This implies that it is not uncommon in South Africa for female-headed households to be poor. In terms of the race group, 21% of households headed by blacks are poor, and a total of 11% of households headed by whites, Indians and coloureds are poor. Coloured-, white- and Indian-headed households are mostly deprived in the health dimension while black-headed households are mostly deprived in both health and standards of living. A similarity is that all races with the exception of coloureds are deprived the least in the education dimension (refer to Appendix 3).

As expected, the headcount poverty is higher for the Eastern Cape (33%), KwaZulu-Natal (26%) and Limpopo (26%) provinces when compared with the other provinces. Amongst households in urban areas, only 9% are poor while 33% are poor in rural areas. Households in urban and rural areas experience deprivation differently. Appendix 4 reveals that rural households face deprivation mostly in the standards of living, followed by health and then education, whereas urban households are mostly deprived in health, standards of living and education.

A total of 17% of households headed by those who have declared to be happier compared to 10 years ago, are poor. Those who have remained indifferent are 26%, while among heads that are less happy, only 23% are poor. Additionally, households with income perceived as

much below average have a greater proportion of the poor as compared with households with income perceived as below average, on average and above average. This could imply that households perceived to have income below average are more likely to be poor than their counterparts.

In terms of household size, it was found that households with sizes greater than or equal to 4 have a higher headcount of 26% as compared to households with fewer than 4 members (16%). Amongst households with at least one member receiving income from employment or self-employment, 15% are poor while 27% are poor amongst households without this member. It can therefore be deduced that an inflow of income is most likely to lessen the burden of poverty in a household.

5.3.2 Multivariate binary logistic regression analysis

The problem statement in section 1.2 identified the limitations of unidimensional poverty and as a result this dissertation sought to study multidimensional poverty and more specifically expand the empirical literature of social grants effects on multidimensional poverty. Consequently, the research question of this dissertation was, “Does the provision of social grants reduce multidimensional poverty?”

This sub-section presents the results and discussion of results for the multivariate logistic regression model. The output shows the association of the odds of a household being poor given a set of independent variables. In interpreting this association, it is assumed that all other factors remain constant (*ceteris paribus*). The assumption of *ceteris paribus* is maintained throughout this sub-section. The independent variables (marital status and income from social grants) found to be insignificant at the bivariate level are included in the logistic regression. Inclusion of these variables is primarily due to their importance in relation to poverty. In addition, the income from the social grant variable is expedient in answering the research objective of this dissertation.

(a) Income from social grants

Results reveal that a R1 increase in income from social grants (OR=0.99 CI: 0.999 1.000) will result in a 1% decrease in the odds of a household being multidimensional poor. These results were expected, as the literature has also proven the effects of social grants on the well-being of the poor, for instance on health, nutrition, education and child labour. These results

are however statistically insignificant at $p < 0.05$ which implies that the social grants do not have a strong impact on the reduction of multidimensional poverty. These findings coincide with those of Pasha (2016) who found social grants to be less helpful in the reduction of multidimensional poverty.

(b) Household income

It was found that having at least one individual receiving income from employment or self-employment (OR=0.82 CI: 0.627 1.071) insignificant at $p < 0.05$ leaves a household with lesser odds of being poor compared to a household without these individuals. In addition, with significance at $p < 0.05$, an increase in the total monthly income excluding social grants reduces the likelihood of a household being poor (OR=0.99 CI: 0.999 0.999).

(c) Gender of household head

From the output in Table 5.4 below, several household head demographics were associated with facing lower likelihoods of a household being poor. Firstly, households headed by males (OR= 0.24 CI: 0.182 0.320) significant at $p < 0.05$ versus households headed by females had less odds of being poor. These findings reinforce the results provided in the bivariate analysis whereby the majority of female-headed households (29%) were found to be poor when compared to male-headed households (9%).

A contributor to this gender disparity could be the fact that females are much slower in escaping the poverty trap than males. This is due to males being better off at acquiring employment (see Appendix 5), economic opportunities and being paid more in the workplace than females (Festus *et al.*, 2016). The data revealed that females are most likely to be widows and divorced than males (see Appendix 5). Therefore, having a widowed/divorced female head as the main provider of a household could result in a household being deprived due to lack of assistance from a spouse or partner.

(d) Race of household head

Black-headed households (OR=1.52, CI: 0.617 3.722) are almost 1.5 times the odds of experiencing poverty compared to the Indian, coloured and white headed households. These racial differences are insignificant at $p < 0.05$. Inherited poverty that is poverty passed down from generation to generation was identified as a determinant of poverty (Ahmed *et al.*, 2007:69). Non-whites were previously disadvantaged during the apartheid era. The black

group, as the group facing the highest poverty levels (both monetary and non-monetary poverty) since the early years of post-apartheid, could be suffering from inherited poverty. This group as highlighted in section 2.8.2 are more deprived than their counterparts and this has remained high from 1993 to 2010. Poverty in South Africa may have decreased over the past years; however, the previously disadvantaged are still the most deprived.

(e) Geographical type of household head

Households in urban areas (OR= 0.32, CI: 0.227 0.453) have 0.33 less odds of being poor as compared to those in rural areas. These differences are statistically significant at $p < 0.05$. This is consistent with studies using other multidimensional poverty dimensions. Using lack of assets, schooling, BMI, empowerment, Batana (2013:348) found rural areas in various African countries to be deprived more than urban areas. Similarly, Bronfman (2015:26) included indicators such as overcrowding, literacy and income, found individuals residing in rural areas to be more deprived than urban residing individuals.

The rural based households as highlighted in sub-section 5.3.1 are deprived mostly in living standards, which include lack of assets, improved sanitation, electricity, safe drinking water, flooring, and cooking fuel. A lack of assets, especially communication assets, set barriers in communication and in acquiring knowledge. In addition, provision of safe drinking water was a main policy priority as highlighted in section 2.3 and evidence shows that the rural inhabitants still source water in off-sites. Poor access to water could have an effect on perpetuating poor living and health conditions, as well as limiting effective food preparation for nutritional benefits. An interesting fact by the SAHRC (2014:36) states that fetching water off-sites by children could affect school attendance and punctuality given the long distances travelled to water sources.

(f) Level of happiness of household head

Households headed by individuals who have remained at the same level of happiness (OR=1.43, significant at $p < 0.05$) over the past 10 years are most likely to be poor versus households headed by happier individuals. This is the same for households headed by less happy individuals (OR=1.24, insignificant at $p < 0.05$). These findings roughly deduce that household poverty increases as the happiness levels decrease. As a result, it could be said that happiness is a relevant indicator in determining poverty status.

(g) Perceived household status

Households with an income status perceived to be average (OR=0.92 CI: 0.584 1.443) are less likely to be poor than those perceived to be above average. As expected, households perceived to be below average (OR=1.04 CI: 0.656 1.664) and much below average (OR=1.51 CI: 0.903 2.537) were found to be poor versus households with income perceived to be above average. As stated previously, based on these findings, it can be deduced that the subjective well-being of households plays an important role as an indicator of multidimensional poverty.

(h) Household size

Households with members greater than or equal to four (OR=1.21 CI: 0.920 1.60) have higher odds of being poor as compared to those with 3 and less members. This difference is insignificant at $p < 0.05$. According to these results, it can be deduced that households with larger sizes are more likely to experience poverty than those with smaller sizes. These findings were expected, as mentioned in section 4.3 that large household sizes require more resources as compared to households with smaller sizes.

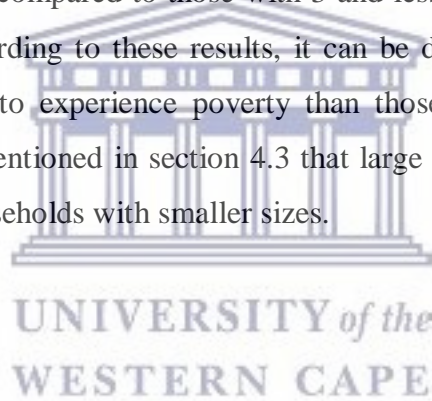


Table 5.4 Multivariate logistic regression model with coefficients, odds ratio and P-value for MPI poor household in South Africa

| Independent Variables | Odds ratio | p-value | 95% CI | |
|-----------------------------------|-------------------|----------------|---------------|-------|
| Social grant income | 0.99 | 0.825 | 0.999 | 1.000 |
| Household monthly income | 0.99 | 0.015* | 0.999 | 0.999 |
| Income from employment | | | | |
| No | | | | |
| Yes | 0.82 | 0.145 | 0.627 | 1.071 |
| Gender | | | | |
| Female | | | | |
| Male | 0.23 | 0.000* | 0.173 | 0.316 |
| Race | | | | |
| Black | 1.52 | 0.363 | 0.617 | 3.723 |
| Other | | | | |
| Marital status | | | | |
| Married | 1.11 | 0.491 | 0.819 | 1.51 |
| Not-married | | | | |
| Province | | | | |
| Western Cape | | | | |
| Eastern Cape | 2.09 | 0.116 | 0.831 | 5.276 |
| Northern Cape | 2.17 | 0.042* | 1.028 | 4.581 |
| Free State | 1.29 | 0.601 | 0.494 | 3.375 |
| KwaZulu-Natal | 1.32 | 0.574 | 0.496 | 3.536 |
| North West | 1.31 | 0.573 | 0.510 | 3.364 |
| Gauteng | 0.78 | 0.609 | 0.295 | 2.044 |
| Mpumalanga | 0.70 | 0.475 | 0.265 | 1.856 |
| Limpopo | 1.03 | 0.952 | 0.385 | 2.753 |
| Geographical type | | | | |
| Rural | | | | |
| Urban | 0.32 | 0.000* | 0.227 | 0.453 |
| Level of happiness | | | | |
| Happier | | | | |
| Same | 1.43 | 0.015* | 1.073 | 1.902 |
| Less happy | 1.24 | 0.328 | 0.803 | 1.929 |
| Perceived household status | | | | |
| Above average | | | | |
| Average | 0.92 | 0.712 | 0.584 | 1.443 |
| Below average | 1.04 | 0.854 | 0.656 | 1.664 |
| Much below average | 1.51 | 0.115 | 0.903 | 2.537 |
| Household size | | | | |
| Household size (1-3) | | | | |
| Household size (>=4) | 1.21 | 0.170 | 0.920 | 1.600 |
| Constant | | | | |
| | 0.54 | 0.182 | 0.220 | 1.332 |
| Number of observations | 3023 | | | |

| | |
|-----------------|----------|
| Population size | 4048 328 |
| Design df | 670 |
| F(17, 680) | 16.45 |
| Prob. >F | 0.0000 |

Own computation using NIDS Wave 4 and Stata version 14, *Significance at 5% level

5.3.3 Model specification test

Table 5.5 below shows the Variance Inflation Factor (VIF) results. Generally, a VIF greater than 10 implies high multicollinearity amongst the independent variables. Table 5.5 shows that all the variables have a VIF value that is less than 5 and a mean VIF of 2.03. This implies that multicollinearity is not a problem amongst the independent variables.

Table 5.5 Variance Inflation Factor (VIF) output

| Variables | VIF | 1/VIF |
|------------------------|------|-------|
| Grant monetary | 1.19 | 0.838 |
| Household income | 1.28 | 0.781 |
| Income from employment | 1.28 | 0.783 |
| Male | 1.02 | 0.977 |
| Black heads | 2.08 | 0.480 |
| Eastern Cape | 2.97 | 0.337 |
| Northern Cape | 1.43 | 0.697 |
| Free State | 1.91 | 0.523 |
| KwaZulu-Natal | 4.32 | 0.231 |
| North West | 2.21 | 0.453 |
| Gauteng | 2.27 | 0.440 |
| Mpumalanga | 1.94 | 0.515 |
| Limpopo | 2.59 | 0.386 |
| Urban | 1.54 | 0.649 |
| Average | 3.62 | 0.277 |
| Below average | 3.45 | 0.290 |



| | | |
|--------------------|------|-------|
| Much below average | 2.97 | 0.336 |
| HHsize | 1.14 | 0.879 |
| Mean VIF | 2.03 | |

Source: NIDS Wave 4 and Stata Version 14.

The linktest is used to detect specification error in a regression model. A well specified model is one which only includes relevant and not irrelevant independent variables. The results reveal that the logistic model applied in this dissertation is well specified since the $_hat$ is significant at $p < 0.05$. Additionally, an insignificant $_hatsq$ at $p < 0.05$ reveals that the logistic regression model does not require additional independent variables and that the chosen link function was accurate.

Table 5.6 Linktest output

| Multidimensionally Poor | Coefficient | Std. error | t-stat | P> t | 95% CI | |
|-------------------------|-------------|------------|--------|--------|--------|-------|
| $_hat$ | 0.7566 | 0.140 | 5.39 | 0.000* | 0.480 | 1.032 |
| $_hatsq$ | -0.1289 | 0.071 | -1.80 | 0.072 | -0.269 | 0.011 |
| $_constant$ | 0.0057 | 0.087 | -0.07 | 0.947 | -0.165 | 0.176 |

Source: NIDS Wave 4 and Stata Version 14. **Significance at 5% level.

5.4 Conclusion

The empirical analysis began by presenting the descriptive statistics. Female-headed household numbers were more versus male-headed households. The majority of these heads are situated in the KwaZulu-Natal and Gauteng provinces. The household heads are generally situated in urban areas. In addition, 90% of the households have household sizes of fewer than 5 members. It was found that 65% of the households have at least one member earning income from employment or self-employment. This implied that the 35% of households relied on other sources of income such as social grants, remittances, rent income, etc. The data on income showed that social grants had a minimum of R210, and a maximum income of R8 070, while the minimum household income is R0, with a maximum of R104 781.1.

The third section presented the bivariate analysis. In this section the marital status of the household head and income from social grants variables were statistically insignificant; however, due to the importance of these variables they were used in the multivariate analysis.

The bivariate analysis also provided the headcount poverty results. The results demonstrated that 20% (1 292) of the households in the sample are multidimensionally poor. These households (20%) were those with a weighted deprivation score of more than or equal to 33.33%. These households were mostly deprived in the health dimension (43%), followed by standards of living (38%) and lastly the education dimension (19%). In addition, indicators of which households are mostly deprived in, are education years, nutrition, infant mortality, improved sanitation, and access to water (refer to Appendix 2).

Poverty was found to be high in households headed by females and blacks. In addition, it was expected for poverty to be high in the Eastern Cape (33%), KwaZulu-Natal (26%) and Limpopo (26%) provinces. Amongst households in urban areas, only 9% are poor while 33% in rural areas are poor. In terms of household size, households with sizes greater than or equal to four have a higher headcount of 26% as compared to households with fewer than four members (16%). Amongst households with at least one member receiving income from employment or self-employment, 15% are poor while 27% are poor amongst households without this member. In this regard, it was deduced that income is most likely to lessen the burden of poverty in a household.

The results of the multivariate logistic regression found that a R100 increase in income from social grants (OR=0.99 CI: 0.999 1.000) resulted in a 1% decrease in multidimensional poverty. These results were expected, as was found to be true from the literature. These results were however statistically insignificant at $p < 0.05$ which meant that the social grants do not have a strong impact on the reduction of multidimensional poverty. Being a female, black, and residing in rural areas had higher odds of being multidimensional poor. In addition, multidimensional poverty was found to increase with an increase in the household size.

To test for multicollinearity amongst the independent variables, the VIF tests were run on Stata Version 14. Results revealed that all the variables had a less than 5 VIF value and a mean VIF of 1.84. This implies that multicollinearity was not a problem amongst the independent variables. Furthermore, the linktest was run to detect specification error in a regression model. The results revealed that the logistic model applied in this dissertation was well specified. This firstly meant that the model did not require additional independent variables; secondly, it also meant that the chosen link function for the model was accurate.

CHAPTER SIX: RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

The government identified poverty as a key issue to be addressed in a democratic country and as a result saw a need to expand the social security system to cater for the previously marginalised and disadvantaged. Poverty in South Africa has been manifested as various deprivations and was identified as multidimensional in post-apartheid government policy. Many studies in South Africa have studied the effect of social grants on monetary poverty, but very few have assessed the effects of social grants on multidimensional poverty. Monetary poverty is criticised as it considers poverty as unidimensional in measurement while poverty in its nature is multifaceted. Measuring poverty in a multidimensional approach attempts to incorporate various indicators when measuring poverty. Therefore, this study aimed to assess how effective social grants (which are deemed highly important by the government) are in the reduction of poverty (defined as multidimensional by policy in the South African context). This chapter of the dissertation concludes the study. The first section provides the main findings focusing on how the research objectives were achieved. The main findings pave a way for policy recommendations highlighted in section 6.3 and lastly the chapter concludes this study.

6.2 Concluding remarks

This dissertation aimed to determine if social grants play a role in the reduction of multidimensional poverty in South African households. In fulfilling this aim, the study identified three research objectives:

- To examine the trends in poverty, transfer payments, and government policies regarding social grants post-1994;
- To determine the effect of the social grants in alleviating multidimensional poverty in South Africa;
- To make policy recommendations based on the outcomes of the study.

In order to meet the first objective, the dissertation reviewed government policies regarding social welfare. At its inception, the RDP placed the provision of basic needs to the vulnerable and needy as a first priority after 1994 and identified the social welfare system as suitable to

provide these. The RDP paved the way on the emphasis of providing social grants sustainably, as the other policies, namely GEAR, ASGISA, NGP and NDP continued to reiterate this. The government has been successful in the targeting and distribution of social grants as well as in increasing the social grant values. This success coincided with government expenditure on social grants which has been increasing successively.

The poverty levels in South Africa have declined over the years, with both monetary and non-monetary poverty captured as various deprivations. One of the contributions to the decline in poverty has been attributed to the expansion of social grants evident in the tremendous growth of the numbers of beneficiaries. The poverty profile has however, remained the same over the years in terms of who is deprived. The female-headed households are still more deprived versus the male-headed households. The black and coloured groups are still the most deprived groups facing high levels of poverty especially the blacks. This is also true for poverty according to age, whereby the children and old aged persons remain the poorest. Households in the Eastern Cape, Limpopo, Mpumalanga and KwaZulu-Natal are amongst the most deprived, both in the monetary and non-monetary sense. To supplement these findings, sub-section 5.3.1 revealed that female, black-headed households, residing in the above provinces in rural areas are likely to be poor, versus their counterparts. Poverty in South Africa has declined. However, it is still very prevalent and should remain at the forefront of government policies.

The provision of social grants was identified in government policies as a tool to reduce poverty, post-apartheid. Therefore, to determine empirically the effect of social grants in alleviating multidimensional poverty, this dissertation applied a multivariate logistic regression to assess the odds of a household being poor given the presence of social grant income. The poor was identified using the MPI framework, whereby a household was considered poor if its deprivation score was greater than or equal to 33.33%, i.e. $c \geq 33.33\%$. The dependent variable, the poverty status taking 1 if a household is multidimensionally poor and 0 if a household is non-multidimensionally poor, was regressed on the social grant monthly income as well as other independent variables (gender, race, marital status, province, geographical type, level of happiness of household head, perceived household status, household size, household monthly income, employment/self-employment income).

The provision of social grants has an impact on the reduction of multidimensional poverty measured as deprivation in education, health and living standards. However, the impact of social grants is insignificant and unsustainable in the reduction of multidimensional poverty. Since social grants have an unsustainable reducing effect on poverty this could imply that they are merely a temporary poverty relief tool unable to create long run effects on living standards.

Moreover, it has been stated that the growth of beneficiaries and government spending contribute to poverty reduction. However, this stance is questionable, as the prevalence of poverty amongst the vulnerable groups has not changed; also the empirical findings prove that social grants are not effective in multidimensional poverty reduction. In this regard it can be argued that the high number of beneficiaries and its successive growth as well as government spending do not necessarily translate to poverty reduction. This finding is important to the government as spending on social protection already places a high burden on tax revenue since it is the third fastest-growing government spending after higher education and health. Given the findings of this dissertation, it can also be concluded that social grants alone are unable to tackle the multidimensionality of poverty.

All in all, these findings challenge the rationale of social welfare policy which identifies social security (social insurance and social grants) as vital for successful economic development through lowering high inequality in society, alleviating poverty and promoting active redistribution of income.

6.3 Recommendations

The findings highlighted in the previous chapter calls for government intervention in the social welfare policy. Since evidence shows that social grants alone cannot carry the burden of multidimensional poverty, additional social assistance programmes could be introduced or existing programmes could be expanded or adjusted.

These programmes could be directed at more, but definitely not limited to women, children, rural people and those excluded from social grants, i.e. the youth. Programmes should be done in collaboration with agencies involved in social welfare, for example social workers and NGOs.

In terms of children, effective programmes focusing on quality education should be introduced. This could be done through improving school facilities and hiring qualified and skilled teachers. Furthermore, since children are also deprived nutritionally, food programmes targeted at lower quintile schools that exist could be expanded and kept ongoing.

The study highlighted farming as a beneficial activity done in Limpopo, a province facing high levels of deprivation. Investing in farming projects could play a part in the reduction of hunger for poor households and therefore improve nutritional benefits. In addition, farming projects could act as a source of income if utilised for business purposes.

In addition, since social grants proved to be insignificant and consequently unable to create long-term benefits, the social assistance programmes could be expanded to be developmental, leaving individuals and households with long term benefits. For example, programmes could involve enhancing human-capital skills necessary to provide individuals with decent employment. This programme should pay special attention to the development of children as well as the youth, since this group faces a high rate of unemployment.

In addition, government policies should strive to set clear targets that not only deal with reducing monetary poverty, but multidimensional poverty as well. Moreover, policies should highlight detailed measures to be undertaken in the reduction of poverty. Lastly, rigorous monitoring and evaluation should also be a huge priority in order to assess the implementation of the social welfare policy objectives.

6.4 Conclusion and future research

The well-being of an individual or household is multidimensional, and thus dealing with a multidimensional phenomenon requires substantial and effective initiatives. The provision of social grants alone is not sufficient in dealing with the multidimensionality of poverty.

It is important to take into consideration that the MPI, used in this dissertation as a measurement of poverty, combines the well-being of all household members into one single figure for the household. This technique acts as a limitation since we are unable to detect which dimension is affected positively by social grants. Future research could perhaps analyse the effects of social grants on each specific MPI dimension in order to assess the dimension in which social grants are most effective. This could be beneficial as the MPI is an

excellent framework which adds value in public policy design and effective allocation of resources for policy makers.

The data used in this dissertation was cross-sectional data. This could act as a limitation since cross-sectional data fails to make inferences about the dynamics of change. In particular, using NIDS Wave 4 alone does not allow for the tracking of multidimensionality of poverty over time since data is collected at a specific point in time. In this regard, further research could focus on more waves/years to assess the long-term effects of social grants on multidimensional poverty.



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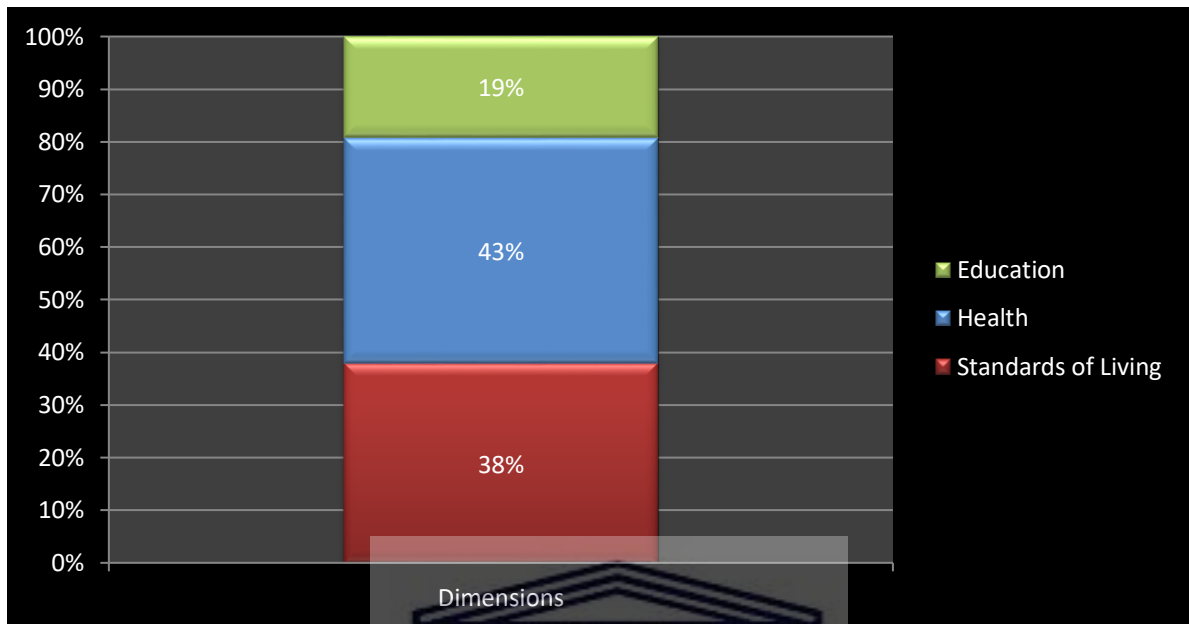
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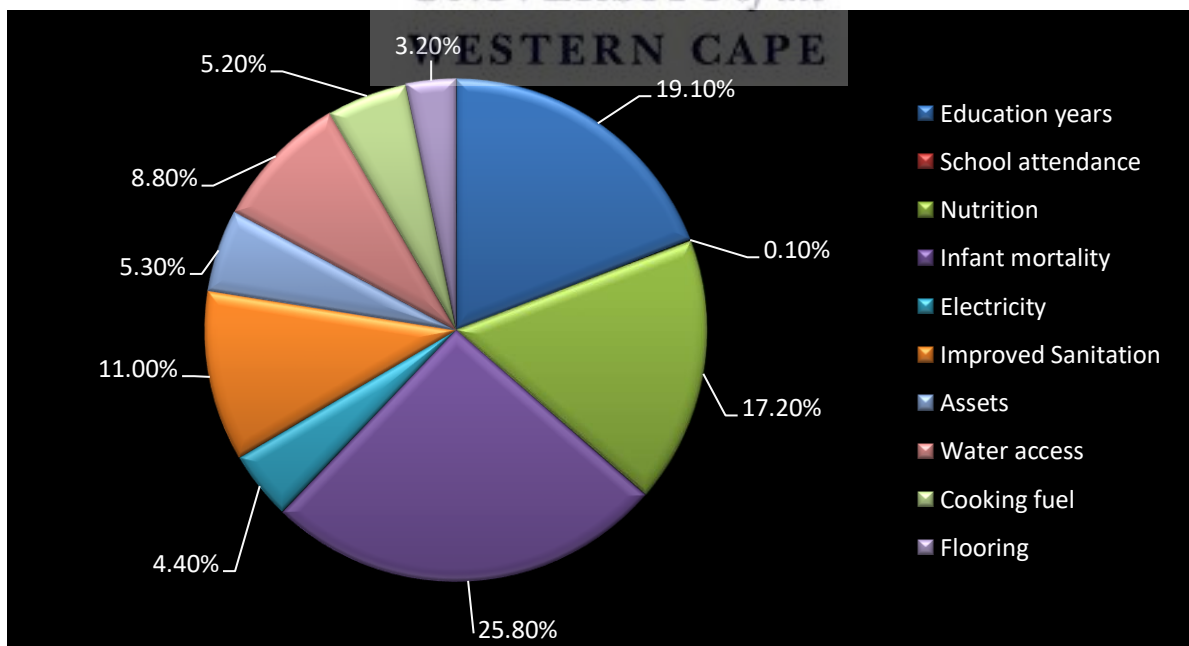
APPENDICES

Appendix 1: Contribution of each dimension



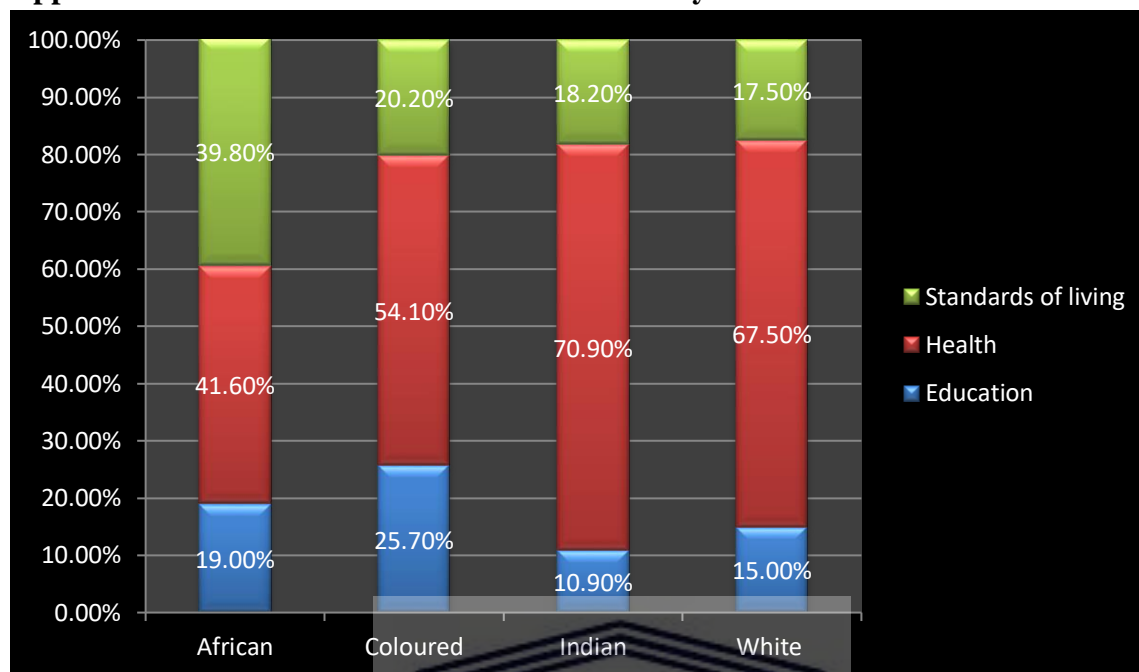
Source: Own calculation using NIDS Wave 4.

Appendix 2: Contribution of each indicator



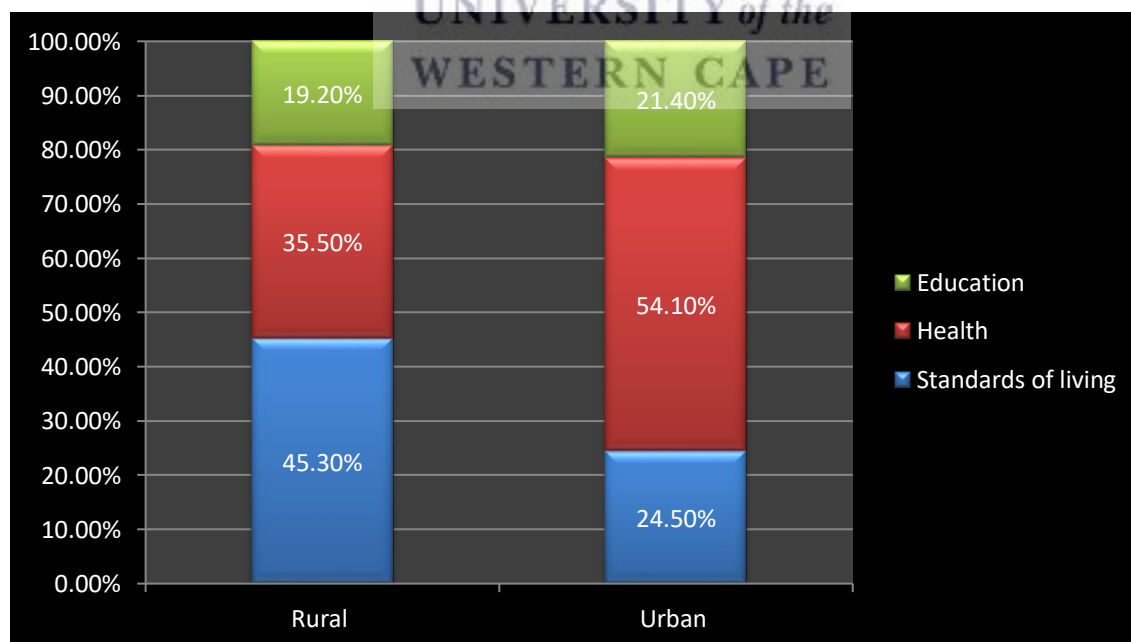
Source: Own calculation using NIDS Wave 4.

Appendix 3: Contribution of dimensions to MPI by race of household head



Source: Own calculation using NIDS Wave 4.

Appendix 4: Contribution of dimensions to MPI by geographical type of household head



Source: Own calculation using NIDS Wave 4.

Appendix 5: Marital status

| Marital Status | Male | Female | Total |
|-----------------------|------|--------|-------|
| Married | 727 | 788 | 1515 |
| Living with partner | 253 | 283 | 536 |
| Widow/Widower | 115 | 557 | 672 |
| Divorced or separated | 98 | 141 | 239 |
| Never married | 1947 | 1695 | 3642 |

Source: NIDS Wave 4.

Appendix 6: Employment status of household head

| Household head employment status | Male | Female | Total |
|----------------------------------|------|--------|-------|
| Not employed | 1202 | 1976 | 3178 |
| Employed | 1889 | 1456 | 3345 |

Source: NIDS Wave 4.



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